# **OECD Factbook**

ECONOMIC, ENVIRONMENTAL AND SOCIAL STATISTICS

2014





# **OECD Factbook 2014**

# ECONOMIC, ENVIRONMENTAL AND SOCIAL STATISTICS



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# **OECD Factbook 2014**

### **FOREWORD**

The OECD Factbook is the most comprehensive OECD publication on statistics. The Factbook contains a wide set of internationally comparable indicators that allows users to assess and compare countries' performance over time in a wide range of areas that are at the heart of citizens' and policy-makers' concerns.

Written in a non-technical language, the OECD Factbook provides more than 100 indicators for all 34 OECD member countries and, when available and considered internationally comparable, for Brazil, India, Indonesia, the People's Republic of China, the Russian Federation and South Africa.

Data presented in the OECD Factbook are also available online through OECD.StatExtracts, the OECD platform for data dissemination, and as of June 2014 the new OECD data portal. The OECD Factbook, in its various formats, thus represents a first-stop, easy tool for all those who are looking for reliable, trustworthy and internationally comparable statistics.

This year's OECD Factbook contains a number of new indicators. These include a range of indicators related to trade in value added and climate change, allowing a better understanding of globalisation and environmental trends. Global value chains and internationally fragmented production systems have become a dominant feature in today's world economy. The new statistics on **trade in value added** provide measures that allow to better capture the degree of integration of economies worldwide, for example by measuring the import content of exports in various industries or the increasing role played by services in international trade. Regarding the environment, the new indicators on **greenhouse gases**, **sulphur and nitrogen emissions** shed light on the main drivers of climate change and on the effects these may have on human health and ecosystems.

Sound methodology is essential in ensuring that the statistics presented in the OECD Factbook are of high quality, internationally comparable and retain their relevance. This edition of the OECD Factbook contains data that have been compiled in accordance with a number of new statistical methodologies developed over the past decade and endorsed at the international level. These include the new System of National Accounts 2008 (2008 SNA), the Balance of Payments and International Investment Position Manual Sixth Edition (BPM6) and the updated International Standard Industrial Classification of All Economic Activities (ISIC Rev.4). These affect the way gross domestic product and related economic statistics, international flows of goods and services, and sectoral statistics are measured and presented.

I trust that with the innovations introduced in this year's edition, both in terms of content and dissemination, the OECD Factbook will continue to provide the evidence underlying the OECD core mission to achieve Better Policies for Better Lives, and meet the evolving statistical needs of citizens, researchers, analysts and policy-makers.

**Martine Durand** 

OECD Chief Statistician and Director of Statistics

### **ACKNOWLEDGEMENTS**

The OECD Factbook, comprising the paper and e-publications as well as the online, rolling dataset is the result of ongoing statistical co-operation among virtually all OECD directorates and agencies, including the International Energy Agency (IEA), the Nuclear Energy Agency (NEA) and the International Transport Forum (ITF). It also reflects the continuous and effective collaboration with OECD and partner countries' statistical authorities.

The OECD Statistics Directorate is responsible for the overall co-ordination of the OECD Factbook, led by David Brackfield (Editor) and Ingrid Herrbach (technical production). The OECD Public Affairs and Communications Directorate provides editorial guidance, led by Eileen Capponi with further reading material co-ordinated by Damian Garnys. The Authoring and Collaborative Systems section of the Information Technology and Network Division in the OECD Executive Directorate provides the IT support.

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### **READER'S GUIDE**

### Main features:

- Tables and figures are preceded by short texts that explain how the statistics are defined (Definition) and
  that identify any problems there may be in comparing the performance of one country with another
  (Comparability). To avoid misunderstandings, the tables and figures must be read in conjunction with
  the texts that accompany them.
- Tables and figures are available as Excel files.
- While media comment on statistics usually focuses on the short term what has happened to
  employment, prices, GDP and so on in the last few months the OECD Factbook takes a longer view; the
  text and figures mostly describe developments during at least the last ten years. This long-term
  perspective provides a good basis for comparing the successes and failures of policies in raising living
  standards and improving social conditions in countries.
- To facilitate cross-country comparisons, many indicators in the OECD Factbook have been standardised by relating them to each country's gross domestic product (GDP). In cases where GDP needs to be converted to a common currency, purchasing power parities (PPPs) have been used rather than exchange rates. When PPPs are used, differences in GDP levels across countries reflect only differences in the volume of goods and services, that is, differences in price levels are eliminated.

### **Conventions**

Unless otherwise specified:

- OECD refers to all 34 OECD countries unless otherwise stated in the Comparability section; the indicator is presented either as the weighted average of country values or an unweighted arithmetic average.
- For each country, the average value in different periods takes into account only the years for which data are available. The *average annual growth rate* of an indicator over a period of time is the geometric average of the growth rates of that indicator across the period (that is, the annual compound growth rate).
- Each table and figure specifies the period covered. The mention, XXXX or latest available year (where XXXX is a year or a period) means that data for later years are not taken into account.

### Signs, abbreviations and acronyms

... Missing value, not applicable or not available

Less than half of the unit precision level of the observation

- Absolute zero
USD US dollars

DAC Development Assistance Committee
ILO International Labour Organization
IMF International Monetary Fund
ITF International Transport Forum

UN United Nations

UNECE United Nations Economic Commission for Europe

WTO World Trade Organization

### The OECD Factbook uses ISO codes for countries

AUS	Australia	JPN	Japan	DAC	DAC total
AUT	Austria	KOR	Korea	EA17	Euro area
BEL	Belgium	LUX	Luxembourg	EU27	European Union
CAN	Canada	MEX	Mexico	G7M	Major seven
CHL	Chile	NLD	Netherlands	OECD	OECD area
CZE	Czech Republic	NZL	New Zealand	WLD	World
DNK	Denmark	NOR	Norway		
EST	Estonia	POL	Poland	BRA	Brazil
FIN	Finland	PRT	Portugal	CHN	China
FRA	France	SVK	Slovak Republic	IND	India
GRC	Greece	SVN	Slovenia	IDN	Indonesia
DEU	Germany	ESP	Spain	RUS	Russian Federation
HUN	Hungary	SWE	Sweden	ZAF	South Africa
ISL	Iceland	CHE	Switzerland		
IRL	Ireland	TUR	Turkey		
ISR	Israel	GBR	United Kingdom		
ITA	Italy	USA	United States		

### **StatLinks**

This publication includes the unique OECD **StatLink** service, which enables users to download Excel versions of tables and figures. **StatLinks** are provided at the bottom of each table and figure. **StatLinks** behave like Internet addresses: simply type the **StatLink** into your Internet browser to obtain the corresponding data in Excel format.

For more information about OECD StatLinks, please visit: www.oecd.org/statistics/statlink.

### **Accessing OECD publications**

- OECD publications cited in the OECD Factbook are available through OECD iLibrary (www.oecd-ilibrary.org), the OECD online library.
- All the OECD working papers can be downloaded from OECD iLibrary.
- All OECD databases mentioned can be accessed through OECD iLibrary.
- Print editions of all OECD books can be purchased via the OECD online bookshop (www.oecd.org/bookshop).

### **Glossary of Statistical Terms**

The online OECD Glossary of Statistical Terms is the perfect companion for the OECD Factbook. It contains almost 7 000 definitions of statistical terms, acronyms and concepts in an easy to use format. These definitions are primarily drawn from existing international statistical guidelines and recommendations that have been prepared over the last few decades by organisations such as the United Nations, ILO, OECD, Eurostat, IMF and national statistical institutes. Available at <a href="http://stats.oecd.org/glossary">http://stats.oecd.org/glossary</a>.





### **POPULATION**

TOTAL POPULATION
FERTILITY
DEPENDENT POPULATION
POPULATION BY REGION
ELDERLY POPULATION BY REGION

### INTERNATIONAL MIGRATION

IMMIGRANT AND FOREIGN POPULATION
TRENDS IN MIGRATION
MIGRATION AND EMPLOYMENT
MIGRATION AND UNEMPLOYMENT

The size and growth of a country's population are both causes and effects of economic and social developments. The pace of population growth has slowed in all OECD countries.

Population projections, which give indications of likely changes in the future population size and structure, are a common demographic tool. They provide a basis for other statistical projections (e.g. service provision, employment) and as such, they are a very valuable tool for helping governments in their decision making.

### **Definition**

Data refer to the resident population, that is, they are a measure of the population that usually lives in an area. For countries with overseas colonies, protectorates or other territorial possessions, their populations are generally excluded. Growth rates are the annual changes resulting from births, deaths and net migration during the year. Working age population is those aged 15 to 64.

### Comparability

For most OECD countries, population data are based on regular, ten-yearly censuses, with estimates for intercensal years derived from administrative data. In several European countries, population estimates are based entirely on administrative records. Population data are fairly comparable.

For some countries the population figures shown here differ from those used for calculating GDP and other economic statistics on a per capita basis, although differences are normally small.

Population projections are taken from national sources where these are available, but for some countries they are based on United Nations or Eurostat projections; the projection for the world comes from the UN. All population projections require assumptions about future trends in life expectancy, fertility rates and migration. Often, a range of projections is produced using different assumptions about these future trends. The estimates shown here correspond to the median or central variant.

EU28 does not include Croatia.

### Overview

In 2011, OECD countries accounted for 18% of the world's population of 7.0 billion. China accounted for 20% and India for 17%. Within the OECD, in 2011, the United States accounted for 25% of the OECD total, followed by Japan (10%), Mexico (9%), Germany (7%) and Turkey (6%).

In the three years to 2011, growth rates above the OECD population average (0.7% per year) were recorded in Israel, Mexico and Turkey (high birth rate countries) and in Australia, Canada, Chile, Luxembourg, Norway, Sweden, Switzerland, the United Kingdom and the United States (high net immigration). New Zealand and Ireland also recorded population growth rates above the OECD total which can be attributed to both a birth rate close to the replacement fertility rate (a total fertility rate of 2.1 children per woman) and a positive net migration rate.

In Hungary and Germany, populations declined mostly due to low birth rates. In Greece, the population decrease mainly concerns the working age population due to emigration. Growth rates were also negative in Estonia, Iceland and Portugal while they were very low, although still positive, in Japan, Italy and the Slovak Republic. The population of OECD countries is expected to grow by 0.3% per year until 2050.

### Sources

- For OECD member countries: national sources, United Nations and Eurostat.
- For Brazil, China, India, Indonesia, the Russian Federation and South Africa: United Nations, World Population Prospects: The 2012 Revision.

### **Further information**

### **Analytical publications**

- OECD (2011), Doing Better for Families, OECD Publishing.
- OECD (2011), The Future of Families to 2030, OECD Publishing.

### Statistical publications

• OECD (2013), Society at a Glance: OECD Social Indicators, OECD Publishing.

### Methodological publications

• OECD (2013), OECD Labour Force Statistics, OECD Publishing.

### Online databases

- OECD Employment and Labour Market Statistics.
- United Nations World Population Prospects.

### Websites

 OECD Family Database, www.oecd.org/social/family/ database



### Population levels

Thousands

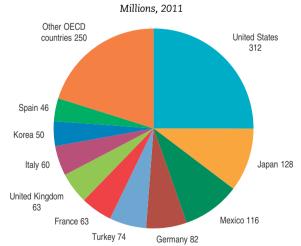
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2020	2050
Australia	19 651	19 895	20 127	20 395	20 698	21 016	21 384	21 779	22 065	22 324	22 684	25 288	33 959
Austria	8 082	8 121	8 172	8 228	8 269	8 301	8 337	8 365	8 390	8 406	8 430	8 724	9 360
Belgium	10 333	10 376	10 421	10 479	10 548	10 626	10 710	10 796	10 920	11 048	11 128	11 758	13 139
Canada	31 354	31 640	31 941	32 245	32 576	32 928	33 318	33 727	34 127	34 484	34 880	38 025	48 606
Chile	15 746	15 919	16 093	16 267	16 433	16 598	16 763	16 929	17 094	17 248	17 403	18 549	20 205
Czech Republic	10 201	10 202	10 207	10 234	10 267	10 323	10 430	10 491	10 517	10 497	10 509	10 797	10 842
Denmark	5 376	5 391	5 405	5 419	5 437	5 461	5 494	5 523	5 548	5 571	5 592	5 582	5 621
Estonia	1 368	1 362	1 356	1 351	1 346	1 342	1 340	1 338	1 337	1 335	1 329	1 328	1 250
Finland	5 201	5 213	5 228	5 246	5 266	5 289	5 313	5 339	5 363	5 388	5 414	5 606	6 084
France	59 894	60 304	60 734	61 182	61 597	61 965	62 300	62 615	62 918	63 224	63 519	66 098	72 341
Germany	82 488	82 534	82 516	82 469	82 376	82 266	82 110	81 902	81 777	81 798	81 932	79 914	69 412
Greece	10 988	11 024	11 062	11 104	11 148	11 193	11 237	11 283	11 214	11 123	11 093	11 426	10 605
Hungary	10 159	10 130	10 107	10 087	10 071	10 056	10 038	10 023	10 000	9 959	9 920	9 856	8 718
Iceland	288	289	293	296	304	311	319	319	318	319	320	345	420
Ireland	3 932	3 997	4 070	4 160	4 274	4 399	4 454	4 459	4 519	4 577	4 587	4 774	5 482
Israel	6 570	6 690	6 809	6 930	7 054	7 180	7 309	7 486	7 624	7 754	7 886	8 983	13 824
Italy	57 157	57 605	58 175	58 607	58 942	59 375	59 832	60 193	60 483	60 010	59 540	59 001	55 710
Japan	127 435	127 619	127 687	127 768	127 770	127 771	127 692	127 510	128 057	127 799	127 515	124 100	97 076
Korea	47 622	47 859	48 039	48 138	48 372	48 598	48 949	49 182	49 410	49 779	50 004	51 436	48 121
Luxembourg	446	452	458	465	473	480	489	498	507	518	531	523	644
Mexico	103 418	104 720	105 952	107 151	108 409	109 787	111 299	112 853	114 256	115 683	117 054	127 092	150 838
Netherlands	16 149	16 225	16 282	16 320	16 346	16 382	16 446	16 530	16 615	16 693	16 755	17 240	17 343
New Zealand	3 949	4 027	4 088	4 134	4 185	4 228	4 269	4 3 1 6	4 368	4 405	4 433	4 565	5 046
Norway	4 538	4 565	4 592	4 623	4 661	4 709	4 768	4 829	4 889	4 953	5 019	5 061	5 854
Poland	38 232	38 195	38 180	38 161	38 132	38 116	38 116	38 153	38 517	38 526	38 534	37 830	34 543
Portugal	10 420	10 459	10 484	10 503	10 522	10 543	10 558	10 568	10 573	10 558	10 515	10 832	10 674
Slovak Republic	5 377	5 373	5 372	5 373	5 373	5 375	5 379	5 386	5 391	5 398	5 408	5 417	4 880
Slovenia	1 995	1 996	1 997	2 000	2 007	2 010	2 021	2 040	2 049	2 053	2 057	2 142	2 115
Spain	41 314	42 005	42 692	43 398	44 116	44 879	45 556	45 909	46 071	46 175	46 147	45 249	41 768
Sweden	8 925	8 958	8 994	9 030	9 081	9 148	9 220	9 299	9 378	9 449	9 5 1 9	10 168	11 269
Switzerland	7 285	7 339	7 390	7 437	7 484	7 551	7 648	7 744	7 828	7 912	7 955	8 379	8 981
Turkey	69 304	70 231	71 151	72 065	71 105	70 138	71 052	72 039	73 142	74 224	75 176	81 699	93 469
United Kingdom	59 323	59 557	59 031	59 408	59 751	60 137	60 540	60 927	61 344	63 285	63 705	66 754	76 959
United States	287 625	290 108	292 805	295 517	298 380	301 231	304 094	306 772	309 326	311 588	313 914	333 896	399 803
EU 28	485 721	487 739	489 917	492 026	494 005	496 045	497 980	499 523	501 079	501 928	502 403	514 913	523 804
OECD	1 172 142	1 180 378	1 187 910	1 196 191	1 202 773	1 209 712	1 218 783	1 227 122	1 235 936	1 244 063	1 250 407	1 298 440	1 394 961
Brazil	176 304	178 741	181 106	183 383	185 564	187 642	189 613	191 481	193 253	194 933	196 526	207 143	215 288
China	1 295 322	1 302 810	1 310 414	1 318 177	1 326 146	1 334 344	1 342 733	1 351 248	1 359 822	1 368 440	1 377 065	1 432 868	1 384 977
India	1 076 706	1 093 787	1 110 626	1 127 144	1 143 289	1 159 095	1 174 662	1 190 138	1 205 625	1 221 156	1 236 687	1 353 305	1 620 051
Indonesia	215 038	218 146	221 294	224 481	227 710	230 973	234 244	237 487	240 677	243 802	246 864	269 414	321 377
Russian Federation	145 306	144 649	144 067	143 519	143 050	142 805	142 742	142 785	142 849	142 961	143 207	143 860	120 896
South Africa	46 188	46 869	47 553	48 235	48 919	49 603	50 267	50 890	51 452	51 949	52 386	55 131	63 405
													9 550 945
World	6 280 854	6 357 992	6 435 706	6 514 095	6 593 228	6 673 106	6 753 649	6 834 722	6 916 184	6 997 999	7 080 073	7 716 749	9 550

StatLink http://dx.doi.org/10.1787/888933027190

# Other countries 2 533 South Africa 50 Russian Federation 143 Brazil 195 World population Millions, 2011 OECD 1 244 China 1 348

### StatLink http://dx.doi.org/10.1787/888933024435





StatLink http://dx.doi.org/10.1787/888933024454

### Population growth rates

Annual growth in percentage

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Australia	1.20	1.36	1.23	1.24	1.17	1.33	1.49	1.54	1.75	1.85	1.31	1.17	1.61
Austria	0.24	0.38	0.49	0.49	0.62	0.68	0.50	0.39	0.44	0.34	0.29	0.20	0.28
Belgium	0.24	0.34	0.45	0.42	0.43	0.55	0.66	0.74	0.79	0.81	1.15	1.17	0.73
Canada	0.94	1.09	1.08	0.91	0.95	0.95	1.03	1.08	1.18	1.23	1.18	1.05	1.15
Chile	1.32	1.13	1.12	1.10	1.09	1.08	1.02	1.01	1.00	0.99	0.98	0.90	0.89
Czech Republic	-0.10	-0.47	-0.23	0.01	0.05	0.27	0.32	0.55	1.04	0.59	0.25	-0.20	0.12
Denmark	0.33	0.36	0.32	0.27	0.26	0.28	0.33	0.44	0.59	0.54	0.45	0.41	0.38
Estonia	-0.09	-0.42	-0.44	-0.43	-0.40	-0.36	-0.38	-0.28	-0.15	-0.13	-0.12	-0.15	-0.42
Finland	0.21	0.23	0.24	0.24	0.29	0.34	0.38	0.43	0.47	0.48	0.46	0.46	0.48
France	0.66	0.70	0.70	0.68	0.71	0.74	0.68	0.60	0.54	0.51	0.50	0.51	0.49
Germany	0.14	0.17	0.17	0.06	-0.02	-0.06	-0.11	-0.13	-0.19	-0.25	-0.15	0.03	0.16
Greece	0.32	0.30	0.34	0.33	0.35	0.38	0.40	0.40	0.40	0.41	-0.61	-0.81	-0.27
Hungary	-0.26	-0.23	-0.28	-0.29	-0.22	-0.20	-0.16	-0.15	-0.17	-0.15	-0.23	-0.41	-0.39
Iceland	1.43	1.39	0.88	0.60	1.15	1.12	2.86	2.32	2.56	-0.03	-0.39	0.32	**
Ireland	1.34	1.60	1.70	1.64	1.85	2.20	2.75	2.92	1.25	0.11	1.36	1.27	0.22
Israel	2.68	2.38	2.03	1.82	1.78	1.78	1.78	1.79	1.79	2.42	1.84	1.71	**
Italy	0.05	0.06	0.32	0.78	0.99	0.74	0.57	0.74	0.77	0.60	0.48	-0.78	-0.78
Japan	0.19	0.29	0.11	0.14	0.05	0.06	0.00	0.00	-0.06	-0.14	0.43	-0.20	-0.22
Korea	0.84	0.74	0.56	0.50	0.38	0.21	0.49	0.47	0.72	0.48	0.46	0.75	0.45
Luxembourg	1.35	1.20	1.05	1.22	1.43	1.54	1.61	1.56	1.80	1.87	1.84	2.25	2.43
Mexico	1.19	1.22	1.27	1.26	1.18	1.13	1.17	1.27	1.38	1.40	1.24	1.25	1.19
Netherlands	0.72	0.76	0.64	0.47	0.35	0.23	0.16	0.22	0.39	0.52	0.51	0.47	0.37
New Zealand	0.59	0.59	1.75	1.99	1.50	1.14	1.23	1.04	0.96	1.10	1.20	0.85	0.64
Norway	0.65	0.51	0.54	0.59	0.59	0.68	0.81	1.04	1.25	1.27	1.25	1.30	1.33
Poland	-0.04	-0.01	-0.05	-0.10	-0.04	-0.05	-0.08	-0.04	0.00	0.10	0.95	0.02	0.02
Portugal	0.71	0.71	0.55	0.38	0.24	0.19	0.18	0.20	0.14	0.10	0.05	-0.15	-0.40
Slovak Republic	-0.14	-0.18	-0.04	-0.07	-0.02	0.01	0.00	0.03	0.09	0.13	0.09	0.13	0.17
Slovenia	0.30	0.16	0.12	0.06	0.06	0.17	0.32	0.17	0.55	0.91	0.44	0.21	0.21
Spain	0.84	1.14	1.46	1.67	1.64	1.65	1.66	1.73	1.51	0.77	0.35	0.22	-0.06
Sweden	0.16	0.27	0.33	0.37	0.39	0.40	0.56	0.74	0.78	0.86	0.86	0.76	0.74
Switzerland	0.56	0.59	0.80	0.74	0.69	0.64	0.63	0.90	1.28	1.26	1.08	1.08	
Turkey	1.40	1.37	1.34	1.31	1.27	1.24	1.21	1.18	1.19	1.39	1.53	1.48	1.28
United Kingdom	0.34	0.39	0.36	0.39	-0.88	0.64	0.58	0.65	0.67	0.64	0.68	3.16	0.66
United States	1.12	0.99	0.93	0.86	0.93	0.93	0.97	0.96	0.95	0.88	0.83	0.73	0.75
EU 28	0.23	0.24	0.29	0.42	0.45	0.43	0.40	0.41	0.39	0.31	0.31	0.17	0.09
OECD	0.73	0.72	0.70	0.70	0.64	0.70	0.55	0.58	0.75	0.68	0.72	0.66	
Brazil	1.50	1.48	1.44	1.38	1.32	1.26	1.19	1.12	1.05	0.99	0.93	0.87	0.82
China	0.59	0.58	0.58	0.58	0.58	0.59	0.60	0.62	0.63	0.63	0.63	0.63	0.63
India	1.68	1.65	1.62	1.59	1.54	1.49	1.43	1.38	1.34	1.32	1.30	1.29	1.27
Indonesia	1.45	1.45	1.45	1.45	1.44	1.44	1.44	1.43	1.42	1.38	1.34	1.30	1.26
Russian Federation	-0.42	-0.42	-0.46	-0.45	-0.40	-0.38	-0.33	-0.17	-0.04	0.03	0.04	0.08	0.17
South Africa	1.47	1.49	1.48	1.47	1.46	1.43	1.42	1.40	1.34	1.24	1.11	0.97	0.84
World	1.26	1.25	1.24	1.23	1.22	1.22	1.21	1.21	1.21	1.20	1.19	1.18	1.17

StatLink http://dx.doi.org/10.1787/888933027209

### Population growth rates

Average annual growth in percentage



StatLink http://dx.doi.org/10.1787/888933024473



### Working age population

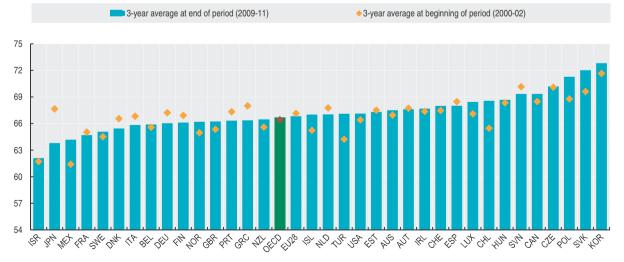
As a percentage of total population

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Australia	66.9	66.9	67.0	67.2	67.3	67.3	67.4	67.5	67.6	67.6	67.5	67.3	67.0
Austria	67.5	67.7	67.9	68.1	68.1	67.8	67.6	67.5	67.5	67.5	67.6	67.7	67.6
Belgium	65.6	65.6	65.6	65.6	65.6	65.6	65.8	66.0	66.1	66.0	65.9	65.8	65.5
Canada	68.3	68.5	68.7	68.8	69.0	69.2	69.4	69.5	69.5	69.4	69.4	69.2	
Chile	65.0	65.5	65.9	66.3	66.7	67.1	67.5	67.8	68.1	68.4	68.7	68.7	68.7
Czech Republic	69.8	70.1	70.4	70.7	70.9	71.1	71.2	71.2	71.1	70.8	70.3	69.5	68.7
Denmark	66.7	66.5	66.4	66.3	66.2	66.1	66.1	66.0	65.9	65.7	65.5	65.1	
Estonia	67.3	67.5	67.7	67.9	68.0	68.1	68.0	67.8	67.7	67.6	67.3	67.0	66.5
Finland	66.9	66.9	66.9	66.8	66.7	66.7	66.6	66.5	66.6	66.5	66.2	65.7	65.1
France	65.1	65.0	65.0	65.0	65.1	65.1	65.1	65.1	65.0	64.9	64.7	64.5	64.1
Germany	67.5	67.2	67.0	66.7	66.4	66.9	66.6	66.3	66.2	66.1	66.0	66.1	
Greece	68.0	68.0	67.9	67.8	67.6	67.3	67.1	67.1	67.0	66.8	66.4	65.9	65.4
Hungary	68.2	68.3	68.5	68.6	68.7	68.8	68.8	68.8	68.8	68.7	68.7	68.7	
Iceland	65.1	65.3	65.3	65.5	65.8	66.2	66.9	67.4	67.8	67.4	66.9	66.7	66.5
Ireland	67.0	67.3	67.8	67.9	68.0	68.3	68.7	69.0	68.8	68.3	67.7	67.0	
Israel	61.6	61.7	61.8	61.7	61.7	61.7	61.8	61.8	61.9	62.3	62.2	61.8	
Italy	67.2	66.8	66.6	66.8	67.2	66.8	66.6	66.5	66.4	66.3	66.2	65.1	
Japan	68.1	67.7	67.3	66.9	66.6	66.1	65.5	65.0	64.5	63.9	63.8	63.6	62.9
Korea	71.7	71.6	71.6	71.6	71.7	71.7	71.9	72.1	72.3	72.6	72.8	73.0	73.1
Luxembourg	67.0	67.2	67.1	67.2	67.3	67.4	67.6	67.7	68.0	68.2	68.4	68.7	
Mexico	61.1	61.4	61.7	62.0	62.2	62.5	62.8	63.2	63.5	63.9	64.2	64.5	64.8
Netherlands	67.8	67.8	67.7	67.7	67.6	67.5	67.4	67.4	67.3	67.2	67.0	66.9	66.3
New Zealand	65.5	65.5	65.8	66.1	66.3	66.4	66.5	66.5	66.6	66.5	66.5	66.4	66.1
Norway	64.8	65.0	65.1	65.3	65.5	65.6	65.9	66.1	66.3	66.3	66.2	66.1	66.0
Poland	68.3	68.8	69.2	69.6	70.0	70.3	70.6	70.9	71.2	71.3	71.3	71.2	
Portugal	67.4	67.3	67.2	67.1	66.9	66.8	66.7	66.7	66.6	66.5	66.3	66.1	65.9
Slovak Republic	69.1	69.6	70.1	70.6	71.0	71.4	71.6	71.9	72.1	72.1	72.0	71.9	71.7
Slovenia	70.1	70.1	70.2	70.4	70.4	70.3	70.2	70.1	69.7	69.5	69.3	69.1	68.7
Spain	68.4	68.5	68.5	68.6	68.7	68.8	68.8	68.8	68.7	68.4	68.0	67.6	
Sweden	64.3	64.5	64.7	64.9	65.1	65.3	65.5	65.7	65.6	65.4	65.1	64.7	64.2
Switzerland	67.3	67.5	67.6	67.7	67.9	68.0	68.0	68.1	68.1	68.1	68.0	67.9	
Turkey	63.8	64.2	64.6	65.1	65.4	65.7	66.0	66.2	66.7	66.9	67.1	67.3	
United Kingdom	65.2	65.4	65.5	65.7	66.1	66.3	66.6	66.7	66.3	66.5	66.4	65.9	65.4
United States	66.2	66.4	66.6	66.7	66.9	67.1	67.3	67.3	67.2	67.2	67.1	67.1	66.8
EU 28	67.1	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.1	67.0	66.9	66.7	66.4
OECD	66.4	66.4	66.5	66.6	66.7	66.8	66.8	66.8	66.8	66.7	66.7	66.6	
Brazil	64.8	65.1	65.4	65.7	66.0	66.3	66.5	66.7	67.0	67.3	67.6	67.9	68.2
China	67.5	68.2	69.1	70.1	71.0	71.8	72.4	72.9	73.2	73.4	73.5	73.5	73.3
India	61.4	61.7	62.0	62.3	62.7	63.1	63.4	63.7	64.1	64.4	64.8	65.1	65.4
Indonesia	64.7	64.9	65.0	65.1	65.1	65.1	65.3	65.3	65.2	65.2	65.2	65.3	65.6
Russian Federation	69.6	70.1	70.6	70.8	70.8	70.9	71.0	71.2	71.5	71.8	72.0	71.9	71.4
South Africa	63.6	63.9	64.1	64.4	64.6	64.8	64.9	64.9	65.0	65.0	65.1	65.0	65.0

StatLink http://dx.doi.org/10.1787/888933027228

### Working age population

As a percentage of total population



StatLink http://dx.doi.org/10.1787/888933024492

### **FERTILITY**

Together with mortality and migration, fertility is an element of population growth, which reflects both the causes and effects of economic and social developments.

Total fertility rates in OECD countries have declined dramatically over the past few decades, falling on average from 2.7 in 1970 to 1.7 children per woman of childbearing age in the early 2000s. The reasons were postponement of family formation and a decrease in desired family size. Rising female education and employment, insufficient support for families juggling work and children, a need to generate a secure job and income, or growing housing problems may have all also played a role. Falls were especially pronounced – by at least three children per woman on average – in Korea, Mexico and Turkey.

### Overview

Before the crisis, there was a moderate recovery in average fertility rates between 2000 and 2008. However, trends have been quite heterogeneous. Fertility rates continued to decline or remained stable in Austria, Japan, Korea and Switzerland – all low fertility countries. Fertility was more likely to rebound in countries with higher initial fertility rates, and even exceeded the replacement level in New Zealand and Iceland. This fertility rebound stalled in many OECD countries in 2009, possibly as a consequence of the economic crisis.

During the first crisis years (i.e. between 2008 and 2011), fertility rates fell in more than two-thirds of the OECD countries and by almost two decimal points in the United States (a relatively high fertility country) and by one decimal point in five European OECD countries (Denmark, Estonia, Hungary, Iceland and Spain) and New Zealand and Turkey. The rate for the United States fell to an all-time low in 2011 at 1.89, down from 2.12 in 2008.

In 2011 the highest fertility rate was recorded in Israel, where women had almost one child more than in the second country, New Zealand. Israel was in fact the only OECD country with a level above the replacement fertility rate (2.1 children per woman). Anglophone and Nordic countries were typically at the higher end, while continental Europe (France being the one major exception) reported low fertility, along with even lower fertility rates in Japan and South Europe. Fertility rates were notably low in Hungary and Korea, with two parents replacing themselves in the next generation by little more than one child, on average.

Fertility rates are generally higher in emerging economies; rates are above replacement levels in India and South Africa. While fertility increased in the Russian Federation by one decimal between 2008 and 2011, fertility decreased in other emerging economies (except Brazil).

### Definition

The total fertility rate in a specific year is the total number of children that would be born to each woman if she were to live to the end of her child-bearing years and give birth to children in agreement with the prevailing age-specific fertility rates.

### **Comparability**

The total fertility rate is generally computed by summing up the age-specific fertility rates defined over a five-year interval. Assuming there are no migration flows and that mortality rates remain unchanged, a total fertility rate of 2.1 children per woman generates broad stability of the population: it is also referred to as the "replacement fertility rate" as it ensures replacement of the woman and her partner with another 0.1 children per woman to counteract infant mortality.

Data are collected every year from national statistical institutes. 2011 refers to 2010 for Chile and 1970 refers to 1980 for Brazil, Estonia and Israel.

### Sources

- For OECD member countries and Brazil, Russia and South Africa: National statistical offices.
- For China, India and Indonesia: World Bank World Development indicators.
- Fertility rates: OECD (2014), Society at a Glance: OECD Social Indicators, OECD Publishing.

### **Further information**

### **Analytical publications**

• OECD (2011), Doing Better for Families, OECD Publishing.

### Statistical publications

• OECD (2014), Society at a Glance: OECD Social Indicators, OECD Publishing.

### Methodological publications

 Addio, A.C. d' and M.M. d'Ercole (2005), "Trends and Determinants of Fertility Rates: The Role of Policies", OECD Social Employment and Migration Working Papers, No. 27.

### Online databases

• United Nations World Population Prospects.

### Websites

- OECD Family Database, www.oecd.org/social/family/ database.
- World Bank World Development Indicators, http://data.worldbank.org/indicator.

**FERTILITY** 

### **Total fertility rates**

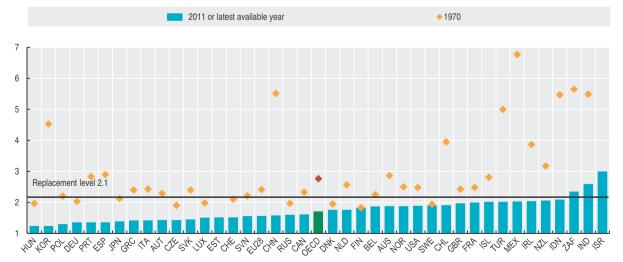
Number of children born to women aged 15 to 49

	1970	1980	1990	2000	2003	2004	2005	2006	2007	2008	2009	2010	2011
Australia	2.86	1.89	1.90	1.76	1.75	1.76	1.79	1.82	1.92	1.96	1.90	1.89	1.88
Austria	2.29	1.65	1.46	1.36	1.38	1.42	1.41	1.41	1.38	1.41	1.39	1.44	1.43
Belgium	2.25	1.68	1.62	1.67	1.67	1.72	1.76	1.80	1.82	1.85	1.86	1.87	1.87
Canada	2.33	1.68	1.71	1.49	1.53	1.53	1.54	1.59	1.66	1.68	1.67	1.63	1.61
Chile	3.95	2.72	2.59	2.05	1.89	1.85	1.84	1.83	1.88	1.92	1.94	1.91	
Czech Republic	1.91	2.10	1.89	1.14	1.18	1.23	1.28	1.33	1.44	1.50	1.49	1.49	1.43
Denmark	1.95	1.55	1.67	1.77	1.76	1.78	1.80	1.85	1.85	1.89	1.84	1.88	1.76
Estonia		2.02	2.05	1.39	1.37	1.47	1.50	1.55	1.63	1.65	1.62	1.63	1.52
Finland	1.83	1.63	1.79	1.73	1.76	1.80	1.80	1.84	1.83	1.85	1.86	1.87	1.83
France	2.48	1.95	1.78	1.87	1.87	1.90	1.92	1.98	1.95	1.99	1.99	2.02	2.00
Germany	2.03	1.56	1.45	1.38	1.34	1.36	1.34	1.33	1.37	1.38	1.36	1.39	1.36
Greece	2.40	2.23	1.40	1.26	1.28	1.30	1.33	1.40	1.41	1.51	1.52	1.51	1.42
Hungary	1.97	1.92	1.84	1.33	1.28	1.28	1.32	1.35	1.32	1.35	1.33	1.26	1.24
Iceland	2.81	2.48	2.31	2.08	1.99	2.03	2.05	2.07	2.09	2.14	2.22	2.20	2.02
Ireland	3.87	3.23	2.12	1.90	1.98	1.95	1.88	1.90	2.03	2.10	2.07	2.07	2.04
Israel		3.14	3.02	2.95	2.95	2.90	2.84	2.88	2.90	2.96	2.96	3.03	3.00
Italy	2.43	1.68	1.36	1.26	1.29	1.33	1.32	1.35	1.37	1.42	1.41	1.41	1.42
Japan	2.13	1.75	1.54	1.36	1.29	1.29	1.26	1.32	1.34	1.37	1.37	1.39	1.39
Korea	4.53	2.82	1.57	1.47	1.18	1.15	1.08	1.12	1.25	1.19	1.15	1.23	1.24
Luxembourg	1.98	1.50	1.62	1.78	1.62	1.66	1.62	1.64	1.61	1.60	1.59	1.63	1.51
Mexico	6.77	4.97	3.43	2.77	2.34	2.25	2.20	2.17	2.13	2.10	2.08	2.05	2.03
Netherlands	2.57	1.60	1.62	1.72	1.75	1.73	1.71	1.72	1.72	1.77	1.79	1.80	1.76
New Zealand	3.17	2.03	2.18	1.98	1.93	1.98	1.97	2.01	2.17	2.18	2.12	2.15	2.06
Norway	2.50	1.72	1.93	1.85	1.80	1.83	1.84	1.90	1.90	1.96	1.98	1.95	1.88
Poland	2.20	2.28	1.99	1.37	1.22	1.23	1.24	1.27	1.31	1.39	1.40	1.38	1.30
Portugal	2.83	2.18	1.56	1.56	1.44	1.40	1.41	1.36	1.33	1.37	1.32	1.37	1.36
Slovak Republic	2.40	2.31	2.09	1.29	1.20	1.24	1.25	1.24	1.25	1.32	1.41	1.40	1.45
Slovenia	2.21	2.11	1.46	1.26	1.20	1.25	1.26	1.31	1.31	1.53	1.53	1.57	1.56
Spain	2.90	2.22	1.36	1.23	1.31	1.32	1.34	1.38	1.39	1.46	1.39	1.38	1.36
Sweden	1.94	1.68	2.14	1.55	1.72	1.75	1.77	1.85	1.88	1.91	1.94	1.98	1.90
Switzerland	2.10	1.55	1.59	1.50	1.72	1.42	1.42	1.44	1.46	1.48	1.50	1.54	1.52
Turkey	5.00	4.63	3.07	2.27	2.09	2.11	2.12	2.12	2.15	2.15	2.07	2.05	2.02
United Kingdom	2.43	1.90	1.83	1.64	1.71	1.77	1.79	1.84	1.90	1.96	1.94	1.98	1.97
United States	2.48	1.84	2.08	2.06	2.04	2.05	2.06	2.11	2.12	2.07	2.00	1.93	1.89
EU 28	2.42	1.99	1.79	1.48	1.46	1.48	1.48	1.51	1.53	1.59	1.59	1.58	1.56
OECD	2.76	2.18		1.46		1.65	1.65				1.74		1.70
Brazil		4.06	1.91 2.79	2.39	1.63 2.20	2.13	2.06	1.68	1.71 1.95	1.75 1.89	1.74	1.74	
	 E E 1	2.63	2.79	1.74	1.69	1.68	1.67	1.66	1.95	1.63	1.61	1.91	
China	5.51								1.64 2.74				1.58
India	5.49	4.68	3.92	3.12	2.93	2.88	2.83	2.79		2.70	2.66	2.63	2.59
Indonesia	5.47	4.43	3.12	2.45	2.35	2.32	2.28	2.25	2.21	2.18	2.15	2.12	2.09
Russian Federation	1.97	1.90	1.89	1.20	1.32	1.34	1.29	1.30	1.41	1.49	1.54	1.59	1.60
South Africa	5.65	4.56	3.32	2.90	2.81	2.75	2.69	2.64	2.58	2.52	2.47	2.41	2.35

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### **Total fertility rates**

Number of children born to women aged 15 to 49



StatLink http://dx.doi.org/10.1787/888933024511

### DEPENDENT POPULATION

Demographic trends in OECD countries have implied a sharp increase in the share of the dependent population (i.e. the sum of the elderly and youth population) in the total population, and this increase is expected to continue in the future. These trends have a number of implications for government and private spending on pensions, health-care and education and, more generally, for economic growth and welfare.

### Overview

The share of dependent population reflects the combined effect of fertility rates, life expectancy and migration. In 2010, countries with a share of dependent population more than 2 percentage points above the OECD total (33% on average) were Israel, Japan, Mexico and France. Korea at 27% has the lowest recorded share of dependent population in the OECD and is closely followed by the Slovak Republic, Poland, the Czech Republic and Canada. There is a wide variation among the emerging countries, with this share ranging between 35% in India and 26% in China.

By 2050, the share of dependent population is projected to increase in all OECD countries, while declining only in the non-member economies of India and South Africa. The share of the dependent population is projected to be above 45% in Japan, Korea, Spain and Italy by 2050.

The youth population accounted for around 19% of the OECD total (on average) in 2010 with a steady decline since the 1970s. This fall is projected to continue as a result of lower fertility rates. By 2050 Japan and Korea are projected to have youth populations of 10% of the total, while only Israel (26%) and Mexico (21%) have projected youth populations above the current OECD total.

In 2010, the share of the elderly in the total population ranged between less than 7% in South Africa, India, Indonesia and Mexico, to above 18% in Greece, Germany, Italy and Japan (the OECD average was 15%). By 2050, this share is projected to be around 11% in South Africa, and to exceed one third of the total population in Greece, Italy, Spain, Korea and Japan. A number of countries are projected to have large increases in their elderly population between 2010 and 2050. For example, the Slovak Republic, Spain, and Korea all see projected growth in the share of the elderly in the total population in excess of 18 percentage points. However, some countries see smaller projected increases between 2010 and 2050. For example, Sweden, South Africa, Estonia and the United States all see projected growth to be less than 7 percentage points for this period.

### **Definition**

The total population is defined as the resident population, i.e. all persons, regardless of citizenship, who have a permanent place of residence in the country.

The elderly population refers to people aged 65 and over and the youth population to people aged less than 15. The share of dependent population is calculated as the sum of the elderly and youth population expressed as a ratio of the total population.

### **Comparability**

Population projections by age and gender are taken from national sources where these are available; for other countries they are based on Eurostat and UN projections.

All population projections require assumptions about future trends in life expectancy, fertility rates and migration, and these assumptions may differ across countries. Often, a range of projections is produced. The estimates shown here correspond to the median or central variant of these projections.

EU28 does not include Croatia.

### Sources

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### DEPENDENT POPULATION

### Share of the dependent population

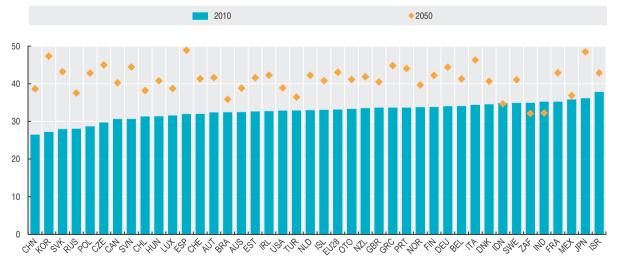
As a percentage of total population

		Υ	outh population (u	ınder the age of 15	)				Elderly population	(age 65 and over)		
_	2000	2010	2020	2030	2040	2050	2000	2010	2020	2030	2040	2050
Australia	20.7	18.9	18.4	17.6	16.9	16.7	12.4	13.5	16.8	19.7	21.3	22.2
Austria	17.0	14.8	14.3	14.2	13.5	13.3	15.4	17.6	19.6	24.0	27.2	28.3
Belgium	17.6	16.9	17.6	17.2	16.6	16.8	16.8	17.1	19.2	22.3	24.1	24.5
Canada	19.2	16.5	16.8	16.4	15.5	15.6	12.6	14.2	18.0	22.6	24.0	24.6
Chile	27.8	22.3	20.2	18.7	17.3	16.6	7.2	9.0	11.9	16.5	19.8	21.6
Czech Republic	16.4	14.3	15.6	13.8	12.9	13.8	13.8	15.4	20.1	23.1	26.8	31.1
Denmark	18.5	18.0	16.9	17.2	17.3	16.8	14.8	16.6	20.0	22.6	24.5	23.8
stonia	17.7	15.3	18.1	17.2	16.0	17.8	15.0	17.4	18.3	20.4	21.8	23.8
inland	18.2	16.6	16.6	16.1	15.5	15.4	14.9	17.3	22.2	25.3	26.1	26.8
rance	18.9	18.4	17.9	17.1	16.7	16.7	16.1	16.9	20.6	23.6	25.8	26.2
Germany	15.6	13.4	12.5	12.4	11.5	11.3	16.4	20.6	23.3	28.8	32.1	33.1
ireece	15.3	14.5	14.0	12.6	12.1	12.3	16.6	19.2	21.3	24.8	29.4	32.5
lungary	16.8	14.7	15.1	14.4	13.7	13.9	15.1	16.7	20.1	21.5	23.9	26.9
celand	23.3	20.9	20.4	19.0	17.8	17.5	11.6	12.1	15.2	19.2	21.5	23.4
reland	21.8	21.3	19.7	16.8	16.1	16.0	11.2	11.4	14.9	18.5	22.4	26.3
srael	28.6	28.0	27.9	26.6	26.1	26.2	9.8	9.9	12.3	13.9	15.5	16.6
aly	14.3	14.0	13.1	12.1	12.4	12.7	18.3	20.3	23.3	27.3	32.2	33.6
apan	14.6	13.1	11.7	10.3	10.0	9.7	17.4	23.0	29.1	31.6	36.1	38.8
orea	21.1	16.1	13.2	12.6	11.2	9.9	7.2	11.0	15.7	24.3	32.3	37.4
uxembourg	18.9	17.7	17.0	17.3	16.9	16.6	14.1	13.9	16.6	20.0	22.3	22.1
Mexico	33.7	29.6	26.0	23.6	21.9	20.7	5.2	6.2	7.7	10.2	13.4	16.2
letherlands	18.6	17.5	16.2	16.1	15.8	15.4	13.6	15.4	19.9	24.3	27.0	26.9
lew Zealand	22.8	20.5	18.1	16.9	16.3	15.6	11.8	13.0	17.1	21.9	25.2	26.2
lorway	20.0	18.8	17.5	17.5	16.9	16.4	15.2	15.0	18.0	20.6	22.9	23.2
Poland	19.5	15.2	15.6	13.7	12.1	12.5	12.2	13.4	18.4	22.3	25.1	30.3
Portugal	16.4	15.2	13.7	12.4	12.2	12.1	16.2	18.5	20.8	24.4	28.6	32.0
lovak Republic	19.5	15.5	14.6	13.4	12.6	13.2	11.4	12.5	17.3	21.6	25.0	30.1
Slovenia	15.9	14.1	15.2	13.7	12.9	13.9	14.0	16.5	19.8	24.2	27.5	30.6
pain	14.8	15.0	15.0	12.7	12.2	12.5	16.8	17.0	20.4	26.0	32.4	36.4
Sweden	18.4	16.6	17.4	17.1	15.9	16.4	17.3	18.3	21.0	22.9	24.5	24.7
witzerland	17.4	14.6	14.4	14.0	13.2	13.1	15.3	17.4	20.5	24.7	27.4	28.3
urkey	28.1	25.8	22.3	19.6	17.6	15.8	6.5	7.1	9.3	12.8	16.4	20.7
Jnited Kingdom	19.0	17.7	17.8	16.9	16.3	16.3	15.8	16.0	19.0	21.9	23.7	24.1
Inited States	21.4	19.8	19.1	18.7	18.1	18.0	12.4	13.1	16.8	20.3	21.0	20.9
U 28	17.2	15.7	15.5	14.6	14.2	14.3	15.7	17.5	20.3	23.8	27.0	28.7
ECD	20.4	18.6	17.6	16.8	16.1	15.9	13.0	14.7	18.0	21.4	23.9	25.3
razil	29.8	25.6	20.1	17.0	14.9	13.1	5.4	6.8	9.2	13.3	17.5	22.7
hina	25.6	18.1	18.2	15.9	14.6	14.7	6.9	8.4	11.7	16.2	22.1	23.9
ndia	34.2	30.2	26.6	23.8	21.4	19.5	4.4	5.1	6.3	8.2	10.2	12.7
ndonesia	30.7	29.8	25.9	22.3	20.5	18.9	4.7	5.0	6.3	9.2	12.7	15.8
Russian Federation	18.0	15.2	17.3	15.7	15.9	17.1	12.5	12.9	15.2	18.7	18.3	20.5
South Africa	33.0	29.7	28.5	25.4	23.3	21.6	3.4	5.2	6.4	7.7	8.4	10.5

StatLink http://dx.doi.org/10.1787/888933027266

### Share of the dependent population

As a percentage of total population



StatLink http://dx.doi.org/10.1787/888933024530

### POPULATION BY REGION

Population is unevenly distributed among regions within countries. Differences in climatic and environmental conditions discourage human settlement in some areas and favour concentration of the population around a few urban centres. This pattern is reinforced by higher economic opportunities and wider availability of services stemming from urbanisation itself.

### **Definition**

The number of inhabitants of a given region, i.e. its total population, can be measured as either its average annual population or as the population at a specific date during the year considered. The average population during a calendar year is generally calculated as the arithmetic mean of the population on 1 January of two consecutive years, although some countries estimate it on a date close to 1 July.

### Comparability

The main problem with economic analysis at the subnational level is the unit of analysis, i.e. the region. The word "region" can mean very different things both within and among countries, with significant differences in area and population.

The population across OECD regions ranges from about 400 inhabitants in Balance ACT (Australia) to 38 million in California (the United States).

To address this issue, the OECD has classified regions within each member country to facilitate comparability at the same territorial level. The classification is based on two

territorial levels: the higher level (TL2) consists of 363 large regions and the lower level (TL3) consists of 1802 small regions. These two levels are used as a framework for implementing regional policies in most countries. In Brazil, China, India, the Russian Federation and South Africa only TL2 large regions have been identified. This classification (which, for European Union countries, is largely consistent with the Eurostat NUTS classification) facilitates comparability of regions at the same territorial level.

All the regional data shown here refer to small regions with the exception of Brazil, China, India, the Russian Federation and South Africa.

In addition, the OECD has established a regional typology to take into account geographical differences and enable meaningful comparisons between regions belonging to the same type. Regions have been classified as predominantly rural, intermediate and predominantly urban on the basis of the percentage of population living in local rural units.

The metropolitan database identifies about 1 200 urban areas (with a population of 50 000 or more) in 29 OECD countries. Urban areas are defined on the basis of population density and commuting patterns to better reflect the economic function of cities in addition to their administrative boundaries. Urban areas in OECD countries are classified as large metropolitan areas if they have a population of 1.5 million or more, metropolitan areas if their population is between 500 000 and 1.5 million, medium-size urban areas with a population between 200 000 and 500 000 and small urban areas with a population between 50 000 and 200 000.

### Overview

In 2012, 10% of regions accounted for approximately 40% of the total population in OECD countries. The concentration of population was highest in Australia, Canada, Iceland and Chile, where differences in climatic and environmental conditions discourage human settlement in some areas.

Two-thirds of the OECD population live in urban areas, but the urban experience is very different according to country. Of the 12 million Chileans living in urban areas, half of them reside in large metropolitan areas. For the 12 million urban population in the Netherlands, only 20% live in large metropolitan areas, while half of them reside in medium-sized or small urban areas.

In 2012, almost half of the total OECD population (48%) lived in predominantly urban regions, which accounted for around 6% of the total area.

Predominantly rural regions accounted for one-fourth of total population and 83% of land area. In Ireland, Finland and Slovenia the share of national population in rural regions was twice as high as the OECD average.

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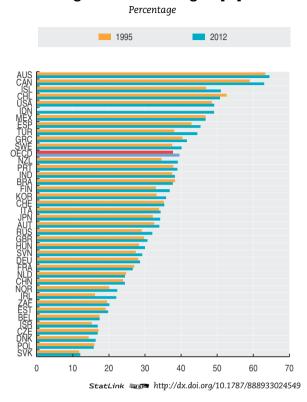
- OECD Regional Statistics.
- OECD Metropolitan Areas.

### Websites

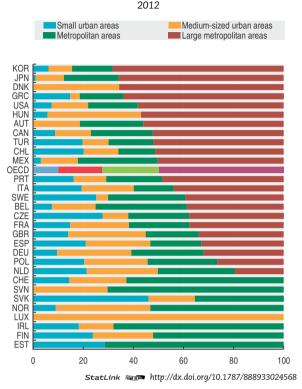
- Regions at a Glance interactive, rag.oecd.org.
- Regional statistics and indicators, www.oecd.org/gov/regional/statisticsindicators.

### POPULATION BY REGION

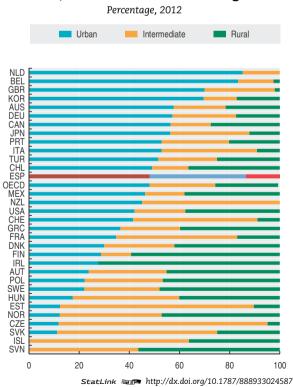
# Share of national population in the ten per cent of regions with the largest population



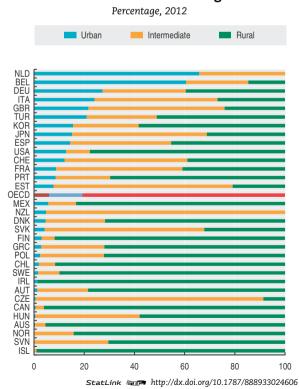
### Percentage of urban population by city size



# Distribution of the national population into urban, intermediate and rural regions



# Distribution of the national area into urban, intermediate and rural regions



### **ELDERLY POPULATION BY REGION**

In all OECD countries, populations aged 65 years and over have dramatically increased over the last 30 years, both in size and as a percentage of total population. Elderly people, it turns out, tend to be concentrated in few areas within each country, which means that a small number of regions will have to face a number of specific social and economic challenges raised by ageing population.

### **Definition**

The elderly population is the number of inhabitants of a given region aged 65 or older. The population can be either the average annual population or the population at a specific date during the year considered. The average population during a calendar year is generally calculated as the arithmetic mean of the population on 1 January of two consecutive years.

The elderly dependency rate is defined as the ratio between the elderly population and the working age (15-64 years) population.

### Overview

In most OECD countries the population is ageing. Due to higher life expectancy and low fertility rates, the elderly population (those aged 65 years and over), accounts for 15% of the OECD population in 2012, up from just over 12% 17 years earlier. The proportion of elderly population is remarkably lower in the emerging economies (South Africa, Brazil and China) and Mexico, Turkey and Chile.

The elderly population in OECD countries has increased more than three times faster than the total population between 1995 and 2012. The rate of ageing between different parts of a country can be quite different, as an increase in the geographic concentration of the elderly may arise from inward migration of the elderly or by ageing "in place" because the younger generations have moved out of the regions.

The ratio of the elderly to the working age population, the elderly dependency rate, is steadily growing in OECD countries. The elderly dependency rate gives an indication of the balance between the retired and the economically active population. In 2012 this ratio was 23% in OECD countries, with substantial differences between countries (38% in Japan versus 10% in Mexico). Differences among regions within the same countries were also large. The higher the regional elderly dependency rate, the higher the challenges faced by regions in generating wealth and sufficient resources to provide for the needs of the population. Concerns may arise about the financial self-sufficiency of these regions to generate taxes to pay for these services for the elderly.

### Comparability

As for the other regional statistics, the comparability of elderly population data is affected by differences in the definition of the regions and the different geography of rural and urban communities, both within and among countries.

All the regional data shown here refer to small regions with the exception of Brazil, China, India, the Russian Federation and South Africa.

### **Sources**

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• OECD Regional Database.

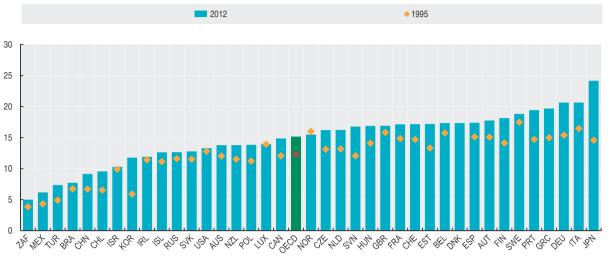
### Websites

- Regions at a Glance Interactive, rag.oecd.org.
- Regional statistics and indicators, www.oecd.org/gov/regional/statisticsindicators.

### ELDERLY POPULATION BY REGION

### **Elderly population**

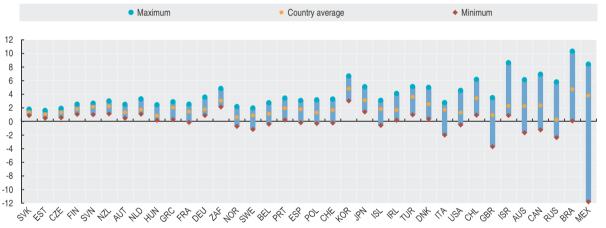
As a percentage of total population



### StatLink http://dx.doi.org/10.1787/888933024625

### Regional elderly population

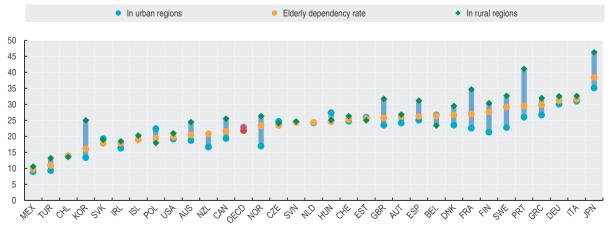
Average annual growth in percentage, 1995-2012



### StatLink http://dx.doi.org/10.1787/888933024644

### Elderly dependency rate in urban and rural regions

Percentage, 2012



StatLink as http://dx.doi.org/10.1787/888933024663

### IMMIGRANT AND FOREIGN POPULATION

As a result of successive waves of migration flows from varying destinations, countries differ in their share and composition of immigrants and foreign population. The definition of these populations is key for international comparisons.

### **Definition**

Nationality and place of birth are the two criteria most commonly used to define the "immigrant" population. The foreign-born population covers all persons who have ever migrated from their country of birth to their current country of residence. The foreign population consists of persons who still have the nationality of their home country. It may include persons born in the host country.

### Comparability

The difference across countries between the size of the foreign-born population and that of the foreign population depends on the rules governing the acquisition of citizenship in each country. In some countries, children born in the country automatically acquire the citizenship of their country of birth while in other countries, they retain the nationality of their parents. In some others, they retain the nationality of their parents at birth but receive that of the host country at their majority. Differences in the ease with which immigrants may acquire the citizenship of the host country explain part of the gap between the two series. For example, residency requirements vary from as little as three years in Canada to as much as ten years in some other countries.

In general, the foreign-born criterion gives substantially higher percentages for the immigrant population than the definition based on nationality because of naturalisations.

### Overview

The share of the foreign-born population in the total population is especially high in Luxembourg, Switzerland, Australia, Israel, New Zealand and Canada where it ranges from 20% to 40%. In a number of other European countries as well (namely, Ireland, Austria, Estonia, Sweden, Belgium, Spain and Germany), the share is higher than in the United States (13%). It has increased in the past decade in all countries for which data are available with the exception of Israel, Estonia and Poland.

The proportion of foreign-born in the population as a whole roughly doubled over the decade in Italy and Spain. By contrast, the foreign population tends to increase more slowly, because inflows of foreign nationals tend to be counterbalanced by persons acquiring the nationality of the host country.

The place of birth, however, changes only if country borders change.

Most of the data for this indicator are taken from the contributions of national correspondents who are part of the OECD Expert Group on International Migration.

The foreign-born population data shown here include persons born abroad as nationals of their current country of residence. The prevalence of such persons among the foreign-born can be significant in some countries, in particular France and Portugal who received large inflows of repatriates from former colonies.

The EU28 aggregate is a weighted average and does not include Croatia or Malta.

### **Sources**

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### Websites

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### IMMIGRANT AND FOREIGN POPULATION

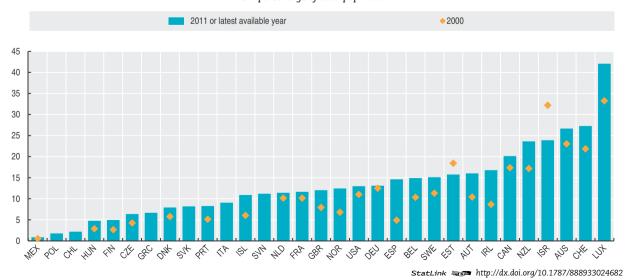
### Foreign-born and foreign populations

				As a percentage of	f total population				As a percentage of all foreign-born
		Foreign-bor	n population			Foreign p	oopulation		Foreign-born nationals
_	1995	2000	2005	2011	1995	2000	2005	2011	2011 or latest available year
Australia	23.0	23.0	24.2	26.7					
Austria		10.4	14.5	16.0					36.5
Belgium	9.7	10.3	12.1	14.9	8.5	8.8	9.7	11.5	44.2
Canada	16.7	17.4	18.7	20.1	9.0	8.4	8.6	10.6	
Chile	**		1.5					**	
Czech Republic		4.2	5.1	6.4					59.1
Denmark	4.8	5.8	6.5	7.9	1.5	2.0	2.7	4.1	40.8
Estonia		18.4	17.0	15.7	4.3	4.8	5.0	6.4	37.4
Finland	2.1	2.6	3.4	4.9		20.8	18.9	16.4	46.3
France		10.1	11.3	11.6	1.3	1.8	2.2	3.4	53.2
Germany	11.5	12.5	12.6	13.1				6.0	52.6
Greece				6.6	8.8	8.9	8.2	8.5	20.0
Hungary	2.7	2.9	3.3	4.7		2.8	5.0	6.8	71.9
Iceland		6.0	8.3	10.9	1.4	1.1	1.5	2.1	47.5
Ireland		8.7	12.6	16.8		3.1	4.7	6.6	29.0
Israel		32.2	29.1	23.9				11.7	
Italy				9.0					25.0
Japan		1.0			1.3	2.4	4.6	 8.0	
Korea		0.3			1.1	1.3	1.6	1.6	
Luxembourg	30.9	33.2	36.5	 42.1	0.2	0.4	1.1	2.0	13.9
Mexico	0.4	0.5	0.6	0.8	33.8	37.7	41.1	44.3	
Netherlands	9.1	10.1	10.6						67.3
		17.2	20.3	11.4 23.6					07.3
New Zealand					4.7	4.2	4.2	4.7	
Norway	5.5	6.8	8.2	12.4					46.2
Poland	_ ::	- "	_ ::	1.8	3.7	4.1	4.8	8.2	84.8
Portugal	5.2	5.1	7.0	8.3				0.1	67.3
Slovak Republic			4.6		1.7	2.0	4.1	4.2	79.9
Slovenia			-	11.2	0.4	0.5	0.5	1.3	74.5
Spain		4.9	11.1	14.6				4.9	22.1
Sweden	10.6	11.3	12.5	15.1		3.4	9.5	12.4	66.6
Switzerland	21.4	21.9	23.8	27.3	6.0	5.3	5.1	6.9	31.9
Turkey		1.9		-	18.9	19.3	20.3	22.4	
United Kingdom	6.9	7.9	9.4	12.0		0.4			41.6
United States	9.9	11.0	12.1	13.0	3.4	4.0	5.1	7.6	49.1
EU 28						6.3	7.2	6.8	43.1
OECD									
Brazil									
China									
India									
Indonesia									
Russian Federation									
South Africa									

StatLink http://dx.doi.org/10.1787/888933027285

### Foreign-born population

As a percentage of total population



### TRENDS IN MIGRATION

Permanent immigrant inflows are presented by category of entry which is a key determinant of immigrant results on the labour market. They cover regulated movements of foreigners as well as free movement migration.

### **Definition**

Permanent immigrant inflows cover regulated movements of foreigners considered to be settling in the country from the perspective of the destination country. In countries such as Australia, Canada, New Zealand and the United States, this consists of immigrants who receive the right of "permanent" residence. In other countries, it generally refers to immigrants who are granted a residence permit which is indefinitely renewable, although the renewability is sometimes subject to conditions, such as the holding of a job. Excluded are international students, trainees, persons on exchange programmes, seasonal or contract workers, service providers, installers, artists entering the country to perform or persons engaging in sporting events, etc. Permits for persons in this latter group may be renewable as well, but not indefinitely.

Migrants are defined as "free movement" when they have some kind of basic rights, usually accorded through international agreements, to enter and leave a country that result in few restrictions being placed on their movements or durations of stay, such as citizens of EU states within the EU. Their movements are not always formally recorded and have sometimes had to be estimated.

### Overview

Total permanent immigration increased by about 2% overall in OECD countries in 2011 relative to 2010, with the migration picture being a mixed one at the country level. About half of OECD countries showed increases, with Austria and Germany being among the countries which progressed the most but also Ireland, the country which had shown the strongest decline in immigration as a result of the Great Recession.

Migration to European countries continues to be characterised by free circulation within the European Economic Area (EEA). In Switzerland, Germany and Norway, it represents 78%, 68% and 64%, respectively, of permanent international migration.

Family and humanitarian migration within the EEA constitute 45% and 8%, respectively, of total immigration (excluding free circulation) to this area. In the rest of the OECD, the corresponding figures are 65% and 13%. By contrast, labour migration accounts for almost 40% of non-free movement migration to EEA countries covered here, but only 13% of migration to the rest of the OECD. The latter reflects the weight of the United States, Japan and Mexico, for all of which permanent labour migration is limited.

### Comparability

This standardisation according to the concept of "permanent immigrant inflows" represents a considerable improvement compared with compilations of national statistics, whose coverage can vary by a factor of one to three. However, the extent to which changes in status are identified and the coverage of "permanent" free movement may vary somewhat across countries. Overall, the standardisation is applied to 23 OECD countries as well as to the Russian Federation.

The year of reference for these statistics is often the year when the permit was granted rather than the year of entry. Some persons admitted on a temporary basis are sometimes allowed to change to a permanent status. In the statistics presented here, they are counted in the year the change of status occurred.

### **Sources**

 OECD (2013), International Migration Outlook, OECD Publishing.

## Further information

### **Analytical publications**

 Widmaier, S. and J-C. Dumont (2011), "Are Recent Immigrants Different? A New Profile of Immigrants in the OECD based on DIOC 2005/06", OECD Social, Employment and Migration Working Papers, No. 126.

### Statistical publications

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- Lemaitre G. (2005), "The Comparability of International Migration Statistics: Problems and Prospects", OECD Statistic Brief, No. 9.

### Online databases

• OECD International Migration Statistics.



### TRENDS IN MIGRATION

### Permanent inflows by category of entry

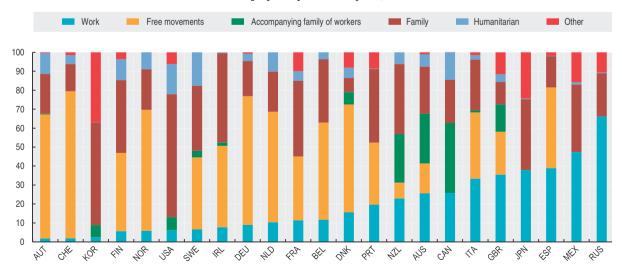
Thousands, 2011

	Work	Free movements	Accompanying family of workers	Family	Humanitarian	Other	Total
Australia	56.2	34.6	57.5	54.7	14.0	2.5	219.5
Austria	1.0	38.2	0.2	12.2	6.4	0.2	58.4
Belgium	9.0	39.1	-	25.5	2.9		76.5
Canada	64.4	-	91.8	56.4	36.1	0.1	248.7
Chile							
Czech Republic							22.6
Denmark	6.4	23.5	2.7	3.1	2.2	3.3	41.3
Estonia							
Finland	1.2	8.4	-	7.8	2.2	0.8	20.4
France	24.1	71.1	-	84.2	10.7	21.1	211.3
Germany	26.1	197.5	-	54.0	11.0	2.1	290.8
Greece							
Hungary							
Iceland							
Ireland	2.6	14.5	0.6	15.9	0.1		33.7
Israel							
Italy	104.1	109.1	3.6	83.4	7.2	4.8	312.2
Japan	22.4		-	22.0	0.3	14.4	59.1
Korea	1.4		3.6	30.8	0.0	21.0	56.9
Luxembourg							
Mexico	10.3		-	7.7	0.3	3.4	21.7
Netherlands	11.0	61.5	-	22.4	10.7		105.6
New Zealand	10.2	3.7	11.4	16.4	2.7		44.5
Norway	3.5	38.5	-	12.9	5.4		60.3
Poland							
Portugal	7.3	12.1	-	14.3	0.1	3.2	36.9
Slovak Republic							
Slovenia							
Spain	135.9	148.9	-	57.1	1.0	6.5	349.3
Sweden	4.8	27.3	2.5	24.6	12.7		71.7
Switzerland	2.3	96.5	-	17.8	5.8	1.9	124.3
Turkey	2.0		**		J.0 	1.3	124.0
United Kingdom	114.0	72.7	45.9	38.3	13.0	37.2	321.2
United States	65.3		74.1	688.1	168.5	65.5	1 061.4
EU 28					100.0		1 001.4
DECD							
Brazil							
China							
India							
Indonesia							
Russian Federation	273.0			93.9	 1.8	 44.0	412.6
South Africa			•				
JUUIII AITICA							

StatLink http://dx.doi.org/10.1787/888933027304

### Permanent inflows by category of entry

Percentage of total permanent inflows, 2011



StatLink http://dx.doi.org/10.1787/888933024701

### MIGRATION AND EMPLOYMENT

Changes in the size of the working-age population affect more strongly the foreign-born than the natives for whom such changes are hardly noticeable from one year to another. This is notably due to the impact of net migration. In most OECD countries, employment rates for immigrants are lower than those for native-born persons. However, the situation is more diverse if one disaggregates employment rates by educational attainment.

### **Definition**

The employment rate is calculated as the share of employed persons in the 25-64 population (active and inactive persons). In accordance with ILO definitions, employed persons are those who worked at least one hour or who had a job but were absent from work during the reference week. The classification of educational attainment shown is based on the International Standard Classification of Education (ISCED) categories. Generally speaking, "low" corresponds to less than upper secondary education; "intermediate" to upper secondary education; and "high" to tertiary education. Tertiary education includes programmes of high-level vocational education whose graduates feed into technical or semi-professional occupations.

### Overview

Labour market outcomes of immigrants and natives vary significantly across OECD countries, and differences by educational attainment are even larger. In all OECD countries, the employment rate increases with education level. While people with tertiary education find work more easily and are less exposed to unemployment, access to tertiary education does not necessarily guarantee equal employment rates for immigrants and native-born persons. In all OECD countries, employment rates are higher for native-born persons with high educational qualifications than for their foreign-born counterparts.

The situation is more diverse for persons with low educational attainment. In the United States, Luxembourg and to a lesser extent in some southern European countries such as Italy and Greece, foreignborn immigrants with low educational qualifications have higher employment rates than their native-born counterparts. The opposite is true in most other countries, in particular in Sweden, Denmark, the Netherlands, Belgium and New Zealand. The higher employment rate of foreign-born persons with low educational attainment in some countries may reflect the persistent demand for workers in low-skilled jobs which are hardly taken up by the in-coming cohorts of native-born workers.

### Comparability

Data for the European countries are from the European Union Labour Force Survey. Data for other countries are mostly taken from national labour force surveys. Even if employment levels can at times be affected by changes in survey design and by survey implementation problems (e.g. non-response), data on employment rates are generally consistent over time.

However, comparability of education levels between immigrants and the native-born population and across countries is only approximate. The educational qualifications of some origin countries may not fit exactly into national educational categories because the duration of study or the programme content for what appear to be equivalent qualifications may not be the same. Likewise, the reduction of the ISCED classification into three categories may result in some loss of information regarding the duration of study, the programme orientation, etc. For example, high educational qualifications can include programmes of durations varying from two years (in the case of short, university-level technical programmes) to seven years or more (in the case of PhDs).

The EU28 aggregate is a weighted average and does not include Croatia or Malta.

### **Sources**

 OECD (2013), International Migration Outlook, OECD Publishing.

# Further information Analytical publications

- OECD (2012), Jobs for Immigrants (Vol. 3), Labour Market Integration in Austria, Norway and Switzerland, OECD Publishing.
- OECD (2008), A Profile of Immigrant Populations in the 21st Century: Data from OECD Countries, OECD Publishing.

### Statistical publications

- OECD (2012), Connecting with Emigrants, A Global Profile of Diasporas, OECD Publishing.
- OECD (2012), Settling In: OECD Indicators of Immigrant Integration 2012, OECD Publishing.

### Methodological publications

 Dumont, J.C. and Lemaître G. (2005), "Counting Immigrants and Expatriates in OECD Countries: A New Perspective", OECD Social, Employment and Migration Working Papers, No. 25.

### Online databases

• OECD International Migration Statistics.



### MIGRATION AND EMPLOYMENT

### Employment rates of native- and foreign-born population by educational attainment

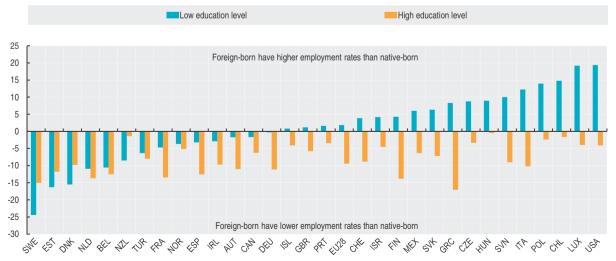
As a percentage of population aged 25-64

			20	07					2	012		
_		Native-born			Foreign-born			Native-born			Foreign-born	
_	Low	High	Total	Low	High	Total	Low	High	Total	Low	High	Total
Australia			77.2			71.1			77.1			72.9
Austria	57.1	89.5	76.5	57.5	75.5	67.3	55.7	89.5	78.0	53.9	78.5	69.4
Belgium	51.8	86.3	71.9	39.5	73.8	55.3	50.2	86.5	73.0	39.7	74.0	56.4
Canada							56.6	83.4	77.4	54.9	77.2	73.2
Chile												
Czech Republic	45.7	85.3	74.6	45.7	81.9	69.6	39.8	84.7	75.0	48.6	81.4	71.7
Denmark	67.4	88.8	81.3	54.1	76.4	63.9	62.5	87.4	78.8	47.0	77.5	63.4
Estonia	56.5	88.3	80.1	45.7	83.1	75.2	51.7	84.0	76.2	35.4	72.2	66.8
Finland	58.0	85.6	76.2	54.1	76.5	70.7	54.1	84.8	75.7	58.4	71.0	67.6
France	59.0	85.0	73.7	54.3	70.8	62.1	56.0	86.0	73.5	51.3	72.5	60.7
Germany	56.1	87.7	76.2	52.3	70.5	62.8	57.2	89.5	79.8	56.9	78.4	69.4
Greece	56.7	83.8	68.3	74.8	70.9	72.7	46.3	72.4	58.4	54.5	55.3	54.4
Hungary	38.4	80.5	65.4	50.1	77.5	70.7	38.7	79.7	65.2	47.6	79.2	71.3
Iceland	82.3	92.5	87.8	86.9	88.4	86.8	72.7	91.0	83.5	73.5	86.9	81.5
Ireland	58.6	88.3	74.0	60.3	80.9	75.9	43.5	82.5	66.0	40.6	72.8	64.4
Israel	42.8	85.4	71.2	43.0	80.4	69.0						
Italy	51.5	80.6	64.4	66.9	75.2	71.0	49.1	79.7	63.4	61.4	69.5	65.5
Japan												
Korea												
Luxembourg	52.3	83.8	69.8	70.5	85.1	76.3	49.6	87.3	73.9	68.8	83.4	76.0
Mexico	60.1	80.5	67.8	65.1	66.4	65.5	60.6	77.6	68.1	66.6	71.2	70.1
Netherlands	63.7	88.4	79.2	50.9	77.7	64.3	64.3	89.0	79.7	53.4	75.3	66.6
New Zealand	69.8	85.4	81.5	60.8	80.0	75.4	67.1	84.4	79.5	58.5	83.0	76.1
Norway	66.5	90.3	82.3	58.1	86.6	75.3	65.2	90.6	82.3	61.5	85.5	77.1
Poland	41.2	84.6	65.7	15.3	65.7	36.3	39.7	84.7	67.4	53.7	82.3	68.7
Portugal	71.3	85.8	74.3	75.4	87.0	79.2	63.1	82.3	68.8	64.7	78.8	71.4
Slovak Republic	29.0	84.2	70.0	40.4	87.2	70.1	30.7	80.2	68.9	37.0	73.0	66.7
Slovenia	56.1	88.0	75.0	56.7	81.8	69.2	45.2	85.6	71.5	55.2	76.6	66.6
Spain	57.8	85.5	69.7	71.4	78.8	74.9	49.4	78.5	62.9	46.2	66.0	55.8
Sweden	71.1	90.5	84.8	51.5	78.3	67.7	71.9	91.7	85.9	47.5	76.7	67.9
Switzerland	65.0	93.0	84.5	67.3	82.7	75.5	66.0	92.4	85.8	69.8	83.6	78.0
Turkey									48.9			46.4
				47.1		70.6	40.0	 0F.C			79.8	71.3
United Kingdom	54.7	88.9	76.8	47.1	83.2		46.2	85.6	76.4	47.4		
United States	51.5 55.6	84.0	76.5	68.8	80.3 76.5	75.2	44.7	81.3	72.4	64.1	77.2 75.3	71.3
EU 28		86.3	72.1	57.8		67.4	51.4	84.7	71.4	53.2		65.4
OECD												
Brazil												
China												
India												
Indonesia												
Russian Federation												
South Africa	27.8	79.9	36.3	60.8	75.3	63.7						

StatLink as http://dx.doi.org/10.1787/888933027323

# Gap in employment rates between foreign- and native-born population by educational attainment

Percentage points, 2012



StatLink as http://dx.doi.org/10.1787/888933024720

### MIGRATION AND UNEMPLOYMENT

Immigrant workers are more affected by unemployment than native-born workers in traditional European immigration countries. Conversely, in some settlement countries (Australia, New Zealand, the United States) as well as in Hungary, the unemployment rate depends less on the place of birth. Some groups, such as young immigrants, women or older immigrants have greater difficulties in finding jobs.

### **Definition**

The unemployment rate is the share of the unemployed aged 15-64 in the total labour force (the sum of employed and unemployed persons aged 15-64). In accordance with the ILO standards, unemployed persons consist of those persons who report that they are without work during the reference week, that they are available for work and that they have taken active steps to find work during the four weeks preceding the interview.

### Comparability

Data for the European countries are from the European Union Labour Force Survey. Data for the United States from the Current Population Survey; those for other countries are taken from their national labour force surveys. Even if unemployment levels can at times be affected by changes in the survey design and by survey implementation

### Overview

Immigrants have been hard hit, and almost immediately, by the economic downturn in most OECD countries. This is mainly explained by their greater presence in sectors that have been strongly affected by the crisis (e.g. construction, manufacturing, hotels and restaurants) as well as by their greater likelihood of being in precarious or informal jobs. However, differences exist across OECD countries and between migrant groups.

The ongoing economic downturn has seen unemployment rates increase, both for foreign- and native-born persons, in most OECD countries. However, immigrants in most European OECD countries were more affected by unemployment than the native population. In Spain, Greece and Ireland, immigrant unemployment increased by 25, 25 and 11 percentage points between 2007 and 2012 whereas that of the native-born increased by 15, 15 and 10 percentage points. In 2012, in Portugal, Belgium, Sweden, France and Finland, the unemployment rate of immigrants was above 15%. It was close to 35% and 34% in Spain and Greece respectively. The unemployment rate was more than twice the level observed for the native-born population in Belgium, Sweden, the Netherlands, Austria, Norway, Switzerland, Denmark and Finland.

problems (e.g. non-response), data on unemployment rates are generally consistent over time.

The EU28 aggregate is a weighted average and does not include Croatia or Malta.

### **Sources**

 OECD (2013), International Migration Outlook, OECD Publishing.

### Further information

### **Analytical publications**

- OECD (2012), Jobs for Immigrants (Vol. 3), Labour Market Integration in Austria, Norway and Switzerland, OECD Publishing.
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- Dumont, J.C. and Lemaître G. (2005), "Counting Immigrants and Expatriates in OECD Countries: A New Perspective", OECD Social, Employment and Migration Working Papers, No. 25.
- Lemaitre G. (2005), "The Comparability of International Migration Statistics: Problems and Prospects", OECD Statistic Brief, No. 9.

### Online databases

• OECD International Migration Statistics.



### MIGRATION AND UNEMPLOYMENT

### Unemployment rates of native- and foreign-born population

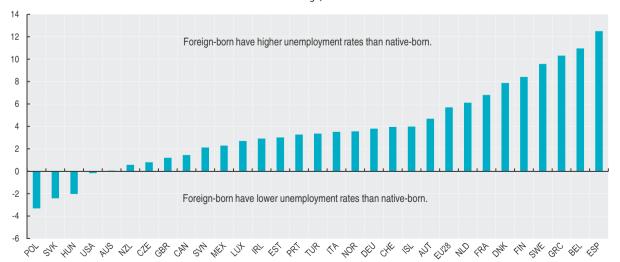
As a percentage of total labour force

		Wor	men			M	en			To	tal	
_	Native	e-born	Foreig	n-born	Nativ	e-born	Foreig	ın-born	Native	e-born	Foreig	n-born
_	2007	2012	2007	2012	2007	2012	2007	2012	2007	2012	2007	2012
Australia	4.6	5.2	5.5	6.0	4.1	5.4	4.3	4.9	4.3	5.3	4.9	5.4
Austria	4.1	3.7	9.7	7.7	3.1	3.5	8.4	8.7	3.5	3.6	9.0	8.3
Belgium	7.5	5.9	17.2	15.9	5.6	5.8	15.8	17.6	6.4	5.9	16.4	16.9
Canada		6.4		8.6		7.6		8.3		7.0		8.5
Chile												
Czech Republic	6.7	8.2	10.8	11.2	4.2	6.0	7.7	7.3	5.3	7.0	9.1	7.8
Denmark	3.8	6.6	7.8	15.9	3.0	7.1	8.6	13.5	3.4	6.8	8.2	14.7
Estonia	3.9	9.2	4.6	11.4	5.3	10.8	7.1	14.9	4.6	10.0	5.7	13.0
Finland	6.9	6.7	17.4	17.1	6.5	8.2	12.0	14.7	6.7	7.4	14.5	15.9
France	8.1	9.2	14.5	16.2	6.9	9.0	11.9	15.5	7.4	9.2	13.1	16.0
Germany	8.0	4.7	13.8	8.4	7.6	5.2	15.2	8.9	7.8	4.9	14.6	8.7
Greece	12.8	27.8	14.3	32.6	5.3	20.1	4.9	34.5	8.4	23.4	8.7	33.7
Hungary	7.7	10.7	6.1	8.0	7.2	11.3	2.6	9.9	7.5	11.0	4.3	9.0
Iceland	2.2	5.2	3.9	10.4	2.3	6.1	2.1	9.0	2.2	5.7	3.0	9.7
Ireland	4.0	10.1	5.8	14.8	4.6	17.8	6.0	19.4	4.3	14.4	5.9	17.3
Israel	8.6		6.8		7.1		6.3		7.8		6.5	
Italy	7.6	11.3	11.4	15.6	4.9	9.7	5.3	12.4	6.0	10.4	7.9	13.9
Japan												
Korea												
Luxembourg	4.4	3.9	5.1	7.8	3.0	3.7	4.3	5.4	3.6	3.6	4.6	6.3
Mexico	4.2	5.1	10.7	6.4	3.6	5.1	4.1	8.0	3.8	5.1	6.2	7.4
Netherlands	3.6	4.5	7.7	10.5	2.7	4.6	7.5	10.5	3.1	4.5	7.6	10.6
New Zealand	3.8	7.4	5.0	8.1	3.5	6.7	3.5	7.1	3.6	7.0	4.2	7.6
Norway	2.3	2.3	4.0	5.5	2.3	3.2	6.1	7.0	2.3	2.8	5.1	6.3
Poland	10.4	11.0	9.2	11.7	9.1	9.6	9.5	3.5	9.7	10.2	9.4	6.9
Portugal	9.9	16.0	12.1	18.8	7.0	16.2	7.3	20.0	8.4	16.1	9.6	19.4
Slovak Republic	12.7	14.6	5.9	9.1	9.9	13.6	7.7	14.1	11.2	14.0	6.8	11.6
Slovenia	5.8	9.1	7.8	14.5	4.1	8.6	4.0	8.3	4.9	8.8	5.7	10.9
Spain	10.5	23.8	12.6	32.8	6.0	22.4	8.3	36.5	7.9	22.9	10.3	35.4
Sweden	5.5	6.3	12.6	15.1	5.1	6.7	11.7	16.9	5.3	6.5	12.1	16.1
Switzerland	3.2	3.2	8.8	7.9	2.0	3.1	5.8	6.4	2.6	3.1	7.1	7.1
Turkey		9.5		12.6		7.8		11.0		8.3		11.6
	 4.5	7.0	8.6	10.5	 5.4	7.o 8.5	6.9	8.2	5.0	7.9	7.6	9.1
United Kingdom		7.0										
United States	4.6		4.7	9.0	5.1	8.6	4.1	7.5	4.9	8.3	4.4	8.1
EU 28	7.5	9.9	11.9	16.0	6.3	9.8	10.0	15.2	6.8	9.9	10.8	15.6
OECD								**				
Brazil												
China												
India												
Indonesia												
Russian Federation												
South Africa												

StatLink as http://dx.doi.org/10.1787/888933027342

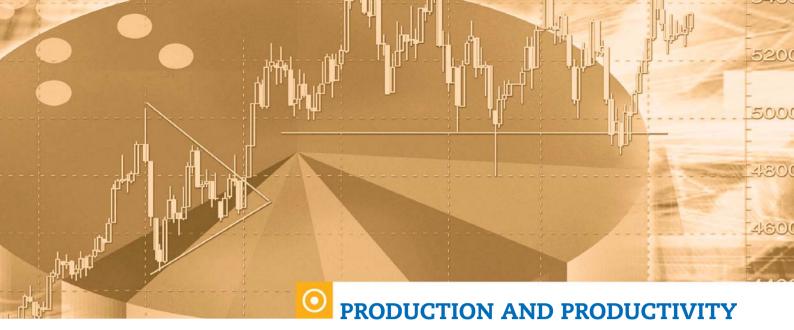
### Gap in unemployment rates between foreign- and native-born populations

Percentage, 2012



StatLink http://dx.doi.org/10.1787/888933024739





### PRODUCTION AND INVESTMENT

SIZE OF GDP EVOLUTION OF GDP INVESTMENT RATES

### **PRODUCTIVITY**

LABOUR PRODUCTIVITY LEVELS
LABOUR PRODUCTIVITY GROWTH
PRODUCTIVITY AND GROWTH ACCOUNTING
UNIT LABOUR COSTS
LABOUR COMPENSATION

### **ECONOMIC STRUCTURE**

VALUE ADDED BY ACTIVITY
REAL VALUE ADDED BY ACTIVITY
SMALL AND MEDIUM-SIZED ENTERPRISES

### SIZE OF GDP

Gross Domestic Product (GDP) is the standard measure of the value of final goods and services produced by a country during a period minus the value of imports. While GDP is the single most important indicator to capture economic activity, it should not be looked upon as an allencompassing measure for societies' well-being, as it does not include several aspects of people's material living standards let alone other aspects of people's quality of life. GDP per capita is a core indicator of economic performance and commonly used as a broad measure of average living standards or economic well-being; despite some recognised shortcomings.

### **Definition**

What does gross domestic product mean? "Gross" signifies that no deduction has been made for the depreciation of machinery, buildings and other capital products used in production. "Domestic" means that it relates to the output produced on the economic territory of the country. The products refer to final goods and services, that is, those that are purchased, imputed or otherwise, as: the final consumption of households, non-profit institutions serving households and government; fixed capital formation; and exports (minus imports).

### Overview

Per capita GDP for the OECD as a whole was USD 37 010 in 2012. Four OECD countries had per capita GDP considerably in excess of USD 50 000 in 2012 – Luxembourg, Norway, Switzerland and the United States. Nine OECD countries had a per capita GDP between 50 000 and 40 000 USD in 2012: Australia, Austria, Ireland, the Netherlands, Sweden, Denmark, Germany, Canada, and Belgium while 12 countries had per capita GDP below USD 30 000, with Mexico, Turkey and Chile being at the bottom of the distribution.

While in 2002 per capita GDP for the United States was 45% higher than the OECD average, this has decreased to 40% in 2012. Japanese GDP per capita dropped just below the OECD average in 2012, whereas it was just above the OECD average in 2002.

The largest decreases in per capita GDP relative to the OECD average between 2002 and 2012 were observed for United Kingdom, Greece, Iceland, Italy and Israel. On the other hand, the largest increases of relative GDP per capita for this ten year time period are shown for Norway, Luxembourg, the Slovak Republic, Estonia and Chile. Also, the countries at the bottom of the distribution (Mexico, Turkey and Chile) showed increases in their relative position of GDP per capita to the OECD average.

### Comparability

All countries compile data according to the 1993 SNA "System of National Accounts, 1993" with the exception of Australia the United States where data are compiled according to the new 2008 SNA. It's important to note however that differences between the 2008 SNA and the 1993 SNA do not have a significant impact of the comparability of the indicators presented here and this implies that data are highly comparable across countries.

For some countries, the latest year has been estimated by the Secretariat. Historical data have also been estimated for those countries that revise their methodologies but only supply revised data for some years.

For GDP per capita some care is needed in interpretation, for example Luxembourg and, to a lesser extent, Switzerland have a relatively large number of frontier workers. Such workers contribute to GDP but are excluded from the population figures.

EU28 does not include Croatia.

### **Sources**

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### **Further information**

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### Online databases

- OECD National Accounts Statistics.
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### Websites

 Sources & Methods of the OECD Economic Outlook, www.oecd.org/eco/sources-and-methods.



SIZE OF GDP

### GDP per capita

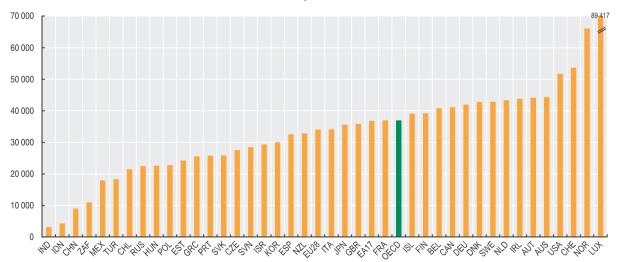
US dollars, current prices and PPPs

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Australia	27 939	29 146	30 327	31 870	33 332	35 005	37 039	38 862	39 165	40 613	41 645	43 208	44 407
Austria	28 939	29 061	30 463	31 337	32 841	33 637	36 618	38 048	39 856	39 375	40 535	42 978	44 141
Belgium	27 697	28 560	30 054	30 311	31 176	32 204	34 284	35 619	37 035	36 927	38 273	40 093	40 838
Canada	28 509	29 364	29 911	31 278	32 826	35 106	36 926	38 324	38 985	37 692	38 917	40 220	41 150
Chile	9 544	9 969	10 280	10 762	11 705	12 690	15 273	16 504	16 171	15 925	18 295	20 216	21 486
Czech Republic	15 564	16 854	17 578	18 780	20 072	21 268	23 288	25 423	25 872	25 875	25 835	27 046	27 522
Denmark	28 860	29 469	30 756	30 448	32 275	33 196	36 080	37 672	39 841	38 635	40 927	41 843	42 787
Estonia	9 875	10 704	11 967	13 379	14 746	16 531	19 163	21 554	22 061	19 948	20 470	23 088	24 260
Finland	25 700	26 564	27 531	27 633	29 849	30 708	33 169	36 119	38 080	35 874	36 586	38 611	39 207
France	25 275	26 644	27 676	27 299	28 172	29 554	31 454	33 100	34 167	34 111	34 894	36 391	36 933
Germany	25 794	26 740	27 446	28 371	29 671	31 117	33 581	35 511	37 115	35 973	38 320	40 990	41 923
Greece	18 267	19 769	21 401	22 511	23 850	24 348	26 792	27 720	29 604	29 475	27 999	26 623	25 586
Hungary	11 896	13 410	14 669	15 353	16 180	16 975	18 314	18 907	20 430	20 441	21 135	22 413	22 635
Iceland	28 879	30 476	31 084	30 795	33 716	34 992	35 863	37 122	39 477	37 680	36 637	38 224	39 097
Ireland	28 904	30 658	33 117	34 703	36 648	38 761	42 300	44 932	42 133	40 230	41 131	42 943	43 803
Israel	23 354	23 282	23 441	22 161	23 457	23 210	23 849	25 460	25 463	25 755	26 869	28 468	29 349
Italy	25 784	27 310	26 942	27 288	27 516	28 280	30 426	32 013	33 372	32 519	32 887	33 870	34 143
Japan	25 919	26 564	27 251	27 962	29 384	30 446	31 797	33 320	33 500	31 875	33 760	34 262	35 622
Korea	17 212	18 171	19 656	20 187	21 617	22 783	24 288	26 084	26 689	26 338	28 210	29 035	30 011
Luxembourg	53 625	53 911	57 469	60 629	64 843	68 211	78 512	84 301	84 298	79 027	83 974	88 668	89 417
Mexico	10 051	10 145	10 396	10 886	11 526	12 461	13 775	14 487	15 267	14 869	15 726	17 125	17 952
Netherlands	29 444	30 821	31 943	31 724	33 182	35 111	38 122	40 681	42 929	41 382	41 587	43 150	43 348
New Zealand	21 262	22 217	22 962	23 607	24 725	25 387	27 252	28 772	29 075	30 010	30 246	31 487	32 847
Norway	36 173	37 131	37 052	38 286	42 460	47 640	53 893	55 799	61 332	55 317	57 742	61 897	66 135
Poland	10 581	10 962	11 563	11 993	13 004	13 786	15 090	16 736	18 025	18 972	20 208	21 753	22 783
Portugal	17 815	18 530	19 146	19 467	19 845	21 369	22 988	24 169	24 939	25 125	25 713	25 672	25 802
Slovak Republic	10 995	12 084	12 966	13 607	14 647	16 175	18 399	20 848	23 214	22 761	23 790	25 130	25 848
Slovenia	17 572	18 461	12 900	20 528	22 257	23 472	25 466	27 206	29 037	27 023	27 004	28 156	28 482
Spain	21 336	22 606	24 068	20 528	25 945	27 392	30 433	32 190	33 131	27 023 32 251	31 640	32 156	32 551
Sweden	27 985		29 278	30 439	25 945 32 479	27 392 32 701		32 190	39 613	32 251	39 567		32 33 I 42 874
	32 436	28 261	29 27 8 34 354	34 265	32 479 35 577	36 648	35 734 40 572	44 303	47 552	46 970	48 733	41 761	42 874 53 641
Switzerland		33 103										51 582	
Turkey	9 183	8 623	8 667	8 796	10 159	11 394	12 911	13 884	15 021	14 550	16 003	17 781	18 315
United Kingdom	26 389	27 875	29 048	30 101	32 032	33 318	35 580	36 249	36 588	35 103	34 524	35 091	35 671
United States	36 437	37 252	38 132	39 612	41 864	44 242	46 376	47 996	48 336	46 927	48 287	49 782	51 689
EU 28	21 977	23 115	23 996	24 586	25 748	26 932	29 172	30 814	32 059	31 393	32 093	33 413	34 064
OECD	24 765	25 553	26 307	27 098	28 560	30 057	32 047	33 557	34 339	33 436	34 580	35 919	37 010
Brazil													
China	2 357	2 593	2 856	3 189	3 589	4 102	4 748	5 550	6 186	6 781	7 526	8 397	9 059
India					2 048	2 276	2 530	2 819	2 928	3 222			
Indonesia	2 421	2 531	2 650	2 796	2 978	3 207	3 448	3 724	3 985	4 152	4 336		
Russian Federation	6 818	7 360	8 029	9 255	10 232	11 822	14 917	16 649	20 164	19 367	20 475	22 502	
South Africa	6 762	6 995	7 272	7 545	8 007	8 601	9 261	9 938	10 403	10 216	10 553	11 028	

StatLink http://dx.doi.org/10.1787/888933027361

### GDP per capita

US dollars, current prices and PPPs, 2012



StatLink http://dx.doi.org/10.1787/888933024758

# **EVOLUTION OF GDP**

Changes in the size of economies are usually measured by changes in the volume (often referred to as real) levels of GDP. Real reflects the fact that changes in GDP due to inflation are removed. This provides a measure of changes in the volume of production of an economy.

#### **Definition**

Converting nominal values of GDP to real values requires a set of detailed price indices, implicitly or directly collected. When applied to the nominal value of transactions, the corresponding volume changes can be captured. Since the 1993 System of National Accounts it has been recommended that weights should be representative of the periods for which growth rates are calculated. This means that new weights should be introduced every year, giving rise to chain-linked (volume) indices.

# Comparability

All countries compile data according to the 1993 SNA "System of National Accounts, 1993" with the exception of Australia and the United States where data are compiled according to the new 2008 SNA. It's important to note however that differences between the 2008 SNA and the 1993 SNA do not have a significant impact of the comparability of the indicators presented here and this implies that data are highly comparable across countries. However, there is generally some variability in how countries calculate their volume estimates of GDP, particularly in respect of services produced by government such as health and education.

With the exception of Mexico, all OECD countries derive their annual estimates of real GDP using annually chainlinked volume indices (that is the weights are updated every year). Mexico, like many non-OECD countries, revise their weights less frequently.

EU28 does not include Croatia.

## Overview

In 2012, the annual rate of growth in real GDP for the OECD as a whole was 1.5%, a slowdown from the 2.0% growth in 2011. The overall increase in GDP growth for the OECD total masks the fact that 12 out of the 34 OECD countries experienced negative growth in 2012, showing that many countries are still struggling to recover from the recent economic crisis. Growth in the Euro area contracted in 2012 by 0.7 %. The largest drop in GDP was recorded in Greece (minus 6.4%), its fifth consecutive yearly decline, followed by contractions in Portugal (minus 3.2%), Italy (minus 2.5%) and Slovenia (minus 2.5%). In contrast, the highest growth rates amongst OECD countries were recorded in Chile (5.6%), Estonia (3.9%) and Mexico (3.8%).

The average annual rate of volume GDP growth for the OECD total in the three years to 2012 was 2.2%. Turkey, Chile, and Estonia exhibited growth rates above 5%. In contrast, six OECD countries recorded negative average annual growth rates between 2010 and 2012. The largest decline occurred in Greece (minus 6.1%).

#### **Sources**

- OECD (2013), National Accounts of OECD Countries, OECD Publishing.
- For non-member countries: National sources.

# Further information

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**EVOLUTION OF GDP** 

# Real GDP growth

Annual growth in percentage

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Australia	1.9	3.9	3.2	4.1	3.2	3.0	3.8	3.8	1.6	2.1	2.4	3.4	3.7
Austria	3.7	0.9	1.7	0.9	2.6	2.4	3.7	3.7	1.4	-3.8	1.8	2.8	0.9
Belgium	3.7	0.8	1.4	0.8	3.3	1.8	2.7	2.9	1.0	-2.8	2.3	1.8	-0.1
Canada	5.2	1.8	2.9	1.9	3.1	3.0	2.8	2.2	0.7	-2.8	3.2	2.5	1.7
Chile	5.1	3.3	2.7	3.8	7.0	6.2	5.7	5.2	3.3	-1.0	5.8	5.9	5.6
Czech Republic	4.2	3.1	2.1	3.8	4.7	6.8	7.0	5.7	3.1	-4.5	2.5	1.8	-1.0
Denmark	3.5	0.7	0.5	0.4	2.3	2.4	3.4	1.6	-0.8	-5.7	1.4	1.1	-0.4
Estonia	9.7	6.3	6.6	7.8	6.3	8.9	10.1	7.5	-4.2	-14.1	2.6	9.6	3.9
Finland	5.3	2.3	1.8	2.0	4.1	2.9	4.4	5.3	0.3	-8.5	3.4	2.7	-0.8
France	3.7	1.8	0.9	0.9	2.5	1.8	2.5	2.3	-0.1	-3.1	1.7	2.0	0.0
Germany	3.1	1.5	0.0	-0.4	1.2	0.7	3.7	3.3	1.1	-5.1	4.0	3.3	0.7
Greece	4.5	4.2	3.4	5.9	4.4	2.3	5.5	3.5	-0.2	-3.1	-4.9	-7.1	-6.4
Hungary	4.2	3.7	4.5	3.9	4.8	4.0	3.9	0.1	0.9	-6.8	1.1	1.6	-1.7
Iceland	4.3	3.9	0.1	2.4	7.8	7.2	4.7	6.0	1.2	-6.6	-4.1	2.7	1.4
Ireland	10.6	5.0	5.4	3.7	4.2	6.1	5.5	5.0	-2.2	-6.4	-1.1	2.2	0.2
Israel	8.7	-0.2	-0.1	1.5	4.9	4.9	5.8	5.9	4.1	1.1	5.0	4.6	3.2
Italy	3.7	1.9	0.5	0.0	1.7	0.9	2.2	1.7	-1.2	-5.5	1.7	0.5	-2.5
Japan	2.3	0.4	0.3	1.7	2.4	1.3	1.7	2.2	-1.0	-5.5	4.7	-0.6	2.0
Korea	8.8	4.0	7.2	2.8	4.6	4.0	5.2	5.1	2.3	0.3	6.3	3.7	2.0
Luxembourg	8.4	2.5	4.1	1.7	4.4	5.3	4.9	6.6	-0.7	-5.6	3.1	1.9	-0.2
Mexico	6.6	0.0	0.8	1.4	4.1	3.3	5.1	3.4	1.2	-6.0	5.3	3.9	3.8
Netherlands	3.9	1.9	0.1	0.3	2.2	2.0	3.4	3.9	1.8	-3.7	1.5	0.9	-1.2
New Zealand	2.4	3.7	5.0	4.1	3.7	3.4	1.7	3.5	-1.8	1.5	0.2	2.2	3.2
Norway	3.3	2.0	1.5	1.0	4.0	2.6	2.3	2.7	0.1	-1.6	0.5	1.2	3.1
Poland	4.3	1.2	1.4	3.9	5.3	3.6	6.2	6.8	5.1	1.6	3.9	4.5	1.9
Portugal	3.9	2.0	0.8	-0.9	1.6	0.8	1.4	2.4	0.0	-2.9	1.9	-1.3	-3.2
Slovak Republic	1.4	3.5	4.6	4.8	5.1	6.7	8.3	10.5	5.8	-4.9	4.4	3.0	1.8
Slovenia	4.3	2.9	3.8	2.9	4.4	4.0	5.8	7.0	3.4	-7.9	1.3	0.7	-2.5
Spain	5.0	3.7	2.7	3.1	3.3	3.6	4.1	3.5	0.9	-3.8	-0.2	0.1	-1.6
Sweden	4.5	1.3	2.5	2.3	4.2	3.2	4.3	3.3	-0.6	-5.0	6.6	2.9	0.9
Switzerland	3.7	1.2	0.2	0.0	2.4	2.7	3.8	3.8	2.2	-1.9	3.0	1.8	1.0
Turkey	6.8	-5.7	6.2	5.3	9.4	8.4	6.9	4.7	0.7	-4.8	9.2	8.8	2.2
United Kingdom	4.4	2.2	2.3	3.9	3.2	3.2	2.8	3.4	-0.8	-5.2	1.7	1.1	0.1
United States	4.1	0.9	1.8	2.8	3.8	3.4	2.7	1.8	-0.3	-2.8	2.5	1.8	2.8
Euro area	3.8	2.0	0.9	0.7	2.2	1.7	3.3	3.0	0.4	-4.4	2.0	1.6	-0.7
EU 28	3.9	2.1	1.3	1.5	2.5	2.1	3.3	3.2	0.3	-4.3	2.1	1.6	-0.3
OECD	4.1	1.3	1.7	2.2	3.3	2.8	3.2	2.7	0.2	-3.6	3.0	2.0	1.5
Brazil								**					
China	8.4	8.3	9.1	10.0	10.1	11.3	12.7	14.2	9.6	9.2	10.4	9.3	
India						9.3	9.3	9.8	4.9	9.1			
Indonesia	4.9	3.6	4.5	4.8	5.0	5.7	5.5	6.3	6.0	4.6	6.1		
Russian Federation	10.0	5.1	4.7	7.3	7.2	6.4	8.2	8.5	5.2	-7.8	4.5	4.3	3.4
South Africa	4.2	2.7	3.7	2.9	4.6	5.3	5.6	5.5	3.6	-1.5	3.1	3.5	2.5

StatLink http://dx.doi.org/10.1787/888933027380

# Real GDP growth

Average annual growth in percentage



StatLink http://dx.doi.org/10.1787/888933024777

# 4800

#### **INVESTMENT RATES**

Investment, or to be more precise, gross fixed capital formation, is an important determinant of future economic growth and an essential variable in economic analyses, such as analyses of demand and productivity.

#### **Definition**

Gross fixed capital formation (GFCF) is defined in the national accounts as acquisition less disposals of produced fixed assets. The relevant assets relate to products that are intended for use in the production of other goods and services for a period of more than a year.

Acquisition includes both purchases of assets (new or second-hand) and the construction of assets by producers for their own use.

The term produced assets signifies that only those assets that come into existence as a result of a production process recognised in the national accounts are included. The national accounts also record transactions in non-produced assets such as land, oil and mineral reserves for example; which are recorded as (acquisitions less disposals of) non-produced assets in the capital account and the balance sheet.

Acquisition prices of capital goods include transport and installation charges, as well as all specific taxes associated with purchase.

#### Comparability

When the System of National Accounts (SNA) was revised in 1993, the scope of GFCF was widened to include mineral exploration and computer software, as well as literary and artistic originals. Comparability of these items has improved in recent years but the coverage of the various items differs across countries. This applies particularly in the case of own-account production of software.

#### Overview

Investment over the period 2009-11 fell on average by 2.5% per year for the OECD as a whole, largely reflecting the retrenchment in investment that occurred at the height of the recent crisis, with investment volumes falling by 11.8% in 2009. Australia was the only country in the OECD to record investment growth (1.9%) in 2009. Ireland, Iceland and Greece recorded annual average falls in investment between 16.1% and 19.9% in the period 2009-11. As a consequence, the levels of investments in 2012 were less than half of the 2007 levels in these countries.

In 2012, investment growth rates were highest in Chile (12.3%) and Estonia (10.9%). On the other hand, investment contracted by more than 10% in Greece, Portugal, and the Slovak Republic.

The scope of assets has been further widened in the 2008 SNA to include Research and Development and military weapons systems but the figures contained here do not reflect these additions (except for Australia and the United States which follow the 2008 System of National Accounts).

EU28 does not include Croatia.

#### Sources

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INVESTMENT RATES

# Gross fixed capital formation

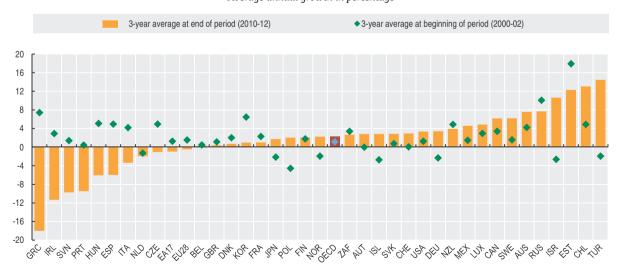
Annual growth in percentage

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Australia	-7.9	9.0	12.7	9.0	6.9	9.3	5.1	9.6	2.1	1.9	3.8	10.1	8.9
Austria	5.2	-1.0	-4.0	4.8	0.6	0.6	0.5	3.6	0.7	-7.8	-1.4	8.5	1.6
Belgium	5.1	1.0	-4.5	0.1	7.8	6.4	2.6	6.3	2.0	-8.4	-1.1	4.1	-2.0
Canada	4.7	4.0	1.6	6.2	7.8	9.3	7.1	3.5	2.0	-13.0	10.0	4.2	4.3
Chile	9.1	3.5	2.2	6.5	11.3	23.5	4.3	10.8	17.9	-12.1	12.2	14.7	12.3
Czech Republic	6.5	4.5	3.8	0.6	3.0	6.0	5.8	13.2	4.1	-11.0	1.0	0.4	-4.5
Denmark	7.6	-1.4	0.1	-0.2	3.9	4.7	14.3	0.4	-4.2	-15.9	-2.1	3.3	0.8
Estonia	16.7	13.1	24.2	16.7	6.0	15.2	23.0	9.3	-13.3	-39.0	-7.3	37.6	10.9
Finland	6.4	2.9	-3.7	3.0	4.9	3.6	1.9	10.7	-0.6	-13.2	1.7	5.7	-1.0
France	6.8	2.2	-1.9	2.2	3.4	4.4	4.0	6.3	0.3	-10.6	1.4	2.9	-1.2
Germany	2.6	-3.3	-6.1	-1.2	-0.2	0.8	8.2	4.7	1.3	-11.7	5.7	6.9	-2.1
Greece	8.0	4.8	9.5	11.8	0.4	-6.3	14.9	22.8	-14.3	-13.7	-15.0	-19.6	-19.2
Hungary	6.0	1.9	7.4	1.5	7.2	4.5	-2.7	3.8	2.9	-11.1	-8.5	-5.9	-3.7
Iceland	11.8	-4.3	-14.0	11.1	28.7	34.4	24.4	-12.2	-20.4	-51.4	-9.4	14.3	5.0
Ireland	6.2	0.2	2.5	6.5	9.7	14.8	4.8	2.5	-9.5	-27.0	-22.7	-9.1	-0.6
Israel	2.3	-3.3	-6.7	-4.5	-0.1	3.2	11.7	12.6	4.6	-3.1	12.2	16.0	4.0
Italy	6.4	2.7	3.4	-1.3	2.0	1.3	3.4	1.8	-3.7	-11.7	0.6	-2.2	-8.3
Japan	0.7	-2.1	-4.9	0.2	0.4	0.8	1.5	0.3	-4.1	-10.6	-0.2	1.1	4.4
Korea	12.3	0.3	7.1	4.4	2.1	1.9	3.4	4.2	-1.9	-1.0	5.8	-1.0	-1.7
Luxembourg	-4.7	8.8	5.2	6.2	2.7	2.5	4.1	18.4	2.0	-16.2	-0.7	12.1	3.5
Mexico	11.4	-5.6	-0.6	0.4	8.0	7.5	9.9	6.9	5.5	-11.8	0.3	8.1	5.5
Netherlands	0.6	0.2	-4.5	-1.5	-1.6	3.7	7.5	5.5	4.5	-12.0	-7.4	6.1	-4.0
New Zealand	-0.1	6.9	8.0	13.1	8.5	6.5	-2.8	7.1	-8.0	-11.7	3.0	2.3	6.5
Norway	-3.5	-1.1	-1.1	0.8	11.1	13.5	9.8	11.4	0.2	-7.5	-8.0	7.6	8.0
Poland	2.7	-9.7	-6.3	-0.1	6.4	6.5	14.9	17.6	9.6	-1.2	-0.4	8.5	-1.7
Portugal	3.9	0.6	-3.2	-7.1	0.0	-0.5	-1.3	2.6	-0.3	-8.6	-3.1	-10.5	-14.3
Slovak Republic	-9.6	12.9	0.2	-2.7	4.8	17.5	9.3	9.1	1.0	-19.7	6.5	14.2	-10.5
Slovenia	2.6	1.3	0.3	7.6	5.0	3.0	10.4	13.3	7.1	-23.8	-15.3	-5.5	-8.2
Spain	6.6	4.8	3.4	5.9	5.1	7.1	7.1	4.5	-4.7	-18.0	-5.5	-5.4	-7.0
Sweden	5.7	0.5	-1.3	1.6	5.7	8.1	9.2	8.9	1.4	-15.5	7.2	8.2	3.3
Switzerland	4.7	-3.3	-1.0	-2.0	4.2	4.1	5.3	5.4	0.7	-8.0	4.8	4.5	-0.4
Turkey	17.5	-30.0	14.7	14.2	28.4	17.4	13.3	3.1	-6.2	-19.0	30.5	18.0	-2.7
United Kingdom	2.6	-1.9	2.7	2.3	6.2	3.7	5.6	7.5	-6.9	-16.7	2.8	-2.4	0.9
United States	6.3	-0.5	-1.8	3.9	5.8	5.6	2.2	-1.2	-4.8	-13.1	1.1	3.4	5.5
Euro area	4.7	0.7	-1.5	1.1	2.2	3.2	5.6	5.2	-1.4	-12.8	-0.4	1.6	-4.0
EU 28	4.5	0.8	-0.7	1.1	3.0	3.5	6.3	6.3	-1.1	-13.0	0.0	1.4	-2.9
OECD	5.1	-0.9	-0.7	2.7	4.6	4.8	4.3	2.7	-2.5	-11.8	1.9	3.3	1.8
Brazil													
China													
India						16.2	13.8	16.2	1.5	7.3			
Indonesia	16.7	6.5	4.7	0.6	14.7	10.9	2.6	9.3	11.9	3.3	8.5		
Russian Federation	16.6	10.9	3.1	13.9	12.0	10.2	17.9	21.1	9.7	-14.7	6.4	10.4	6.3
South Africa	3.9	2.8	3.5	10.2	12.9	11.0	12.1	14.0	13.0	-4.3	-2.0	4.5	5.7

StatLink http://dx.doi.org/10.1787/888933027399

# Gross fixed capital formation

Average annual growth in percentage



StatLink http://dx.doi.org/10.1787/888933024796

# LABOUR PRODUCTIVITY LEVELS

Productivity is a measure of the efficiency with which available resources are used in production. Labour productivity, together with use of labour resources, is one of the main determinants of living standards.

#### **Definition**

Labour productivity is measured as GDP per hour worked. GDP data at current prices are from the OECD Annual National Accounts. For international comparisons and to obtain a volume or "real" measure of GDP, data are converted to a common currency using the OECD Purchasing Power Parities (PPPs) for the year 2012. Hours worked data are derived from two sources, the OECD Annual National Accounts and the OECD Employment Outlook.

The indicator hereafter shows labour productivity and income levels in each country with respect to the labour productivity and income levels of the United States.

#### Overview

In 2012, Norway and Luxembourg had the highest levels of GDP per hour worked, followed by Ireland. In Norway, the level of productivity was roughly five times that observed in Mexico. Despite low labour productivity levels, Mexico and Chile often recorded the highest average working time (well above 2 000 hours annually) among the other economies presented for this indicator.

In the same year, differences in per capita GDP with respect to the United States varied a lot across countries. Much of the differences observed in GDP per capita reflect differences in labour productivity, with gaps relative to the United States ranging from negative 65 percentage points in Turkey and Mexico, to 21 and 71 percentage points in Norway and Luxembourg, respectively. In 2012, Norway and Luxembourg were, once more, the only OECD countries to maintain substantial positive gaps in GDP per capita and in GDP per hour worked vis-à-vis the United States.

Cross-country differences in labour utilisation reflect high unemployment and low participation rates of the working age population, on the one hand, and lower working hours among employed people, on the other hand. Relative to the United States, gaps in labour utilisation were significantly smaller than gaps in GDP per capita and per hour worked. In 2012, the gap in labour utilisation vis-à-vis the United States worsened in several countries and remained substantially negative in Belgium, France, Ireland, Turkey and Spain. In the same year, Korea, Mexico, Luxembourg, Switzerland and the Russian Federation showed a relatively positive gap in labour utilisation, therefore contributing to narrow their gap with the United States in GDP per capita.

Differences in GDP per capita levels with respect to the United States can be decomposed into differences in labour productivity levels and differences in the extent of labour utilisation, measured as the number of hours worked per capita.

## **Comparability**

Cross-country comparisons of productivity and income levels require comparable data on output. Currently, OECD countries use the 1993 System of National Accounts, except Australia which uses the 2008 SNA. Comparable labour input estimates are also required. In many cases, employment data are derived from labour force surveys and may not be fully consistent with national account concepts, as this reduces the comparability of labour utilisation across countries. Hours worked data are derived either from national labour force surveys or from business surveys. Several OECD countries estimate hours worked by combining these sources, or integrate these sources in a system of labour accounts which is comparable to the national accounts. Cross-country comparability of hours worked remains limited, generating a margin of uncertainty in productivity levels estimates.

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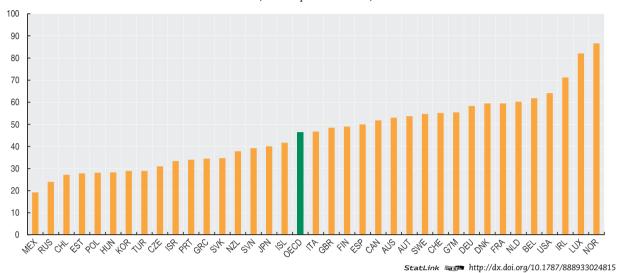
#### Websites

• Productivity statistics, www.oecd.org/statistics/productivity.

#### LABOUR PRODUCTIVITY LEVELS

#### GDP per hour worked

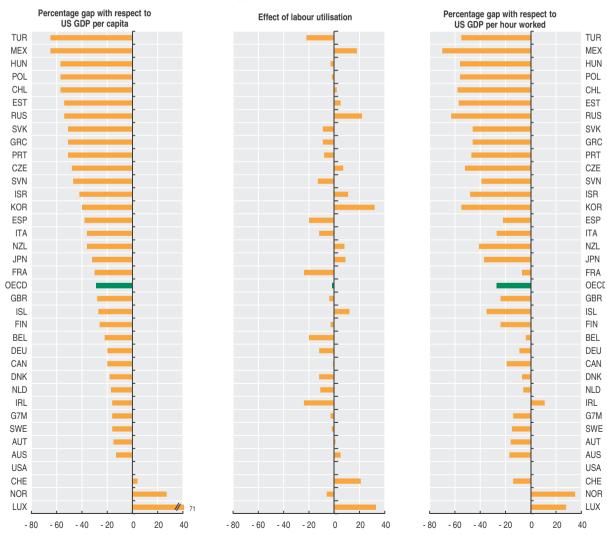
US dollars, current prices and PPPs, 2012



#### **1** .• •.

# Levels of GDP per capita and labour productivity

Percentage point differences with respect to the United States, 2012



StatLink http://dx.doi.org/10.1787/888933024834

# LABOUR PRODUCTIVITY GROWTH

Labour productivity growth is a key dimension of economic performance and an essential driver of changes in living standards.

#### Definition

Labour productivity is defined as GDP per hour worked. Growth in per capita GDP is broken down into the contribution of labour productivity growth and the changes in labour utilisation (measured as hours worked per capita). High labour productivity growth can reflect greater use of capital, and/or a decrease in the employment of low-productivity workers, or general efficiency gains and innovation.

The indicators shown here are based on measures of GDP and population coming from the OECD Annual National Accounts. Actual hours worked are derived from either the OECD Annual National Accounts or the OECD Employment Outlook. Hours worked reflect regular hours worked by fultime and part-time workers, paid and unpaid overtime, hours worked in additional jobs, and time not worked because of public holidays, annual paid leaves, strikes and labour disputes, bad weather, economic conditions and other reasons.

For zone aggregates, GDP estimates have been converted to constant US dollars using 2005 constant Purchasing Power Parities (PPPs).

#### Overview

From 2001 to 2012, average growth in GDP per capita was rather contrasted across countries. Non-OECD economies like China, India and the Russian Federation experienced the highest growth. In the Slovak Republic, Estonia, Poland, Turkey, Chile and Korea, GDP per capita grew faster than in Greece, Portugal and Italy, where income continued to slow. Over this period, growth in GDP per capita was essentially driven by growth in labour productivity in most countries.

The economic downturn which followed the global financial crisis of 2007 resulted in a strong fall in GDP per capita between 2007 and 2012 for most OECD countries. In several countries, notably Ireland, Estonia, Spain and Greece, this fall in GDP per capita was coupled with a strong decline in labour utilisation, i.e., hours worked per capita. Only in Turkey, and to a lesser extent, in Germany, Israel, Mexico and Switzerland, labour utilisation increased between 2007 and 2012.

Over the last six years, nearly all economies experienced a slowdown in their labour productivity growth. In Turkey, Greece, Estonia and Luxembourg, it decreased significantly between 2001-07 and 2007-12, while it remained stable in Australia and Canada, or saw a moderate upturn in Ireland.

## Comparability

Although national accounts data are based on common definitions, methods used by countries may differ in some respects. In particular, data on hours worked are based on a range of primary sources. In most economies, the data are drawn from national labour force surveys, but other countries rely upon establishment surveys, administrative sources or a combination of both. Annual working hours for non-European countries are provided by national statistics offices. In general, these data are most suited for comparing changes rather than levels of hours worked across countries.

The estimates shown here are not adjusted for differences in the business cycle; cyclically adjusted estimates might show different patterns.

#### Sources

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# Further information

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#### Websites

• Productivity statistics, www.oecd.org/statistics/productivity.



# LABOUR PRODUCTIVITY GROWTH

# Growth in GDP per capita and its components

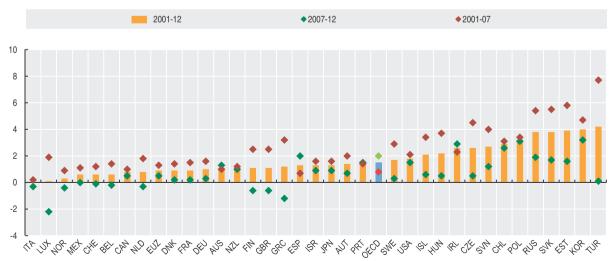
Percentage change at annual rate

		GDP per capita			GDP per hour worked			Labour utilisation	
_	2001-07	2007-12	2001-12	2001-07	2007-12	2001-12	2001-07	2007-12	2001-12
Australia	2.1	0.8	1.5	1.0	1.3	1.1	1.1	-0.6	0.3
Austria	2.0	0.3	1.2	2.0	0.7	1.4	0.0	-0.4	-0.2
Belgium	1.6	-0.4	0.7	1.4	-0.2	0.6	0.2	-0.2	0.0
Canada	1.6	-0.1	0.8	1.0	0.5	0.8	0.6	-0.6	0.1
Chile	4.0	2.8	3.5	3.1	2.6	2.9	0.8	0.2	0.5
Czech Republic	4.8	0.0	2.6	4.5	0.5	2.6	0.4	-0.5	0.0
Denmark	1.4	-1.4	0.2	1.4	0.2	0.9	0.0	-1.5	-0.7
Estonia	8.2	-0.7	4.0	5.8	1.6	3.9	2.3	-2.3	0.2
Finland	3.1	-1.2	1.1	2.5	-0.6	1.1	0.5	-0.5	0.1
France	1.1	-0.4	0.4	1.5	0.2	0.9	-0.4	-0.6	-0.5
Germany	1.4	0.8	1.1	1.6	0.3	1.0	-0.2	0.5	0.1
Greece	3.8	-4.6	-0.1	3.2	-1.2	1.2	0.5	-3.4	-1.3
Hungary	3.7	-0.8	1.7	3.7	0.5	2.2	0.1	-1.3	-0.6
Iceland	3.2	-1.7	0.9	3.4	0.6	2.1	-0.3	-2.3	-1.2
Ireland	2.7	-2.3	0.4	2.3	2.9	2.6	0.4	-5.1	-2.1
Israel	1.9	1.8	1.9	1.6	0.9	1.3	0.3	0.9	0.5
Italy	0.5	-1.9	-0.6	0.2	-0.3	0.0	0.3	-1.6	-0.6
Japan	1.5	-0.1	0.8	1.6	0.9	1.3	-0.2	-1.0	-0.5
Korea	4.3	2.3	3.4	4.7	3.2	4.0	-0.4	-0.8	-0.6
Luxembourg	3.0	-2.3	0.6	1.9	-2.2	0.1	1.1	-0.2	0.5
Mexico	2.0	0.8	1.4	1.1	0.0	0.6	0.8	0.8	0.8
Netherlands	1.6	-0.6	0.6	1.8	-0.3	0.8	-0.1	-0.3	-0.2
New Zealand	2.1	0.1	1.2	1.2	1.0	1.1	0.8	-0.9	0.1
Norway	1.6	-0.7	0.6	0.9	-0.4	0.3	0.7	-0.2	0.3
Poland	4.6	3.2	4.0	3.4	3.1	3.2	1.2	0.1	0.7
Portugal	0.5	-1.1	-0.2	1.4	1.5	1.5	-0.9	-2.5	-1.6
Slovak Republic	6.6	1.9	4.4	5.5	1.7	3.8	1.0	0.2	0.6
Slovenia	4.4	-1.5	1.7	4.0	1.2	2.7	0.4	-2.6	-1.0
Spain	1.7	-1.5	0.2	0.7	2.0	1.3	1.0	-3.5	-1.1
Sweden	2.8	0.1	1.6	2.9	0.3	1.7	0.0	-0.2	-0.1
Switzerland	1.4	0.4	0.9	1.2	-0.1	0.6	0.2	0.5	0.4
Turkey	5.5	1.7	3.7	7.7	0.1	4.2	-2.1	1.6	-0.4
United Kingdom	2.6	-1.4	0.8	2.5	-0.6	1.1	0.1	-0.8	-0.3
United States	1.7	0.0	0.9	2.1	1.5	1.8	-0.4	-1.5	-0.9
EU 28									
DECD	1.9	-0.3	1.0	2.0	0.8	1.5	0.0	-1.0	-0.4
Brazil	2.5	2.2	2.3						
China	10.6	8.7	9.7						
India	6.3	5.9	6.1						
Indonesia	3.9	4.4	4.1						
Russian Federation	7.4	1.8	4.8	5.4	1.9	3.8	1.9	-0.1	1.0
South Africa	3.3	0.9	2.2						

StatLink http://dx.doi.org/10.1787/888933027418

# Growth in GDP per hour worked

Percentage change at annual rate



StatLink http://dx.doi.org/10.1787/888933024853

# PRODUCTIVITY AND GROWTH ACCOUNTING

Economic growth can be increased either by raising the labour and capital inputs used in production, or by greater overall efficiency in how these inputs are used together, i.e. higher multi-factor productivity (MFP). Growth accounting involves breaking down GDP growth into the contribution of labour inputs, capital inputs and multi-factor productivity (MFP) growth.

#### **Definition**

Multi-factor productivity (MFP) growth is the residual part of GDP growth that cannot be explained by growth in either labour or capital input. The contribution of labour (capital) to GDP growth is measured as the speed with which labour (capital) input grows, multiplied by the share of labour (capital) in total costs.

In the tables and graphs, the contribution of capital to GDP growth is broken down into Information and Communication Technologies (ICT) and non-ICT capital. ICT capital covers hardware, communication and software. Non-ICT capital covers transport equipment and non-residential construction; products of agriculture, metal products and machinery other than hardware and communication equipment; and other products of non-residential gross fixed capital formation.

## Comparability

The appropriate measure for capital input in the growth accounting framework is the flow of productive services that can be drawn from the cumulative stock of past investments in capital assets. To ensure cross-country comparability of capital services and MFP data, the OECD Secretariat uses the same assumptions for all countries for

## Overview

While averages for the period 2000-11 mask volatility in growth drivers over time, GDP growth, over the period, was in large part driven by growth in capital and MFP in most OECD countries. ICT capital services contributed between 0.2 and 0.7 percentage points of GDP growth, with the largest contributions in the United Kingdom, Denmark and Australia, and the smallest in Finland, Germany and Italy. The contribution of non-ICT capital was the largest driver of GDP growth in Spain, Portugal, the Netherlands and Italy. Over the same period, the contribution of labour input was significant in Australia, New Zealand and Canada, while in Japan, Portugal, Korea, the United States, Ireland and Denmark labour input had a negative impact on GDP growth. From 2000 to 2011, MFP growth was a significant source of GDP growth in Korea, Ireland and Sweden, while Italy, Denmark, Portugal, Belgium and Spain recorded negative MFP growth.

the overall production function, age-efficiency profiles, depreciation rates, service lives and harmonised ICT investment deflators.

MFP is typically perceived as the general efficiency with which inputs are used together to produce output. To a large extent, MFP captures disembodied technological change, resulting from scientific knowledge and its diffusion, management and organisational change, and spill-over effects. However, due to the assumptions used in the growth accounting model and data constraints in measuring the inputs, MFP also captures a number of other factors, such as variations in capacity utilisation and other cyclical effects, imperfect competition, changes in the skills composition of the workforce, returns from intangible assets not yet incorporated in capital services, and errors in the measurement of input and output.

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#### PRODUCTIVITY AND GROWTH ACCOUNTING

# Contributions to GDP growth

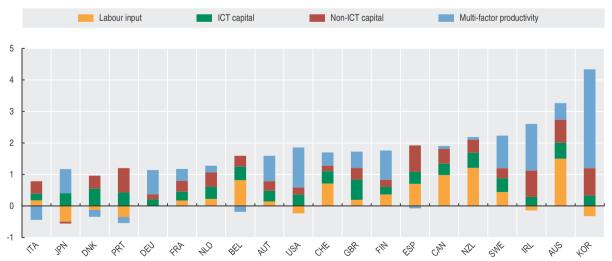
Average annual growth in percentage, 2000-11 (or closest comparable year)

			ICT cap	ital			Multi-factor	
	Labour input	IT equipment	Telecommunication equipment	Software	Total	Non-ICT capital	productivity	GDP growth
Australia	1.50	0.30	0.10	0.10	0.51	0.73	0.52	3.27
Austria	0.14	0.10	0.08	0.16	0.34	0.30	0.80	1.58
Belgium	0.82	0.26	0.04	0.12	0.43	0.35	-0.18	1.42
Canada	0.98	0.19	0.08	0.10	0.36	0.47	0.09	1.90
Chile								
Czech Republic								
Denmark	-0.12	0.38	0.02	0.15	0.55	0.41	-0.22	0.63
Estonia								
inland	0.37	0.05	0.05	0.14	0.24	0.23	0.93	1.74
rance	0.18	0.08	0.04	0.16	0.28	0.34	0.38	1.18
Germany	0.00	0.12	0.04	0.06	0.22	0.16	0.76	1.12
Greece								
Hungary								
celand								
reland	-0.14	0.16	0.05	0.09	0.30	0.83	1.48	2.47
srael	0.14	0.10	0.00	0.03	0.50	0.00		2.47
taly	0.18	0.10	0.06	0.06	0.21	0.39	-0.44	0.34
lapan	-0.49	0.10	0.05	0.18	0.41	-0.06	0.76	0.61
Korea	-0.49	0.08	0.10	0.15	0.33	0.87	3.13	4.02
_uxembourg								
Mexico								
Vetherlands	0.23	0.21	0.02	0.15	0.38	0.46	 0.21	1.28
New Zealand	1.21	0.19	0.02	0.13	0.48	0.41	0.21	2.19
Vorway					**			
Poland	-0.35	0.21	0.10		0.43	0.77	-0.19	0.67
Portugal				0.11				
Slovak Republic	**				**			**
Slovenia								
Spain	0.71	0.11	0.13	0.14	0.38	0.84	-0.07	1.85
Sweden	0.45	0.17	0.01	0.25	0.44	0.32	1.03	2.23
Switzerland	0.72	0.12	0.10	0.17	0.39	0.18	0.42	1.70
Turkey								
Jnited Kingdom	0.20	0.31	0.10	0.24	0.65	0.37	0.52	1.72
Inited States	-0.23	0.15	0.08	0.14	0.36	0.22	1.27	1.63
EU 28								
DECD								
Brazil								
China								
ndia								
ndonesia								
Russian Federation								
South Africa								

StatLink http://dx.doi.org/10.1787/888933027437

# Contributions to GDP growth

Average annual growth in percentage, 2000-11 (or closest comparable year)



StatLink http://dx.doi.org/10.1787/888933024872

# **UNIT LABOUR COSTS**

Unit labour costs (ULC) reflect total labour costs relative to a volume of output. The growth in unit labour costs is often viewed as a broad measure of (international) price competitiveness of firms within a country and is often used as an indicator of inflationary pressures.

#### **Definition**

ULCs are defined as the average cost of labour per unit of output produced. They can be expressed as the ratio of total labour compensation per hour worked to output per hour worked (labour productivity). Data are presented as annual growth rates for the economy as a whole.

## Comparability

Unit labour costs and their components are sourced from the OECD Annual National Accounts Database. The figures present the data for those countries for which time series of hours worked are available in the OECD Annual National Accounts Database.

For the indicators presented here, volume of output is measured as volume of gross value added (or GDP at basic prices) and not GDP at market prices, which is used as the basis of labour productivity estimates elsewhere in this publication. The difference between the two measures reflects taxes and subsidies on products, resulting in a marginal difference in productivity growth data.

The preferred measure of labour input is actual hours worked. These reflect regular hours worked by full-time and part-time workers, paid and unpaid overtime, hours worked in additional jobs, and time not worked because of public holidays, annual paid leave, strikes and labour disputes, bad weather, economic conditions and other reasons. In most countries, the primary source for measuring actual hours worked are labour force surveys, but several countries rely, only or in addition, on establishment surveys and administrative sources. While these different sources may affect the comparability of levels, comparisons of changes over time are likely to be less affected.

#### Overview

Over the last 10 years, firms in the major OECD economies and most of the early members of the Euro area increased their competitiveness relative to those of other countries.

Within Europe, Ireland, Spain, Portugal and Greece, saw strong falls in their ULC since the onset of the financial crisis. However, care is needed in interpreting these results as improved relative competiveness as they need to be balanced against the significant falls in output and labour input seen during that period. In Germany, improvements in relative competitiveness during the first half of the 2000s showed signs of being partly reversed in the second half of the 2000s.

Comparing the data for ULC with those for labour productivity growth can provide insights into ULC movements. For instance, over the past 10 years, some countries, notably those countries with relatively low growth in ULC, such as Germany, Israel, Poland, and Sweden, displayed stronger growth in labour productivity than in ULCs. In these countries, relatively higher productivity growth coincided with wage moderation. In contrast, in most countries where a relative deterioration in competitiveness could be observed, there was also relatively weak growth in labour productivity.

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# Further information Statistical publications

- OECD (2013), National Accounts at a Glance, OECD Publishing.
- OECD (2013), OECD Compendium of Productivity Indicators 2013, OECD Publishing.

#### Online databases

- Main Economic Indicators.
- OECD National Accounts Statistics.
- OECD Productivity Statistics.

#### Websites

• Productivity statistics, www.oecd.org/statistics/productivity.



UNIT LABOUR COSTS

# Unit labour costs: total economy

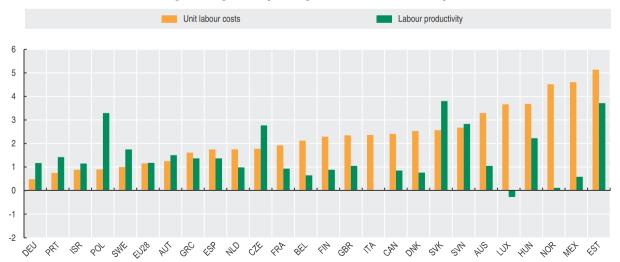
Annual growth in percentage

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Australia	2.1	1.2	3.6	2.3	3.3	3.0	4.5	4.7	2.3	1.0	6.3	2.2	
Austria	-0.1	0.6	0.2	1.2	-0.8	0.5	0.7	0.6	3.1	5.3	-0.2	0.8	2.7
Belgium	0.6	3.6	2.6	0.5	-0.5	1.2	2.5	2.3	3.7	4.4	0.0	2.7	4.1
Canada	2.0	2.3	1.1	2.5	2.4	2.2	3.8	3.4	3.0	3.0	0.4		
Chile							**	**				**	
Czech Republic	2.7	5.5	5.9	4.1	2.5	-1.4	-0.4	2.2	2.7	2.6	-1.3	0.1	2.7
Denmark	0.1	4.3	3.9	2.2	1.0	2.8	2.3	4.5	5.2	5.2	-0.2	0.1	1.2
Estonia		3.7	4.5	4.4	5.9	3.5	9.7	17.5	13.6	2.1	-5.4	-1.5	4.1
Finland	-0.4	3.0	1.0	1.3	0.0	2.2	0.3	-0.3	6.5	9.4	-1.8	2.7	4.5
France	1.9	2.3	3.0	2.2	0.8	2.0	1.8	1.4	2.9	3.6	0.9	0.9	2.0
Germany	0.1	0.0	0.2	0.8	-0.8	-1.1	-2.5	-1.5	2.1	6.7	-1.9	0.9	2.8
Greece	1.5	-0.1	9.2	1.2	1.3	3.5	-0.4	2.4	-0.5	10.7	0.7	-2.8	-6.3
Hungary	11.6	11.0	8.5	6.1	4.2	2.5	2.0	6.3	4.5	2.9	-1.2	2.0	3.1
Iceland													
Ireland													
Israel	1.5	4.3	0.6	-2.2	-2.1	0.5	4.2	0.6	2.3	0.8	2.2	2.0	
Italy	-0.5	3.0	3.4	4.3	1.5	2.6	1.6	1.8	3.9	4.4	-0.1	0.6	2.1
Japan													
Korea						2.4	0.2	0.7	2.2	0.7	-1.4	2.8	1.8
Luxembourg				1.4	1.6	1.8	0.9	1.5	10.6	9.3	1.1	3.9	5.2
Mexico	11.1	10.6	6.8	6.1	2.1	3.2	2.5	3.2	4.6	8.6			
Netherlands	3.2	4.7	4.5	2.3	0.4	-0.3	0.7	1.6	2.4	5.0	-0.7	0.9	3.0
New Zealand													
Norway	2.0	4.3	3.5	2.0	0.9	3.3	7.1	8.3	9.4	4.5	2.5	5.3	3.3
Poland	5.0	6.4	-1.8	-2.8	-2.1	0.6	-0.7	2.6	7.8	1.9	1.2	1.2	2.3
Portugal	4.5	3.1	2.9	3.5	0.8	3.6	0.5	1.2	2.9	2.0	-1.8	-2.3	-4.7
Slovak Republic	10.5	1.3	4.9	5.1	3.4	4.4	0.5	0.8	3.7	5.9	-1.4	1.3	0.1
Slovenia		9.0	4.5	3.6	2.6	1.6	0.5	2.3	7.1	8.3	-0.7	-0.5	0.6
Spain	2.7	3.0	3.0	3.1	2.6	3.6	3.1	3.9	5.5	1.3	-1.7	-1.5	-3.2
Sweden	4.5	5.3	0.6	0.4	-1.3	0.6	-0.7	4.1	2.6	4.9	-2.6	-0.2	2.8
Switzerland													
Turkey													
United Kingdom	2.2	4.2	1.4	1.5	2.2	0.9	3.4	1.8	3.0	6.4	1.8	1.2	2.6
United States													
EU 28	3.6	2.1	1.9	-0.2	0.6	1.6	0.9	1.5	0.9	1.7	0.4	0.6	3.0
OECD													
Brazil													
China													
India													
Indonesia													
Russian Federation													
South Africa													

StatLink http://dx.doi.org/10.1787/888933027456

# Unit labour costs and labour productivity: total economy

Average annual growth in percentage, 2001-12 or latest available period



# LABOUR COMPENSATION

Average labour compensation per hour worked provides one of the building blocks for cross-country comparisons of unit labour costs and has become particularly relevant in the context of rising imbalances within the Euro area. Competitiveness within a monetary union can be eroded when wages grow faster than productivity.

#### **Definition**

Labour compensation per hour worked is defined here as total compensation of employed persons divided by total hours worked. Compensation of employed persons is the sum of gross wages and salaries and of employers' social security contributions. Data refer to the total economy and are for those countries for which time series of hours worked are available in the OECD Annual National Accounts Database.

## Comparability

The primary data source for constructing the indicator of total compensation per hour worked is the OECD Annual National Accounts, where data are compiled on a similar basis across countries. This assures a fairly good degree of comparability across countries despite differences in the ways in which countries may implement international guidelines in this field.

#### Overview

Between 2001 and 2012, and for those countries for which data are available, average labour compensation per hour increased by 3.6% per annum in OECD countries and by 3% in Euro area countries.

Comparing annual labour compensation across countries and over time can provide some insight into movements in trade balances across countries, particularly within common currency zones. As a simple rule of thumb, bilateral trade balances within the Euro area would, other things being equal, be broadly stable if annual hourly compensation in each country increased in line with average labour productivity.

On average between 2001-07 Greece and Spain exhibited wage growth which was significantly higher than labour productivity growth causing a deterioration in competitiveness with Austria, Finland and Germany, where wages rose only moderately.

Since 2007, the annual data for labour compensation per hour worked point to some rebalancing within the Euro area. Between 2007 and 2012, the average annual increase in labour compensation per hour worked was lower than productivity growth in Greece, Portugal and Spain and higher in Austria, Belgium and Finland and Germany.

In order to derive the measure of total compensation of all employed persons, and not only of employees, an adjustment is made for self-employment. This assumes that labour compensation per hour worked is equivalent for the self-employed and employees. The validity of this assumption will vary across different countries, economic activities, and over time, potentially affecting the comparability of the estimates.

The preferred measure of labour input is actual hours worked. These reflect regular hours worked by full-time and part-time workers, paid and unpaid overtime, hours worked in additional jobs, and time not worked because of public holidays, annual paid leave, strikes and labour disputes, bad weather, economic conditions and other reasons. In most countries, the primary source for measuring actual hours worked are labour force surveys, but several countries rely, only or in addition, on establishment surveys and administrative sources. While these different sources may affect the comparability of levels, comparisons of changes over time are likely to be less affected.

#### Sources

- OECD (2013), Main Economic Indicators.
- OECD (2013), OECD National Accounts Database.

# Further information

#### **Analytical publications**

- OECD (2013), 2013 OECD Compendium of Productivity Indicators, OECD Publishing.
- OECD (2013), National Accounts at a Glance, OECD Publishing.

# Methodological publications

• OECD (2013), 2013 OECD Compendium of Productivity Indicators, OECD Publishing.

#### Websites

- Main Economic Indicators, www.oecd.org/std/mei.
- OECD Compendium of Productivity Indicators, www.oecd.org/std/productivity-stats/oecd-compendium-ofproductivity-indicators.htm.
- Productivity statistics, www.oecd.org/statistics/productivity.



LABOUR COMPENSATION

# Labour compensation per hour worked: total economy

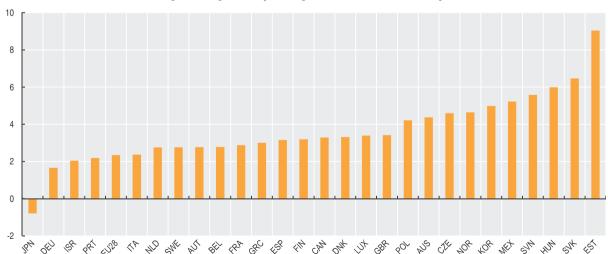
Annual growth in percentage

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Australia	4.3	5.3	3.8	4.5	4.3	3.8	5.4	5.5	3.2	3.1	5.9	4.4	
Austria	2.5	1.7	2.2	2.1	0.9	2.9	4.4	2.9	3.8	4.6	1.7	1.7	3.6
Belgium	1.2	4.0	4.4	1.9	1.5	2.1	3.5	3.2	3.8	2.7	1.2	2.7	3.8
Canada	5.4	3.2	2.4	3.1	2.9	4.8	5.0	3.5	2.7	3.2	2.0		
Chile													
Czech Republic	7.9	13.8	8.2	8.8	7.0	3.4	7.0	6.5	4.0	0.3	1.0	2.0	2.8
Denmark	3.1	3.8	4.5	4.0	3.2	3.7	2.9	5.1	3.5	3.1	4.8	0.4	1.5
Estonia		9.6	9.1	10.9	11.3	9.7	14.7	24.9	11.3	4.0	-0.2	-1.7	7.8
Finland	4.3	5.1	2.0	2.9	3.4	4.1	3.1	3.7	5.3	3.0	1.5	3.2	3.3
France	5.2	3.2	6.0	3.0	1.4	3.4	4.8	1.6	2.0	3.2	1.9	2.3	2.3
Germany	3.2	2.8	1.9	1.8	0.5	0.3	1.2	0.7	2.1	3.6	0.3	2.7	3.3
Greece	5.5	3.4	11.8	6.8	4.9	4.9	3.2	5.4	2.8	6.3	-2.9	-4.9	-3.9
Hungary	15.5	17.6	12.9	11.8	9.8	6.7	5.7	5.8	7.0	-0.9	-0.3	2.5	5.8
Iceland													
Ireland													
Israel	5.5	4.4	0.0	-1.0	1.9	2.6	6.9	0.3	2.2	0.9	3.5	3.4	
Italy	2.2	3.9	2.8	2.9	2.8	3.5	2.1	2.3	3.2	2.0	2.3	1.0	1.2
Japan	-0.4	0.5	-1.4	-2.3	-1.9	0.0	-1.5	-0.8	1.4	-1.1	-1.0	0.7	
Korea						6.9	4.3	6.6	7.0	2.2	5.4	9.4	-1.4
Luxembourg				2.7	3.4	5.6	2.7	3.2	3.0	6.0	2.4	2.5	2.4
Mexico	19.7	12.1	3.0	9.7	3.8	1.9	5.5	5.6	4.4	8.2			
Netherlands	5.1	5.3	5.3	3.8	3.7	1.7	2.5	3.2	2.7	2.8	1.5	1.4	1.8
New Zealand													
Norway	6.1	7.6	5.4	5.1	2.8	4.3	5.6	5.7	5.9	4.9	2.6	4.5	4.2
Poland	10.9	10.1	2.9	1.7	1.8	1.9	1.9	4.9	9.3	4.3	4.7	5.2	8.0
Portugal	5.8	4.7	3.7	3.8	2.3	4.7	2.2	3.3	3.6	2.5	1.8	-0.3	-3.3
Slovak Republic	13.4	6.6	12.1	11.5	5.5	7.0	7.9	8.2	6.8	3.6	3.1	2.7	3.3
Slovenia		13.2	5.7	6.9	5.9	8.5	6.8	6.9	6.6	8.6	2.2	3.2	0.5
Spain	2.8	3.2	3.7	3.5	3.0	3.9	4.1	5.6	6.5	3.8	0.2	0.7	0.5
Sweden	8.6	5.8	4.5	4.3	2.4	3.4	2.2	4.4	0.9	2.1	1.3	1.1	4.0
Switzerland													
Turkey United Kingdom	6.4	 5.3	3.7	 5.4	 5.1	2.4	5.6	4.5	2.9	2.6	3.0	1.8	0.7
			3.7	5.4		2.4			2.9	2.0	3.0		0.7
United States													
EU 28	6.4	4.0	3.6	1.4	2.4	2.7	3.1	3.1	0.7	0.1	2.8	1.9	4.2
OECD													
Brazil													
China													
India													
Indonesia													
Russian Federation	**											**	
South Africa													

StatLink http://dx.doi.org/10.1787/888933027475

# Labour compensation per hour worked: total economy

Average annual growth in percentage, 2001-12 or latest available period



StatLink http://dx.doi.org/10.1787/888933024910

# VALUE ADDED BY ACTIVITY

Value added reflects the contribution of labour and capital to production. The sum of value added in the economy equals GDP, so value added is also a measure of output and frequently used in productivity and structural analysis.

One of the major advantages of value added is that it avoids problems inherent in the measurement of gross output – gross in the sense that it counts the output of all production units including those that produce intermediate inputs for other units. Countries with fragmented production networks therefore will have, all other things equal, higher output than those with more consolidated networks, complicating international comparisons. This is also a temporal problem as production networks can become more or less consolidated (through outsourcing for example) within a country from one year to another.

#### **Definition**

Value added at basic prices can be simply defined as the difference between gross output (at basic prices) and intermediate consumption (at purchasers prices) and can be decomposed into the following components: Compensation of employees; Gross operating surplus; Mixed income; and Other taxes on production less Subsidies on production.

The 1993 System of National Accounts recommends the basic price valuation for value added but it can also be measured on different price bases such as producers prices and at factor cost.

#### Overview

The share of agriculture in total value added within the OECD continued its long term decline. In only four countries (Turkey, Iceland, Hungary, and Estonia) agriculture accounts for more than 4% of total value added. The share of industry in total value added has also continued to decline in recent decades. However, among the countries for which data are available, the Czech Republic, Germany, Iceland, Korea, Mexico, the Netherlands, Poland and Switzerland experienced rises over the period. The share of industry also fell in nonmember countries but remains at considerably higher levels than in most OECD countries, with the share for China and Indonesia remaining close to 40%. Norway, where mining and quarrying are large contributors to activity, comes closest to these rates in the OECD.

Conversely the share of financial intermediation, real estate, renting and business activities increased over the period 2000-12. The share of these activities nowadays ranges from a low of just over 17% in Japan to close to 45% in Luxembourg. Also the share of other service activities, among which include health and education, shows an upward trend in most countries.

## Comparability

All countries compile data according to the 1993 SNA with the exception of Australia and the United States where data are compiled according to the new 2008 SNA. It's important to note however that differences between the 2008 SNA and the 1993 SNA do not have a significant impact of the comparability of the indicators presented here and this implies that data are highly comparable across countries.

However, not all countries produce value added on the basis of basic prices. Japan uses approximately market prices. New Zealand uses producer prices, and Iceland and the United States use factor costs.

The tables and figures showing breakdowns by activity are based on the ISIC Rev. 4 industrial classification system except for Canada, Israel, Japan, Luxembourg, Mexico, New Zealand, Turkey, the United States, India, Indonesia, the Russian Federation and South Africa which are based on ISIC Rev.3. Countries generally collect information using their own industrial classification systems. The conversion from a national classification system to ISIC may create some comparability issues. For example, for Japan, Hotels (which form approximately 2.8-3.0% of value added) are included in Other services not wholesale, retail, etc. That said, for most countries the activities presented here are generally comparable.

EU28 does not include Croatia.

#### Source

 OECD (2013), National Accounts of OECD Countries, OECD Publishing.

# **Further information**

#### **Analytical publications**

• OECD (2002), Measuring the Non-Observed Economy: A Handbook, OECD Publishing.

#### Statistical publications

- OECD (2013), Quarterly National Accounts, OECD Publishing.
- OECD (2013), National Accounts at a Glance, OECD Publishing.

#### Online databases

• STAN: OECD Structural Analysis Statistics.

#### Websites

• OECD National Accounts, www.oecd.org/std/na.



#### VALUE ADDED BY ACTIVITY

# Value added by activity

As a percentage of total value added

		ure, hunting, try, fishing	Industry, ir	ncluding energy	Con	struction		rt; accommodation, ; communication		surance; real estate; ss services	Other ser	vice activities
_	2000	2012 or latest available year	2000	2012 or latest available year	2000	2012 or latest available year	2000	2012 or latest available year	2000	2012 or latest available year	2000	2012 or latest available year
Australia	3.8	2.4	20.6	20.5	5.6	7.7	22.5	20.0	28.1	30.7	19.4	18.7
Austria	1.9	1.6	23.7	21.8	7.7	6.8	26.2	25.5	20.7	23.8	19.8	20.5
Belgium	1.3	0.7	21.9	15.9	5.2	5.9	23.1	24.0	26.6	28.5	21.8	24.9
Canada	2.3		28.2		5.0		20.3		25.0		19.2	
Chile	5.4	3.6	27.9	27.7	6.6	8.3	19.5	18.4	16.4	20.1	24.3	21.9
Czech Republic	3.6	2.4	30.9	31.0	6.6	6.3	27.1	24.5	15.0	18.3	16.8	17.5
Denmark	2.5	1.4	21.1	17.0	5.5	4.8	24.4	23.7	21.1	25.7	25.4	27.3
Estonia	4.8	4.1	21.6	21.2	5.9	7.8	29.4	26.9	21.6	23.3	16.7	16.7
Finland	3.5	2.8	28.0	19.0	6.3	6.9	21.9	22.5	19.6	23.6	20.6	25.1
France	2.5	2.0	17.8	12.5	5.0	6.3	23.1	22.8	27.5	30.4	24.1	26.0
Germany	1.1	0.8	25.2	25.8	5.3	4.7	20.3	18.6	26.2	27.2	21.9	22.9
Greece		3.4		14.3		2.1		28.2		26.4		25.6
Hungary	5.9	4.7	27.1	26.8	5.3	3.8	21.5	22.9	19.2	21.8	21.0	20.0
Iceland	8.5	8.3	17.2	21.0	9.3	4.4	24.8	20.8	18.5	22.6	21.8	22.9
Ireland	3.6	1.6	28.0	26.3	7.3	1.6	25.0	25.2	21.1	25.4	15.0	19.9
Israel	1.7	1.9	19.0	15.2	5.4	5.7	18.0	16.9	31.1	36.3	24.7	24.1
Italy	2.8	2.0	22.6	18.4	5.1	5.9	26.1	24.8	24.4	28.3	18.9	20.6
Japan	1.5	1.2	24.3	20.5	7.0	5.6	20.7	24.6	15.9	17.0	30.7	31.1
Korea	4.6	2.6	31.6	33.8	6.9	5.8	21.7	18.8	19.3	19.1	15.8	19.7
Luxembourg	0.7	0.3	12.8	6.7	6.5	6.2	23.5	24.2	41.9	44.8	14.7	17.8
Mexico	4.2	3.4	29.4	29.6	6.4	6.6	29.8	28.1	19.0	18.9	12.7	13.5
Netherlands	2.5	1.7	19.1	19.4	5.7	4.9	26.1	23.2	25.6	25.5	21.0	25.3
New Zealand	8.4		20.8		4.7		22.1		26.9		17.1	
Norway	2.1	1.2	37.7	36.6	4.0	5.9	21.0	16.1	15.3	18.8	20.0	21.4
Poland	4.9	3.9	23.3	24.6	7.8	7.8	29.2	30.0	18.0	17.2	16.8	16.4
Portugal	3.6	2.3	20.3	18.5	8.2	5.1	26.7	28.7	19.2	23.0	22.0	22.4
Slovak Republic	4.5	3.1	28.8	27.0	7.2	8.2	26.4	26.7	16.6	18.3	16.6	16.7
Slovenia	3.4	2.7	28.1	25.2	6.7	5.9	22.6	24.7	19.8	21.0	19.4	20.5
Spain	4.2	2.5	20.8	17.4	10.3	8.6	28.1	29.5	16.9	20.3	19.6	21.8
Sweden	2.0	1.6	24.2	19.9	4.3	5.3	22.2	23.0	22.5	23.3	24.7	26.9
Switzerland	1.3	0.7	21.2	21.3	5.2	5.5	25.7	26.0	21.3	20.3	25.1	26.2
Turkey	10.8	8.9	24.6	21.8	5.4	4.9	29.1	31.8	19.5	20.2	10.6	12.4
United Kingdom	0.9	0.7	20.8	14.5	6.0	6.0	26.8	24.6	25.4	31.3	20.1	22.8
United States												
Euro area	2.4	1.7	22.0	19.3	5.9	5.8	23.8	23.2	24.7	26.9	21.3	23.2
EU 28	2.3	1.7	22.0	19.3	6.0	5.9	24.4	24.0	24.2	26.2	21.2	22.8
OECD												
Brazil												
China	15.1	10.1	40.4	38.5	5.6	6.8	16.6	16.3	8.3	11.1	14.1	17.1
India												
Indonesia	15.6	15.3	40.4	36.8	5.5	10.3	20.8	20.2	8.3	7.2	9.3	10.2
Russian Federation	6.4	3.9	31.1	29.5	6.6	6.5	33.1	28.9	4.6	16.2	18.3	15.1
South Africa	3.3	2.6	29.3	24.4	2.5	4.0	24.3	25.1	18.6	21.5	22.0	22.5

StatLink http://dx.doi.org/10.1787/888933027494

# Value added in industry, including energy

As a percentage of total value added



StatLink as http://dx.doi.org/10.1787/888933024929

# **REAL VALUE ADDED BY ACTIVITY**

Like its nominal counterpart, real value added can be derived as the difference between real output and real intermediate consumption, an approach known as double-deflation.

One of the major advantages of value added is that it avoids problems inherent in the measurement of gross output – gross in the sense that it counts the output of all production units including those that produce intermediate inputs for other units. Countries with fragmented production networks therefore will have, all other things equal, higher output than those with more consolidated networks, complicating international comparisons. Production networks have become increasingly globalised in recent years, further affecting temporal and cross-country comparability. Value added avoids these problems by measuring the value that a resident unit adds to that of the units that supply its inputs.

#### **Definition**

The growth rates shown here refer to volume estimates of gross value added. Value added at basic prices can be simply defined as the difference between gross output (at basic prices) and intermediate consumption (at purchasers prices) and can be decomposed into the following components: Compensation of employees; Gross operating

#### Overview

The table shows how the various economic activities fared in 2012, as the recent crisis still continues to have an impact on the economic circumstances. Some of the hardest hit in 2012 were agriculture; construction, mainly because of lower investment levels; and industry (including energy).

Drops in the growth rate for 2012 (or the latest year available) in agriculture were widespread. Falls in excess of 10% were recorded in Hungary (minus 18.9%), Spain (minus 10.9%), and the Slovak Republic (minus 10.3%).

In the construction sector falls in the growth rate greater than 10% were recorded in Greece (minus 15.6%) and Portugal (minus 14.8%). On the other hand, Estonia's construction sector increased by 12.5% and China and Israel construction sectors increased nearly 10%.

Industry (including energy) recorded declines in many countries in 2012. Substantial falls in the growth rate were recorded for Finland (minus 5.3%), Japan (minus 3.7%), and Italy (minus 3.1%) whereas others showed increases: notably, Luxembourg (6.3%) and Chile (3.9%). Industry showed an increase in Canada (5.9%) in 2010, the latest year available.

surplus; Mixed income; and Other taxes on production less Subsidies on production.

The 1993 System of National Accounts recommends the basic price valuation for value added but it can also be measured on different price bases such as producers prices and at factor cost.

# Comparability

All countries compile data according to the 1993 SNA with the exception of Australia and the United States where data are compiled according to the new 2008 SNA. It's important to note however that differences between 2008 SNA and the 1993 SNA do not have a significant impact of the comparability of the indicators presented here and this implies that data are highly comparable across countries.

However, not all countries produce value added on the basis of basic prices. Japan uses approximately market prices. New Zealand uses producer prices, and Iceland and the United States use factor costs.

The tables and figures showing breakdowns by activity are based on the ISIC Rev. 4 industrial classification system except for Canada, Israel, Japan, Luxembourg, Mexico, New Zealand, Turkey, the United States, India, Indonesia, the Russian Federation and South Africa which are based on ISIC Rev.3. Countries generally collect information using their own industrial classification systems. The conversion from a national classification system to ISIC may create some comparability issues. For example, for Japan, Hotels (which form approximately 2.8-3.0% of value added) are included in Other services not wholesale, retail, etc. That said, for most countries the activities presented here are generally comparable.

EU28 does not include Croatia.

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# **Further information**

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# REAL VALUE ADDED BY ACTIVITY

# Real value added by activity

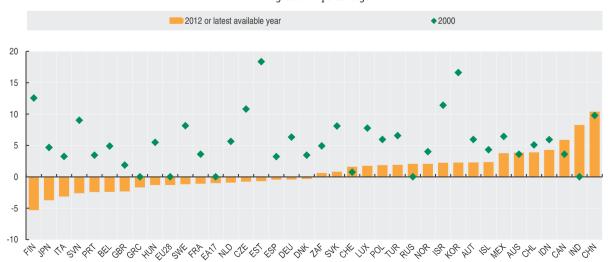
Annual growth in percentage

		ure, hunting, ry, fishing	Industry, ir	ncluding energy	Con	struction		ort; accommodation, s; communication		surance; real estate; ss services	Other ser	vice activities
_	2000	2012 or latest available year	2000	2012 or latest available year	2000	2012 or latest available year	2000	2012 or latest available year	2000	2012 or latest available year	2000	2012 or latest available year
Australia	3.8	6.3	3.4	2.7	-14.4	4.3	2.5	3.2	4.5	2.7	3.2	4.3
Austria	-3.6	-8.0	6.0	2.3	0.6	0.8	3.1	-0.9	7.5	1.6	-0.3	1.3
Belgium	5.0	2.3	4.9	-2.4	5.5	1.0	1.2	-0.8	4.2	-0.3	3.4	1.6
Canada	-1.8	1.9	8.4	5.9	5.2	7.8	6.0	3.9	5.2	2.2	2.6	2.1
Chile	7.5	-0.3	5.1	3.9	-0.9	8.1	5.5	6.7	10.5	7.5	2.3	5.1
Czech Republic	1.4	-4.1	10.8	-0.8	-8.7	-5.8	5.0	-0.4	2.1	1.5	0.7	-2.4
Denmark	7.9	-2.8	3.4	-0.3	1.0	-1.4	7.6	0.2	5.7	-0.1	1.5	-0.4
Estonia	16.9	12.4	18.4	-0.7	24.9	12.5	7.4	8.2	7.6	0.6	1.6	2.7
Finland	8.0	-4.3	12.6	-5.3	0.4	-4.8	5.7	1.4	2.9	1.7	1.8	-0.7
France	-1.7	-5.8	3.6	-1.1	5.4	-0.7	4.0	0.7	5.9	0.3	0.1	0.6
Germany	-3.1	1.6	6.3	-0.4	-2.3	-2.4	4.3	0.9	2.9	2.1	1.9	1.0
Greece		-3.2		-1.7		-15.6		-12.1		-2.4		-4.8
Hungary	-9.6	-18.9	5.5	-1.3	14.2	-6.3	3.0	-0.5	4.7	-1.5	4.6	0.7
Iceland	-2.1	3.6	4.3	2.3	14.2	-0.4	9.1	9.4	10.2	0.8	1.4	-0.3
Ireland												
Israel	6.7	3.9	11.4	2.2	0.1	9.5	6.5	4.1	16.0	4.9	1.3	3.5
Italy	-2.3	-4.4	3.2	-3.1	4.7	-5.8	6.1	-2.9	4.9	-0.9	1.5	-1.3
Japan	2.1	2.1	4.7	-3.7	-3.5	0.9	-0.9	0.2	4.1	0.2	2.1	0.9
Korea	1.1	-0.6	16.6	2.3	-4.4	-1.6	13.0	2.5	4.2	2.1	2.0	2.9
Luxembourg	-13.0	-1.7	7.9	6.3	1.9	3.6	8.1	4.7	11.0	-0.7	0.8	1.9
Mexico	0.4	-1.6	6.4	3.8	4.2	4.6	11.1	6.6	5.5	4.9	2.9	0.7
Netherlands	1.8	0.3	5.6	-0.9	3.5	-8.2	7.0	-1.3	2.0	-1.1	1.7	0.1
New Zealand												
Norway	-2.7	7.9	4.0	2.5	1.1	7.3	3.5	3.0	6.5	4.2	0.9	2.0
Poland	0.2	-3.9	5.9	1.8	-1.4	0.3	6.6	3.6	3.6	2.7	1.0	0.6
Portugal	-4.7	-1.0	3.4	-2.4	6.0	-14.8	6.1	-1.5	1.8	-0.6	3.8	-1.7
Slovak Republic	6.5	-10.3	8.1	0.8	5.2	-2.7	-6.6	7.2	-3.6	6.8	1.2	0.8
Slovenia	1.3	-7.8	9.0	-2.6	-1.0	-6.8	4.7	-3.3	3.7	-1.4	2.4	0.9
Spain		-10.9		-0.5		-8.6		0.6		-0.9		-0.7
Sweden	2.6	1.1	8.1	-1.2	1.4	1.5	5.2	0.8	6.2	3.0	1.6	1.1
Switzerland	7.8	-2.4	0.8	1.6	-0.1	-1.5	6.0	0.1	5.1	2.1	2.1	1.4
Turkey	7.1	3.1	6.6	1.9	4.9	0.6	9.8	1.8	4.2	3.5	1.6	3.5
United Kingdom	-1.5	-3.4	1.9	-2.3	0.9	-7.7	6.3	0.7	6.6	2.1	3.6	1.3
United States			1.0		0.0	7.7	0.0	·	0.0		0.0	1.0
Euro area		-4.7		-1.0		-4.3		-0.6		0.4		0.1
EU 28		-2.4		-1.3		-4.2		-0.1		0.8		0.5
OECD												
Brazil												
China	2.4	4.2	9.8	10.4	5.7	9.7	9.0	11.0	6.8	6.9	13.0	9.5
India							0.0					
Indonesia	1.9	2.9	5.9	4.3	5.6	7.0	6.6	10.3	4.6	5.7	2.3	6.0
Russian Federation	1.5	-3.5	0.0	2.0	0.0	2.0	0.0	5.3	4.0	7.2	2.0	0.5
South Africa	4.7	2.3	4.9	0.6	5.6	2.5	8.1	3.0	3.2	3.3	0.6	2.8

**StatLink** http://dx.doi.org/10.1787/888933027513

# Real value added in industry, including energy

Annual growth in percentage



StatLink http://dx.doi.org/10.1787/888933024948

# SMALL AND MEDIUM-SIZED ENTERPRISES

Small firms, and especially recent start-ups, can be very dynamic and innovative. A few very high-performance new and small firms can make an important contribution to employment creation and economic growth. Although the majority of small firms have more modest economic impacts individually, taken together they make an important economic and social contribution.

#### **Definition**

An enterprise is a legal entity possessing the right to conduct business on its own; for example to enter into contracts, own property, incur liabilities and establish bank accounts. It may consist of one or more establishments situated in a geographically separate area.

Employees include all persons covered by a contractual arrangement, working in the enterprise and receiving compensation for their work. Included are persons on sick leave, paid leave or vacation, while excluded are working proprietors, active business partners, unpaid family workers and home-workers.

Number of persons employed is defined as the total number of persons who worked in or for the concerned unit. Excluded are directors of incorporated enterprises and members of shareholders' committees, labour force made available to the concerned unit by other units and charged for, persons carrying out repair and maintenance work in the unit on the behalf of other units, and homeworkers. It also excludes persons on indefinite leave, military leave or those whose only remuneration from the enterprise is by way of a pension.

#### Comparability

An area where considerable differences do arise concerns the coverage of data on enterprises/establishments. In many countries, this information is based on business registers, economic censuses or surveys that may have a size cut-off. All countries have thresholds of one sort or another, often depending on tax legislation and legal provisions reducing administrative burdens on small enterprises. For Ireland, only enterprises with three or

#### Overview

The contribution of small enterprises to employment varies considerably across countries. In average across economies, the share of enterprises with less than 20 persons employed exceeds 80% of the total, ranging between 69% in the Russian Federation and above 95% in the United States, the Czech Republic, Ireland, the Slovak Republic, Korea and Greece. Small enterprises account for a smaller share of the total number of employees, ranging between around 1% in the Russian Federation to more than 35% in Mexico, Italy and Japan.

more persons employed are reflected, while the data for Japan and Korea do not include establishments with fewer than 4 and 5 persons employed respectively.

The size-class breakdown 1-9, 10-19, 20-49, 50-249, 250+ provides for the best comparability given the varying data collection practices across countries. Some countries use different conventions: the size class "1-9" refers to "1-10" for Mexico; "1-19" for Australia and Turkey; the size class "10-19" refers to "10-29" for Japan and "10-49" for Korea; the size class "20-49" refers to "20-199" for Australia, "30-49" for Japan, "50-99" for Korea, "11-50" for Mexico, and "20-99" for the United States; the size class "50-249" refers to "100-299" for Korea, "50-299" for Japan, "51-250" for Mexico and "100-499" for the United States; finally, the size class "250+" refers to "200+" for Australia, "300+" for Korea and Japan, "251+" for Mexico and "500+" for the United States.

#### Sources

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#### SMALL AND MEDIUM-SIZED ENTERPRISES

#### Number of employees and number of enterprises in manufacturing

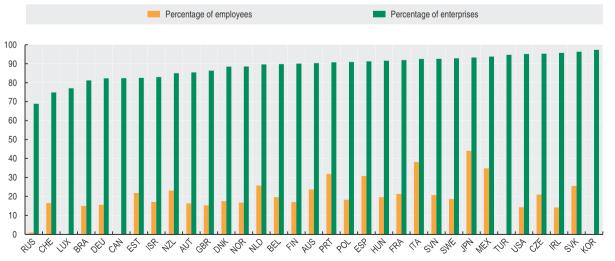
Breakdown by size-class of enterprise, 2010 or latest available year

Australia Austria Belglium Canada Chile Czech Republic Denmark Estonia	Less than 10 23.7 9.6 12.8 15.4	10-19 0.0 6.7 6.8	20-49 29.6 11.0	rees in manufacturing 50-249 0.0	250 or more		· ·	tal number of enterpr	ises in manufacturing			
Austria Belgium Canada Chile Czech Republic Denmark Estonia	23.7         0.0         29.6         0.0         46.7         90.3         0.0         8.9         0.8           96         6.7         11.0         25.4         47.2         74.4         10.9         7.9         5.1           12.8         6.8         13.2         24.4         42.7         82.8         7.0         5.9         3.3											
Austria Belgium Canada Chile Czech Republic Denmark Estonia	9.6 12.8 	6.7 6.8	11.0	0.0		Less man 10	10-19	20-49	50-249	250 or more		
Belgium Canada Chile Czech Republic Denmark Estonia	12.8  	6.8			46.7	90.3	0.0	8.9	0.8	0.0		
Canada Chile Czech Republic Denmark Estonia			40.0	25.4	47.2	74.4	10.9	7.9	5.1	1.6		
Chile Czech Republic Denmark Estonia			13.2	24.4	42.7	82.8	7.0	5.9	3.3	0.8		
Czech Republic Denmark Estonia						68.1	14.2	11.1	5.9	0.6		
Denmark Estonia	15.4											
Estonia		5.6	10.0	26.7	42.4	92.3		2.4	1.8	0.5		
	10.5	7.0	12.8	26.5	43.1	80.2	8.2	6.7	4.1	0.9		
Finland		8.5	17.8			72.5	9.9	10.0		1.0		
	10.8	6.2	11.2	23.3	48.4	82.6	7.4	5.6	3.5	0.9		
France										0.7		
Germany			7.7			61.6	20.7			2.0		
Greece												
Hungary										0.8		
Iceland												
Ireland										1.5		
Israel										1.2		
Italy										0.3		
Japan										3.2		
Korea										0.2		
Luxembourg										2.7		
Mexico										0.0		
Netherlands										0.8		
New Zealand										1.0		
Norway	9.6	7.1	13.4	25.4	44.5	80.4	8.1	6.8	3.9	0.8		
Poland	14.4	3.8	8.7	27.1	45.9	87.0	3.9	4.3	3.8	0.9		
Portugal	19.6	12.2	19.0	29.7	19.5	82.0	8.7	6.0	3.0	0.4		
Slovak Republic	18.8	6.7	7.5	24.1	42.9	93.1	3.1	1.7	1.5	0.4		
Slovenia	14.8	5.9	9.2	30.7	39.4	87.4	5.1	3.5	3.3	0.7		
Spain	20.1	10.6	17.0	22.7	29.5	82.9	8.3	5.9	2.4	0.4		
Sweden	12.0	6.7	10.7	23.1	47.5	87.4	5.4	3.9	2.6	0.7		
Switzerland	8.8	7.7	13.7	29.9	40.0	55.5	19.3	14.0	9.2	2.0		
Turkey						94.6	0.0	3.1	0.4	1.9		
United Kingdom	8.7	6.6	 12.5	26.3	45.9	75.9	10.4	7.6	5.0	1.1		
United States	7.7	6.6	17.9	16.9	50.9	91.6	3.5	3.3	0.9	0.6		
EU 28		0.0	17.3		30.3	31.0			0.0			
OECD									**			
Brazil	6.7	8.2	12.6	21.5	51.0	63.1	18.1	11.5	6.1	1.3		
China												
India												
Indonesia									**			
Russian Federation	0.3	0.6	1.7	 17.3	 80.1	 54.0	14.8	 14.7	 12.1	 4.4		
South Africa	0.3	0.6	1.7	17.3	8U.1	54.U 	14.8	14.7	12.1	4.4		

StatLink as http://dx.doi.org/10.1787/888933027532

# Manufacturing enterprises with less than twenty persons employed: number of employees and number of enterprises

As a percentage of total number of employees or total number of enterprises, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888933024967





# **INCOME AND SAVINGS**

NATIONAL INCOME PER CAPITA HOUSEHOLD DISPOSABLE INCOME HOUSEHOLD SAVINGS

# **INCOME INEQUALITY AND POVERTY**

INCOME INEQUALITY POVERTY RATES AND GAPS

# **HOUSEHOLD WEALTH**

HOUSEHOLD FINANCIAL ASSETS
HOUSEHOLD DEBT
NON-FINANCIAL ASSETS OF HOUSEHOLDS

#### NATIONAL INCOME PER CAPITA

While per capita gross domestic product is the indicator most commonly used to compare income levels, two other measures are preferred, at least in theory, by many analysts. These are per capita Gross National Income (GNI) and Net National Income (NNI). Whereas GDP refers to the income generated by production activities on the economic territory of the country, GNI measures the income generated by the residents of a country, whether earned in the domestic territory or abroad.

# **Definition**

GNI is defined as GDP plus receipts from abroad less payments to abroad of wages and salaries and of property income plus net taxes and subsidies receivable from abroad. NNI is equal to GNI net of depreciation.

Wages and salaries from abroad are those that are earned by residents who essentially live and consume inside the economic territory but work abroad (this happens in border areas on a regular basis) or for persons that live and work abroad for only short periods (seasonal workers) and whose centre of economic interest remains in their home country. Guest-workers and other migrant workers who live abroad for twelve months or more are considered to be resident in the country where they are working. Such persons may send part of their earnings to relatives at home, but these remittances are treated as transfers between resident and non-resident households and are recorded in national disposable income but not national income.

Property income from/to abroad includes interest and dividends. It also includes all or part of the retained

## Overview

Ranking countries according to GNI per capita, shows that on average GNI per capita is usually around 14-21% higher than NNI per capita. The country rankings are not greatly affected by the choice of income measure. The only countries that would be more than one place lower in the ranking if NNI per capita were used instead of GNI are, the Czech Republic, Greece and Japan; the only countries that would be more than two places higher in the ranking if NNI per capita were used are Canada, the Netherlands, the United Kingdom and the Russian Federation.

GNI per capita does not differ significantly from GDP per capita. Usually, the differences are (significantly) smaller than USD 3 000. There are, however, four exceptions. For Luxembourg, GNI per capita in 2012, although still highest in the OECD, is nearly USD 29 000 lower than GDP per capita. In Iceland and Ireland, GNI is respectively nearly USD 4 300-8 000 lower. On the other hand, GNI in Switzerland is higher than GDP per capita by approximately USD 1 800.

earnings of foreign enterprises owned fully or in part by residents (and *vice versa*). In this respect, it is important to note that retained earnings of foreign enterprises owned by residents do not actually return to the residents concerned. Nevertheless, the retained earnings are recorded as a receipt.

# Comparability

All countries compile data according to the 1993 SNA "System of National Accounts, 1993" with the exception of Australia and the United States where data are compiled according to the new 2008 SNA. It's important to note however that differences between the 2008 SNA and the 1993 SNA do not have a significant impact of the comparability of the indicators presented here and this implies that data are highly comparable across countries.

However, there are practical difficulties in the measurement both of international flows of wages and salaries and property income and of depreciation. It is for that reason that GDP per capita is the most widely used indicator of income or welfare, even though, GNI is theoretically superior.

EU28 does not include Croatia.

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# HOUSEHOLD INCOME AND WEALTH . INCOME AND SAVINGS



#### NATIONAL INCOME PER CAPITA

# Gross national income per capita

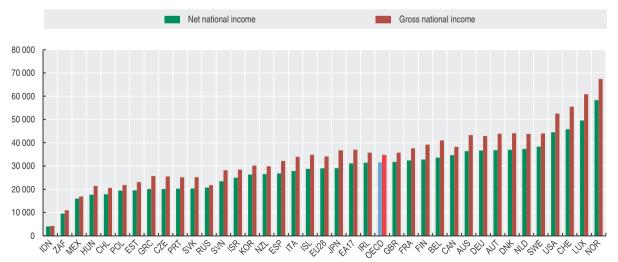
US dollars, current prices and PPPs

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Australia	27 155	28 354	29 473	30 961	32 093	33 644	35 388	37 276	37 797	39 035	40 049	41 974	43 372
Austria	28 450	28 444	30 086	31 035	32 596	33 310	36 225	37 590	39 764	38 997	40 565	42 686	43 869
Belgium	28 329	29 017	30 461	30 772	31 520	32 415	34 577	35 976	37 566	36 696	38 942	40 466	40 949
Canada	27 767	28 533	29 162	30 541	32 157	34 448	36 564	37 834	38 493	37 108	38 241		
Chile	9 206	9 636	9 880	10 139	10 781	11 629	13 460	14 706	15 009	14 894	17 065	19 078	20 472
Czech Republic	15 297	16 383	16 926	18 126	19 120	20 372	22 092	23 609	24 659	24 151	23 893	25 224	25 483
Denmark	28 250	29 053	30 393	30 262	32 423	33 659	36 753	38 077	40 472	39 245	41 872	42 976	44 079
Estonia	9 552	10 268	11 475	12 686	14 037	15 902	18 162	20 124	20 954	19 325	19 332	21 871	23 103
Finland	25 504	26 527	27 577	27 423	30 075	30 849	33 484	36 134	38 244	36 446	37 130	38 711	39 159
France	25 634	27 006	27 862	27 571	28 541	30 017	32 016	33 677	34 769	34 741	35 604	37 166	37 567
Germany	25 522	26 438	27 077	28 131	29 925	31 469	34 265	36 123	37 547	36 870	39 155	41 917	42 924
Greece	18 339	19 918	21 485	22 406	23 710	23 994	26 177	26 927	28 636	28 757	27 213	25 850	25 712
Hungary	11 306	12 736	13 906	14 639	15 335	16 058	17 327	17 586	19 120	19 552	20 135	21 236	21 419
Iceland	28 080	29 519	31 033	30 312	32 347	33 731	33 770	35 290	30 968	30 338	30 209	32 803	34 775
Ireland	24 941	25 940	27 499	29 696	31 417	33 418	37 070	38 936	36 522	33 536	34 577	34 847	35 767
Israel	21 789	22 233	22 492	21 275	22 707	22 966	23 722	25 425	24 944	25 064	26 240	27 809	28 430
Italy	25 588	27 126	26 759	27 098	27 420	28 288	30 518	31 996	33 008	32 369	32 732	33 668	33 920
Japan	26 300	27 005	27 690	28 426	29 932	31 156	32 705	34 446	34 622	32 760	34 668	35 331	36 752
Korea	17 124	18 128	19 668	20 204	21 681	22 762	24 325	26 132	26 888	26 455	28 246	29 111	30 178
Luxembourg	46 726	47 887	47 657	46 995	56 649	58 577	59 714	67 817	66 583	52 146	58 034	61 018	60 888
Mexico	9 815	9 935	10 214	10 694	11 366	12 228	13 506	14 215	15 041	14 638	15 546	16 875	
Netherlands	30 080	31 054	32 235	32 085	34 071	35 281	39 147	41 357	42 017	40 382	40 949	43 288	43 757
New Zealand	19 999	21 031	21 770	22 432	23 286	23 704	25 346	26 625	26 979	28 897	28 723	29 872	
Norway	35 685	37 164	37 166	38 524	42 541	48 169	53 932	55 624	61 049	55 630	58 422	62 244	67 440
Poland	10 543	10 935	11 523	11 877	12 635	13 516	14 706	16 138	17 662	18 315	19 436	20 851	21 826
Portugal	17 447	18 057	18 840	19 280	19 633	21 052	22 294	23 401	24 048	24 102	24 832	24 737	25 172
Slovak Republic	10 934	12 081	12 918	12 932	14 058	15 717	17 831	20 197	22 728	22 571	23 174	24 576	25 238
Slovenia	17 583	18 500	19 649	20 370	22 007	23 290	25 180	26 641	28 280	26 567	26 656	27 852	28 169
Spain	21 156	22 241	23 705	24 483	25 599	27 003	29 923	31 439	32 244	31 646	31 235	31 508	32 172
Sweden	27 750	28 056	29 163	30 814	32 473	32 936	36 193	39 302	40 995	38 323	40 457	42 700	43 967
Switzerland	34 773	34 558	35 425	36 746	38 025	40 027	43 889	44 664	44 368	48 026	51 925	52 053	55 465
Turkey													
United Kingdom	26 281	27 952	29 417	30 496	32 504	33 916	35 775	36 685	37 355	35 538	34 787	35 560	35 571
United States	36 903	37 825	38 544	39 887	42 193	44 672	47 325	48 349	48 578	47 171	48 813	50 790	52 547
Euro area	24 516	25 643	26 384	26 882	28 080	29 343	31 853	33 510	34 654	34 030	34 946	36 386	36 964
EU 28	21 872	22 994	23 871	24 507	25 792	26 996	29 260	30 837	32 021	31 391	32 117	33 452	34 075
OECD OECD	24 820	25 623	26 338	27 121	28 645	30 193	32 328	33 659	34 390	33 494	34 729		
Brazil													**
China	2 329	2 555	 2 827	3 169	3 579	4 073	4 739	5 563	6 225	6 770	7 493	 8 316	
India					2 034	2 260	2 511	2 808	2 910	3 204			
Indonesia	2 260	2 437	 2 571	2 689	2 842	3 051	3 301	3 571	3 843	4 007	 4 214		
Russian Federation	6 641	7 258	7 876	8 973	10 010	11 527	14 476	16 256	19 572	18 737	19 821	21 792	**
South Africa	6 601	6 774	7 089	7 338	7 849	8 429	9 079	9 599	10 090	9 954	10 351	10 953	
Julii Airid	0 001	0774	1 009	1 330	1 049	0 429	50/9	9 399	10 090	9 934	10 301	10 900	

StatLink \* http://dx.doi.org/10.1787/888933027551

# Gross and net national income per capita

US dollars, current prices and PPPs, 2012 or latest available year



StatLink http://dx.doi.org/10.1787/888933024986

# HOUSEHOLD DISPOSABLE INCOME

Disposable income, as a concept, is closer to the concept of income generally understood in economics, than either national income or GDP. At the total economy level it differs from national income in that additional income items are included, mainly other current transfers such as remittances. For countries where these additional items form significant sources of income the importance of focusing on disposable income in formulating policy is clear. Another important difference between national income and disposable income concerns the allocation of income across sectors. At this level significant differences arise, reflecting the reallocation of national income. Disposable income can be seen as the maximum amount that a unit can afford to spend on the consumption goods or services without having to reduce its financial or nonfinancial assets or by increasing its liabilities.

**Definition** 

Household disposable income is the sum of household final consumption expenditure and savings (minus the change in net equity of households in pension funds). It also corresponds to the sum of wages and salaries, mixed income, net property income, net current transfers and social benefits other than social transfers in kind, less taxes on income and wealth and social security contributions paid by employees, the self-employed and the unemployed.

The indicator for the household sector includes the disposable income of non-profit institutions serving households (NPISH).

# Comparability

All countries compile data according to the 1993 SNA "System of National Accounts, 1993" with the exception of

#### Overview

On average over the period 2010-12, household disposable income in real terms increased for 17 out of 30 OECD countries for which data is available. Chile (7.3%), Australia (4.2%), and Norway (3.5%) showed the highest growth rates. In contrast, Greece's household disposable income fell by 11% and the household disposable income for Spain, Ireland and Italy fell by 2-4% in the three year period.

Across OECD countries, comparisons of growth of real household disposable income over the three years to 2012 compared to growth in the three years to 2002 show a rather consistent picture, with most countries showing slower growth. In fact, in the three years to 2002 no country recorded declines in real incomes whereas 13 countries recorded declines in the three years to 2012.

Australia and the United States where data are compiled according to the new 2008 SNA. It's important to note however that differences between the 2008 SNA and the 1993 SNA do not have a significant impact of the comparability of the indicators presented here and this implies that data are highly comparable across countries. EU28 does not include Croatia.

#### Sources

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#### HOUSEHOLD DISPOSABLE INCOME

# Real household disposable income

Annual growth in percentage

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Australia	4.6	3.0	1.7	4.5	4.8	3.2	6.1	5.6	7.1	1.3	4.3		1.1
Austria	1.9	-0.5	1.5	1.8	2.6	2.8	2.7	2.6	0.7	0.1	-0.5	-1.3	1.1
Belgium	1.8	3.1	-0.2	-0.2	-0.2	0.1	2.7	2.2	2.1	2.6	-1.3	-1.1	
Canada	4.8	2.8	1.8	2.1	3.8	2.5	5.7	3.8	4.2	1.1	3.5		
Chile										6.4	6.4	9.2	-1.3
Czech Republic	2.0	2.3	3.0	4.0	1.8	5.1	5.6	3.8	2.1	2.7	0.4	-0.6	
Denmark	0.5	3.7	2.0	2.4	2.7	2.2	1.8	0.1	-0.2	0.0	3.6	0.9	-3.8
Estonia	11.7	5.9	7.0	7.3	2.0	11.0	10.8	11.8	-0.1	-5.5	-1.9	4.8	0.0
Finland	0.6	3.2	2.2	6.0	4.8	1.0	2.7	3.6	2.4	1.9	2.8	0.4	-0.7
France	3.1	3.1	3.5	0.5	2.1	1.1	2.4	3.0	0.2	1.2	1.0	0.5	0.7
Germany	0.9	1.7	0.0	0.7	0.6	0.4	1.2	0.0	0.9	-0.5	1.0	1.7	-10.8
Greece							5.1	7.3	-2.3	-0.4	-11.4	-10.7	-4.6
Hungary	1.2	5.2	6.4	5.5	4.0	3.6	1.7	-3.0	-1.8	-4.4	-2.1	2.8	
Iceland													-1.7
Ireland				2.3	5.3	8.5	4.3	6.2	7.0	1.0	-2.7	-3.7	
Israel													-4.9
Italy	0.1	3.0	1.2	0.5	0.9	0.6	0.9	1.0	-1.4	-3.0	-0.8	-0.8	
Japan			1.0	0.0	1.1	0.9	0.8	0.8	-1.2	1.3	2.6	0.6	2.0
Korea	0.4	0.9	3.4	4.9	4.7	2.3	2.6	2.7	1.3	1.6	4.1	1.7	2.4
Luxembourg								4.0	4.6	1.0	4.2	1.8	
Mexico					4.0	4.6	5.5	3.6	1.2	-7.7	4.2	5.0	-2.3
Netherlands	2.2	5.6	-0.6	-2.5	0.6	-0.3	0.5	2.6	-0.3	-1.1	-0.2	-0.4	
New Zealand													3.4
Norway	3.8	0.0	8.0	4.6	3.3	7.8	-6.4	6.3	4.0	4.1	2.7	4.4	-0.1
Poland	1.7	4.1	-1.0	1.2	1.7	1.5	4.8	4.2	4.0	4.8	2.2	0.4	-3.2
Portugal	3.6	1.6	1.0	0.3	1.7	0.7	-0.4	1.9	1.6	1.8	1.7	-4.2	-1.7
Slovak Republic	2.0	3.0	5.1	-0.7	3.9	6.2	3.4	9.1	5.0	1.2	3.2	-1.5	-4.6
Slovenia	4.5	4.5	3.0	0.4	3.4	4.4	2.9	4.3	1.8	-0.7	-0.6	0.6	-5.1
Spain		3.1	3.0	3.6	2.7	3.8	3.0	3.2	3.3	1.8	-4.5	-2.3	3.5
Sweden	5.1	6.5	3.1	0.9	1.3	1.9	3.6	5.5	2.3	2.0	1.6	3.3	
Switzerland	2.7	2.9	-1.3	-0.8	2.3	2.2	3.7	4.1	0.1	1.5	1.9	2.8	
Turkey													1.7
United Kingdom	5.2	4.9	1.8	3.2	1.7	1.5	2.2	0.3	1.3	1.5	1.1	-1.3	2.1
United States	4.8	2.8	3.3	2.9	3.5	1.3	3.9	1.9	1.8	-0.3	1.4	2.6	-1.8
Euro area	1.7	2.8	1.4	1.0	1.6	1.2	1.8	2.0	0.5	-0.1	-0.6	-0.3	-1.2
EU 28													
OECD													
Brazil													
China													
India													
Indonesia													
Russian Federation				7.7	9.4	11.9	13.6	14.1	8.0	-2.0	8.6	4.4	4.6
South Africa	3.7	2.8	3.5	4.0	5.8	5.0	6.9	5.2	0.6	1.4	5.7	5.6	-

StatLink http://dx.doi.org/10.1787/888933027570

# Real household disposable income

Average annual growth in percentage



StatLink http://dx.doi.org/10.1787/888933025005

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# **HOUSEHOLD SAVINGS**

Household saving is the main domestic source of funds to finance capital investment, which is a major impetus for long-term economic growth. Household saving rates vary considerably between countries because of institutional, demographic and socio-economic differences. For example, government provisions for old-age pensions and the demographic age structure of the population will all influence the rate at which populations save (older persons tend to run down their financial assets during their retirement to the detriment of saving). Equally the availability and price of credit, as well as attitudes towards debt, may also influence choices made by individuals regarding whether to spend or save.

#### **Definition**

Household saving is estimated by subtracting household consumption expenditure from household disposable income plus the change in net equity of households in pension funds.

Household disposable income consists essentially of income from employment and from the operation of unincorporated enterprises, plus receipts of interest, dividends and social benefits minus payments of current taxes, interest and social contributions. Note that enterprise income includes imputed rents "paid" by owner-occupiers of dwellings.

Household consumption expenditure consists mainly of cash outlays for consumer goods and services but it also includes the imputed expenditures that owner occupiers pay, as occupiers, to themselves as owners of their dwellings and the production of goods for own-final use

#### Overview

Household saving rates differ significantly across countries. In 2012 or the most recent available year (2011 in most cases), saving rates of above 10% were recorded in Luxembourg, Switzerland, Sweden, France, and Germany. Savings rates were negative in Estonia and Greece (minus 14.6%) in 2012. Nearly three-fourths of the 28 countries where data is available for 2012 or 2011, saw decreases in their savings rate compared to 2009

Considering the years covered, household saving rates in Japan decreased from 2001 to 2008. Then in 2009, returned to their 2004 level. Saving rates also decreased in Canada, although to a much lesser extent. Rates have remained broadly stable in Germany and France, at rather high levels of 10-12% and 11-13%, respectively. The United States saw a rather stable development of its household saving rate in the period 1999-2007; after that year, the household saving rate started to pick up and is now above 5%.

such as agricultural products; the values of which are also included in income.

The household saving rate is calculated as the ratio of household saving to household disposable income.

#### Comparability

All countries compile data according to the 1993 SNA "System of National Accounts, 1993" with the exception of Australia and the United States where data are compiled according to the new 2008 SNA. It's important to note however that differences between the 2008 SNA and the 1993 SNA do not have a significant impact of the comparability of the indicators presented here and this implies that data are highly comparable across countries.

Saving rates may be measured on either a net or a gross basis. Net saving rates are measured after deducting consumption of fixed capital (in respect of assets used in unincorporated enterprises and in respect of owner-occupied dwellings), from saving and from the disposable income of households, so that both saving and disposable income are shown on a net basis.

EU28 does not include Croatia.

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# HOUSEHOLD SAVINGS

# Household net saving rates

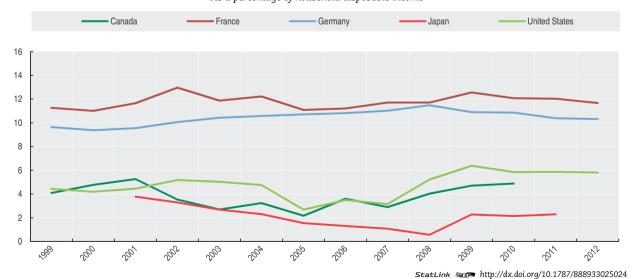
As a percentage of household disposable income

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Australia	2.8	3.9	0.3	1.0	2.1	1.6	2.5	4.6	10.7	9.8	11.0	11.7	10.5
Austria	9.3	7.6	7.9	8.7	9.1	9.6	10.4	11.6	11.5	11.2	8.9	6.7	7.4
Belgium	12.5	13.8	13.1	12.3	10.7	9.9	10.7	11.3	11.5	13.2	9.9	8.4	9.6
Canada	4.8	5.3	3.5	2.7	3.2	2.2	3.6	2.9	4.0	4.7	4.9		
Chile					**			**	7.0	12.3	8.9	8.7	
Czech Republic	5.8	5.2	5.2	4.1	2.9	4.8	6.1	5.7	4.8	6.8	6.2	5.1	5.9
Denmark	-4.0	2.1	2.1	2.4	-1.3	-4.2	-2.3	-4.0	-3.7	0.1	0.0	0.7	-0.7
Estonia	-3.0	-4.0	-6.4	-7.1	-12.8	-10.8	-13.1	-8.2	-4.1	4.7	4.4	6.0	-1.1
Finland	0.5	0.3	0.4	1.4	2.7	0.9	-1.1	-0.9	-0.3	4.2	3.6	1.3	1.1
France	11.0	11.7	13.0	11.9	12.2	11.1	11.2	11.7	11.7	12.6	12.1	12.0	11.7
Germany	9.4	9.5	10.1	10.4	10.6	10.7	10.8	11.0	11.5	10.9	10.9	10.4	10.3
Greece						-1.7	-1.0	2.5	-4.1	-2.9	-8.8	-12.5	-14.6
Hungary	6.2	6.7	5.3	2.9	5.4	6.7	7.2	3.3	2.7	4.8	5.4	5.4	1.9
Iceland													
Ireland			-0.7	0.4	1.2	2.2	-0.4	-0.5	6.0	11.5	8.5	6.4	5.2
Israel													
Italy	7.9	9.9	10.8	10.3	10.5	10.2	9.5	8.9	8.5	7.1	4.9	4.3	3.6
Japan		3.8	3.3	2.7	2.3	1.6	1.3	1.1	0.6	2.3	2.1	2.3	
Korea	9.3	5.2	0.4	5.2	9.2	7.2	5.2	2.9	2.9	4.6	4.3	3.5	3.8
Luxembourg							3.8	4.3	9.5	12.1	13.0	13.6	13.7
Mexico				11.4	10.1	10.1	10.1	9.7	9.2	9.0	9.0	8.2	
Netherlands	6.9	9.7	8.7	7.6	7.4	6.4	6.1	6.9	5.9	5.6	3.3	4.9	4.1
New Zealand													
Norway	4.3	3.1	8.2	8.8	6.9	9.6	-0.5	0.8	3.7	6.9	5.6	7.1	8.2
Poland	10.0	11.9	8.3	7.7	5.5	5.9	6.5	4.6	-0.3	6.9	6.1	-0.2	2.6
Portugal	3.8	3.8	3.3	3.6	2.8	2.7	0.4	-0.7	-0.8	3.2	2.4	1.7	3.9
Slovak Republic	6.0	3.8	3.3	1.1	0.3	1.1	0.1	2.2	1.1				
Slovenia	7.8	9.7	10.3	7.8	8.6	10.6	10.8	9.0	8.6	8.0	6.1	5.2	4.7
Spain	6.1	5.9	5.8	6.7	5.2	4.7	3.9	4.0	7.8	12.2	7.9	6.8	4.4
Sweden	3.1	7.3	7.1	5.9	4.7	4.0	4.9	7.2	9.0	11.0	8.3	10.4	12.2
Switzerland	10.6	11.2	9.9	8.6	8.0	8.8	10.7	12.5	11.7	11.4	11.4	12.8	
Turkey													
United Kingdom	0.1	1.4	-0.2	-0.5	-1.5	-2.3	-2.2	-3.7	-2.7	2.3	2.9	2.2	2.4
United States	4.2	4.5	5.2	5.0	4.8	2.7	3.5	3.2	5.2	6.4	5.9	5.9	5.8
Euro area	8.2	8.9	9.4	9.2	9.2	8.6	8.2	8.5	8.7	9.5	8.0	7.4	7.0
EU 28	6.2	7.3	7.1	6.9	6.4	5.8	5.5	5.3	5.7	7.8	6.3	5.6	5.5
OECD													
Brazil													
China													
India													
Indonesia													
Russian Federation						11.0	12.4	12.1	10.1	13.1	15.5	13.9	
South Africa	1.0	0.4	0.7	0.6	0.4	0.1	-0.8	-1.2	-1.2	-0.8	-0.5	-0.2	0.0

StatLink http://dx.doi.org/10.1787/888933027589

# Household net saving rates

As a percentage of household disposable income



# **INCOME INEQUALITY**

Income inequalities are one of the most visible manifestations of differences in living standards within each country. High income inequalities typically imply a waste of human resources, in the form of a large share of the population out of work or trapped in low-paid and low-skilled jobs.

#### **Definition**

Income is defined as household disposable income in a particular year. It consists of earnings, self-employment and capital income and public cash transfers; income taxes and social security contributions paid by households are deducted. The income of the household is attributed to each of its members, with an adjustment to reflect differences in needs for households of different sizes.

Income inequality among individuals is measured here by six indicators. The Gini coefficient is based on the comparison of cumulative proportions of the population against cumulative proportions of income they receive, and it ranges between 0 in the case of perfect equality and 1 in the case of perfect inequality. S90/S10 is the ratio of the average income of the 10% richest to the 10% poorest; S80/S20 of the average income of the 20% richest to the 20% poorest. P90/P10 is the ratio of the upper bound value of the ninth decile (i.e. the 10% of people with highest income) to that of the first decile; P90/P50 of the upper bound value of

#### Overview

There is considerable variation in income inequality across OECD countries. Inequality as measured by the Gini coefficient ranges from 0.24 in Iceland to approximately twice that value in Chile and Mexico. The Nordic and central European countries have the lowest inequality in disposable income while inequality is high in Chile, Israel, Mexico, Turkey and the United States. Alternative indicators of income inequality suggest similar rankings. The gap between the average income of the richest and the poorest 10% of the population was almost 10 to 1 on average across OECD countries in 2010, ranging from 5 to 1 in Denmark to almost six times larger (29 to 1) in Mexico.

From the mid-1980s to around 2010s, inequality rose in 15 out of 16 countries for which longer-run data are available. The increase was strongest in Finland, Israel and Sweden. Decline occurred in Turkey. Income inequality generally rose faster from the mid-1980s to the mid-1990s than in the following period.

With measurement-related differences in mind, non-OECD countries have higher levels of income inequality than most OECD countries, particularly in Brazil and South Africa. Comparable data from the early 1990s suggest that inequality increased in Asia, decreased in Latin America and remained very high in South Africa.

the ninth decile to the median income; and P50/P10 of median income to the upper bound value of the first decile.

#### **Comparability**

Data used here were provided by national experts applying common methodologies and standardised definitions. In many cases, experts have made several adjustments to their source data to conform to standardised definitions. While this approach improves comparability, full standardisation cannot be achieved. Also, small differences between periods and across countries are usually not significant.

Results refer to different years. "Around 2010s" data refer to the income in 2010 in all countries except Hungary, Ireland, Japan, New Zealand, Switzerland and Turkey (2009); and Chile and Korea (2011). "Mid-1990s" data refer to the income earned between 1993 and 1996. "Mid-1980s" data refer to the income earned between 1983 and 1987 in all countries for which data are available except Greece (1988); Portugal (1990); and the Czech Republic (1992). "Around 2010s" data for Austria, Belgium, Ireland, Portugal and Spain are based on EU-SILC and are not deemed to be fully comparable with those for earlier years.

For non-OECD countries except Russia, 2008/9 Gini coefficients are not strictly comparable with OECD countries as they are based on per capita incomes except India and Indonesia for which per capita consumption was used.

#### Source

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# INCOME INEQUALITY

# Income inequality

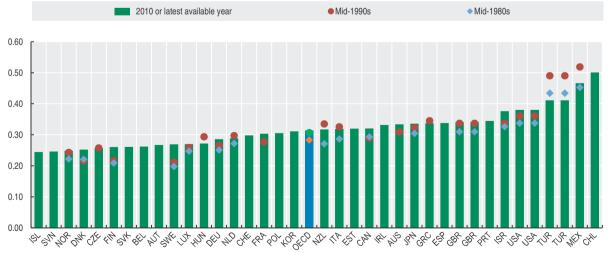
Different summary inequality measures, around 2010s

	Gini coefficient (disposable income, post taxes and transfers)	S90/S10 disposable income decile share	S80/S20 disposable income quintile share	P90/P10 disposable income decile ratio	P90/P50 disposable income decile ratio	P50/P10 disposable income decile ratio	
Australia	0.33 8.9		5.7	4.5	2.0	2.2	
Austria	0.27	5.9	3.9	3.2	1.7	1.9	
Belgium	0.26	5.6	3.9	3.4	1.7	2.0	
Canada	0.32	8.9	5.3	4.1	1.9	2.1	
Chile	0.50	26.5	13.0	8.4	3.2	2.6	
zech Republic	0.26	5.4	3.6	3.0	1.7	1.7	
Denmark	0.25	5.3	3.6	2.9	1.6	1.8	
stonia	0.32	8.8	5.3	4.4	2.0	2.1	
inland	0.26	5.4	3.7	3.2	1.7	1.9	
rance	0.30	7.2	4.5	3.6	1.9	1.9	
Germany	0.29	6.7	4.3	3.6	1.8	1.9	
Greece	0.34	10.8	6.0	4.6	2.0	2.3	
Hungary	0.27	6.0	4.0	3.4	1.9	1.8	
celand	0.24	5.3	3.5	2.8	1.6	1.7	
reland	0.33	9.1	5.4	4.1	2.1	2.0	
srael	0.38	13.6	7.8	6.4	2.2	2.9	
taly	0.32	10.2	5.6	4.3	1.9	2.2	
apan	0.34	10.7	6.2	5.2	2.0	2.6	
Corea	0.31	10.7	5.7	4.8	1.9	2.6	
uxembourg	0.27	5.6	3.9	3.4	1.8	1.8	
Mexico	0.47	28.5	12.7	9.5	2.9	3.2	
letherlands	0.29	6.9	4.3	3.4	1.8	1.8	
lew Zealand	0.32	8.0	5.1	4.1	2.0	2.0	
lorway	0.25	6.0	3.7	2.9	1.6	1.8	
Poland	0.31	7.7	4.8	4.0	1.9	2.1	
Portugal	0.34	9.3	5.7	4.6	2.2	2.1	
Slovak Republic	0.26	5.9	3.8	3.2	1.8	1.8	
Slovenia	0.25	5.3	3.6	3.2	1.7	1.9	
Spain	0.34	13.1	6.6	5.3	2.1	2.6	
Sweden	0.27	6.1	4.0	3.3	1.7	2.0	
Switzerland	0.30	7.3	4.6	3.6	1.8	2.0	
urkey	0.41	15.1	8.4	6.3	2.5	2.5	
Jnited Kingdom	0.34	10.0	5.6	4.1	2.1	2.0	
Jnited States	0.38	15.9	7.9	6.1	2.2	2.7	
EU 28							
DECD	0.31	9.5	5.5	4.3	2.0	2.1	
razil	0.55		:				
china	0.41						
ndia	0.38						
ndonesia	0.38						
Russian Federation	0.40	12.9	 7.6	6.0	2.6	2.3	
South Africa	0.70				<del></del>		

StatLink http://dx.doi.org/10.1787/888933027608

# Trends in income inequality

Gini coefficient in the mid-80s, mid-90s and around 2010s



StatLink http://dx.doi.org/10.1787/888933025043

# **POVERTY RATES AND GAPS**

Avoiding economic hardship is a primary objective of social policy. As perceptions of "a decent standard of living" vary across countries and over time, no commonly agreed measure of "absolute" poverty across OECD countries exists. A starting point for measuring poverty is therefore to look at "relative" poverty, whose measure is based on the income that is most typical in each country in each year.

#### **Definition**

The poverty rate is the ratio of the number of people (in a given age group) whose income falls below the poverty line; taken as half the median household income of the total population. However, two countries with the same poverty rates may differ in terms of the relative income-level of the poor. To measure this dimension, the poverty gap, i.e. the percentage by which the mean income of the poor falls below the poverty line, is also presented.

Income is defined as household disposable income in a particular year. It consists of earnings, self-employment and capital income and public cash transfers; income taxes and social security contributions paid by households are deducted. The income of the household is attributed to each of its members, with an adjustment to reflect differences in needs for households of different sizes (i.e. the needs of a household composed of four people are assumed to be twice as large as those of a person living alone).

## Comparability

Data used here were provided by national experts applying common methodologies and standardised definitions. In many cases, experts have made several adjustments to their source data to conform to standardised definitions. While this approach improves comparability, full standardisation cannot be achieved.

Measurement problems are especially severe at the bottom end of the income scale. As large proportions of the population are clustered around the poverty line used here, small changes in their income can lead to large swings in poverty measures. Small differences between periods and across countries are usually not significant.

Results refer to different years. "Around 2010s" data refer to the income in 2010 in all countries except Hungary, Ireland, Japan, New Zealand, Switzerland and Turkey (2009); and Chile and Korea (2011). "Mid-1990s" data refer to the income earned between 1993 and 1996. "Mid-1980s" data refer to the income earned between 1983 and 1987 in all countries for which data are available except Greece (1988); Portugal (1990); and the Czech Republic (1992). "Around 2010s" data for Austria, Belgium, Ireland, Portugal and Spain are based on EU-SILC and are not deemed to be fully comparable with those for earlier years.

#### Overview

Across OECD countries, the average poverty rate was about 11% in the 2010s. There is considerable diversity across countries: poverty rates are 20% or more in Israel and Mexico, but below 7% in the Czech Republic, Denmark and Iceland. Poverty rates vary across age groups: in Korea, older people are more likely to be poor, while Turkey child poverty is a greater issue. The United States, Chile and Mexico share quite high overall poverty rates, while the Nordic countries combine low poverty rates.

On average, in OECD countries, the mean income of poor people is 30% below the poverty line (poverty gap), with larger gaps in Korea, Mexico, Spain and the United States and lower ones in Belgium, Finland, Luxembourg, and Slovenia. In general, countries with higher poverty rates also have higher poverty gaps.

From the mid-1990s to the 2010s, poverty rates rose in 17 out of 20 countries for which data are available, resulting in an overall increase of 1.5 percentage points for the OECD as a whole. The largest rises were experienced by Israel and Sweden, and the largest declines were registered in the Italy and Mexico.

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# POVERTY RATES AND GAPS

# Poverty rates and poverty gaps

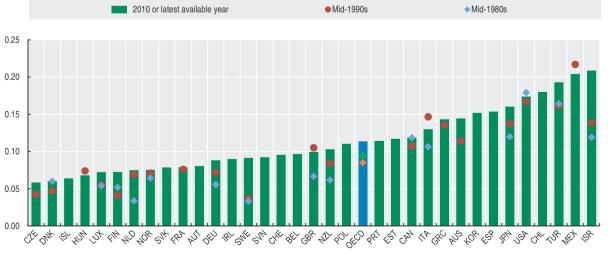
2010 or latest available year

		Relative poverty rates (50% median income)							
	Entire population	Children (age 0-17)	Working-age population (age 18-65)	Retirement-age population (over 65)	Entire population 0.25				
Australia	0.14	0.15	0.10	0.36					
Austria	0.08	0.08	0.07	0.11	0.24				
Belgium	0.10	0.13	0.08	0.11	0.21				
Canada	0.12	0.14	0.12		0.31				
Chile	0.18	0.24	0.15	0.20	0.33				
Czech Republic	0.06	0.09	0.06	0.04	0.23				
)enmark	0.06	0.04	0.06	0.08	0.28				
stonia	0.12	0.12	0.13	0.07	0.33				
inland	0.07	0.04	0.08	0.10	0.19				
rance	0.08	0.11	0.07	0.05	0.24				
Germany	0.09	0.09	0.08	0.11	0.24				
Greece	0.14	0.18	0.13	0.16	0.34				
lungary	0.07	0.09	0.07	0.02	0.27				
celand	0.06	0.07	0.07	0.03	0.29				
reland	0.09	0.10	0.09	0.08	0.34				
srael	0.21	0.29	0.17	0.21	0.34				
aly	0.13	0.18	0.12	0.11	0.38				
apan	0.16	0.16	0.14	0.19	0.33				
Corea	0.15	0.10	0.11	0.49	0.39				
uxembourg	0.07	0.11	0.07	0.02	0.21				
Mexico (	0.20	0.25	0.17	0.28	0.41				
letherlands	0.08	0.10	0.08	0.01	0.31				
lew Zealand	0.10	0.13	0.09	0.13	0.26				
lorway	0.08	0.05	0.09	0.06	0.37				
oland	0.11	0.14	0.11	0.10	0.28				
Portugal	0.11	0.16	0.10	0.10	0.25				
lovak Republic	0.08	0.12	0.08	0.04	0.29				
lovenia	0.09	0.09	0.08	0.17	0.21				
pain	0.15	0.21	0.15	0.13	0.42				
weden	0.09	0.08	0.09	0.09	0.26				
witzerland	0.10	0.10	0.07	0.22	0.26				
urkey	0.19	0.28	0.15	0.18	0.31				
Inited Kingdom	0.10	0.10	0.10	0.09	0.35				
Inited States	0.17	0.21	0.18	0.15	0.38				
U 28									
ECD	0.11	0.13	0.10	0.13	0.30				
Brazil									
China									
ndia									
ndonesia									
Russian Federation	 0.14	0.19	0.15		0.27				
South Africa	0.14	5.10	5.10		0.21				

StatLink http://dx.doi.org/10.1787/888933027627

# Trends in poverty rates

Relative poverty rates in mid-1980s, mid-1990s and 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888933025062

# HOUSEHOLD FINANCIAL ASSETS

Along with income, wealth is the central measure of households' economic resources. Households hold both non-financial and financial wealth. The structure of financial assets affects households financial risks as different types of securities carry different risk levels.

#### **Definition**

This set of indicators shows the share of each financial asset category according to the 1993 System of National Accounts (currency and deposits; securities other than shares, except financial derivatives; shares and other equity, except mutual funds shares; mutual funds shares; net equity of households in life insurance reserves; and net equity of households in pension funds) in the total financial assets of the households and NPISHs sector. It

#### Overview

The comparison of the structure of households' stocks of financial assets between 2007 and 2012 gives some insight into the impact of recent economic developments on the restructuring of their portfolio towards financial instruments better adapted to the new environment, i.e. more liquid and less risky. The increase in the share of currency and deposits in almost all OECD countries was noticeable, with a significant rise in Greece (22 percentage points) over the period 2007-12. The share of life insurance and pension fund assets also increased in a large number of OECD countries. On the other hand, shares became less popular in most OECD countries, the largest fall being observed in Estonia (minus 30 percentage points), followed by Greece (minus 20 percentage points), Poland (minus 13 percentage points), and Australia (minus 10 percentage points).

Considerable differences in national preferences for financial instruments can be observed across the OECD. Currency and deposits, the most liquid of the asset categories and also considered the one with the least risk, represented more than 50% in five OECD countries (the Czech Republic, Greece, Luxembourg, the Slovak Republic and Slovenia) in 2012, and in Japan in 2011. The proportion of securities held by households was low in most OECD countries in 2012 with the exception of Italy (19%). Furthermore, despite the financial crisis, shares remained a predominant portfolio asset held by households in for example Estonia (38%), Sweden (34%), and the United States (31%). Household reserves in life insurance and pension funds represented more than half of the stock of total financial assets in the Netherlands (62%), Chile (60%), Australia (58%), the United Kingdom (53%), and Denmark (51%), whereas they remained at a very low level in Greece (3%).

excludes financial derivatives, loans and other accounts receivable.

The financial assets are classified according to their liquidity.

## Comparability

International comparability may be hampered by differences in the way pension systems are organised and operated in the various countries. In countries with highly funded pension systems, more pension reserves will be recognised and recorded as part of the assets of households.

It should be noted that any changes in the stocks of financial assets over a period are the result of two components: net acquisitions of financial assets and changes in valuations (holding gains and losses depending on the performance of financial markets), of which those for quoted shares are the most relevant.

In the graph, 2011 data are shown for Israel, and Japan. Mexican data relates to the year 2009.

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#### HOUSEHOLD FINANCIAL ASSETS

# Financial assets of households by type of assets

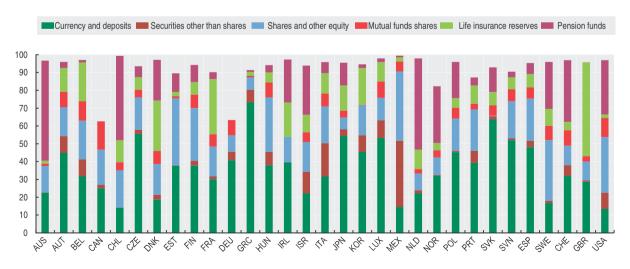
As a percentage of total financial assets

	Currency and deposits		Securities other than shares		Shares and other equity		Mutual fu	nds shares	Life insurance reserves		Pension funds	
_	2007	2012	2007	2012	2007	2012	2007	2012	2007	2012	2007	2012
Australia	16.5	22.5	0.6	0.2	24.4	14.8	2.8	1.3	2.3	1.7	49.4	56.2
Austria	44.4	44.9	8.4	9.5	16.5	16.1	10.9	8.7	13.3	13.4	3.2	3.4
Belgium	29.0	31.7	8.2	9.5	22.1	21.8	16.6	10.9	19.5	21.8	1.2	1.4
Canada	22.0	25.0	2.7	1.9	18.4	19.8	16.6	15.8				
Chile	12.2	14.2	1.1	0.0	23.9	20.9	4.4	4.6	11.1	12.3	47.1	47.4
Czech Republic	54.5	55.6	0.3	2.3	22.4	18.1	7.7	4.4	6.4	7.0	5.2	6.1
Denmark	20.4	18.7	4.8	2.8	23.4	17.1	7.4	7.4	22.6	28.3	17.8	22.8
stonia	17.5	37.7	2.0	0.2	67.7	37.6	1.2	1.1	1.8	2.5	4.0	10.5
inland	31.6	37.7	1.9	2.8	34.6	29.7	10.0	7.6	7.4	7.0	8.7	9.6
rance	28.5	30.1	1.7	1.6	21.1	16.7	8.7	7.1	27.8	30.9	3.8	3.9
Germany	36.2	40.8	6.6	4.8	13.4	9.2	10.4	8.5				
Greece	50.9	73.3	9.1	7.0	27.2	7.0	5.0	0.9	2.1	2.2	0.3	0.9
Hungary	35.3	38.0	4.9	7.6	26.3	30.5	9.8	8.4	6.0	5.6	11.5	4.1
celand	18.1	16.8										
reland	38.6	39.6	0.0	0.1	18.5	14.3	0.0	0.0	17.5	19.3	23.8	24.1
srael	21.9		14.2		22.9		0.0		8.2		27.8	
taly	27.3	31.7	20.0	18.7	23.7	20.5	9.5	7.2	9.7	11.5	5.5	6.1
apan	51.2		4.3		8.8		4.1		14.4		13.0	
Corea	42.5	45.4	12.7	9.3	20.9	16.9	0.5	0.3	18.0	20.6	2.0	2.1
uxembourg	49.1	53.4	10.1	9.8	17.4	12.6	13.7	9.2	6.1	10.8	2.0	2.0
Mexico	14.3		32.1		44.6		5.6		1.9		0.9	
Vetherlands	21.3	22.2	3.0	1.8	11.4	9.4	3.3	2.5	10.3	10.9	47.6	51.2
New Zealand												
Vorway	29.5	32.1	1.3	0.6	12.2	9.7	5.4	4.0	5.8	4.1	27.2	31.8
Poland	33.7	45.3	0.8	0.7	30.7	18.2	10.6	6.1	6.0	5.4	14.1	20.3
Portugal	34.5	39.3	5.2	6.7	25.4	23.2	7.3	3.2	10.7	10.3	6.1	4.4
Slovak Republic	62.9	63.7	0.4	1.8	0.3	0.3	10.9	5.8	8.0	7.6	7.6	13.7
Slovenia	43.6	52.1	1.2	1.0	28.6	20.9	9.1	6.6	4.5	6.7	2.2	3.2
Spain	37.9	48.1	2.6	3.5	31.9	23.7	10.7	6.3	6.2	7.5	5.8	6.1
Sweden	14.7	16.7	2.5	1.4	35.7	33.9	9.7	8.0	10.4	9.6	21.0	26.3
Switzerland	26.5	31.9	8.7	6.2	12.7	10.8	11.3	8.6	5.3	4.8	32.6	34.6
Turkey												
Jnited Kingdom	27.3	28.7	0.8	0.8	10.9	10.5	4.2	3.0	52.7	52.7	0.0	0.0
Jnited States	11.4	13.5	8.9	9.1	35.6	31.2	11.1	10.7	2.0	2.0	27.7	30.5
EU 28												
DECD												
Brazil												
China												
ndia												
ndonesia												
Russian Federation												
South Africa												

StatLink http://dx.doi.org/10.1787/888933027646

#### Financial assets of households by type of assets

As a percentage of their total financial assets, 2012 or latest available year



StatLink http://dx.doi.org/10.1787/888933025081

## HOUSEHOLD DEBT

This household leverage ratio measures the indebtedness of households in relation with their income, that is their spending and saving capacity. High leverage ratios are often interpreted as a sign of financial vulnerability though not only debt and liabilities but also assets should be considered in such an assessment. High indebtedness levels generally increase the financing costs of the borrower, deteriorate balance sheet positions and may restrict access to new financing.

#### **Definition**

Debt is a commonly used concept, defined as a specific subset of liabilities identified according to the types of financial instruments included or excluded. Generally, debt is defined as all liabilities that require payment or payments of interest or principal by the debtor to the creditor at a date or dates in the future.

Consequently, all debt instruments are liabilities, but some liabilities such as shares, equity and financial derivatives are not considered as debt. Debt is thus obtained as the sum of the following liability categories (according to the 1993 System of National Accounts), whenever available/applicable in the financial balance sheet of the households and non-profit institutions serving households (NPISHs) sector: currency and deposits; securities other than shares, except financial derivatives; loans; insurance technical

reserves; and other accounts payable. For the households sector, liabilities predominantly consist of loans, and more particularly mortgage loans for the purchase of houses.

#### Comparability

As a number of OECD countries are not able to provide a breakdown between households and NPISHs, household debt refers to the aggregated sector "Households and NPISHs" to ensure the highest level of comparability between countries.

#### Overview

Households remain highly indebted in a large number of OECD economies. In 2011, the ratio of household debt to net disposable income (NDI) was far higher than the OECD average (135%), in Denmark, the Netherlands, Ireland, Norway, and Switzerland. The Slovak Republic had the lowest debt ratio at 49.4% in 2011.

The level of household debt rose in most OECD countries over the period 2007-11. As a percentage of NDI, the Netherlands and Greece recorded the largest increases during this period (respectively around 41 and 34 percentage points). Poland showed an increase of 22 percentage points, followed by Korea with 17 percentage points. A net fall of 24 percentage points was observed in the United Kingdom and the United States, and to a (far) lesser extent in Germany, Denmark and Spain.

According to the most recent figures, long-term loans, mainly consisting of mortgage loans, remain the largest component of household debt, contributing more than 80% of the total household debt in twenty six OECD countries and even more than 90% in ten countries. In 2012, the highest levels were recorded in Switzerland (99.8%) and Canada (96.9%) and the lowest ratios were observed in Italy (69.9%), and the United States (70.7%).

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# HOUSEHOLD DEBT

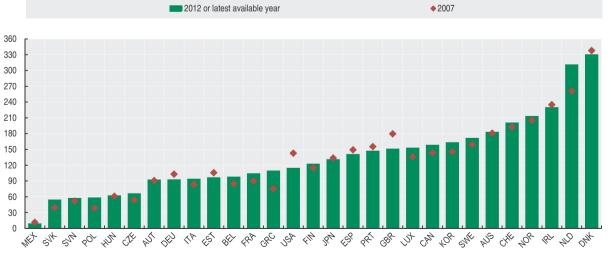
**Household debt**Debt of households and non-profit institutions serving households, as a percentage of net disposable income

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Australia	118.5	125.5	140.9	152.8	164.4	172.5	176.2	180.7	176.3	182.8	183.5		
Austria	77.9	79.9	82.0	81.5	84.9	90.1	91.4	90.9	92.5	92.3	95.7	95.6	92.8
Belgium	68.6	64.4	66.2	69.4	72.8	78.0	81.4	84.9	87.1	87.8	92.9	97.7	98.2
Canada	109.4	109.5	113.7	119.0	124.2	132.0	135.5	143.5	148.3	157.7	158.9		
Chile									58.9	57.2	57.5	56.8	
Czech Republic	21.1	21.8	27.0	29.0	34.4	39.8	44.3	54.0	59.4	61.3	63.1	66.2	66.7
Denmark				260.0	274.3	290.5	310.0	338.0	347.8	355.6	339.2	330.8	
Estonia	20.7	24.6	31.6	40.7	55.1	72.0	95.5	105.7	107.8	111.6	107.4	99.1	97.0
Finland	70.0	70.3	75.4	79.9	88.5	99.5	109.7	114.9	117.5	117.5	118.7	120.6	122.9
France	68.4	68.5	70.0	73.1	75.4	81.6	86.2	90.3	90.1	97.6	102.9	103.7	104.5
Germany	116.4	114.0	113.9	112.5	111.0	108.3	105.9	103.0	99.4	99.7	97.1	94.5	93.2
Greece						63.0	70.0	75.3	82.1	84.0	101.1	108.8	109.7
Hungary	16.1	19.3	25.6	34.9	40.5	46.4	52.8	60.9	74.4	74.9	78.8	72.7	62.6
Iceland													
Ireland			127.3	148.6	171.4	200.9	224.7	235.0	230.0	238.3	234.6	234.3	230.4
Israel													
Italy	56.6	58.4	61.2	64.5	68.5	73.5	78.7	83.2	84.1	89.5	92.6	92.7	94.4
Japan		140.7	139.5	138.1	137.4	137.9	137.3	133.6	132.2	132.4	131.9	131.5	
Korea			131.2	126.5	122.0	129.1	137.5	145.7	149.7	154.1	158.0	162.9	163.8
Luxembourg							127.5	136.1	135.8	142.9	145.0	150.6	153.4
Mexico				7.5	7.6	8.5	10.6	11.6	9.5	9.5			
Netherlands	174.3	176.5	190.0	211.0	223.8	243.1	256.6	260.8	273.3	293.1	299.2	302.1	311.5
New Zealand													
Norway	135.2	147.1	147.2	150.4	160.7	166.5	197.4	205.1	203.1	200.8	204.6	208.8	213.7
Poland	11.8	17.6	22.2	19.6	21.1	24.4	30.4	38.5	50.5	52.6	57.1	60.6	58.9
Portugal	114.6	119.2	121.7	127.9	133.6	139.3	148.4	155.2	153.9	157.9	155.2	152.5	147.6
Slovak Republic	21.2	22.9	25.7	29.2	27.0	30.5	33.3	39.3	44.0	43.9	45.7	49.4	54.8
Slovenia		32.8	33.1	35.0	35.6	39.9	44.5	51.9	53.8	56.3	59.1	57.5	57.8
Spain	86.1	89.4	96.4	105.1	116.3	129.1	143.4	149.3	144.0	141.2	146.3	142.3	141.1
Sweden	108.7	119.2	121.6	128.0	137.3	147.5	155.3	159.4	161.0	166.4	174.0	173.2	172.0
Switzerland	182.8	181.3	189.2	201.1	199.6	204.0	201.9	192.5	190.2	194.5	198.5	201.2	
Turkey													
United Kingdom	115.7	121.6	133.9	145.1	157.4	160.4	171.7	179.8	174.9	167.9	160.1	155.9	151.5
United States	103.6	107.2	112.5	120.2	126.8	134.6	139.7	142.8	134.8	133.3	127.1	119.2	114.9
EU 28													
OECD													
Brazil													
China													
India													
Indonesia													
Russian Federation													
South Africa													

StatLink http://dx.doi.org/10.1787/888933027665

#### Households and NPISHs debt

As a percentage of net disposable income



StatLink http://dx.doi.org/10.1787/888933025100

# NON-FINANCIAL ASSETS OF HOUSEHOLDS

Non-financial assets held by households reflect the assets owned by unincorporated household enterprises and dwellings owned by households, with the latter component forming by far the bulk of non-financial assets held by households. They form an important part of overall wealth and can provide an important additional source of revenue; either through their sale or refinancing, or as income via rentals of residential property for example. Estimates of non-financial assets held by households also play an important role in economic analyses, such as studies of asset bubbles, and analyses of living standards.

## **Definition**

Non-financial assets held by households include, in theory, both produced and non-produced non-financial assets and therefore include: dwellings, other buildings and structures, and land improvements; machinery and equipment including livestock; and intellectual property products, such as software and literary originals, and non-produced assets such as land and taxi-licenses. In practice dwellings form by far the most significant component.

Except for dwellings, only those assets owned by household unincorporated enterprises, and used in production, are included as non-financial assets. For example a car used by a household purely for household transport is not a non-financial asset whereas a car used by a self-employed taxi driver is.

Non-financial assets are valued at the market prices at the time of the balance sheet, and are recorded net of depreciation.

#### Overview

Prior to the recent financial crisis, dwellings per capita values rose almost continually, with few exceptions, in all OECD countries. The United Kingdom saw the strongest growth over this period (1996-2007) with values trebling. Growth was also strong in many other countries such as Australia, Finland, France, the Netherlands, the Slovak Republic, Sweden and the United States, with values doubling over the period. In 2008 however at the height of the recent crisis the average value fell by 11% in the United Kingdom and by 3% in the United States. For the United States the contraction continued into 2009, with values falling again by 3% before stabilising in 2010. The average growth in most other countries also slowed over this period, with growth turning negative in Japan and Slovenia in 2009 and Finland and Estonia in both 2009 and 2010 and Poland in 2010.

## Comparability

Information on non-financial assets held by households typically relies on household based surveys. As a consequence, the quality of this information, except for that pertaining to dwellings and land, is generally of lower quality than it is for similar information collected on incorporated businesses.

Moreover, in practice, countries use a variety of methods to differentiate between the value of dwellings and the land on which the dwellings sit, meaning that comparisons of these subcomponents across countries are challenging. Some countries include the value of land under dwellings within the figures for dwellings. This matters not only for international comparability but also because dwellings, as produced assets depreciate whereas (most) land, as a non-produced asset, does not. A particular challenge arises from capturing quality change and quality differences in the housing stock and valuing it accordingly.

The caveats above, pertaining to the distinction between land and dwellings, mean that users should be particularly careful in using the figures in making international comparisons. The OECD is working with national statistics institutes so that future versions of these data reflect a greater degree of international comparability.

Data are assets net of depreciation for all countries except for the Slovak Republic and Poland (gross recording).

EU28 does not include Croatia.

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#### Online databases

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# NON-FINANCIAL ASSETS OF HOUSEHOLDS

# Non-financial assets of households

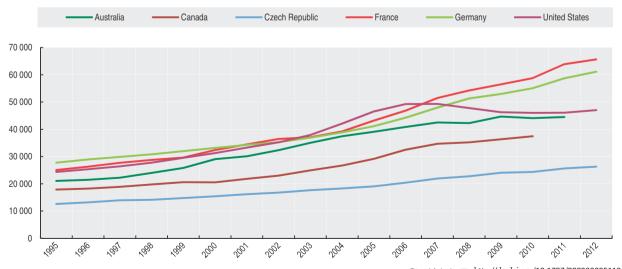
US dollars at current PPPs, per capita

		Dwe	ellings			L	and			7 012		
-	2009	2010	2011	2012	2009	2010	2011	2012	2009	2010	2011	2012
Australia	44 645	44 112	44 514		95 586	89 379	82 051		17 012	16 638	16 718	
Austria	48 528	50 255	52 963	55 233								
Belgium	46 251	47 724	51 078									
Canada	36 349	37 470			32 673	33 388			1 668			
Chile												
Czech Republic	24 052	24 341	25 624	26 262	2 927	3 035	3 045	3 147	4 693			5 749
Denmark .	61 519	60 645	61 262									
Estonia	24 067	23 583	24 090									
Finland	38 889	37 656	39 911	42 615								
France	56 489	58 801	63 872	65 620	57 427	65 214	68 871	66 550				7 708
Germany	52 943	55 046	58 720	61 130								
Greece												
Hungary	23 873	24 324	25 229									
Iceland												
Ireland												
Israel	24 445	25 610	27 070									
taly	47 390	48 543	51 134	53 553								
lapan	20 449	21 077	21 630		52 509	52 901	53 374		4 613	4 534	4 575	
Korea									4010		4070	
Luxembourg	41 194	40 680	42 434	43 479								
Mexico												
Netherlands	53 961	54 041	53 409	52 095	54 288	51 089	51 005	46 310				
New Zealand					34 200		31 003					
Norway						**					**	•
Poland	7 746	5 627	5 818				••					**
Portugal											**	
Slovak Republic	31 292	 31 717	32 808	33 267								
Slovenia	34 109	35 101	37 006								**	
Spain												
Sweden	26 996	26 625	27 298			**				-		
Switzerland												
Turkey										-		
Jnited Kingdom	94 770	93 810	92 831	96 122								
Jnited States	46 235	46 028	46 093	47 021								-
EU 28												
DECD	-									-		-
Brazil												
	-									-		
China India												
Indonesia						**					**	
Russian Federation		••				**					**	
South Africa												

StatLink http://dx.doi.org/10.1787/888933027684

# Non-financial assets of households per capita: dwellings

US dollars at current PPPs



StatLink http://dx.doi.org/10.1787/888933025119





# **TRADE**

SHARE OF INTERNATIONAL TRADE IN GDP
INTERNATIONAL TRADE IN GOODS
INTERNATIONAL TRADE IN SERVICES
TRADING PARTNERS
TRADE IN VALUE ADDED

TRADE IN VALUE ADDED: ROLE OF INTERMEDIATES AND SERVICES

# FDI AND BALANCE OF PAYMENTS

FOREIGN DIRECT INVESTMENT
BALANCE OF PAYMENTS

# SHARE OF INTERNATIONAL TRADE IN GDP

In today's increasingly globalised world, exports and imports are key aggregates in the analysis of a country's economic situation. Whenever an economy slows down or accelerates, all other economies are potentially affected.

#### **Definition**

Exports of goods and services consist of sales, barter or gifts or grants, of goods and services (included in the production boundary of GDP) from residents to non-residents. Equally, imports reflect the same transactions from non-residents to residents.

Not all goods need to physically enter a country's border to be recorded as an export or import. Transportation equipment, goods produced by residents in international waters sold directly to non-residents, and food consumed in ships or planes are but a few examples of transactions which may be recorded as exports or imports without physically crossing borders.

Equally not all goods that enter a country's borders are necessarily imports or exports. Transportation equipment, goods sent abroad for minor processing (or which enter and leave a country in their original state and ownership) are examples of goods that cross borders but are not recorded as imports or exports.

## **Comparability**

Goods (merchandise trade) reflect the bulk of import and exports, and these are generally well covered and afford good comparability across countries; although discrepancies between total imports and exports of traded goods at the global level reveal that measurement in practice is not trivial. Growth in trade through the Internet has increased measurement difficulties.

The comparability of trade in services is greater affected by practical measurement issues however; even if the conceptual approach, as it is for goods, is the same for all OECD countries.

Until recently, exports and imports of services mainly consisted of transport services (sea, air) and insurance. But increases in outsourcing, merchanting, processing services and transactions in intellectual property, such as software and artistic originals, have increased the difficulties inherent in the measurement of trade in services.

EU28 does not include Croatia.

## Overview

Before the recent economic crisis international trade in goods and services, both for imports and exports, showed a steady increase throughout the OECD area, with the OECD total increasing (on average) by between 5 and 6 percentage points for both measures between 2004 and 2008, with imports slightly outpacing exports. In 2009 however, in the midst of the recent crisis, the ratio for both imports and exports in GDP fell markedly, wiping out nearly all of the increases recorded after 2004. The GDP ratio for exports in 2009 at 24.5%, was significantly below the one for 2008 (27.7%). This pattern was mirrored by the import-to-GDP ratio for the OECD total, which decreased on average from 29.2% in 2008 to 24.9% in 2009. In 2010, the shares of both imports and exports regained partly their previous losses. These increases continued in 2011, for almost all countries for which data are available. A majority of these countries has now shares of imports and exports that are larger than the pre-crisis levels.

Looking at the balance of exports and imports, Luxembourg, Norway, Switzerland and Ireland show large and consistent surpluses of more than 10% of GDP, whereas the Netherlands, Hungary, Iceland, Germany, Sweden, the Czech Republic and the Slovak Republic have surpluses of more than 5%. On the other hand Turkey, Greece, the United States, France and the United Kingdom have persistent deficits of more than 2% of GDP.

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#### Website

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# SHARE OF INTERNATIONAL TRADE IN GDP

# International trade in goods and services

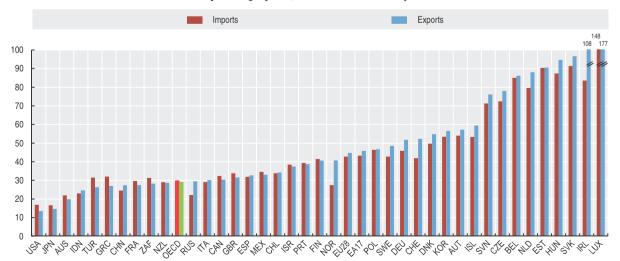
As a percentage of GDP

			Imp	orts					Exp	orts		
_	2007	2008	2009	2010	2011	2012	2007	2008	2009	2010	2011	2012
Australia	22.0	22.1	20.0	19.7	21.1	22.0	19.9	22.6	19.6	21.2	21.4	19.9
Austria	53.2	53.5	45.6	50.0	54.3	54.0	58.9	59.3	50.1	54.4	57.3	57.2
Belgium	78.7	83.6	71.0	77.7	84.2	85.0	82.5	84.4	73.7	79.8	85.0	86.1
Canada	33.0	33.6	30.4	31.3	32.3	32.4	35.0	35.1	28.7	29.4	31.1	30.4
Chile	31.9	39.5	29.6	31.8	34.7	33.9	45.2	41.5	37.2	38.1	38.0	34.2
Czech Republic	65.6	62.1	54.9	63.2	68.7	72.4	68.2	64.4	59.0	66.6	72.9	78.0
Denmark	49.9	51.6	43.7	44.9	48.4	49.7	52.2	54.7	47.6	50.4	53.7	54.8
Estonia	76.3	75.1	58.3	72.3	86.8	90.3	67.1	71.0	63.9	79.2	90.5	90.6
Finland	40.7	43.1	35.7	39.0	41.7	41.4	45.8	46.8	37.3	40.4	41.0	40.6
France	28.4	29.1	25.2	27.8	29.9	29.7	26.9	26.9	23.4	25.5	26.9	27.4
Germany	40.2	41.9	37.5	42.0	45.4	45.9	47.2	48.2	42.5	47.6	50.6	51.8
Greece	37.9	38.6	30.7	31.5	33.1	32.0	23.8	24.1	19.3	22.2	25.1	27.0
Hungary	80.4	81.2	72.7	79.4	85.2	87.3	81.3	81.7	77.6	85.1	91.6	94.7
Iceland	45.3	47.2	44.2	46.3	50.7	53.3	34.6	44.4	52.9	56.4	59.1	59.4
Ireland	71.4	74.3	74.2	81.2	81.1	83.6	80.4	83.3	90.2	99.8	102.7	107.8
Israel	44.1	41.6	32.3	34.9	37.8	38.5	42.6	40.5	35.0	37.2	37.3	37.4
Italy	29.1	29.3	24.3	28.5	30.2	29.1	28.9	28.5	23.7	26.6	28.8	30.2
Japan	16.1	17.5	12.3	14.0	16.1	16.6	17.7	17.7	12.7	15.2	15.1	14.7
Korea	40.4	54.2	46.0	49.7	54.0	53.4	41.9	53.0	49.7	52.3	56.0	56.5
Luxembourg	143.6	151.8	131.0	140.0	148.0	148.2	175.9	181.8	162.0	170.8	178.3	177.3
Mexico	29.6	30.4	29.2	31.6	32.9	34.6	28.0	28.1	27.7	30.4	31.7	33.0
Netherlands	66.0	68.0	61.6	70.6	75.3	79.6	74.2	76.3	68.6	78.7	83.9	88.0
New Zealand	29.2	32.6	26.7	28.3	29.4	29.0	28.4	31.4	28.3	29.8	30.3	28.6
Norway	30.5	29.5	27.7	28.5	28.2	27.5	44.1	46.8	40.0	40.5	41.5	40.7
Poland	43.6	43.9	39.4	43.4	46.2	46.4	40.8	39.9	39.4	42.2	45.1	46.7
Portugal	40.2	42.5	35.4	39.0	40.2	39.3	32.2	32.4	28.0	31.3	35.7	38.7
Slovak Republic	88.0	85.9	71.1	80.6	89.0	91.4	86.9	83.5	70.6	80.4	89.5	96.6
Slovenia	71.2	70.4	57.2	65.3	71.5	71.3	69.5	67.9	70.6 59.4	66.8	73.0	76.1
Spain	33.6	32.3	25.8	29.5	31.9	31.9	26.9	26.5	23.9	27.4	30.8	32.7
Sweden	33.b 44.4	32.3 46.8	25.8 41.5	43.3	44.3	42.7	26.9 51.9	53.5	48.0	49.5	49.9	32.7 48.5
Switzerland	44.4	43.2	39.3	45.5	44.3	41.9	54.4	54.3	50.4	49.5 51.7	51.3	52.3
Switzerianu Turkey	27.5	28.3	39.3 24.4	26.8	40.9 32.6	31.5	22.3	23.9	23.3	21.2	24.0	26.4
	29.2	31.6	30.0	32.3	33.6	33.8	26.6	29.4	28.4	30.1	32.1	31.6
United Kingdom United States			30.0 13.7		33.6 17.2	33.8 16.9		12.5		12.3		13.5
	16.4 40.1	17.4 41.1	35.5	15.8 40.0	42.9	43.2	11.5	12.5 42.0	11.0 36.9	41.3	13.5 44.3	45.8
Euro area							41.5					
EU 28	39.5	41.1	35.9	39.8	42.6	42.7	40.1	41.3	36.9	40.8	43.7	44.7
DECD	27.6	29.2	24.9	27.6	29.9	29.8	26.4	27.7	24.5	26.9	28.8	29.2
Brazil												
China	29.6	27.3	22.3	25.6	25.9	24.5	38.4	35.0	26.7	29.4	28.5	27.3
ndia	24.4	28.9	25.0				20.4	23.8	19.8			
ndonesia	25.4	28.8	21.4	23.0			29.4	29.8	24.2	24.6		
Russian Federation	21.5	22.1	20.5	21.1	21.8	22.1	30.2	31.3	27.9	29.2	30.4	29.4
South Africa	34.2	38.9	28.2	27.6	29.9	31.3	31.5	35.9	27.3	27.4	29.3	28.3

StatLink http://dx.doi.org/10.1787/888933027703

# International imports and exports in goods and services

As percentage of GDP, 2012 or latest available year



StatLink http://dx.doi.org/10.1787/888933025138

## INTERNATIONAL TRADE IN GOODS

Since its creation, the OECD has sought to promote international trade, considering it an effective way of enhancing economic growth and rising living standards. Member countries benefit from increased trade as do OECD's trade partners in the rest of the world.

## **Definition**

According to United Nations guidelines, international merchandise trade statistics record all goods which add to, or subtract from, the stock of material resources of a country by entering (as imports) or leaving (as exports) its economic territory. Goods being transported through a country or temporarily admitted or withdrawn (except for goods for inward or outward processing) are not included in merchandise trade statistics.

All OECD countries use the United Nations guidelines so far as their data sources allow. There are some, generally minor, differences across countries in the coverage of certain types of transactions such as postal trade, imports and exports of military equipment under defence agreements, sea products

#### Overview

For all countries, merchandise trade has grown steadily over the long term. However between 2008 and 2009, the impact of the global financial crisis on merchandise trade is manifest. The impact of the crisis on imports was in relative terms more moderate for China, Switzerland, India and Australia as imports fell by less than 20%. It was more severe for the Russian Federation and Iceland as imports of these countries contracted by more than 35%. After 2 years of growth in 2010 and 2011, imports fell again in 2012 for most European OECD countries, for example by more than 10% for Portugal, Spain and Italy.

Exports were also affected by the crisis between 2008 and 2009 as they collapsed, for instance, by more than 35% in Finland and the Russian Federation. However, they fell by less than 15% in India, Ireland, Korea, Chile and Switzerland. Exports decreased again in 2012 for most European OECD countries and by more than 16% in the case of Luxembourg.

The deficit of the merchandise trade balance has grown in several OECD countries over the period presented here. It was, for instance, the case for the United States, the United Kingdom, France, Japan and Turkey. However, Germany, China and the Russian Federation have continued running a merchandise trade surplus.

Of note, is the sharp deterioration in the Japanese merchandise trade balance in 2011 and 2012 resulting in Japan's annual trade deficit for these years after 30 years of surplus. This reversal is related to energy imports rise in recent years in the aftermath of the tsunami and earthquake in 2011.

traded by domestic vessels on the high seas and goods entering or leaving bonded customs areas.

## Comparability

Exports are usually valued free on board (f.o.b.), with the exception of the United States which values exports free alongside ship (f.a.s.), which is lower than f.o.b. by the cost of loading the goods on board. Imports are valued by most countries at cost, insurance and freight (c.i.f.) i.e. the cost of the goods plus the costs of insurance and freight to bring the goods to the borders of the importing country. Canada, however, reports imports at f.o.b. values.

The introduction by the European Union of the single market in 1993 resulted in some loss of accuracy for intra-EU trade because custom documents were no longer available to record all imports and exports. Note that while the OECD data mostly follow the UN recommendations, trade statistics reported by Eurostat follow Community definitions, and are not strictly comparable with those reported here.

The OECD aggregate includes all 34 member economies only from 1999. The EU28 aggregate excludes Croatia.

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# INTERNATIONAL TRADE IN GOODS

# International trade in goods

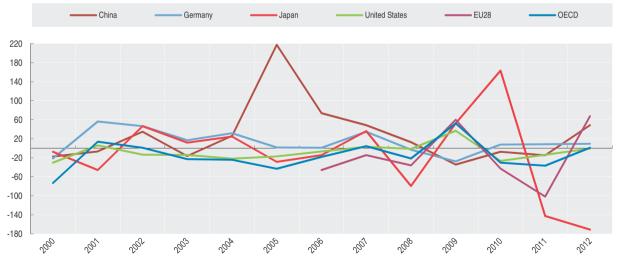
Billion US dollars

		Trade	balance			Im	ports			Ex	ports	
_	2000	2005	2010	2012	2000	2005	2010	2012	2000	2005	2010	2012
Australia	-4.0	-12.8	18.6	5.8	67.8	118.9	193.3	250.5	63.8	106.0	211.8	256.2
Austria	-5.2	-2.2	-5.7	-10.8	67.4	120.0	150.6	169.7	62.3	117.7	144.9	158.8
Belgium	10.8	13.8	21.0	9.0	177.0	320.2	390.1	437.9	187.8	334.0	411.1	446.9
Canada	37.6	46.1	-5.5	-9.0	240.0	314.4	392.1	462.4	277.6	360.6	386.6	453.4
Chile	1.6	9.0	11.5	-1.2	16.6	32.9	59.4	79.5	18.2	42.0	70.9	78.3
Czech Republic	-3.2	1.7	6.5	16.7	32.2	76.5	125.7	139.7	29.1	78.2	132.1	156.4
Denmark	5.2	8.3	12.3	13.4	44.4	75.0	84.5	92.1	49.6	83.3	96.8	105.6
Estonia	-1.2	-2.8	-0.4	-1.6	5.1	11.0	13.2	19.8	3.8	8.2	12.8	18.2
Finland	11.6	6.8	1.4	-3.1	33.9	58.5	68.8	76.1	45.5	65.2	70.1	73.0
France	-8.5	-41.6	-87.5	-106.7	304.0	476.0	599.2	663.3	295.6	434.4	511.7	556.6
Germany	54.8	197.3	204.3	242.9	495.4	779.8	1 066.8	1 173.3	550.2	977.1	1 271.1	1 416.2
Greece	-18.8	-37.4	-41.8	-27.2	29.8	54.9	63.3	62.3	11.0	17.5	21.6	35.2
Hungary	-4.0	-3.6	7.3	8.7	32.1	65.9	87.4	94.3	28.1	62.3	94.7	103.0
Iceland	-0.7	-1.9	0.7	0.3	2.6	5.0	3.9	4.8	1.9	3.1	4.6	5.1
Ireland	25.6	39.7	57.8	55.2	50.6	70.3	60.5	63.1	76.3	110.0	118.3	118.3
Israel	-4.3	-2.3	-0.8	-10.0	35.7	45.0	59.2	73.1	31.4	42.8	58.4	63.1
Italy	1.9	-11.9	-39.9	12.4	238.1	384.8	486.6	489.1	239.9	373.0	446.8	501.5
Japan	99.6	79.1	75.7	-87.3	379.7	515.9	694.1	885.8	479.2	594.9	769.8	798.6
Korea	11.8	23.2	41.2	28.3	160.5	261.2	425.2	519.6	172.3	284.4	466.4	547.9
Luxembourg	-2.8	-4.9	-6.5	-10.3	10.6	17.6	20.4	24.0	7.9	12.7	13.9	13.7
Mexico	-13.1	-7.6	-3.2	0.1	179.4	221.8	301.5	370.7	166.3	214.2	298.3	370.8
Netherlands	5.4	36.9	52.7	53.5	174.7	283.2	440.0	501.1	180.1	320.1	492.6	554.7
New Zealand	-0.6	-4.5	0.8	-1.0	13.9	26.2	30.2	38.1	13.3	21.7	30.9	37.1
Norway	25.5	48.3	54.1	73.7	34.4	55.5	77.3	87.3	59.9	103.8	131.4	161.0
Poland	-17.2	-12.2	-17.1	-11.8	48.8	101.5	174.1	191.4	31.6	89.4	157.1	179.6
Portugal	-15.6	-23.1	-26.5	-13.9	39.9	61.2	75.2	72.3	24.4	38.1	48.8	58.4
Slovak Republic	-0.9	-2.4	-0.4	3.1	12.7	34.2	64.4	77.7	11.8	31.9	64.0	80.8
Slovenia	-1.4	-1.7	-2.2	-1.3	10.1	19.6	26.4	28.4	8.7	17.9	24.2	27.1
Spain	-39.5	-96.8	-70.6	-39.9	152.9	289.6	318.2	325.8	113.3	192.8	247.6	285.9
Sweden	14.2	18.9	9.6	9.9	73.1	111.4	148.8	162.7	87.4	130.3	158.4	172.6
Switzerland	-2.0	4.4	19.3	28.2	82.5	126.6	176.3	197.8	80.5	130.9	195.6	225.9
Turkey	-26.7	-43.3	-71.6	-84.0	54.5	116.8	185.5	236.5	27.8	73.5	114.0	152.5
United Kingdom	-56.6	-131.4	-156.6	-207.9	339.4	515.8	562.4	689.1	282.9	384.4	405.8	481.2
United States	-477.7	-828.0	-689.4	-788.2	1 258.1	1 732.3	1 966.5	2 333.8	780.3	904.3	1 277.1	1 545.6
EU 28		-157.8	-204.7	-134.6		1 465.1	1 990.5	2 301.1		1 307.3	1 785.8	2 166.4
OECD	-398.4	-738.8	-630.7	-854.1	4 898.0	7 499.6	9 590.9	11 093.1	4 499.6	6 760.7	8 960.2	10 239.0
Brazil	-0.7	44.9	16.9	19.4	55.9	73.6	180.5	223.1	55.1	118.5	197.4	242.6
China	24.1	102.0	181.8	230.6	225.1	660.0	1 396.0	1 818.2	249.2	762.0	1 577.8	2 048.8
India	-10.6	-40.5	-129.6	-199.4	52.9	140.9	350.0	489.0	42.4	100.4	220.4	289.6
Indonesia	28.6	28.0	22.1	-1.7	33.5	57.7	135.7	191.7	62.1	85.7	157.8	190.0
Russian Federation	69.2	142.7	168.2	208.6	33.9	98.7	228.9	316.2	103.1	241.5	397.1	524.8
South Africa	-0.5	-8.0	-8.7	-14.9	26.8	55.0	80.1	101.6	26.3	47.0	71.5	86.7

StatLink http://dx.doi.org/10.1787/888933027722

# **Evolution of the merchandise trade balance**

Annual growth rate in percentage



StatLink http://dx.doi.org/10.1787/888933025157

# INTERNATIONAL TRADE IN SERVICES

International trade in services is growing in importance both among OECD countries and with the rest of the world. Traditional services – transport, insurance on merchandise trade, and travel – account for about half of international trade in services, but trade in newer types of services, particularly those that can be conducted via the Internet, is growing rapidly.

## **Definition**

International trade in services is defined according to the International Monetary Fund (IMF) Balance of Payments Manual. Services include transport (both freight and passengers), travel (mainly expenditure on goods and services by tourists and business travellers), communications services (postal, telephone, satellite, etc.), construction services, insurance and financial services, computer and information services, royalties and license fees, other business services (merchanting, operational leasing, technical and professional services, etc.), cultural and recreational services (rents for films, fees for actors and other performers, but excluding purchases of films, recorded music, books, etc.) and government services not included in the list above.

## Comparability

In 1993 the fifth Balance of Payments Manual was issued and countries began implementation. All OECD countries now report international trade in services broadly according to the BPM5 framework. Data for Australia,

## Overview

Between 2008 and 2012, the United States has by far the largest services surplus, followed by the United Kingdom, Spain, Switzerland and France.

In 2012, services exports were highest in the United States, the United Kingdom, Germany and France. Over the same period, the United States is the largest importer of services followed by Germany whereas the United Kingdom has overtaken France.

As a percentage of GDP, averaged over the 3 years ending 2012, 7 OECD countries, Luxembourg, Estonia, Switzerland, Greece, the United Kingdom, Austria and Portugal, have recorded trade in services surpluses of more than 5% of GDP. Canada, Norway, Mexico and Ireland experienced deficits over 1% of GDP for this period.

It should be noted that the total services trade deficit for Ireland fell from an average of 8.4% of GDP in period 2000-02 to a surplus average of 0.3% of GDP in period 2010-12 as Irish services exports expanded faster than imports, in particular due to dynamic computer services.

Canada, Chile and Korea (partly) are already updated and presented according to the new BPM6 standard. By end 2014, most OECD countries will have made the transition from BPM5 to BPM6.

A change affecting in particular trade in services under BPM6, and a consequence of the stricter application of the change of ownership principle, is that goods for processing will be excluded from exports and imports in the goods accounts. Instead, the exchange of processing fees will be recorded under services in the economies concerned: the outward processing economy recording payment of fees as imports of services, the inward processing economy recording the receipt of fees as exports of services.

Also under BPM6, the merchant's margin will be recorded in the goods account of the economy of the merchant as a "net export of goods under merchanting". Purchase of goods under merchanting would be registered as negative exports and resales of goods under merchanting would be registered as exports of goods. Merchanting was previously recorded in the service account.

Thus, as with goods for processing, there will be a difference between the balance of payments and the physical movement of goods recorded in merchandise trade statistics

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# INTERNATIONAL TRADE IN SERVICES

## International trade in services

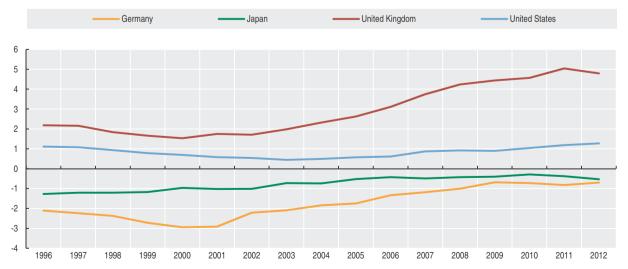
Billion US dollars

		Trade I	balance			Im	ports			Exp	oorts	
_	2000	2009	2011	2012	2000	2009	2011	2012	2000	2009	2011	2012
Australia	0.6	-2.4	-10.1	-11.6	19.3	42.2	61.8	64.5	19.9	39.9	51.7	52.9
Austria	6.5	17.6	19.0	18.1	16.5	37.1	42.3	42.3	23.0	54.5	61.2	60.5
Belgium	2.1	12.2	9.3	10.0	32.3	75.7	88.9	91.6	34.3	87.8	98.1	101.5
Canada	-2.8	-14.2	-22.9	-24.2	43.0	83.0	107.6	108.4	40.2	68.8	84.8	84.1
Chile		-2.0	-2.6	-2.4		10.5	15.7	15.1		8.5	13.2	12.6
Czech Republic	1.4	3.9	3.3	2.6	5.4	15.5	19.9	19.6	6.9	19.3	23.2	22.1
Denmark	2.4	3.9	7.6	7.7	22.1	52.2	59.2	57.4	24.5	56.1	66.8	65.2
stonia	0.6	2.0	1.8	1.6	0.9	2.5	3.7	3.9	1.5	4.5	5.5	5.5
inland	-1.7	0.4	0.2	-1.9	9.4	27.2	28.8	30.1	7.7	27.6	29.0	28.3
rance	17.2	25.5	43.8	41.9	65.7	165.3	191.8	174.4	82.8	190.7	235.6	216.3
Germany	-55.0	-22.0	-24.2	-25.3	138.2	261.2	298.1	295.9	83.2	239.3	273.9	270.5
Greece	8.3	18.1	20.5	19.0	11.4	19.9	19.5	15.9	19.8	38.1	40.0	34.9
Hungary	0.8	2.8	4.4	4.4	4.8	15.8	17.6	16.0	5.6	18.6	22.0	20.4
celand	-0.1	0.3	0.3	0.2	1.2	2.0	2.6	2.8	1.0	2.3	3.0	3.0
reland	-12.8	-9.6	-2.4	4.1	32.8	103.5	115.6	111.9	20.0	93.9	113.3	116.1
srael	3.7	4.9	6.6	9.9	12.1	17.6	20.6	21.1	15.8	22.5	27.1	31.0
taly	1.1	-11.7	-7.9	-1.0	55.4	105.9	115.5	106.1	56.5	94.2	107.6	105.2
apan	-45.8	-20.4	-22.1	-31.2	115.0	148.7	167.8	176.7	69.2	128.2	145.7	145.5
Corea	-2.2	-6.0	-6.0	5.8	33.7	79.6	101.2	105.7	31.6	73.6	95.2	111.5
uxembourg	6.8	24.5	29.5	30.0	13.2	33.5	42.4	42.2	20.0	57.8	71.8	72.2
Mexico	-3.6	-10.2	-14.8	-14.6	17.1	25.0	30.4	30.7	13.5	14.8	15.6	16.1
letherlands	-2.1	7.9	12.2	9.8	51.4	85.0	94.9	94.6	49.3	92.9	107.1	104.4
lew Zealand	-0.1	0.2	-0.6	-0.7	4.5	8.4	11.8	12.1	4.5	8.7	11.3	11.4
lorway	2.7	-1.9	-6.8	-9.0	15.0	36.6	46.2	47.5	17.7	34.4	39.7	38.2
Poland	1.4	4.8	5.7	6.0	9.0	24.2	31.9	31.9	10.4	29.0	37.6	37.9
Portugal	2.0	8.3	10.7	11.2	7.0	14.4	16.0	13.4	9.1	22.7	26.6	24.5
Slovak Republic	0.4	-1.4	-0.5	0.4	1.8	7.5	7.1	6.8	2.2	6.0	6.6	7.2
Slovenia	0.5	1.6	2.0	2.3	1.7	4.4	4.7	4.3	2.2	6.0	6.7	6.6
Spain	19.4	34.8	48.2	47.5	33.2	88.8	95.2	90.2	52.6	123.3	143.3	137.8
Sweden	-1.5	11.3	16.6	16.6	24.6	44.7	54.4	54.5	23.1	55.8	71.0	71.1
witzerland	17.9	42.3	49.7	43.9	12.8	34.1	45.3	46.8	30.7	76.5	95.3	91.0
urkey	11.4	18.6	20.1	22.6	8.1	17.1	20.5	20.5	19.5	35.7	40.7	43.2
Jnited Kingdom	22.7	92.9	123.2	118.9	102.1	177.4	188.0	186.6	124.8	274.5	310.0	297.9
Inited States	69.6	126.9	187.3	206.8	218.4	381.8	429.7	442.5	288.0	508.7	617.0	649.3
U 28												
DECD	70.1	365.8	503.0	520.7	1 130.0	2 251.9	2 596.9	2 585.8	1 200.1	2 617.7	3 099.8	3 106.5
razil	-7.2	-19.2	-38.0		16.7	47.0	76.2		9.5	27.7	38.2	
hina	-5.6	-29.4	-61.7	-89.8	36.0	158.9	247.6	281.2	30.4	129.5	186.1	191.5
ndia	-2.5	12.2			19.2	80.9			16.7	93.0		
ndonesia	-10.4	-9.7	-10.6	-10.8	15.6	22.9	31.3	33.9	5.2	13.2	20.7	23.1
Russian Federation	-6.6	-19.8	-35.9		16.2	61.4	90.0		9.6	41.5	54.0	
South Africa	-0.8	-2.8	-4.8		5.8	14.8	19.7		5.0	12.0	14.8	

StatLink as http://dx.doi.org/10.1787/888933027741

# Services trade balance: exports of services minus imports of services

As a percentage of GDP



StatLink http://dx.doi.org/10.1787/888933025176

## TRADING PARTNERS

The pattern of OECD merchandise trade – where imports come from and where exports go to – has undergone significant shifts over the last decade. These shifts have occurred in response to changes in the distribution of global income and to globalisation – in particular, the outsourcing of manufacturing from OECD countries to the rest of the world.

## **Definition**

According to United Nations guidelines, international merchandise trade statistics record all goods which add to, or subtract from, the stock of material resources of a country by entering (as imports) or leaving (as exports) its economic territory. Goods being transported through a country or temporarily admitted or withdrawn (except for goods for inward or outward processing) are not included in merchandise trade statistics.

The data shown here refer to total imports and exports declared by all 34 Member countries of the OECD. It shows merchandise trade both within the OECD area and with selected countries of the rest of the world.

## Comparability

OECD countries follow common definitions and procedures in compiling their merchandise trade statistics. These statistics are therefore comparable and of good quality. The removal of customs frontiers following the creation of a common market in Europe required EU countries to adopt a system of recording trade flows through sample surveys of exporters and importers. This led to a fall in the reliability of merchandise trade statistics for trade between the EU countries.

Since the partner data compiled on the basis of the country of origin (for imports) and the country of last known

## Overview

Since 2000, there has been a steady decline in the share of OECD imports and exports among OECD member countries. In 2000, imports from OECD countries accounted for about 75% of total OECD imports; by 2012, this share had fallen to 63%. For exports, the share of OECD exports directed to OECD countries also declined from 81% in 2000 to 70% in 2012.

OECD imports from non-OECD countries have risen from 25% to 37% of the total over the same period, while exports to these countries have increased from 19% to 30%. A large change occurred in trade between OECD countries and China. In 2000, China supplied only 6% of total OECD imports but by 2012 this share had risen to 12%. China's importance as a destination for OECD exports has also increased, rising from 2% in 2000 to 7% in 2012.

destination (for exports) are very often not comparable and in view of the needs for internationally comparable partner data for analytical purposes as well as for trade data reconciliation studies, IMTS 2010 recommends (para 6.26) that country of consignment be recorded for imports as the second partner country attribution, alongside country of origin.

Considering in the case of exports, that countries often do not differentiate the country of last known destination and the country of consignment and that their separate recording could create a significant additional data-reporting and data-processing burden, the compilation of export statistics on the country of consignment basis is only encouraged, depending on a country's needs and circumstances. IMTS 2010 recognizes that the compilation of country of consignment for exports may be considered by some countries as a longer-term objective.

The EU28 aggregate excludes Croatia.

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## TRADING PARTNERS

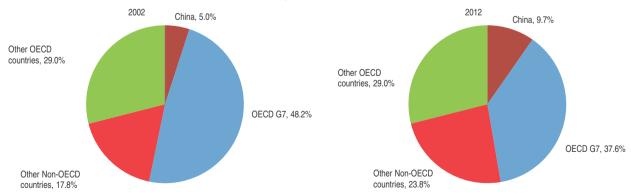
# Partner countries of OECD merchandise trade

Australia Austral Belgium Canada Chile Czech Republic Denmark Estonia Finland France Germany Greece Hungary Iceland Israel	2000 0.8 1.0 2.5 5.7 0.3 0.6 0.8 0.1 0.7	2005 0.8 1.2 2.9 4.6 0.4 0.8 0.9	2010 1.0 1.2 2.6 3.7 0.4	2012 1.1 1.2 2.5 3.7	2000 1.0 1.4	2005 1.0	2010	2012	2000	2005	2010	2012
Austria Belgium Canada Chile Czech Republic Denmark Estonia Finland France Germany Greece Hungary Iceland Ireland Israel Israel Italy	1.0 2.5 5.7 0.3 0.6 0.8 0.1	1.2 2.9 4.6 0.4 0.8	1.2 2.6 3.7 0.4	1.2 2.5	1.4		1.0					
Belgium Canada Chile Czech Republic Denmark Estonia Finland France Germany Greece Hungary Iceland Ireland Israel Italy	2.5 5.7 0.3 0.6 0.8 0.1	2.9 4.6 0.4 0.8	2.6 3.7 0.4	2.5			1.0	1.2	0.9	0.9	1.0	1.1
Canada Chile Czech Republic Denmark Estonia Finland France Germany Greece Hungary Iceland Israel Istaly	5.7 0.3 0.6 0.8 0.1	4.6 0.4 0.8	3.7 0.4		0.0	1.6	1.5	1.5	1.2	1.4	1.4	1.3
Chile Czech Republic Denmark Estonia Finland France Germany Greece Hungary Iceland Ireland Israel Israel Italy	0.3 0.6 0.8 0.1	0.4 0.8	0.4	3.7	3.0	3.5	3.2	3.1	2.7	3.2	2.9	2.8
Czech Republic Denmark Estonia Finland France Germany Greece Hungary Iceland Ireland Israel Istaly	0.6 0.8 0.1	0.8		0.1	4.8	4.0	3.6	3.6	5.3	4.3	3.6	3.7
Denmark Estonia Finland France Germany Greece Hungary Iceland Ireland Israel Italy	0.8 0.1			0.4	0.2	0.2	0.3	0.4	0.2	0.3	0.4	0.4
Estonia Finland France Germany Greece Hungary Iceland Ireland Israel Italy	0.1	0.9	1.1	1.1	0.6	0.9	1.1	1.1	0.6	0.9	1.1	1.1
Finland France Germany Greece Hungary Iceland Ireland Israel Italy			0.8	0.7	0.8	0.9	0.8	0.7	0.8	0.9	0.8	0.7
France Germany Greece Hungary Iceland Ireland Israel Italy	0.7	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Germany Greece Hungary Iceland Ireland Israel Italy		0.7	0.6	0.5	0.7	0.7	0.6	0.5	0.7	0.7	0.6	0.5
Greece Hungary Iceland Ireland Israel Italy	5.2	4.9	4.3	3.9	6.0	6.2	5.6	5.3	5.6	5.5	4.9	4.5
Greece Hungary Iceland Ireland Israel Italy	9.3	10.4	9.6	9.1	8.8	9.1	8.8	8.5	9.1	9.7	9.2	8.8
Hungary Iceland Ireland Israel Italy	0.1	0.2	0.1	0.2	0.6	0.6	0.4	0.3	0.3	0.4	0.3	0.2
Iceland Ireland Israel Italy	0.5	0.7	0.7	0.6	0.6	0.7	0.7	0.7	0.6	0.7	0.7	0.6
Israel Italy	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0
Israel Italy	1.5	1.8	1.5	1.2	1.0	1.0	0.6	0.6	1.3	1.4	1.1	0.9
Italy	0.5	0.4	0.4	0.4	0.6	0.5	0.4	0.4	0.6	0.5	0.4	0.4
. ,	3.8	3.7	3.3	3.1	3.8	4.0	3.5	3.0	3.8	3.8	3.4	3.0
oupun	6.4	4.7	3.7	3.5	3.5	2.6	2.4	2.6	5.0	3.7	3.1	3.1
Korea	2.1	1.9	1.8	1.8	1.9	1.7	1.9	1.9	2.0	1.8	1.9	1.9
	0.1	0.2	0.2	0.1	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2
	3.2	2.7	3.0	3.1	3.0	2.4	2.5	2.8	3.1	2.5	2.7	3.0
Netherlands	3.6	3.7	3.8	3.9	3.9	3.8	3.8	3.8	3.7	3.8	3.8	3.8
New Zealand	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2
	1.1	1.2	1.1	1.4	0.6	0.7	0.7	0.7	0.9	1.0	0.9	1.1
	0.5	0.9	1.3	1.2	0.8	1.2	1.6	1.5	0.7	1.0	1.4	1.4
Portugal	0.5	0.5	0.4	0.4	0.8	0.8	0.7	0.5	0.6	0.6	0.5	0.4
	0.2	0.4	0.5	0.5	0.2	0.4	0.6	0.6	0.2	0.4	0.6	0.6
Slovenia	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	2.0	2.2	2.0	1.9	2.8	3.4	2.6	2.1	2.4	2.8	2.3	2.0
•	1.5	1.5	1.3	1.2	1.4	1.4	1.3	1.2	1.5	1.4	1.3	1.2
	1.5	1.5	1.6	1.8	1.7	1.7	2.0	2.1	1.6	1.6	1.8	1.9
Turkey	0.4	0.7	0.7	0.7	0.8	1.0	1.1	1.1	0.6	0.8	0.9	0.9
	4.9	4.1	3.3	3.1	6.1	5.7	5.0	4.9	5.5	4.9	4.1	4.0
•	12.8	8.8	8.3	8.5	18.5	15.4	12.3	12.6	15.5	11.9	10.2	10.5
	40.1	42.3	39.6	37.5	44.4	47.5	43.9	41.6	42.2	44.8	41.7	39.5
	74.8	69.6	64.8	63.3	80.8	78.0	71.3	70.1	77.6	73.6	67.9	66.5
	0.8	1.0	1.1	1.1	0.9	0.7	1.2	1.3	0.9	0.9	1.1	1.2
	5.5	9.4	12.5	12.2	2.2	4.1	6.9	7.0	3.9	6.9	9.8	9.7
	0.6	0.8	1.1	1.1	0.5	0.8	1.3	1.2	0.6	0.8	1.2	1.2
	1.0	0.8	0.9	0.9	0.5	0.4	0.5	0.6	0.0	0.6	0.7	0.8
Russian Federation		2.1	2.7	3.1	0.5	1.3	1.6	2.0	1.0	1.7	2.2	2.5
South Africa	1.4			0.1								

StatLink http://dx.doi.org/10.1787/888933027760

# Partner countries of OECD merchandise trade

As a percentage of total OECD merchandise trade



StatLink 🍇 http://dx.doi.org/10.1787/888933025195

## TRADE IN VALUE ADDED

Trade in value added data are statistical estimates of the source(s) of the value (by country and industry) that is added in producing goods and services for export (and import). It recognises that growing global value chains mean that a country's exports increasingly rely on significant intermediate imports (and, so, value added by industries in upstream countries). The consequence of the significant growth in global value chains is a multiple counting of trade in intermediates that may distort trade policy analysis.

The joint OECD-WTO Trade in Value Added (TiVA) initiative addresses this issue by considering the value added by each country in the production of goods and services that are consumed worldwide.

#### **Definition**

The OECD-WTO database includes a number of indicators that help to better understand the nature of global value chains and how value and where value is created. The indicators presented are derived using a global input-output table and estimate the total upstream foreign value-added that is generated by domestic final demand and total upstream domestic value added generated by foreign final demand.

The share of foreign value added embedded in exports reflects how much of a country's gross exports contains value added that is produced outside the domestic economy (and imported).

Domestic value added embodied in foreign final demand shows how much domestic value added is included, via direct final exports and via indirect exports of intermediates through other countries, in the demand of

## Overview

The foreign value added content of exports has generally increased over the past two decades, up to an unweighted OECD average of 29%. Yet economies differ significantly in this respect. The share of foreign value added in exports clearly depends on economies' size and pattern of specialisation. Smaller economies tend to have higher shares of foreign value added embodied in their exports; larger economies have a wider variety of domestically sourced intermediate goods available and are therefore less reliant on foreign imports of intermediaries.

In particular, for Asian countries like China, India and Korea, but also for Poland, Hungary, Turkey and Luxembourg, the share of foreign value added in exports has increased substantially since the mid-1990s. The strong effects of the economic crisis has had on international trade is also evident from the table, from the decline of the share of foreign value added in gross exports from 2008 to 2009.

foreign final consumers (households, charities, government, and as investment).

Foreign value added embodied in final domestic demand shows how much value added in final goods and services (purchased by households, government, non-profit institutions serving households and as investment) originates from abroad.

## Comparability

It is important to stress that the indicators presented in the TiVA database are estimates. Official gross statistics on international trade produced by national statistics institutions result in inconsistent figures for total global exports and total global imports; inconsistencies which are magnified when bilateral partner country positions are considered. The global input-output tables from which TiVA indicators are derived, necessarily eliminate these inconsistencies, such as those that reflect different national treatments of re-exports and transit trade (e.g. through hubs such as the Netherlands and Hong Kong), to achieve a coherent picture of global trade. For the countries for which data is presented, total exports and imports are consistent with official national accounts estimates, however bilateral trade positions presented here and those published by national statistics institutions may differ.

#### Sources

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TRADE IN VALUE ADDED

# Foreign value added as a share of gross exports

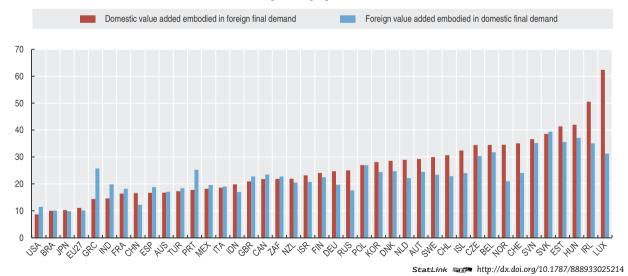
Percentage

	1995	2000	2005	2008	2009
Australia	11.8	13.5	13.0	13.9	12.5
Austria	27.2	31.8	32.3	35.3	31.6
Belgium	39.0	42.7	42.2	40.4	35.0
Canada	23.5	30.9	25.1	21.3	19.5
Chile	15.1	18.0	17.6	20.7	18.5
Czech Republic	32.1	39.2	40.6	39.8	39.4
Denmark	30.1	26.2	32.0	33.9	32.0
Estonia	37.2	50.1	47.9	38.2	33.2
Finland	26.5	31.4	34.1	36.7	33.8
France	17.8	24.5	24.8	27.3	24.8
Germany	18.7	24.4	25.6	27.8	26.6
Greece	13.3	25.3	24.0	25.8	23.2
Hungary	26.6	46.2	49.1	45.0	39.9
celand	33.2	37.2	38.9	35.7	36.6
reland	38.4	50.6	47.0	45.6	42.3
srael	28.6	33.8	38.0	34.9	30.6
taly	21.9	25.3	27.1	22.8	20.1
Japan	6.9	9.9	13.8	19.4	14.8
Korea	23.7	32.9	37.7	43.4	40.6
Luxembourg	42.8	55.5	56.9	59.5	58.9
Vlexico	26.5	31.8	30.7	30.6	30.3
Vetherlands	34.7	38.2	34.4	36.7	35.9
New Zealand	17.4	20.2	19.6	21.4	18.4
Vorway	19.3	14.7	14.5	14.8	15.3
Poland	15.4	23.3	30.7	30.6	27.9
Portugal	28.9	27.1	26.4	35.5	32.4
Slovak Republic	35.6	48.3	48.0	48.4	44.4
Slovenia	30.7	37.5	41.1	39.0	34.4
Spain	20.6	27.0	27.8	24.9	20.7
Sweden	27.8	31.6	32.8	35.0	33.6
Switzerland	23.2	27.8	29.3	30.4	28.5
Turkey	11.2	15.3	20.8	26.3	21.8
Jnited Kingdom	20.7	18.4	20.3	18.9	17.3
Jnited States	8.4	8.9	11.1	14.6	11.3
EU 28					
DECD					
Brazil	9.7	11.5	13.0	11.5	9.0
China	11.9	18.8	36.4	33.3	32.6
ndia	9.7	12.8	19.5	23.7	21.9
ndonesia	14.7	19.3	17.8	17.4	14.4
Russian Federation	10.7	12.5	8.2	7.4	6.9
South Africa	11.8	16.1	16.6	21.1	16.5

StatLink http://dx.doi.org/10.1787/888933027779

# Value added in domestic and foreign final demand

As a percentage of GDP, 2009



## TRADE IN VALUE ADDED: ROLE OF INTERMEDIATES AND SERVICES

The data on Trade in Value Added (TiVA) highlight the significance of intermediate imports used in producing goods and services for export in many economies. They emphasise that being competitive on international markets requires access to the most efficient inputs – either domestically produced or imported – and that tariffs on imports can harm the competitiveness of downstream exporters. The data also stress the important role played by upstream services in producing exports of goods, and, so, the importance of ensuring that producers have access to the most efficient services (again from either foreign or domestic affiliates, or via direct imports).

#### **Definition**

Re-exported intermediates reflect the share of intermediate imports that are used (indirectly and directly) in producing goods and services for exports, as a percentage of total intermediate imports (by import category).

#### Overview

In most economies, around one-third of intermediate imports are destined for the export market. Not surprisingly, the smaller the economy the higher the share. However, even in the United States and Japan, which have the lowest such shares amongst OECD countries, these are 17% and 23% respectively at the total economy level, with noticeably higher percentages for some imported products. In Japan for example nearly 40% of all intermediate imports of transport equipment end up in exports.

In other countries, the share of intermediate imports embodied in exports is significantly higher. In Hungary for example, two-thirds of all intermediate imports are destined for the export market after further processing, with the share reaching 85% for electronic intermediate imports. In China, Korea and Mexico, around three-quarters of all intermediate imports of electronics are embodied in exports. The TiVA database also reveals that close to 80% of China's intermediate imports of textile products end up in exports.

Services comprise about two-thirds of GDP in most developed economies. However, based on gross terms, reported trade in services typically account for just over one-quarter of total trade in goods and services in OECD countries. Accounting for the value added by services in the production of goods though, shows that the service sector contributes over 50% of total exports in the United States, the United Kingdom, France, Germany and Italy and nearly one-third in China, with a significant contribution (typically one-third) across all manufactured goods, provided by both foreign and domestic service providers.

Total domestic services value added embodied in gross exports shows the total value added provided by the services sector in generating direct exports of services and also embodied in the exports of goods using intermediate services. The indicator shown contains a breakdown showing the contributions embodied in direct services and those embodied in goods.

# Comparability

It is important to stress that the indicators presented in the TiVA database are estimates. Official gross statistics on international trade produced by national statistics institutions result in inconsistent figures for total global exports and total global imports; inconsistencies which are magnified when bilateral partner country positions are considered. The global input-output tables from which TiVA indicators are derived, necessarily eliminate these inconsistencies, such as those that reflect different national treatments of re-exports and transit trade (e.g. through hubs such as the Netherlands and Hong Kong), to achieve a coherent picture of global trade. For the countries for which data is presented, total exports and imports are consistent with official National Accounts estimates, however bilateral trade positions presented here and those published by national statistics institutions may differ.

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#### Websites

 Measuring Trade in Value Added: An OECD-WTO joint initiative, www.oecd.org/trade/valueadded



# TRADE IN VALUE ADDED: ROLE OF INTERMEDIATES AND SERVICES

# Re-exported intermediates as percentage of total intermediate imports by selected industries

Percentage, 2009

	Agriculture, hunting, forestry and fishing	Food products, beverages and tobacco	Textiles, textile products, leather and footwear	Wood paper, paper products, printing and publishing	Chemicals and non-metallic mineral products	Basic metals an fabricated metal products	Machinery and equipment	Transport equipment	Transport and storage, post and telecommunication	Business service
Australia	27.6	21.4	20.0	14.2	21.8	34.5	25.2	19.1	18.2	13.6
Austria	46.5	38.3	71.9	52.8	52.0	64.0	64.9	78.2	41.6	49.8
Belgium	57.4	48.5	69.2	43.2	60.2	65.3	63.3	83.1	50.4	42.7
Canada	34.9	26.9	34.4	25.4	34.8	41.5	38.9	57.5	20.9	21.1
Chile	35.9	32.5	19.9	41.6	35.0	29.0	32.7	31.0	33.4	28.3
Czech Republic	34.0	30.0	68.4	51.4	60.5	68.6	55.5	70.9	38.8	31.8
Denmark	60.4	49.3	59.2	32.5	52.9	59.6	54.2	59.3	71.8	27.0
Estonia	62.8	49.1	81.5	61.7	56.4	72.4	63.2	56.2	59.3	46.2
Finland	27.9	20.7	36.1	34.1	39.7	52.7	49.6	48.3	33.5	60.6
France	31.6	22.5	50.5	26.4	42.5	47.1	43.4	63.1	27.1	24.2
Germany	26.0	25.2	49.1	39.7	56.7	70.7	64.5	68.3	42.8	36.1
Greece	12.5	8.3	23.8	14.7	21.9	21.7	22.5	27.4	45.3	15.8
Hungary	42.1	37.7	69.8	47.4	56.5	69.9	72.7	74.2	45.7	43.5
Iceland	55.7	41.9	44.5	21.7	38.8	43.0	40.5	34.8	34.8	47.8
Ireland	85.3	64.2	51.5	63.6	60.9	49.8	50.4	60.7	69.3	71.3
Israel	19.4	17.1	46.0	43.6	42.6	42.4	29.4	38.6	33.2	51.3
Italy	21.8	17.3	46.5	29.0	36.0	52.0	41.6	37.7	24.0	23.8
Japan	5.4	5.5	14.8	12.2	22.1	38.6	32.1	38.3	12.6	9.1
Korea	21.8	16.7	50.2	35.1	57.8	62.3	54.5	54.2	49.0	43.6
Luxembourg	77.7	30.4	74.5	81.7	80.8	88.8	80.9	86.9	87.8	75.7
Mexico	13.8	14.8	51.6	30.8	31.0	45.0	53.6	56.9	29.1	18.2
Netherlands	73.3	64.9	52.0	40.3	72.9	63.8	59.2	63.3	39.3	46.1
New Zealand	54.1	44.9	38.5	29.6	38.3	37.3	26.6	24.0	27.7	27.3
Norway	34.2	36.1	39.5	19.6	42.3	62.8	51.8	33.7	43.9	34.3
Poland	32.1	29.3	70.4	39.9	42.0	59.3	43.6	59.5	34.7	28.3
Portugal	24.8	16.4	62.0	35.5	36.6	51.5	34.4	74.4	34.6	23.1
Slovak Republic	48.8	41.5	85.3	58.4	63.1	73.4	67.9	83.4	40.3	38.0
Slovenia	39.8	32.4	79.5	60.5	59.5	76.9	62.3	77.3	47.9	32.1
Spain	20.0	14.5	48.0	23.8	32.5	36.4	26.5	44.5	29.1	21.0
Sweden	35.1	22.4	45.2	45.7	54.7	69.6	60.6	66.8	39.1	44.7
Switzerland	45.1	38.5	60.9	46.4	67.6	74.0	63.2	50.2	46.1	49.1
Turkey	11.9	10.9	33.6	24.1	26.5	50.2	28.3	42.4	23.6	17.6
United Kingdom	23.5	16.7	34.7	25.0	32.3	53.5	35.6	35.0	23.2	21.3
United States	15.0	9.6	14.2	12.4	18.2	27.5	18.8	19.5	10.7	9.6
EU 28										
DECD										
Brazil	20.7	16.5	11.7	14.9	16.4	19.3	18.4	13.9	10.6	9.1
China	44.1	32.1	80.6	49.2	49.1	52.3	48.8	37.9	37.7	42.1
India	18.1	17.6	33.1	27.4	20.9	19.8	37.5	27.7	20.2	41.2
Indonesia	16.8	15.1	38.0	19.7	21.1	10.7	33.3	16.2	16.3	10.8
Russian Federation	11.1	8.7	18.9	22.0	31.4	37.5	32.1	24.0	23.6	17.1
South Africa	19.6	19.4	23.6	22.9	24.3	34.0	34.4	26.2	32.2	15.9

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# Total domestic services value added embodied in gross exports

As a percentage of gross exports



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## FOREIGN DIRECT INVESTMENT

Foreign direct investment (FDI) is a key element in international economic integration. FDI creates direct, stable and long-lasting links between economies. It encourages the transfer of technology and know-how between countries, and allows the host economy to promote its products more widely in international markets. FDI is also an additional source of funding for investment and, under the right policy environment, it can be an important vehicle for development.

## **Definition**

FDI is defined as cross-border investment by a resident entity in one economy with the objective of obtaining a lasting interest in an enterprise resident in another economy. The lasting interest implies the existence of a long-term relationship between the direct investor and the enterprise and a significant degree of influence by the direct investor on the management. Ownership of at least 10% of the voting

## Overview

FDI activity declined in 2012 after two consecutive years of recovery. FDI outflows world-wide decreased in 2012 by 20% to USD 1 331 billion, as opposed to the 20% increase seen in 2010 and 2011, remaining comparable to FDI outflows recorded in 2010 and well below the historically high in 2007 (USD 2 173 billion). OECD investors accounted for around 74% of global FDI outflows (USD 982 billion), representing a 23% decrease from 2011. The top three investing countries were the United States, Japan and the United Kingdom, representing 44% of global FDI outflows. Investors from the European Union as a whole accounted for 21% of global outflows in 2012, at USD 282 billion, declining from its steady share observed since 2009 (around 30%) and remaining well below investments in 2008 when EU accounted for 51% of world outflows.

In 2012, 40% of global FDI inflows were hosted by only four countries, with China attracting the lion's share of USD 253 billion, followed by the United States (USD 166 billion), Brazil (USD 65 billion), and the United Kingdom (USD 63 billion). OECD countries hosted only 42% of global FDI inflows (as compared to 87% of inflows in 2000) at USD 578 billion, representing a 37% decrease as compared to 2011.

The OECD FDI Regulatory Restrictiveness Index shows that there still remains significant variation across countries in terms of statutory restrictions on foreign direct investment. Countries in Asia and those with significant raw materials tend to be more restrictive. When used in combination with indicators measuring other aspects of the FDI climate, the Index can help to account for variations in countries' success in attracting FDI.

power, representing the influence by the investor, is the criterion used.

Inward stocks at a given point in time refer to all direct investments by non-residents in the reporting economy; outward stocks are the investments of the reporting economy abroad. Corresponding flows relate to investment during a period of time. Negative flows generally indicate disinvestments or the impact of substantial reimbursements of inter-company loans.

The OECD FDI Regulatory Restrictiveness Index gauges the restrictiveness of a country's FDI rules through four types of restrictions: foreign equity restrictions; screening or approval mechanisms; restrictions on key foreign employment; and operational restrictions.

## Comparability

In recent years the comparability of FDI statistics has improved significantly but asymmetries remain between inward and outward FDI.

The EU28 aggregate has an evolving composition: EU15 until end 2003; EU25 in 2004-2006; and EU27 for 2007-2012. Data exclude resident Special Purpose Entities (SPEs) for Austria, Hungary, Luxembourg (FDI stocks only) and the Netherlands.

The OECD FDI Regulatory Restrictiveness Index covers statutory restrictions in 22 sectors. The Index is currently available for 6 years: 1997, 2003, 2006, 2010, 2011 and 2012. Restrictions are scored on a range from 0 (open) to 1 (closed). Absence of scores refers to the absence of restrictions.

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# FOREIGN DIRECT INVESTMENT

## Outward and inward FDI stocks

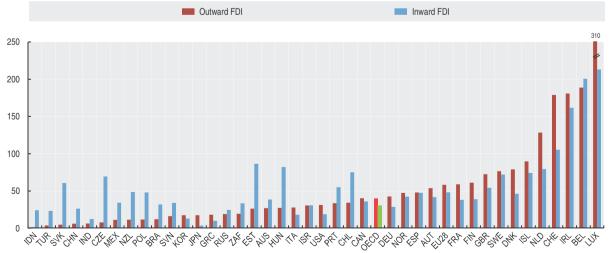
Million US dollars

			Outward direc	ct investment stock	S				Inward direc	t investment stock	3	
	1990	1995	2000	2010	2011	2012	1990	1995	2000	2010	2011	2012
Australia	37 491	60 484	95 978	413 525	378 671	424 489	80 333	111 310	118 858	508 794	546 024	604 257
Austria	4 747	11 832	24 820	176 510	189 546	212 269	11 098	21 363	31 165	161 144	153 060	164 380
Belgium	40 636	80 690	179 773	873 864	943 201	911 609	58 388	112 960	181 650	950 027	1 002 717	968 338
Canada	84 813	118 106	237 647	636 712	660 746	715 053	112 850	123 182	212 723	591 873	586 999	636 972
Chile			11 154	54 772	74 889	91 847			45 753	154 646	168 338	201 300
Czech Republic		345	738	14 923	13 214	15 176		7 350	21 647	128 505	120 569	136 443
Denmark			73 117	222 242	231 081	248 890			73 585	140 250	140 092	145 958
stonia			256	5 698	4 729	5 879			2 611	16 474	16 960	19 349
Finland	11 227	14 993	52 109	137 662	133 773	151 374	5 132	8 465	24 272	86 697	89 227	96 636
rance	110 121	204 430	445 087	1 482 281	1 478 618	1 540 087	84 931	191 433	259 773	955 138	953 938	997 854
Germany	130 760	233 107	486 750	1 365 645	1 356 021	1 461 761	74 067	104 367	462 564	943 791	927 452	980 687
Greece			5 852	42 623	48 041	44 960			14 113	35 025	29 058	24 763
Hungary		278	1 279	20 435	23 861	34 079	569	11 304	22 856	90 780	84 541	102 512
celand	75	179	663	11 466	11 521	12 165	147	129	497	11 784	12 656	10 065
reland			27 925	340 110	330 793	379 982			127 088	285 572	290 479	339 727
srael		758	9 091	68 973	70 815	73 978	365	5 741	22 367	60 237	65 014	74 403
taly	60 195	106 319	180 274	489 654	519 977	559 132	60 009	65 347	121 169	328 055	339 250	363 677
lapan	201 440	238 452	278 441	831 110	955 854	1 037 700	9 850	33 508	50 322	214 890	225 785	205 754
Korea				143 160	171 530	196 410				134 230	133 660	147 230
uxembourg				176 516	156 644	159 322				156 589	180 791	117 436
Mexico				108 717	98 520	131 039	22 424	41 130	97 170	363 010	350 977	402 949
Vetherlands	105 085	172 348	305 458	956 025	981 283	988 550	68 699	115 756	243 730	586 069	606 956	611 231
New Zealand	3 320	7 676	6 065	16 101	18 843	19 019	8 065	25 728	28 070	67 706	73 641	81 358
Vorway	10 889	22 521	22 937	188 002	207 342	236 524	12 404	19 836	25 282	174 569	182 581	211 764
Poland		539	1 018	44 444	52 849	57 367	109	7 843	34 233	215 639	203 111	235 113
Portugal			19 793	66 732	72 225	71 253		18 973	32 043	111 685	111 822	117 149
Slovak Republic		139	373	3 334	4 209	4 412		1 297	4 761	50 283	51 290	55 810
Slovenia		727	870	8 179	7 821	7 387		2 617	3 278	14 598	15 157	15 467
Spain	15 652	31 037	129 192	653 228	656 690	635 605	65 916	110 291	156 347	628 333	617 031	627 661
Sweden	50 720	73 143	123 260	372 955	376 677	402 782	12 636	31 089	93 998	347 163	344 100	378 344
Switzerland	66 087	142 481	232 176	1 032 802	1 063 132	1 129 376	34 245	57 064	86 810	617 703	644 912	665 596
Turkey			3 668	22 509	27 681	29 668			18 812	186 980	134 665	183 736
Jnited Kingdom	236 118	330 665	923 366	1 626 819	1 696 243	1 793 240	233 305	226 626	463 134	1 162 649	1 184 547	1 341 827
Jnited States	616 655	885 506	1 531 607	4 273 559	4 663 142	5 077 750	505 346	680 066	1 421 017	2 623 646	2 879 531	3 057 326
Euro area												
EU 28				9 099 676	9 297 425	9 700 880				7 569 970	7 643 400	8 034 994
DECD	1 786 030	2 736 756	5 410 736	16 881 287	17 680 184	18 860 133	1 460 888	2 134 773	4 501 698	13 104 535	13 466 932	14 323 071
Brazil				191 349	206 187	270 864				682 346	695 103	718 870
China		-		317 210	424 780	502 750				1 569 604	1 906 908	2 159 551
ndia			2 609	96 911	109 519	118 167			20 278	205 603	206 454	226 370
ndonesia				6 672	6 204	12 394	- :			160 735	185 804	211 900
Russian Federation		2 420	20 141	366 301	361 452	387 217		345	32 204	490 560	454 949	497 820
South Africa	15 010	23 301	32 325	89 453	78 473		9 198	15 014	43 451	153 133	134 350	-107 020

StatLink http://dx.doi.org/10.1787/888933027817

# FDI stocks

As a percentage of GDP, 2012 or latest available year



StatLink as http://dx.doi.org/10.1787/888933025252

# **GLOBALISATION • FDI AND BALANCE OF PAYMENTS**

# FOREIGN DIRECT INVESTMENT

# Outflows and inflows of foreign direct investment

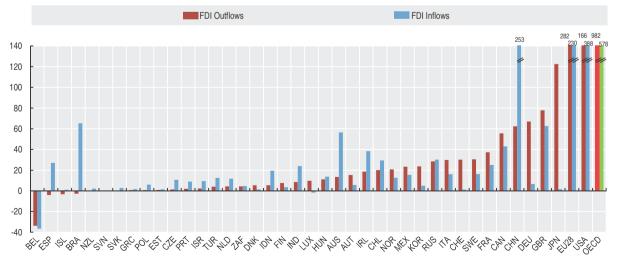
Million US dollars

			Outflows of fore	ign direct investme	ent				Inflows of foreig	ın direct investmer	nt	
	2007	2008	2009	2010	2011	2012	2007	2008	2009	2010	2011	2012
Australia	16 972	33 921	15 470	24 957	13 814	13 430	45 530	46 801	27 472	36 685	66 076	56 422
Austria	39 034	29 395	10 007	9 995	21 896	15 310	31 159	6 845	9 304	838	10 628	5 762
Belgium	80 141	220 595	7 527	24 538	96 875	-33 820	93 448	193 575	60 966	77 020	119 130	-36 603
Canada	64 621	79 236	39 660	34 721	52 144	55 457	116 809	61 520	22 733	28 399	39 667	43 034
Chile	2 573	8 041	7 256	8 331	19 539	20 063	12 534	15 150	12 911	14 244	22 096	29 296
Czech Republic	1 621	4 322	950	1 168	-328	1 343	10 446	6 449	2 929	6 147	2 323	10 614
Denmark	20 624	13 264	6 320	-109	13 347	5 386	11 815	1 827	3 942	-11 549	12 712	1 309
Estonia	1 746	1 112	1 549	142	-1 454	952	2 725	1 729	1 839	1 600	341	1 517
Finland	7 202	9 279	5 681	10 168	5 016	7 546	12 455	-1 142	718	7 359	2 552	3 553
France	164 341	154 747	107 142	64 576	59 609	37 210	96 240	64 060	24 216	33 628	38 582	25 094
Germany	170 650	72 617	69 647	121 533	52 215	66 951	80 223	8 093	22 461	57 432	48 982	6 567
Greece	5 247	2 413	2 055	1 558	1 774	678	2 112	4 490	2 435	330	1 144	1 741
Hungary	3 622	2 230	1 885	1 149	4 682	11 152	5 447	6 313	1 997	2 204	5 856	13 786
Iceland	10 181	-4 206	2 291	-2 357	23	-3 197	6 822	917	86	246	1 108	1 087
Ireland	21 150	18 912	26 617	22 350	-1 166	18 526	24 712	-16 421	25 717	42 807	23 566	38 329
Israel	8 604	7 210	1 695	9 088	5 329	2 352	8 798	10 877	4 438	5 510	10 765	9 482
Italy	90 795	66 870	21 277	32 657	53 677	29 767	40 209	-10 814	20 078	9 179	34 355	16 026
Japan	73 545	127 981	74 698	56 276	114 300	122 515	22 548	24 417	11 938	-1 251	-1 758	1 730
Korea	19 720	20 251	17 197	23 278	20 355	23 627	1 784	3 311	2 249	1 094	4 661	4 999
Luxembourg	73 364	11 737	6 709	20 842	9 053	9 688	-28 265	11 195	20 667	35 661	13 302	-1 690
Mexico	8 256	1 157	9 604	15 050	12 636	23 404	31 552	27 729	16 605	22 563	23 553	15 453
Netherlands	55 618	68 202	34 473	68 345	41 049	4 352	119 406	4 540	38 612	-7 325	19 924	11 661
New Zealand	3 702	-239	-308	591	2 520	-509	3 440	4 984	-1 293	636	4 312	2 201
Norway	10 442	20 376	19 159	23 238	26 514	20 766	7 993	10 237	16 637	17 043	19 617	12 732
Poland	5 410	4 413	4 701	7 228	8 169	728	23 582	14 833	12 936	13 879	20 652	6 067
Portugal	5 494	2 736	817	-7 494	14 919	1 916	3 063	4 656	2 707	2 646	11 160	8 919
Slovak Republic	600	529	905	946	491	-74	3 583	4 685	-6	1 770	2 145	2 827
Slovenia	1 865	1 465	260	-212	118	-273	1 515	1 944	-653	359	999	-59
Spain	137 078	74 573	13 072	37 846	36 611	-4 081	64 277	76 843	10 406	39 875	26 841	27 063
Sweden	38 811	31 298	25 910	20 193	28 207	30 511	28 849	36 855	10 034	-64	9 262	16 149
Switzerland	51 036	45 312	26 428	79 342	53 500	30 081	32 446	15 137	28 945	32 161	23 854	1 177
Turkey	2 106	2 549	1 554	1 464	2 349	4 074	22 047	19 504	8 409	9 036	16 047	12 519
United Kingdom	325 473	182 437	39 325	39 489	106 663	77 723	200 068	88 678	76 375	50 587	51 133	62 683
United States	414 039	329 080	310 383	301 079	409 005	388 293	221 166	310 091	150 443	205 851	230 224	166 411
Euro area			**									
EU 28	1 252 662	977 925	387 322	477 943	553 875	281 828	856 720	538 522	359 860	371 722	465 500	230 349
OECD	1 935 681	1 643 813	911 915	1 051 965	1 283 451	981 844	1 360 535	1 059 904	649 252	736 597	915 808	577 857
Brazil	7 067	20 457	-10 084	11 589	-1 029	-2 832	34 585	45 058	25 949	48 506	66 661	65 263
China	17 155	56 742	43 890	57 954	48 400	62 400	156 249	171 535	131 057	243 703	280 000	253 400
India	17 281	19 257	15 928	15 346	12 608	8 553	25 483	43 407	35 597	27 396	36 498	23 996
Indonesia	4 675	5 900	2 249	2 664	7 713	5 422	6 929	9 318	4 878	13 771	19 242	19 404
Russian Federation	44 927	56 736	34 450	41 116	48 635	28 423	54 468	75 856	27 752	31 668	36 868	30 188
South Africa	2 966	-3 134	1 151	-76	2 785	4 369	5 695	9 007	5 696	1 228	6 004	4 572

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# FDI flows

Billion US dollars, 2012



StatLink http://dx.doi.org/10.1787/888933025271



# FOREIGN DIRECT INVESTMENT

# **FDI Regulatory Restrictiveness Index**

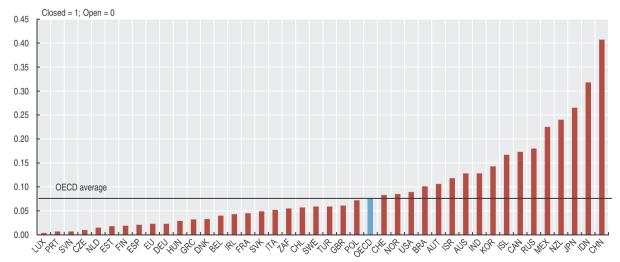
2012

				Electricity	Distribution	Transport	Media	Communications	Financial services	Business services
Australia	0.128	0.078	0.075	0.075	0.075	0.267	0.200	0.400	0.133	0.078
Austria	0.106	0.150	0.000	1.000	0.000	0.182	0.000	0.000	0.002	0.322
Belgium	0.040	0.035	0.023	0.023	0.023	0.114	0.023	0.023	0.024	0.248
Canada	0.173	0.198	0.110	0.110	0.110	0.277	0.710	0.575	0.077	0.110
Chile	0.057	0.150	0.000	0.000	0.000	0.413	0.188	0.000	0.017	0.013
Czech Republic	0.010	0.025	0.000	0.000	0.000	0.075	0.000	0.000	0.010	0.000
Denmark	0.033	0.056	0.000	0.000	0.000	0.083	0.000	0.000	0.002	0.363
Estonia	0.018	0.023	0.000	0.000	0.000	0.150	0.000	0.000	0.002	0.000
Finland	0.019	0.015	0.009	0.084	0.009	0.092	0.009	0.009	0.011	0.046
France	0.045	0.155	0.000	0.000	0.000	0.150	0.048	0.000	0.054	0.003
Germany	0.023	0.069	0.000	0.000	0.000	0.200	0.025	0.000	0.005	0.000
Greece	0.032	0.079	0.000	0.000	0.000	0.150	0.113	0.000	0.020	0.056
Hungary	0.029	0.000	0.000	0.000	0.000	0.167	0.000	0.000	0.005	0.000
Iceland	0.167	0.241	0.112	0.562	0.112	0.204	0.112	0.112	0.119	0.112
Ireland	0.043	0.135	0.000	0.000	0.000	0.125	0.000	0.000	0.009	0.000
Israel	0.118	0.060	0.020	0.770	0.020	0.403	0.264	0.395	0.037	0.020
Italy	0.052	0.130	0.000	0.000	0.000	0.200	0.363	0.000	0.018	0.000
Japan	0.265	1.000	0.077	0.000	0.000	0.667	0.200	0.480	0.000	0.000
Korea	0.143	0.250	0.000	0.417	0.000	0.508	0.563	0.500	0.050	0.000
Luxembourg	0.004	0.000	0.000	0.000	0.000	0.075	0.000	0.000	0.002	0.000
Mexico	0.225	0.394	0.103	0.100	0.175	0.528	0.663	0.350	0.133	0.100
Netherlands	0.015	0.062	0.000	0.000	0.000	0.083	0.000	0.000	0.002	0.000
New Zealand	0.240	0.325	0.200	0.200	0.200	0.283	0.200	0.400	0.233	0.200
Norway	0.085	0.156	0.000	0.000	0.000	0.350	0.125	0.000	0.067	0.313
Poland	0.072	0.050	0.000	0.000	0.000	0.092	0.298	0.075	0.003	0.000
Portugal	0.007	0.006	0.000	0.000	0.000	0.083	0.000	0.000	0.017	0.000
Slovak Republic	0.049	0.000	0.000	0.000	0.000	0.075	0.000	0.000	0.002	0.000
Slovenia	0.007	0.000	0.000	0.000	0.000	0.150	0.000	0.000	0.002	0.000
Spain	0.021	0.011	0.000	0.000	0.000	0.075	0.225	0.000	0.002	0.113
Sweden	0.059	0.138	0.000	0.000	0.000	0.292	0.200	0.200	0.002	0.051
Switzerland	0.083	0.000	0.000	0.500	0.000	0.250	0.467	0.000	0.067	0.000
Turkev	0.059	0.013	0.000	0.000	0.000	0.383	0.200	0.000	0.000	0.125
United Kingdom	0.061	0.160	0.023	0.023	0.023	0.114	0.248	0.023	0.024	0.023
United States	0.089	0.181	0.000	0.197	0.000	0.550	0.250	0.110	0.042	0.000
EU 28	0.000	0.101	0.000	0.101	0.000	0.000	0.200	0.110	0.012	
OECD	0.076	0.128	0.022	0.119	0.022	0.230	0.167	0.107	0.035	0.067
Brazil	0.101	0.188	0.025	0.025	0.025	0.275	0.550	0.025	0.108	0.025
China	0.407	0.454	0.189	0.463	0.233	0.633	1.000	0.750	0.510	0.350
India	0.280	0.407	0.053	0.064	0.250	0.179	0.395	0.425	0.329	0.563
Indonesia	0.318	0.324	0.070	0.110	0.435	0.423	1.000	0.410	0.206	0.579
Russian Federation	0.180	0.324	0.092	0.030	0.050	0.423	0.350	0.100	0.432	0.175
						0.330				0.173
South Africa	0.055	0.010	0.010	0.010	0.010	0.193	0.298	0.010	0.052	0.2

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# FDI regulatory restrictiveness index

2012



StatLink http://dx.doi.org/10.1787/888933025290

## **BALANCE OF PAYMENTS**

The current account balance is the difference between current receipts from abroad and current payments to abroad. When the current account is positive, the country can use the surplus to repay foreign debts, to acquire foreign assets or to lend to the rest of the world. When the current account balance is negative, the deficit will be financed by borrowing from abroad or by liquidating foreign assets acquired in earlier periods.

## **Definition**

Current account transactions consist of exports and imports of goods; exports and imports of services such as travel, international freight and passenger transport, insurance and financial services; income flows consisting of wages and salaries, dividends, interest and other investment income (i.e. property income in System of National Accounts); and current transfers such as government transfers (i.e. international cooperation), worker's remittances and other transfers such as gifts, inheritances and prizes won from lotteries.

## Overview

Current account balances as a percentage of GDP have been negative throughout the period since 2000 for the following OECD countries: Australia, the Czech Republic, Greece, Italy, Mexico, New Zealand, Poland, Portugal, Spain, the United Kingdom and the United States. This is partly due to the way in which earnings of direct investment enterprises are treated, but also a result of the global financial crisis and its ongoing effects on world trade flows. The portfolio investment balance, as well as the balance on goods, had a significant impact on trends in current account balances up to the recent crisis that affected the world economy. OECD countries which have recorded current account surpluses throughout the crisis period (from 2007) include Austria, Denmark, Germany, Israel, Japan, Korea, Luxembourg, the Netherlands, Norway, Sweden and Switzerland.

Current account balances, as a percentage of GDP and averaged over the three years to 2012, recorded deficits of 5% of GDP or more in Greece, Iceland, Portugal and Turkey. Surpluses in excess of 5% were recorded by Denmark, Germany, Luxembourg, the Netherlands, Norway, Sweden, Switzerland and the Russian Federation.

For the emerging economies, 2012 saw Indonesia record its first current deficit since the series began in 2000. South Africa has recorded a current account deficit since 2002, while since 2000 both China and the Russian Federation have maintained current account surpluses, signalling in the case of the Russian Federation its high exports of natural resources and for China its large manufacturing export sector.

Investment income includes retained earnings (i.e. profits not distributed as dividends to the direct investor) of foreign subsidiaries. In general, earnings of direct investment enterprises are treated as if they were remitted abroad to the direct investor, with the part that is actually retained in the country where the direct investment enterprises are located shown as direct investment income-reinvested earnings (debit) in the current account and (with the opposite sign) as inward direct investment in the financial account.

## Comparability

The data are taken from balance of payments statistics compiled according to the International Monetary Fund (IMF) Balance of Payments Manual (BPM5). Data for Australia, Canada, Chile and Korea (partly) are already updated and presented according to the new BPM6 standard. By end 2014, most OECD countries will have made the transition from BPM5 to BPM6. The IMF closely monitors balance of payments statistics reported by its member countries through regular meetings of balance of payments compilers. As a result, there is relatively good comparability across countries.

Because all earnings of direct investment enterprises are treated as though they are remitted to the direct investor even though a large part may in practice be retained by the direct investment enterprise in the countries where they are located, the existence of direct investment enterprises in an economy will tend to reduce its current account balance.

It should also be noted that portfolio income plays a role of growing importance for current account balances.

#### Sources

• OECD (2013), Main Economic Indicators, OECD Publishing.

# **Further information**

#### Analytical publications

 OECD (2008), Export Credit Financing Systems in OECD Member Countries and Non-Member Economies, OECD Publishing.

## Methodological publications

- International Monetary Fund (IMF) (2009), Balance of Payments and International Investment Position Manual, 6th edition, IMF, Washington DC.
- OECD et al. (2010), Manual on Statistics of International Trade in Services, United Nations.

## Online databases

- Main Economic Indicators.
- OECD Economic Outlook: Statistics and Projections.

#### Websites

• Sources & Methods of the OECD Economic Outlook, www.oecd.org/eco/sources-and-methods.



## BALANCE OF PAYMENTS

# **Current account balance**

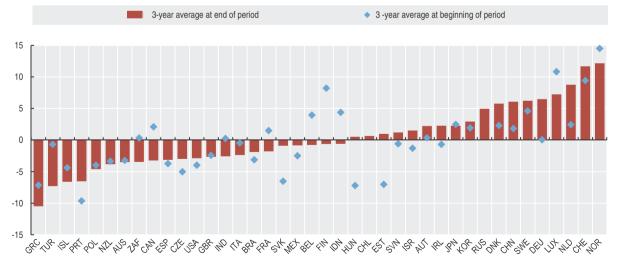
As a percentage of GDP

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Australia	-3.9	-2.1	-3.7	-5.4	-6.2	-5.9	-5.8	-6.7	-4.9	-4.6	-3.5	-2.8	-4.1
Austria	-0.7	-0.8	2.7	1.7	2.2	2.2	2.8	3.5	4.9	2.7	3.4	1.6	1.6
Belgium	4.0	3.4	4.5	3.4	3.2	2.0	1.8	1.9	-1.3	-0.7	1.1	-1.2	-2.2
Canada	2.5	2.1	1.7	1.1	2.3	1.8	1.4	0.8	0.1	-2.9	-3.5	-2.8	-3.4
Chile				-1.2	2.6	1.5	4.6	4.2	-3.4	1.9	1.4	-1.3	-3.5
Czech Republic	-4.6	-5.1	-5.4	-6.0	-5.2	-1.0	-2.0	-4.3	-2.1	-2.3	-3.8	-2.7	-2.4
Denmark	1.6	2.5	2.8	3.4	2.2	4.3	3.0	1.3	2.6	3.4	5.9	5.6	5.7
Estonia	-5.3	-5.1	-10.6	-11.3	-11.2	-9.9	-15.3	-16.0	-9.1	2.9	2.8	1.9	-1.8
Finland	7.7	8.4	8.5	4.8	6.0	3.4	4.1	4.1	2.6	1.8	1.4	-1.5	-1.8
France	1.4	1.8	1.3	0.7	0.5	-0.5	-0.6	-1.0	-1.8	-1.3	-1.4	-1.8	-2.2
Germany	-1.8	0.0	2.0	1.9	4.6	5.0	6.2	7.5	6.2	6.0	6.1	6.2	7.1
Greece	-7.8	-7.2	-6.5	-6.6	-5.8	-7.6	-11.4	-14.6	-14.9	-11.3	-10.2	-10.0	-2.5
Hungary	-8.6	-6.1	-6.9	-8.0	-8.6	-7.4	-7.4	-7.2	-7.3	-0.2	0.2	0.4	0.9
Iceland	-10.1	-4.6	1.5	-4.8	-9.8	-16.2	-23.9	-16.1	-24.6	-11.8	-8.0	-6.4	-5.4
Ireland	-0.4	-0.7	-1.1	0.0	-0.6	-3.5	-3.6	-5.4	-5.6	-2.3	1.1	1.2	4.4
Israel	-1.5	-1.5	-0.9	0.6	1.4	3.1	4.2	3.5	1.3	3.3	3.3	1.0	0.1
Italy	-0.5	-0.1	-0.8	-1.3	-0.9	-1.7	-2.6	-2.4	-2.9	-2.0	-3.5	-3.1	-0.5
Japan	2.5	2.1	2.8	3.2	3.7	3.7	3.9	4.8	3.3	2.9	3.7	2.0	1.1
Korea	2.8	1.7	1.3	2.4	4.7	2.2	1.4	2.1	0.6	3.7	2.7	2.3	3.8
Luxembourg	13.5	8.8	10.2	8.3	12.1	11.3	10.1	10.0	5.4	7.3	7.9	6.9	6.9
Mexico	-2.9	-2.6	-2.0	-1.1	-0.9	-1.0	-0.8	-1.4	-1.8	-0.9	-0.3	-1.0	-1.2
Netherlands	2.0	2.6	2.6	5.5	7.6	7.4	9.3	6.7	4.3	5.2	7.4	9.5	9.4
New Zealand	-4.5	-2.0	-3.5	-3.7	-5.5	-7.8	-8.1	-7.9	-8.7	-3.1	-3.1	-3.7	-4.7
Norway	14.9	16.1	12.6	12.3	12.7	16.5	16.4	12.5	15.9	11.7	11.9	12.8	14.3
Poland	-6.0	-3.1	-2.8	-2.5	-5.3	-2.4	-3.8	-6.2	-6.5	-4.0	-5.1	-5.0	-3.7
Portugal	-10.4	-10.3	-8.2	-6.4	-8.3	-10.3	-10.7	-10.1	-12.6	-10.9	-10.6	-7.0	-2.0
Slovak Republic	-3.4	-8.3	-7.9	-6.0	-7.8	-8.5	-7.9	-5.2	-6.0	-2.6	-3.7	-3.8	4.8
Slovenia	-2.9	0.1	1.0	-0.8	-2.5	-1.7	-1.7	-4.1	-5.5	-0.5	0.0	0.5	3.2
Spain	-4.0	-4.0	-3.3	-3.5	-5.3	-7.4	-9.0	-10.0	-9.6	-4.8	-4.5	-3.8	-1.1
Sweden	4.2	5.0	4.7	6.9	6.6	6.8	8.7	9.3	9.0	6.3	6.3	6.4	6.0
Switzerland	11.7	8.0	8.5	12.9	13.0	13.6	14.4	8.6	1.7	10.6	15.0	8.9	11.1
Turkey	-3.7	2.0	-0.3	-2.5	-3.6	-4.4	-6.0	-5.8	-5.4	-1.9	-6.1	-9.6	-6.2
United Kingdom	-2.9	-2.3	-2.1	-1.7	-2.0	-1.8	-2.8	-2.2	-0.9	-1.4	-2.7	-1.5	-3.8
United States	-4.0	-3.7	-4.2	-4.5	-5.1	-5.6	-5.8	-4.9	-4.6	-2.6	-3.0	-2.9	-2.7
EU 28													
OECD													
Brazil	-3.8	-4.2	-1.3	0.7	1.7	1.6	1.2	0.2	-1.7	-1.4	-2.2	-2.1	
China	1.7	1.3	2.4	2.6	3.6	5.9	8.5	10.1	9.3	4.9	4.0	1.9	2.3
India	-1.0	0.3	1.4	1.4	0.2	-1.2	-1.0	-0.6	-2.5	-1.9	-3.2		
Indonesia	4.8	4.3	4.0	3.5	0.6	0.1	3.0	2.4	0.1	1.9	0.7	0.2	-2.7
Russian Federation				8.4	10.0	11.1	9.7	6.0	6.2	3.8	4.7	5.2	,
South Africa	 -0.1	0.3	0.8	-1.0	-3.0	-3.4	-5.3	-7.0	-7.2	-4.1	-2.8	0.2	

StatLink 🐃 http://dx.doi.org/10.1787/888933027874

## **Current account balance**

As a percentage of GDP



StatLink http://dx.doi.org/10.1787/888933025309

300,000 + #5,579,200· 43,628,500. -36,286,400. + 34,432,741,064. 0 34,432,741,064. 220,061,246. + 242,765. + 54,975,316. -3,458,295,462. + 9,423,290,000. 627,646,320. 242,347,296. + 312,759. + →6,184,652,108· ◆



# PRICES AND INTEREST RATES

INFLATION (CPI)
PRODUCER PRICE INDICES
LONG-TERM INTEREST RATES

# **PURCHASING POWER PARITIES AND EXCHANGE RATES**

RATES OF CONVERSION REAL EFFECTIVE EXCHANGE RATES

# **INFLATION (CPI)**

Consumer price indices have a long history in official statistics. They measure the erosion of living standards through price inflation and are probably one of the best known economic statistics used by the media and general public.

## **Definition**

Consumer price indices (CPI) measure the change in the prices of a basket of goods and services that are typically purchased by specific groups of households. The consumer price indices shown in this indicator cover virtually all households except for "institutional" households – people in prisons and military barracks, for example – and, in some countries, households in the highest income group.

#### Overview

The annual average inflation rate from 2010-12 has been below 4.5% in all OECD countries except Hungary, Iceland and Turkey. The CPI for the OECD total dropped from 3.4% in the 3-year average from 2000-02 to 2.3% in the 3-year average from 2010-12. Over the entire period from 2000 to 2012, Japan experienced negative and flat rates of inflation while Hungary, Mexico, Turkey, and Iceland all experienced periods or years of substantial inflation during this period.

Data presented here show that annual inflation rates have been higher for countries outside the OECD area, in particular the Russian Federation has only in the last few years recorded inflation rates comparable to other non-member countries.

During the years presented in this indicator (2000, 2010 and 2012), the main driver of total inflation has been energy prices, which have risen faster than the total consumer price index. Consumer prices for energy have been, however, volatile during the whole period (2000-12) and have recorded large swings, with spikes in 2000, 2005, 2008 and 2011 and sharp decreases in 2002 and 2009. Food prices have risen by less than total consumer prices in 2000 and 2010 but for the most recent period, 2012, they have risen faster. When excluding these more volatile items, the underlying consumer price index (i.e. all items excluding food and energy) points to a progressive decline in inflation rates from 2000 to 2010 followed by a slight increase from 2011.

A noticeable long-term trend highlighted here has been the convergence of inflation rates for OECD countries over the last decade or so. This is most clearly seen when looking at the two OECD countries that recorded the lowest (Japan) and highest (Turkey) annual inflation rates in both 2000 and 2011: minus 0.7% versus 54.9% and 0.0% versus 8.9% respectively.

The CPI for all items excluding food and energy provides a measure of underlying inflation, which is less affected by short-term fluctuations. The index for food covers food and non-alcoholic beverages but excludes purchases in restaurants. The index for energy covers all forms of energy, including fuels for motor vehicles, heating and other household uses.

## Comparability

There are a number of differences in the ways that these indices are calculated. The most important ones concern the treatment of dwelling costs, the adjustments made for changes in the quality of goods and services, the frequency with which the basket weights are updated, and the index formulae used. In particular, country methodologies for the treatment of owner-occupied housing vary significantly. The European Harmonised Indices of Consumer Prices (HICP) exclude owner-occupied housing as do national CPIs for Belgium, Chile, Estonia, France, Greece, Italy, Luxembourg, Poland, Portugal, Slovenia, Spain, Turkey, the United Kingdom and most of the countries outside the OECD area. For the United Kingdom, the national CPI is the same as the HICP. The European Union and euro area CPI refer to the HICP published by Eurostat and cover the 28 and 17 countries respectively for the entire period of the time series.

#### Sources

• OECD (2013), Main Economic Indicators, OECD Publishing.

# Further information Analytical publications

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INFLATION (CPI)

# Inflation (CPI)

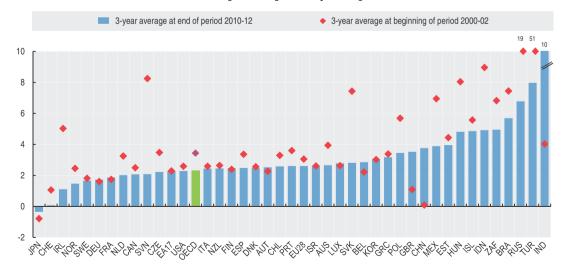
Annual growth in percentage

		All items		All iter	ns non-food, non-	energy		Food			Energy	
_	2000	2010	2012	2000	2010	2012	2000	2010	2012	2000	2010	2012
Australia	4.5	2.9	1.8	4.3	2.7	2.1	0.3	1.1	-3.5	16.3	8.5	7.3
Austria	2.3	1.8	2.5	1.7	1.4	2.1	0.6	0.5	3.2	10.7	7.6	4.9
Belgium	2.5	2.2	2.8	1.5	1.3	2.2	0.9	1.5	3.0	14.3	9.4	6.2
Canada	2.7	1.8	1.5	1.7	1.3	1.4	1.1	0.9	2.4	16.2	6.6	1.7
Chile	3.8	1.4	3.0	3.1	0.5	2.2	1.1	2.2	7.6	22.0	7.1	-0.5
Czech Republic	3.9	1.5	3.3	3.5	1.1	1.0	1.1	1.5	6.9	14.2	3.8	9.0
Denmark	2.9	2.3	2.4	2.1	1.9	1.8	2.5	0.4	4.3	11.8	9.0	3.3
Estonia	4.0	3.0	3.9	3.9	0.8	2.2	2.4	3.0	3.8	8.0	12.3	10.6
Finland	3.0	1.2	2.8	2.6	1.2	2.3	1.1	-3.4	5.2	12.6	10.6	4.1
France	1.7	1.5	2.0	0.5	0.9	0.8	2.2	0.8	2.9	12.2	9.6	5.4
Germany	1.4	1.1	2.0	0.9	0.7	1.3	-0.7	1.2	3.4	13.9	4.0	5.7
Greece	3.2	4.7	1.5	2.3	3.3	-0.3	1.9	0.1	1.5	17.3	28.8	12.4
Hungary	9.8	4.9	5.7	8.4	3.7	3.9	9.2	2.8	6.0	17.3	10.8	8.7
Iceland	5.1	5.4	5.2	4.7	4.7	4.6	4.1	4.2	6.1	11.9	15.5	8.7
Ireland	5.6	-0.9	1.7	5.6	-1.2	0.9	3.1	-4.6	0.5	13.6	9.6	9.4
Israel	1.1	2.7	1.7	0.4	2.6	1.3	2.3	2.5	0.5	9.5	3.9	8.5
Italy	2.5	1.5	3.0	2.1	1.6	1.5	1.6	0.2	2.5	11.6	3.5	14.2
Japan	-0.7	-0.7	0.0	-0.5	-1.2	-0.5	-2.3	-0.3	0.2	3.0	2.7	3.8
Korea	2.3	2.9	2.2	1.8	1.8	1.6	0.9	6.4	4.0	9.6	6.5	4.3
Luxembourg	3.2	2.3	2.7	2.2	1.6	1.8	2.0	0.8	2.6	19.8	9.8	7.2
Mexico	9.5	4.2	4.1	10.4	4.2	2.7	5.4	3.4	8.0	16.8	5.4	7.3
Netherlands	2.3	1.3	2.5	1.9	1.7	1.9	0.2	-0.1	2.0	14.9	-0.3	7.1
New Zealand	2.6	2.3	1.1	2.4	1.9	1.0	1.1	1.0	-0.7	11.0	7.0	2.7
Norway	3.1	2.4	0.7	2.5	0.9	1.6	1.9	0.2	1.2	11.3	15.5	-10.7
Poland	9.9	2.6	3.6	9.3	1.6	1.4	9.7	2.8	4.2	13.4	5.8	7.6
Portugal	2.9	1.4	2.8	2.9	1.0	1.5	2.1	-0.2	3.2	5.8	9.4	9.5
Slovak Republic	12.0	1.0	3.6	11.5	2.1	2.4	5.2	1.6	4.2	41.8	-0.2	5.4
Slovenia	8.9	1.8	2.6	7.3	0.2	1.2	-13.8	1.0	4.1	25.2	13.2	8.4
Spain	3.4	1.8	2.4	2.9	0.6	1.2	2.1	-0.8	2.3	13.3	12.5	8.9
Sweden	0.9	1.2	0.9	-0.3	-0.4	0.6	0.0	1.4	1.5	7.2	6.8	0.1
Switzerland	1.6	0.7	-0.7	1.2	0.2	-0.9	1.6	-1.1	-1.0	18.0	9.2	2.3
Turkey	54.9	8.6	8.9	58.0	7.2	8.1	46.6	10.6	8.4	56.4	10.5	13.9
United Kingdom	0.8	3.3	2.8	0.1	2.9	2.3	-0.5	3.4	3.2	7.0	6.1	4.9
United States	3.4	1.6	2.1	2.4	1.0	2.1	2.2	0.3	2.5	16.9	9.5	0.9
Euro area	2.2	1.6	2.5	1.0	1.0	1.5	1.3	0.4	2.8	13.4	7.4	7.6
EU 28	3.5	2.1	2.6	1.2	1.3	1.7	3.9	1.0	3.0	12.7	7.2	7.1
0ECD	4.0	1.9	2.3	3.4	1.3	1.8	2.4	1.1	2.8	14.7	7.8	4.1
Brazil	7.0	5.0	5.4				5.1	6.1	8.1			
China	0.4	3.3	2.6				-2.6	7.2	4.8			
India	4.0	12.0	9.3									
Indonesia	3.7	5.1	4.3				-4.8	9.4	5.9			
Russian Federation	20.8	6.9	5.1				17.8	7.0	4.5			
South Africa	5.3	4.1	5.7		4.2	4.8	7.8	1.2	7.2		14.6	14.6

StatLink http://dx.doi.org/10.1787/888933027893

# CPI: all items

Average annual growth in percentage



StatLink http://dx.doi.org/10.1787/888933025328

# PRODUCER PRICE INDICES

A variety of price indices may be used to measure inflation in an economy. These include consumer price indices (CPI), price indices relating to specific goods and/or services, GDP deflators and producer price indices (PPI). Whereas CPIs are designed to measure changes over time in average retail prices of a fixed basket of goods and services taken as representing the consumption habits of households, PPIs aim to provide measures of average movements of prices received by the producers of various commodities. They are often seen as advanced indicators of price changes throughout the economy, including changes in the prices of consumer goods and services.

#### **Definition**

Producer price indices measure the rate of change in prices of products sold as they leave the producer. They exclude any taxes, transport and trade margins that the purchaser may have to pay. Manufacturing covers the production of semi-processed goods and other intermediate goods as well as final products such as consumer goods and capital equipment. The indexes shown here are weighted averages of monthly price changes in the manufacturing sector.

# Overview

In the 3-year average from 2010-12, producer prices in the OECD area as a whole increased at an annual rate of around 3.9%, a higher rate than recorded in the 3-year average from 2000-02 (2.6%). This increase masks, however, large differences across countries with, on one side, large drops recorded in Turkey and to a smaller extent in Slovenia, Slovakia, Hungary, Portugal and Sweden and increases recorded in Poland, the United Kingdom, Korea and Austria.

Producer prices have been, however, volatile during the whole period (2000-12) presented for this indicator, and have recorded swings, with peaks in 2000, 2008 and 2011 and decreases in 2002 and 2009. The effect of the recent financial and economic crises is particularly noteworthy, with nearly all OECD countries recording negative growth in producer prices in 2009, reflected by the OECD average recording minus 4.1% annual growth for that year.

Since then the picture has been less clear with some OECD countries seeing large increases in producer prices in 2010 and 2011 (Greece, Hungary and the Netherlands), while some have recorded low or continued negative growth (Switzerland, Japan and Australia).

The year 2012 shows however a slowdown in producer prices in nearly all OECD countries with annual growth in producer prices returning to levels comparable to those in the years before the global financial crisis of 2009.

## Comparability

The precise ways in which PPIs are defined and constructed depend on their intended use. In this context, national practices may differ and these differences may affect cross-country comparability. This is especially the case for aspects such as the weighting and aggregation systems, the treatment of quality differences, the sampling and collection of individual prices, the frequency with which the weights are updated, and in the index formulae used. Differences may also arise concerning the scope of the manufacturing sector and the statistical unit used for measurement. In some countries, for example, indices may reflect price changes in the output of the manufacturing sector as opposed to manufactured products.

While the PPI series for most countries refer to domestic sales of manufacturing goods, those for Australia, Canada, Chile, New Zealand and the United States include prices applied for foreign sales (i.e. "total market").

#### **Sources**

• OECD (2013), Main Economic Indicators, OECD Publishing.

# Further information

#### Analytical publications

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- OECD (2007), Eurostat-OECD Methodological Guide for Developing Producer Price Indices for Services, OECD Publishing.

#### Online databases

• Main Economic Indicators: Producer prices.

## Websites

• OECD Main Economic Indicators, www.oecd.org/std/mei.



## PRODUCER PRICE INDICES

# PPI: domestic manufacturing

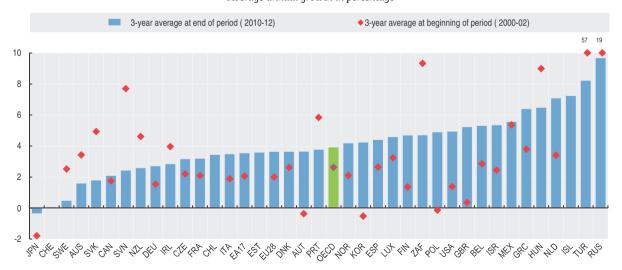
Annual growth in percentage

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Australia	7.2	3.1	0.2	0.5	3.9	6.0	7.9	2.3	8.3	-5.4	1.9	3.4	-0.5
Austria	3.4	0.0	-1.4	0.3	2.2	3.7	1.8	3.4	3.4	-2.2	4.4	5.0	1.5
Belgium	9.8	-1.0	0.1	0.9	4.2	6.0	5.5	3.6	5.7	-4.9	6.3	6.8	2.8
Canada	4.3	1.0	0.1	-1.2	3.2	1.6	2.3	1.5	4.3	-3.5	1.0	4.6	0.6
Chile					**	2.9	5.0	6.0	15.9	-3.3	5.5	4.6	0.3
Czech Republic	5.7	2.4	-1.3	-0.4	5.8	2.0	0.6	3.5	3.1	-5.5	1.5	5.7	2.3
Denmark	4.0	2.9	1.0	0.0	1.0	3.1	3.4	4.9	5.7	-1.2	3.2	4.6	3.1
Estonia			-1.0	-0.6	3.4	2.3	4.8	10.1	7.6	-3.9	2.1	5.7	2.9
Finland	7.3	-1.1	-1.9	-1.5	-0.2	3.8	5.0	4.7	7.2	-6.7	5.2	6.2	2.7
France	5.0	1.5	-0.1	0.7	2.0	2.7	3.3	2.7	5.0	-6.2	2.3	5.2	2.0
Germany	3.1	1.3	0.2	0.6	1.7	2.4	2.3	2.3	3.1	-3.4	2.5	4.2	1.5
Greece	5.9	3.4	2.1	2.1	3.8	6.4	7.9	3.5	9.7	-7.2	6.9	8.6	3.8
Hungary	16.1	9.4	2.0	3.7	7.3	4.3	5.7	4.3	8.6	-0.1	5.7	8.6	5.2
Iceland							17.5	1.8	31.0	11.3	11.8	9.2	1.1
Ireland	7.5	2.4	2.1	0.8	0.4	1.9	3.5	2.2	5.9	-3.6	1.6	6.2	2.8
Israel	3.6	-0.1	3.9	4.3	5.4	6.2	5.7	3.5	9.6	-6.3	4.0	7.7	4.4
Italy	3.7	1.2	0.8	1.4	3.3	3.1	4.0	3.4	5.0	-5.6	3.6	4.9	1.9
Japan	-0.4	-2.6	-2.4	-1.4	0.3	0.8	1.9	1.3	4.1	-4.8	-0.3	1.1	-1.8
Korea	2.4	-2.2	-1.6	1.7	7.6	3.1	0.1	0.8	12.1	-1.8	4.3	9.0	-0.4
Luxembourg	6.4	2.5	0.9	3.3	14.8	0.1	9.0	7.6	12.9	-19.2	8.3	5.6	0.0
Mexico	8.9	4.1	3.2	6.6	8.6	4.5	6.0	5.0	8.6	5.4	4.7	6.5	5.5
Netherlands	9.1	1.9	-0.6	1.3	3.6	4.5	4.8	6.1	7.5	-9.6	6.6	10.8	4.0
New Zealand	8.5	5.5	0.0	-1.7	2.8	5.6	6.5	4.0	14.9	-4.8	4.3	5.7	-2.1
Norway	5.0	1.9	-0.4	1.4	3.1	3.5	3.0	4.4	7.8	0.3	3.2	6.5	2.8
Poland	7.4	0.5	-1.7	0.8	8.0	1.4	1.9	3.6	3.4	-2.6	2.9	8.6	3.3
Portugal	15.0	2.7	0.4	0.4	2.9	3.2	4.2	2.5	5.2	-5.6	3.5	5.6	2.1
Slovak Republic	8.6	3.8	2.5	-0.1	2.5	1.3	1.5	0.2	2.0	-5.9	0.0	4.1	1.3
Slovenia	8.3	9.9	4.9	2.9	4.2	3.3	2.4	4.4	5.2	-2.0	2.1	4.1	1.1
Spain	5.7	1.7	0.6	1.4	3.7	4.7	5.0	3.4	6.0	-5.5	4.1	6.5	2.7
Sweden	3.9	3.1	0.6	-0.9	1.8	4.0	3.9	3.3	3.9	1.0	0.3	1.3	-0.2
Switzerland					2.0	2.0	2.7	2.8	4.4	-2.8	0.5	0.1	-0.5
Turkey	56.1	66.7	48.3	23.8	11.0	9.6	9.3	5.6	11.8	-0.6	6.0	13.3	5.5
United Kingdom	1.9	-0.6	-0.3	1.1	2.2	4.0	3.1	3.0	9.5	-3.2	2.5	4.8	5.6
United States	4.1	0.8	-0.7	2.5	4.3	5.5	4.0	3.8	7.9	-4.9	5.0	7.8	2.1
Euro area	4.8	1.2	0.3	0.9	2.5	3.1	3.5	3.0	4.7	-5.1	3.3	5.3	2.0
EU 28	4.6	1.2	0.2	1.0	2.9	3.3	3.4	3.1	5.0	-4.1	3.4	5.7	2.2
OECD	5.2	1.9	0.8	1.8	3.6	4.0	3.7	3.2	6.8	-4.1	3.6	6.1	2.0
Brazil													
China													
India													
Indonesia													
Russian Federation	38.6	13.4	8.0	16.0	19.4	13.8	11.1	13.2	21.1	-5.1	11.5	14.0	3.8
South Africa	7.6	7.1	13.3	4.6	2.0	3.7	6.4	9.8	15.2	0.7	1.9	5.7	6.6

StatLink http://dx.doi.org/10.1787/888933027912

# PPI: domestic manufacturing

Average annual growth in percentage



StatLink http://dx.doi.org/10.1787/888933025347

## LONG-TERM INTEREST RATES

Long-term interest rates are one of the determinants of business investment. Low long-term interest rates encourage investment in new equipment and high interest rates discourage it. Investment is, in turn, a major source of economic growth.

## **Definition**

Long-term interest rates as measured here refer to government bonds with a residual maturity of about ten

#### Overview

During the seventies and early eighties, high inflation rates saw long-term interest rates reach very high records. These rates peaked in 1981 for most OECD countries (for example, French government bonds reached 16.3%) but since then, rates have consistently and gradually decreased to hit historic low levels in 2012. German government bonds bottomed at 1.5% in 2012 with the United States' and the United Kingdom's 10-year bond rates recording 1.9% and 1.8%, respectively, for 2012. To be precise, in between 1981 and 2012 there were some moderate increases, as before the German reunification in 1989-1990 or before the Asian financial crisis in 1997-98, or even before the 2007 global financial crisis. However, these moderate changes in momentum do not dampen the overall general downward trend that long-term bond yields have displayed since 1981.

From the end of the nineties to the 2007 global financial crisis, using German government bonds as the benchmark, the spread for 10-years bonds of European countries was small (around 0.1%). However after 2008, and as Greece, Ireland and Portugal were hard hit by the financial crisis, these countries saw their debt not being considered as secure as German debt, and as a consequence their long-term interest rates rose to face the risk of default. The spread increased also for Italy and Spain but to a lesser extent.

Irish bond yields surged to 10.85% in mid-2011, but have decreased since this date. On 29 November 2010, the Irish government received a financial assistance package from the European Central Bank and the IMF to help its economy. In July 2011, the European Central Bank agreed to cut the interest rate and to extend the maturity on EU official loans to Ireland, helping Ireland to reduce its debt and improve its financial sustainability.

Japan and Switzerland remain the OECD countries with the lowest long-term interest rates, and both countries have seen their rates fall below 1% in 2012, with Switzerland recording a long-term interest rate of 0.65% and Japan not far above at 0.84% for the 2012 year.

years. They are not the interest rates at which the loans were issued, but the interest rates implied by the prices at which these government bonds are traded on financial markets. For example if a bond was initially bought at a price of 100 with an interest rate of 9%, but it is now trading at a price 90, the interest rate shown here will be 10% ([9/90]  $\times$  100).

The long-term interest rates shown are, where possible, averages of daily rates. In all cases, they refer to bonds whose capital repayment is guaranteed by governments.

Long-term interest rates are mainly determined by three factors: the price that lenders charge for postponing consumption; the risk that the borrower may not repay the capital; and the fall in the real value of the capital that the lender expects to occur because of inflation during the lifetime of the loan. The interest rates shown here refer to government borrowing and the risk factor is assumed to be very low. To an important extent the interest rates in this table are driven by expected inflation rates.

# Comparability

Comparability of these data is considered to be high. There may be differences, however, in the size of these government bonds outstanding, and in the extent to which these rates are representatives of financial conditions in various countries.

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## Websites

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# LONG-TERM INTEREST RATES

# Long-term interest rates

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Australia	6.31	5.62	5.84	5.37	5.59	5.34	5.59	5.99	5.82	5.04	5.37	4.88	3.38
Austria	5.56	5.08	4.97	4.15	4.15	3.39	3.80	4.30	4.36	3.94	3.23	3.32	2.37
Belgium	5.57	5.06	4.89	4.15	4.06	3.37	3.81	4.33	4.40	3.82	3.35	4.18	2.96
Canada	5.95	5.47	5.31	4.81	4.59	4.08	4.21	4.27	3.63	3.22	3.25	2.81	1.87
Chile						6.05	6.16	6.16	7.07	5.71	6.27	6.03	5.48
Czech Republic		6.31	4.88	4.12	4.82	3.54	3.80	4.30	4.63	4.84	3.88	3.71	2.78
Denmark	5.66	5.09	5.06	4.31	4.30	3.40	3.81	4.29	4.28	3.59	2.93	2.73	1.40
Estonia													
Finland	5.48	5.04	4.98	4.14	4.11	3.35	3.78	4.29	4.29	3.74	3.01	3.01	1.88
France	5.39	4.94	4.86	4.13	4.10	3.41	3.80	4.30	4.23	3.65	3.12	3.32	2.54
Germany	5.26	4.80	4.78	4.07	4.04	3.35	3.76	4.22	3.98	3.22	2.74	2.61	1.50
Greece	6.11	5.30	5.12	4.27	4.26	3.59	4.07	4.50	4.80	5.17	9.09	15.75	22.50
Hungary	8.55	7.95	7.09	6.77	8.29	6.60	7.12	6.74	8.24	9.12	7.28	7.64	7.89
Iceland	11.20	10.36	7.96	6.65	7.49	8.64	8.83	9.42	11.07	8.26	6.09	5.98	6.19
Ireland	5.48	5.02	4.99	4.13	4.06	3.32	3.79	4.33	4.55	5.23	5.99	9.58	5.99
Israel	5.48	6.43	9.23	8.88	7.56	6.36	6.31	5.55	5.92	5.06	4.68	4.98	4.40
Italy	5.58	5.19	5.03	4.30	4.26	3.56	4.05	4.49	4.68	4.31	4.04	5.42	5.49
Japan	1.74	1.32	1.26	1.00	1.49	1.35	1.74	1.67	1.47	1.33	1.15	1.10	0.84
Korea		6.86	6.59	5.05	4.73	4.95	5.15	5.35	5.57	5.17	4.77	4.20	3.45
Luxembourg	5.52	4.86	4.68	3.32	2.84	2.41	3.30		0.07	0.17		2.92	1.83
Mexico		4.00	10.13	8.98	9.54	9.42	8.39	7.77					
Netherlands	5.40	4.96	4.89	4.12	4.10	3.37	3.78	4.29	4.23	3.69	2.99	2.99	1.93
New Zealand	6.85	6.39	6.53	5.87	6.07	5.88	5.78	6.26	6.08	5.46	5.60	4.94	3.69
Norway	6.22	6.24	6.38	5.05	4.37	3.75	4.08	4.77	4.46	4.00	3.53	3.14	2.10
Poland	0.22	10.68	7.36	5.78	6.90	5.22	5.23	5.48	6.07	6.12	5.78	5.96	5.00
Portugal	5.60	5.16	5.01	4.18	4.14	3.44	3.91	4.42	4.52	4.21	5.40	10.24	10.55
Slovak Republic		8.04	6.94	4.10	5.03	3.52	4.41	4.42	4.72	4.21	3.40	4.42	4.55
				6.40		3.81	3.85	4.49	4.72		3.83	4.42	5.81
Slovenia					4.68					4.38			
Spain	5.53	5.12	4.96	4.13	4.10	3.39	3.78	4.31	4.36	3.97	4.25	5.44	5.85
Sweden	5.37 3.93	5.11 3.38	5.30	4.64	4.43	3.38	3.70 2.52	4.17	3.89 2.90	3.25	2.89	2.61 1.47	1.59
Switzerland	3.93	3.38	3.20	2.66	2.74	2.10	2.52	2.93	2.90	2.20	1.63	1.47	0.65
Turkey													
United Kingdom	5.33	4.93	4.89	4.53	4.88	4.41	4.50	5.01	4.59	3.65	3.61	3.12	1.91
United States	6.03	5.02	4.61	4.02	4.27	4.29	4.79	4.63	3.67	3.26	3.21	2.79	1.80
Euro area	5.44	5.03	4.92	4.16	4.14	3.44	3.86	4.33	4.36	4.03	3.79	4.31	3.05
Brazil													
China													
India					**								
Indonesia													
Russian Federation	35.16	19.38	15.82	9.12	8.29	8.11	6.98	6.72	7.52	9.87	7.83	8.06	8.15
South Africa	13.79	11.41	11.50	9.62	9.53	8.07	7.94	7.99	9.10	8.70	8.62	8.52	7.90

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# Long-term interest rates

## Percentage



StatLink http://dx.doi.org/10.1787/888933025366

# RATES OF CONVERSION

To compare a single country's real GDP over a period of years, it is necessary to remove movements that are due to price changes. In the same way, in order to compare the real GDPs of a group of countries at a single point in time, it is necessary to remove any differences in their GDPs that are due to differences in their price levels. Price indices are used to remove the effects of price changes in a single country over time; purchasing power parities (PPPs) are used to remove the effects of the different levels of prices within a group of countries at a point in time.

Market exchange rates are sometimes used to convert GDP in different currencies to a common currency. However, comparisons of GDP based on exchange rates do not reflect the real volumes of goods and services in the GDP of the countries being compared. For many of the low-income countries, for example, the differences between GDP converted using market exchange rates and GDP converted using PPPs are considerable. In general, the use of market exchange rates understates the real GDP of low-income countries and overstates the real GDP of high-income countries.

#### **Definition**

PPPs are currency converters that equalise price levels between countries. The PPPs shown here have been calculated by comparing the prices in OECD countries of a common basket of about 2 500 goods and services. Countries are not required to price all the items in the common basket because some of the items may be hard to find in certain countries. However, the common basket has been drawn up in such a way that each country can find

#### Overview

Over the period 2001-12, there were significant differences between changes in PPPs and changes in market exchange rates; even when the two indicators moved in the same direction, changes differed in their magnitude.

For Hungary, Poland, Turkey and Mexico the difference between GDP estimates for 2012 based on either PPPs or market exchange rate is over 65%.

Price level indices are PPPs estimates for 2012 divided by market exchange rates for the same year, with the OECD set equal to 100. In general, there is a positive correlation between GDP levels and the price level. Australia, Norway and Switzerland, three OECD countries with high per capita income, also recorded the highest price levels in 2012, exceeding the OECD level by 45% or more, while India had price levels of around 40% of the OECD average. Changes in price level indices should be however interpreted with caution as they are highly dependent on changes in exchange rates.

prices for a wide range of the goods and services that are representative of their markets.

The goods and services to be priced cover all those that enter into final expenditure: household consumption, government services, capital formation and net exports. Prices for the different items are weighted by their shares in total final expenditure to obtain the PPPs for GDP shown here.

Comparative price level indices are the ratios of PPPs to market exchange rates. At the level of GDP they provide a measure of the differences in the general price levels of countries.

## Comparability

The PPPs shown here for the OECD and the Russian Federation have been calculated jointly by the OECD and Eurostat using standard procedures. In consultation with their member countries, OECD and Eurostat keep their methodology under review and improvements are made regularly. PPPs for non-OECD countries, with the exception of the Russian Federation, are calculated within the framework of the International Comparison Programme (ICP). There are six regions in the ICP programme of which five – Africa, Asia-Pacific, the Commonwealth of Independent States (CIS), Latin America & Caribbean and Western Asia – are ICP regions overseen by the Global Office at the World Bank.

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## RATES OF CONVERSION

# Purchasing power parities

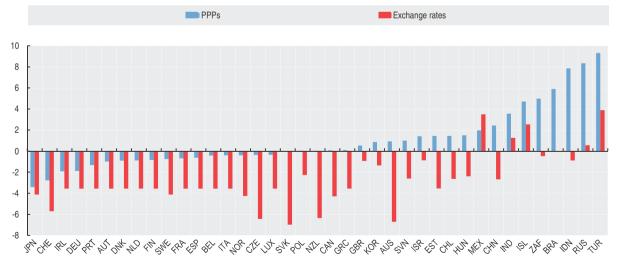
National currency units per US dollar

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Australia	1.31	1.32	1.34	1.35	1.37	1.39	1.41	1.43	1.48	1.44	1.51	1.51	1.48
Austria	0.899	0.917	0.896	0.884	0.875	0.886	0.856	0.868	0.852	0.841	0.841	0.830	0.825
Belgium	0.890	0.885	0.865	0.878	0.897	0.900	0.882	0.888	0.874	0.855	0.854	0.839	0.833
Canada	1.23	1.22	1.23	1.23	1.23	1.21	1.21	1.21	1.23	1.20	1.22	1.24	1.24
Chile	286	292	299	307	321	334	327	330	346	358	355	348	348
Czech Republic	14.2	14.2	14.3	14.0	14.3	14.3	14.0	14.0	14.3	13.8	14.0	13.5	13.3
Denmark	8.40	8.46	8.30	8.53	8.41	8.59	8.32	8.24	8.01	7.80	7.75	7.69	7.63
Estonia	0.45	0.48	0.48	0.48	0.49	0.50	0.52	0.56	0.55	0.52	0.52	0.52	0.54
Finland	0.99	1.01	1.00	1.01	0.98	0.98	0.95	0.94	0.92	0.90	0.91	0.91	0.91
France	0.938	0.918	0.905	0.938	0.940	0.923	0.902	0.894	0.882	0.858	0.857	0.845	0.841
Germany	0.966	0.955	0.942	0.917	0.897	0.867	0.837	0.831	0.812	0.806	0.796	0.779	0.776
Greece	0.677	0.670	0.660	0.689	0.696	0.714	0.698	0.719	0.701	0.695	0.702	0.693	0.671
Hungary	107.8	110.6	114.9	120.5	126.4	128.6	128.4	131.4	129.4	125.1	125.4	123.7	124.9
Iceland	84.2	88.9	91.3	94.5	94.3	99.1	107.1	113.2	117.4	124.5	131.8	133.6	135.5
Ireland	0.961	0.992	1.004	1.014	1.006	1.010	0.983	0.959	0.952	0.889	0.843	0.827	0.815
Israel	3.44	3.43	3.46	3.63	3.53	3.72	3.84	3.72	3.87	3.95	3.94	3.89	3.94
Italy	0.816	0.807	0.845	0.854	0.873	0.867	0.833	0.818	0.789	0.776	0.780	0.768	0.754
Japan	155	150	144	140	134	130	125	120	117	115	112	107	105
Korea	746	757	770	794	796	789	773	769	786	822	842	855	848
Luxembourg	0.939	0.947	0.934	0.942	0.923	0.953	0.913	0.925	0.906	0.904	0.922	0.906	0.903
Mexico	6.09	6.30	6.55	6.81	7.22	7.13	7.17	7.37	7.47	7.44	7.65	7.67	7.81
Netherlands	0.892	0.905	0.902	0.927	0.909	0.896	0.867	0.858	0.842	0.838	0.849	0.832	0.825
New Zealand	1.44	1.47	1.47	1.50	1.51	1.54	1.48	1.51	1.49	1.46	1.50	1.49	1.45
Norway	9.12	9.17	9.11	9.11	8.99	8.90	8.68	8.78	8.75	8.92	9.01	8.97	8.76
Poland	1.84	1.86	1.83	1.84	1.86	1.87	1.84	1.84	1.86	1.86	1.82	1.82	1.82
Portugal	0.699	0.705	0.708	0.706	0.716	0.684	0.661	0.660	0.649	0.631	0.632	0.628	0.605
Slovak Republic	0.525	0.521	0.528	0.555	0.573	0.566	0.555	0.546	0.533	0.509	0.510	0.508	0.509
Slovenia	0.531	0.565	0.588	0.615	0.611	0.612	0.607	0.630	0.634	0.642	0.641	0.625	0.603
Spain	0.733	0.739	0.733	0.753	0.760	0.765	0.735	0.729	0.720	0.707	0.717	0.705	0.685
Sweden	9.12	9.34	9.35	9.33	9.11	9.38	9.07	8.89	8.77	8.88	8.99	8.82	8.70
Switzerland	1.85	1.84	1.77	1.78	1.75	1.74	1.66	1.60	1.55	1.51	1.51	1.44	1.39
Turkey	0.282	0.428	0.613	0.773	0.813	0.831	0.846	0.865	0.890	0.909	0.941	0.987	1.032
United Kingdom	0.635	0.626	0.628	0.641	0.633	0.636	0.626	0.646	0.651	0.653	0.691	0.698	0.690
United States	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Brazil	0.96	1.03	1.12	1.24	1.31	1.36	1.40	1.44	1.52	1.62	1.73	1.81	1.86
China	3.32	3.31	3.28	3.30	3.43	3.45	3.47	3.62	3.82	3.77	3.98	4.18	4.23
India	13.5	13.6	13.9	14.1	14.5	14.7	15.1	15.5	16.5	17.4	18.7	19.8	20.9
Indonesia	2 799	3 128	3 259	3 367	3 555	3 934	4 348	4 701	5 435	5 833	6 233	6 599	6 738
Russian Federation	7.30	8.32	9.27	9.87	11.55	12.74	12.61	13.98	14.34	14.03	15.83	17.35	18.49
South Africa	3.09	3.26	3.55	3.67	3.79	3.87	4.00	4.20	4.43	4.76	5.04	5.23	5.39

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# Changes in exchange rates and purchasing power parities

Average annual growth in percentage, 2001-12



StatLink http://dx.doi.org/10.1787/888933025385

# PRICES • PURCHASING POWER PARITIES AND EXCHANGE RATES

RATES OF CONVERSION

# **Exchange rates**

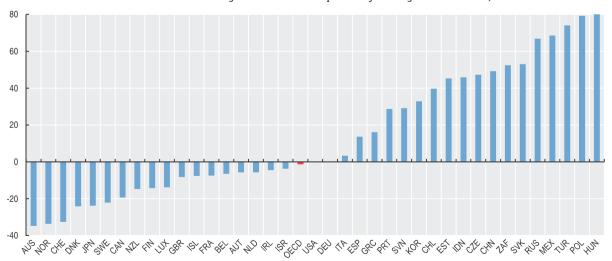
National currency units per US dollar

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Australia	1.7248	1.9334	1.8406	1.5419	1.3598	1.3095	1.3280	1.1951	1.1922	1.2822	1.0902	0.9695	0.9658
Austria	1.08540	1.11751	1.06255	0.88603	0.80537	0.80412	0.79714	0.73064	0.68268	0.71984	0.75505	0.71936	0.77829
Belgium	1.08540	1.11751	1.06255	0.88603	0.80537	0.80412	0.79714	0.73064	0.68268	0.71984	0.75505	0.71936	0.77829
Canada	1.4851	1.5488	1.5693	1.4011	1.3010	1.2118	1.1344	1.0741	1.0670	1.1431	1.0302	0.9895	0.9992
Chile	539.59	634.94	688.94	691.40	609.53	559.77	530.28	522.46	522.46	560.86	510.25	483.67	486.47
Czech Republic	38.598	38.035	32.739	28.209	25.700	23.957	22.596	20.294	17.072	19.063	19.098	17.696	19.578
Denmark	8.0831	8.3228	7.8947	6.5877	5.9911	5.9969	5.9468	5.4437	5.0981	5.3609	5.6241	5.3687	5.7925
Estonia	1.084	1.117	1.062	0.886	0.805	0.804	0.797	0.731	0.683	0.719	0.755	0.719	0.778
Finland	1.08540	1.11751	1.06255	0.88603	0.80537	0.80412	0.79714	0.73064	0.68268	0.71984	0.75505	0.71936	0.77829
France	1.08540	1.11751	1.06255	0.88603	0.80537	0.80412	0.79714	0.73064	0.68268	0.71984	0.75505	0.71936	0.77829
Germany	1.08540	1.11751	1.06255	0.88603	0.80537	0.80412	0.79714	0.73064	0.68268	0.71984	0.75505	0.71936	0.77829
Greece	1.07234	1.11751	1.06255	0.88603	0.80537	0.80412	0.79714	0.73064	0.68268	0.71984	0.75505	0.71936	0.77829
Hungary	282.18	286.49	257.89	224.31	202.75	199.58	210.39	183.63	172.11	202.34	207.94	201.06	225.10
Iceland	78.616	97.425	91.662	76.709	70.192	62.982	70.180	64.055	87.948	123.638	122.242	115.954	125.083
Ireland	1.08540	1.11751	1.06255	0.88603	0.80537	0.80412	0.79714	0.73064	0.68268	0.71984	0.75505	0.71936	0.77829
Israel	4.0773	4.2057	4.7378	4.5541	4.4820	4.4877	4.4558	4.1081	3.5880	3.9323	3.7390	3.5781	3.8559
Italy	1.08540	1.11751	1.06255	0.88603	0.80537	0.80412	0.79714	0.73064	0.68268	0.71984	0.75505	0.71936	0.77829
Japan	107.77	121.53	125.39	115.93	108.19	110.22	116.30	117.75	103.36	93.57	87.78	79.81	79.79
Korea	1 131.0	1 291.0	1 251.1	1 191.6	1 145.3	1 024.1	954.8	929.3	1 102.1	1 276.9	1 156.1	1 108.3	1 126.5
Luxembourg	1.08540	1.11751	1.06255	0.88603	0.80537	0.80412	0.79714	0.73064	0.68268	0.71984	0.75505	0.71936	0.77829
Mexico	9.456	9.342	9.656	10.789	11.286	10.898	10.899	10.928	11.130	13.514	12.636	12.423	13.170
Netherlands	1.08540	1.11751	1.06255	0.88603	0.80537	0.80412	0.79714	0.73064	0.68268	0.71984	0.75505	0.71936	0.77829
New Zealand	2.2012	2.3788	2.1622	1.7221	1.5087	1.4203	1.5421	1.3607	1.4227	1.6002	1.3874	1.2659	1.2342
Norway	8.8018	8.9917	7.9838	7.0802	6.7408	6.4425	6.4133	5.8617	5.6400	6.2883	6.0442	5.6046	5.8175
Poland	4.3461	4.0939	4.0800	3.8891	3.6576	3.2355	3.1032	2.7680	2.4092	3.1201	3.0153	2.9629	3.2565
Portugal	1.08540	1.11751	1.06255	0.88603	0.80537	0.80412	0.79714	0.73064	0.68268	0.71984	0.75505	0.71936	0.77829
Slovak Republic	1.5281	1.6051	1.5046	1.2206	1.0707	1.0296	0.9858	0.8197	0.7091	0.7198	0.7550	0.7194	0.7783
Slovenia	0.92913	1.01297	1.00254	0.86427	0.80279	0.80414	0.79715	0.73064	0.68268	0.71984	0.75505	0.71936	0.77829
Spain	1.08540	1.11751	1.06255	0.88603	0.80537	0.80412	0.79714	0.73064	0.68268	0.71984	0.75505	0.71936	0.77829
Sweden	9.1622	10.3291	9.7371	8.0863	7.3489	7.4731	7.3783	6.7588	6.5911	7.6538	7.2075	6.4935	6.7750
Switzerland	1.6888	1.6876	1.5586	1.3467	1.2435	1.2452	1.2538	1.2004	1.0831	1.0881	1.0429	0.8880	0.9377
Turkey	0.6252	1.2256	1.5072	1.5009	1.4255	1.3436	1.4285	1.3029	1.3015	1.5500	1.5029	1.6750	1.7960
United Kingdom	0.66093	0.69466	0.66722	0.61247	0.54618	0.55000	0.54349	0.49977	0.54397	0.64192	0.64718	0.62414	0.63305
United States	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Euro Area	1.0854	1.1175	1.0626	0.8860	0.8054	0.8041	0.7971	0.7306	0.6827	0.7198	0.7550	0.7194	0.7783
Brazil	1.8294	2.3496	2.9204	3.0775	2.9251	2.4344	2.1753	1.9471	1.8338	1.9994	1.7592	1.6728	1.9531
China	8.2785	8.2771	8.2770	8.2770	8.2768	8.1943	7.9734	7.6075	6.9487	6.8314	6.7703	6.4615	6.3123
India	44.942	47.186	48.610	46.583	45.317	44.100	45.307	41.349	43.505	48.405	45.726	46.671	53.437
Indonesia	8 421.78	10 260.90	9 311.19	8 577.13	8 938.85	9 704.74	9 159.32	9 141.00	9 698.96	10 389.90	9 090.43	8 770.43	9 386.63
Russian Federation	28.129	29.169	31.349	30.692	28.814	28.284	27.191	25.581	24.853	31.740	30.368	29.382	30.840
South Africa	6.9398	8.6092	10.5407	7.5648	6.4597	6.3593	6.7716	7.0454	8.2612	8.4737	7.3212	7.2611	8.2100

StatLink http://dx.doi.org/10.1787/888933027969

# Differences in GDP when converted to US dollars using exchange rates and PPPs

PPP-based GDP minus exchange rate-based GDP as per cent of exchange rate-based GDP, 2012



StatLink http://dx.doi.org/10.1787/888933025404



# RATES OF CONVERSION

# Indices of price levels

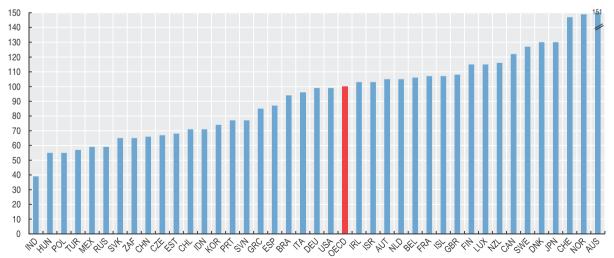
OECD = 100

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Australia	81	77	81	90	99	104	106	115	117	111	135	148	151
Austria	89	92	94	103	107	109	108	115	118	115	109	110	105
Belgium	88	89	90	102	109	110	111	117	121	117	111	111	106
Canada	89	88	87	90	93	99	107	109	109	104	116	119	122
Chile	57	51	48	46	52	59	62	61	63	63	68	68	71
Czech Republic	39	42	49	51	55	59	62	66	79	72	71	72	67
Denmark	111	114	117	133	138	141	140	146	148	144	135	136	130
Estonia	45	48	50	56	59	61	65	73	76	72	68	69	68
Finland	98	101	105	117	119	120	119	124	127	123	118	120	115
France	92	92	95	109	115	113	113	118	122	118	111	112	107
Germany	95	96	99	106	109	106	105	110	112	110	103	103	99
Greece	67	67	69	80	85	87	88	95	97	95	91	92	85
Hungary	41	43	50	55	61	63	61	69	71	61	59	59	55
Iceland	114	102	111	127	132	155	153	171	126	99	105	110	107
Ireland	95	99	105	118	123	124	124	127	132	122	109	109	103
Israel	90	91	81	82	77	82	86	88	102	100	104	105	103
Italy	80	81	88	99	106	106	105	108	109	106	101	102	96
Japan	154	138	127	124	122	116	107	99	107	122	124	128	130
Korea	70	66	68	68	68	76	81	80	67	64	71	73	74
Luxembourg	92	95	98	109	112	117	115	122	125	124	119	120	115
Mexico	69	76	75	65	63	64	66	65	63	54	59	59	59
Netherlands	88	91	94	107	111	110	109	113	116	115	110	110	105
New Zealand	70	69	76	89	98	106	97	107	99	90	106	112	116
Norway	111	114	127	132	131	136	136	145	146	140	146	152	149
Poland	45	51	50	49	50	57	60	64	73	59	59	59	55
Portugal	69	71	74	82	87	84	83	87	90	86	82	83	77
Slovak Republic	37	36	39	47	52	54	56	64	71	70	66	67	65
Slovenia	61	62	65	73	75	75	76	83	88	88	83	83	77
Spain	72	74	77	87	93	94	92	96	100	97	93	93	87
Sweden	106	101	107	119	122	124	123	127	126	114	122	129	127
Switzerland	117	122	126	135	138	138	132	129	135	137	141	154	147
Turkev	48	39	45	53	56	61	59	64	65	58	61	56	57
United Kingdom	103	101	105	107	114	114	115	125	113	100	104	106	108
United States	107	112	111	103	98	98	100	97	94	99	98	95	99
EU 28	85	86	89	98	102	102	102	107	108	103	99	99	95
OECD	100	100	100	100	100	100	100	100	100	100	100	100	100
Brazil	56	49	43	42	44	55	64	71	78	80	96	103	94
China	43	45	44	41	41	41	44	46	52	54	57	62	66
India	32	32	32	31	31	33	33	36	36	35	40	40	39
Indonesia	36	34	39	40	39	40	48	50	53	55	67	72	71
Russian Federation	28	32	33	33	39	44	47	53	54	44	51	56	59
South Africa	48	42	37	50	58	60	59	58	51	55	67	69	65

StatLink http://dx.doi.org/10.1787/888933027988

# Indices of price levels

OECD = 100, 2012



StatLink http://dx.doi.org/10.1787/888933025423

## REAL EFFECTIVE EXCHANGE RATES

Effective exchange rates are a summary measure of the changes in the exchange rates of a country vis-à-vis its trading partners. This indicator provides a broad interpretation of a country's price competitiveness, which is, in turn, a major determinant of the success of different countries in raising productivity, fostering innovation and improving living standards.

## **Definition**

Nominal effective exchange rate indices are calculated by comparing, for each country, the change in its own exchange rate against the US dollar to a weighted average of changes in its competitors' exchange rates, also against the US dollar. Changes in the competitor exchange rates are weighted using a matrix measuring the importance of bilateral trade flows in the current year.

The indicator of real effective exchange rates shown here, relative consumer price indices, takes into account not only changes in market exchange rates but also variations in relative prices using, consumer prices.

The change in a country's relative consumer prices between two years is obtained by comparing the change in

## Overview

Real effective exchange rates continue to show a diverging pattern among OECD countries. The United States and the United Kingdom have both seen their international competitiveness increase significantly in the last ten years and in particular the United Kingdom between 2007 and 2009.

Germany and France have almost exactly the same pattern in their real effective exchange rates. From 2002 to 2009 their real effective exchange rates were more or less stable, however since 2009 both countries have seen their rates fall (implying an improvement in their competitiveness) with Germany recording the bigger fall. Since 2009, Italy has also seen its real effective exchange rate decreasing. A European country showing an interesting pattern is Switzerland, which saw a huge increase in its competitiveness from 2003 to 2007. Since the Lehman Brother bankruptcy in 2007 and up to 2011, the Swiss real effective exchange rate increased by more than 20%. The National Bank of Switzerland, by introducing a ceiling value for the exchange rate of the Swiss franc against the euro, ended the deterioration in competitiveness. Ireland has seen its competitiveness sharply improved since 2007 although it has been hit hardly by the global financial crisis.

Japan witnessed a large improvement in its international competitiveness from 2000 to 2007, followed by a drastic deterioration after the financial crisis. However, since 2009 growth in its real effective exchange rate has flattened out.

the country's consumer price index converted into US dollars at market exchange rates to a weighted average of changes in its competitors' consumer price indices, also expressed in US dollars. The weighted average of competitors' prices is based on a matrix for the current year expressing the importance of bilateral trade.

# **Comparability**

The index shown here is constructed using a common procedure that assures a high degree of comparability both across countries and over time.

A rise in the index represents a deterioration in that country's competitiveness. Real exchange rates are a major short-run determinant of any country's capacity to compete. Note that the index only shows changes in the international competitiveness of each country over time. Differences between countries in the levels of the indices have no significance.

Real effective exchange rates try to eliminate the weakness in the nominal effective exchange rates, namely that potential competitiveness gains from exchange rate depreciations can be eroded by local inflation, by correcting effective nominal exchange rates for differences in inflation rates (consumer prices). While consumer prices are readily available, this raises another issue, namely the assumption that the relative price of domestic tradable goods as compared with foreign tradables evolves in parallel to the relative consumer prices.

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## REAL EFFECTIVE EXCHANGE RATES

# Real effective exchange rates

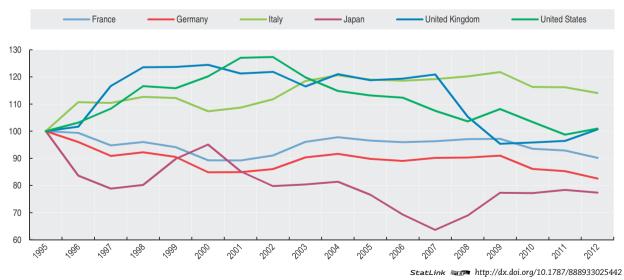
Based on consumer price indices, 2010 = 100

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Australia	69.0	66.1	69.8	79.0	85.7	88.2	87.6	92.5	90.7	88.2	100.0	107.1	108.3
Austria	97.6	97.9	98.8	102.1	103.3	102.4	101.6	102.1	102.3	103.1	100.0	100.4	98.9
Belgium	91.3	92.2	93.8	98.5	100.5	100.4	100.0	100.7	103.5	103.5	100.0	101.0	99.0
Canada	75.3	73.8	73.4	81.3	85.5	90.6	95.7	98.8	96.2	92.0	100.0	101.5	101.1
Chile	89.1	83.8	88.9	82.7	88.5	94.3	98.7	97.1	98.5	94.8	100.0	101.2	103.8
Czech Republic	66.7	71.0	79.2	77.6	78.5	83.0	87.3	89.7	102.9	98.9	100.0	102.0	98.8
Denmark	91.0	92.3	94.7	100.0	101.0	99.8	99.4	100.1	101.7	104.4	100.0	99.5	96.9
Estonia	80.7	82.7	85.2	88.5	90.2	90.5	91.6	95.7	102.4	104.0	100.0	101.3	100.1
Finland	99.0	100.2	101.8	106.7	106.7	103.6	102.2	103.5	105.2	106.5	100.0	99.7	97.0
France	95.5	95.4	97.4	102.7	104.6	103.2	102.6	103.0	103.8	104.0	100.0	99.3	96.5
Germany	98.6	98.6	100.0	105.0	106.5	104.3	103.4	104.7	104.9	105.7	100.0	99.0	95.9
Greece	83.7	84.3	87.1	92.6	94.8	95.0	95.8	97.4	99.5	101.1	100.0	100.6	97.0
Hungary	72.4	78.3	86.6	89.0	95.0	96.6	91.9	102.4	105.4	99.2	100.0	99.8	96.8
Iceland	132.4	116.8	124.7	131.4	134.9	152.6	142.4	148.2	116.3	95.1	100.0	101.1	101.6
Ireland	81.5	84.4	89.2	98.0	100.6	100.3	102.0	107.0	112.1	107.9	100.0	100.2	95.7
Israel	113.9	113.0	102.5	96.6	90.1	87.7	87.1	87.7	97.8	95.5	100.0	101.0	96.1
Italy	92.3	93.4	96.1	101.9	103.7	102.3	102.0	102.5	103.4	104.7	100.0	99.9	98.1
Japan	123.2	110.4	103.4	104.1	105.4	99.2	89.8	82.4	89.3	100.1	100.0	101.5	100.2
Korea	106.6	100.4	105.5	106.9	108.5	121.3	129.8	128.2	104.6	92.7	100.0	100.3	99.9
Luxembourg	93.1	93.7	94.8	98.1	99.3	99.1	99.8	100.7	101.7	102.3	100.0	100.5	99.0
Mexico	115.3	123.5	124.0	110.0	105.3	109.2	109.1	107.7	105.6	92.9	100.0	100.0	97.2
Netherlands	92.4	95.0	98.3	103.9	104.8	103.4	102.1	102.5	103.0	104.8	100.0	99.5	97.0
New Zealand	75.4	74.3	81.7	93.6	100.7	106.2	98.6	105.4	98.4	92.3	100.0	104.1	106.8
Norway	88.0	91.1	99.1	98.9	94.8	98.1	97.6	97.7	98.2	96.1	100.0	100.4	99.8
Poland	92.0	103.1	98.8	88.3	87.5	97.3	99.1	102.4	111.7	94.8	100.0	98.3	95.7
Portugal	92.4	94.9	97.6	101.8	102.9	102.0	102.6	103.3	103.4	102.8	100.0	100.8	99.7
Slovak Republic	59.2	59.7	60.9	69.1	75.8	77.4	81.4	89.8	97.5	104.6	100.0	100.9	100.6
Slovenia	93.7	93.6	95.5	98.9	99.1	98.1	98.2	99.7	102.0	103.5	100.0	99.0	97.3
Spain	85.7	87.7	90.7	95.5	97.6	98.2	99.5	101.0	103.2	103.2	100.0	100.5	98.4
Sweden	109.5	100.4	103.6	110.4	111.0	106.2	105.6	106.8	104.5	94.5	100.0	105.8	105.4
Switzerland	92.2	94.3	98.2	98.8	97.9	95.8	93.0	88.8	92.5	96.4	100.0	109.8	105.4
Turkey	82.4	67.1	73.4	77.8	80.5	89.2	88.4	95.7	96.8	91.1	100.0	88.5	91.8
United Kingdom	129.9	126.6	127.2	121.6	126.3	124.0	124.6	126.2	109.9	99.5	100.0	100.6	105.0
United States	116.3	122.9	123.2	115.9	111.1	109.5	108.7	104.0	100.2	104.6	100.0	95.5	97.6
Brazil	62.6	55.5	55.7	53.5	55.8	69.2	77.5	83.5	87.8	87.9	100.0	104.8	94.8
China	93.8	98.3	96.2	89.3	86.6	85.5	86.6	89.4	97.2	101.6	100.0	102.5	108.8
ndia	84.6	85.6	85.0	83.3	82.4	84.9	83.9	90.4	86.1	88.6	100.0	98.8	94.0
Indonesia	71.2	67.4	81.7	87.5	83.6	82.4	95.0	94.1	89.9	89.3	100.0	100.0	96.0
Russian Federation	53.9	64.2	66.6	68.3	73.9	81.7	90.1	94.8	101.3	92.3	100.0	103.7	104.1
South Africa	95.5	84.2	73.5	96.6	103.5	103.7	98.1	91.3	80.0	87.3	100.0	98.5	92.5

StatLink http://dx.doi.org/10.1787/888933028007

# Real effective exchange rates based on consumer price indices

1995 = 100







## **ENERGY REQUIREMENT**

ENERGY SUPPLY
ENERGY INTENSITY
ELECTRICITY GENERATION
NUCLEAR ENERGY
RENEWABLE ENERGY
OIL PRODUCTION
OIL PRICES

## **TRANSPORT**

GOODS TRANSPORT
PASSENGER TRANSPORT
ROAD FATALITIES

#### **ENERGY SUPPLY**

An analysis of energy problems requires a comprehensive presentation of basic supply and demand data for all fuels in a manner which allows the easy comparison of the contribution that each fuel makes to the economy and their interrelationships through the conversion of one fuel into another.

#### **Definition**

The data presented here refers to total primary energy supply (TPES). TPES equals production plus imports minus exports minus international bunkers plus or minus stock changes. The International Energy Agency (IEA) energy balance methodology is based on the calorific content of the energy commodities and a common unit of account. The unit of account adopted is the tonne of oil equivalent (toe) which is defined as 10<sup>7</sup> kilocalories (41.868 gigajoules). This quantity of energy is, within a few per cent, equal to the net heat content of one tonne of crude oil. The difference between the "net" and the "gross" calorific value for each fuel is the latent heat of vaporisation of the water produced during combustion of the fuel. For coal and oil, net calorific value is about 5% less than gross, for most forms of natural and manufactured gas the difference is 9-10%, while for electricity there is no difference. The IEA balances are calculated using the physical energy content method to calculate the primary energy equivalent.

#### Comparability

Data quality is not homogeneous for all countries and regions. In some countries, data are based on secondary sources, and where incomplete or unavailable, the IEA has made estimates. In general, data are likely to be more accurate for production and trade than for international bunkers or stock changes. Moreover, statistics for biofuels and waste are less accurate than those for traditional commercial energy data.

EU28 does not include Croatia.

#### Overview

Between 1971 and 2011, the world's total primary energy supply more than doubled, reaching 13 114 Mtoe (million tonnes of oil equivalent). This equates to a compound growth rate of 2.2% per year. By comparison, world population grew by on average by 1.5% and gross domestic product by 3.0% per year in real terms over the same period.

Energy supply growth was fairly constant over the period, except in 1974-75 and in the early 1980s as a consequence of the first two oil shocks, and in the early 1990s following the dissolution of the Soviet Union. With the economic crisis in 2008/2009, world energy supply declined by 1% in 2009. However, energy supply rebounded in 2010, increasing by 6% and kept growing by 2% in 2011.

The share of OECD in world primary energy supply decreased from 61% in 1971 to 40% in 2011. Strong economic development in Asia led to a large increase in the share of non-OECD Asia (including China) in world energy supply, from 13% to 33% over the same period. By contrast, the combined share of non-OECD Europe and Eurasia (which includes the Former Soviet Union) decreased significantly in the late 1980s and early 1990s.

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## **ENERGY AND TRANSPORTATION • ENERGY REQUIREMENT**

**ENERGY SUPPLY** 

## Total primary energy supply

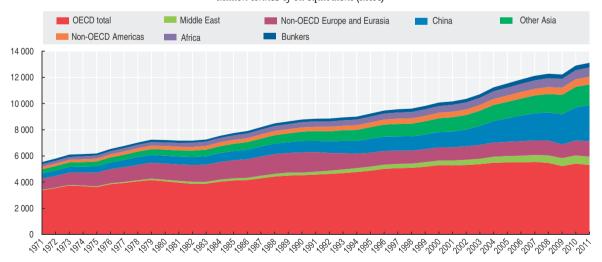
Million tonnes of oil equivalent (Mtoe)

	1971	1990	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Australia	51.6	86.2	109.5	110.8	112.7	113.5	115.0	118.7	122.5	122.1	122.5	122.9	133.7
Austria	18.8	24.8	30.4	32.2	32.7	33.8	33.8	33.4	33.5	32.0	34.2	33.0	32.9
Belgium	39.7	48.3	56.4	59.2	58.9	58.7	58.1	57.0	58.6	57.1	60.9	59.1	57.3
Canada	141.4	208.6	248.2	262.0	267.6	272.2	268.3	271.7	264.7	251.3	251.0	251.8	252.7
Chile	8.7	14.0	25.6	25.8	27.5	28.4	29.5	30.6	30.3	29.5	30.9	33.6	32.7
Czech Republic	45.4	49.6	42.5	44.4	45.5	44.9	45.9	45.8	44.9	42.0	44.0	43.4	42.8
Denmark	18.5	17.4	19.0	20.1	19.4	18.9	20.3	19.8	19.2	18.4	19.3	18.0	17.0
Estonia		9.9	4.7	5.2	5.3	5.2	5.0	5.6	5.4	4.7	5.6	5.6	5.7
Finland	18.2	28.4	34.8	36.7	37.1	34.3	37.3	36.8	35.3	33.3	36.4	34.7	33.5
France	158.6	224.0	261.2	265.9	269.8	270.7	266.8	263.5	264.8	253.5	261.2	252.8	251.7
Germany	305.0	351.1	338.6	338.1	340.7	335.2	340.5	330.7	334.6	313.2	329.8	311.8	307.4
Greece	8.7	21.4	28.3	29.1	29.7	30.2	30.2	30.2	30.4	29.4	27.6	26.7	26.0
Hungary	19.0	28.8	25.6	26.1	26.2	27.6	27.3	26.7	26.5	24.9	25.7	25.0	23.5
Iceland	0.9	2.1	3.3	3.3	3.4	3.5	4.2	4.8	5.4	5.4	5.4	5.7	6.0
Ireland	6.7	9.9	14.7	14.1	14.3	14.3	14.6	15.1	14.9	14.4	14.2	13.2	13.3
Israel	5.7	11.5	18.8	19.7	19.2	18.5	20.4	20.7	22.9	21.5	23.2	23.3	24.1
Italy	105.4	146.6	172.4	179.4	182.0	183.9	181.8	179.6	176.0	164.9	170.2	167.4	158.6
Japan	267.5	439.3	510.4	506.2	522.5	520.5	519.8	515.2	495.4	472.2	499.1	461.5	451.5
Korea	17.0	93.1	198.7	202.7	208.3	210.2	213.6	222.1	226.9	229.2	250.0	260.4	263.0
Luxembourg	4.1	3.4	3.6	3.8	4.3	4.4	4.3	4.2	4.2	4.0	4.2	4.2	4.1
Mexico	43.0	122.5	150.8	153.7	159.3	170.3	172.3	176.7	181.9	175.8	178.9	186.2	191.9
Netherlands	50.9	65.7	75.7	78.0	79.1	78.8	76.8	79.3	79.6	78.2	83.4	77.4	78.2
New Zealand	6.9	12.9	17.1	16.8	17.4	16.8	17.0	17.1	17.4	17.5	18.3	18.2	18.6
Norway	13.3	21.0	24.9	27.0	26.4	26.8	27.1	27.5	29.8	29.8	32.3	28.1	29.8
Poland	86.1	103.1	88.9	91.1	91.4	92.4	97.2	96.8	97.9	94.0	101.5	101.3	96.5
Portugal	6.3	16.7	25.8	25.1	25.8	26.5	24.7	25.3	24.4	24.2	23.5	23.1	21.9
Slovak Republic	14.3	21.3	18.7	18.6	18.4	18.8	18.6	17.9	18.3	16.7	17.8	17.3	16.7
Slovenia		5.7	6.8	6.9	7.1	7.3	7.3	7.3	7.7	7.1	7.2	7.2	7.1
Spain	42.6	90.1	128.8	133.2	139.0	141.9	141.7	143.8	139.0	127.7	127.7	125.6	124.7
Sweden	36.0	47.2	51.8	50.6	52.6	51.6	50.2	50.1	49.6	45.4	51.3	49.0	48.9
Switzerland	16.4	24.4	25.9	26.0	26.1	25.9	27.1	25.8	26.8	27.0	26.2	25.4	25.5
Turkey	19.5	52.8	74.2	77.8	80.9	84.4	93.0	100.0	98.5	97.7	105.1	112.5	115.7
United Kingdom	208.7	205.9	218.3	222.1	221.6	222.6	219.0	211.0	208.2	196.5	201.8	188.1	192.4
United States	1 587.5	1 915.0	2 256.0	2 261.2	2 307.8	2 318.9	2 296.7	2 337.0	2 277.0	2 164.5	2 215.5	2 191.2	2 132.4
EU 28		1 635.7	1 719.9	1 755.8	1 775.1	1 777.0	1 778.6	1 757.6	1 750.1	1 650.3	1 715.7	1 654.0	
OECD	3 372.3	4 522.5	5 310.4	5 373.3	5 479.8	5 511.7	5 505.7	5 548.1	5 472.6	5 224.6	5 406.2	5 304.8	5 237.9
Brazil	69.8	140.2	195.8	199.0	210.0	215.3	222.8	235.5	248.6	240.5	265.9	270.0	
China	391.6	870.7	1 253.8	1 427.6	1 639.9	1 775.7	1 938.9	2 044.6	2 120.8	2 286.1	2 516.7	2 727.7	
India	156.5	316.7	477.5	489.5	519.2	539.4	567.2	604.7	633.0	698.4	723.7	749.4	
Indonesia	35.1	98.6	164.9	165.4	176.2	179.5	183.7	182.9	186.6	199.8	211.3	209.0	
Russian Federation		879.2	623.1	645.3	647.4	651.7	670.7	672.6	688.5	646.9	702.3	731.0	
South Africa	45.4	91.0	109.9	117.4	128.7	128.2	127.3	136.6	146.8	142.8	142.3	141.4	
World	5 530.6	8 781.9	10 362.3	10 717.3	11 246.3	11 532.0	11 840.9	12 121.4	12 279.7	12 217.8	12 904.8	13 113.4	

StatLink http://dx.doi.org/10.1787/888933028026

## Total primary energy supply by region

Million tonnes of oil equivalent (Mtoe)



StatLink http://dx.doi.org/10.1787/888933025461

## **ENERGY INTENSITY**

A common way to measure and compare the energy intensity of different countries, and how this changes over time, is to look at the ratio of energy supply to GDP. Energy intensity is sometimes also used as proxy of energy efficiency. However, this use can be misleading as energy intensity depends on numerous elements beyond energy efficiency such as climate, output composition, outsourcing of goods produced by energy-intensive industries, etc.

#### **Definition**

The table shows total primary energy supply (TPES) per thousand US dollars of GDP. The ratios are calculated by dividing each country's annual TPES by each country's annual GDP expressed in constant 2005 prices and converted to US dollars using purchasing power parities (PPPs) for the year 2005.

TPES consists of primary energy production adjusted for net trade, bunkers and stock changes. Production of secondary energy (e.g. oil/coal products, electricity from fossil fuels, etc.) is not included since the "energy equivalent" of the primary fuels used to create the secondary products or electric power has already been counted. TPES is expressed in tonnes of oil equivalent.

### Comparability

Care should be taken when comparing energy intensities between countries and over time since different national circumstances (e.g. density of population, country size, average temperatures and economic structure) will affect the ratios. A decrease in the TPES/GDP ratio may reflect a restructuring of the economy and the transfer of energy-intensive industries such as iron and steel out of the country. The harmful effects of such outsourcing may increase the global damage to the environment if the producers abroad use less energy efficient techniques.

EU28 does not include Croatia.

#### Overview

Sharp improvements in the efficiency of key end uses, shifts to electricity, some changes in manufacturing output and consumer behaviour have occurred in many OECD countries since 1971. As a consequence, energy supply per unit of GDP fell significantly, particularly in the 1979-1990 period.

Contributing to the trend were higher fuel prices, longterm technological progress, government energy efficiency programmes and regulations.

Globally the ratio of energy supply to GDP (TPES/GDP) fell less than the ratio of energy consumption to GDP (total final consumption/GDP), because of increased use of electricity. The main reason for this divergence is that losses in electricity generation outweighed intensity improvements achieved in end uses such as household appliances.

Among OECD countries, the ratio of energy consumption to GDP varies considerably. Apart from energy prices, winter weather is a key element in these variations, as are raw materials processing techniques, the distance goods must be shipped, the size of dwellings, the use of private rather than public transport and other lifestyle factors.

#### Sources

- IEA (2013), Energy Balances of OECD Countries, IEA, Paris.
- IEA (2013), Energy Balances of Non-OECD Countries, IEA, Paris.

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- IEA (2013), Energy Policies of IEA Countries, IEA, Paris.
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#### Online databases

• IEA World Energy Statistics and Balances.

#### Website

• International Energy Agency, www.iea.org.

## **ENERGY AND TRANSPORTATION • ENERGY REQUIREMENT**

ENERGY INTENSITY

## Total primary energy supply per unit of GDP

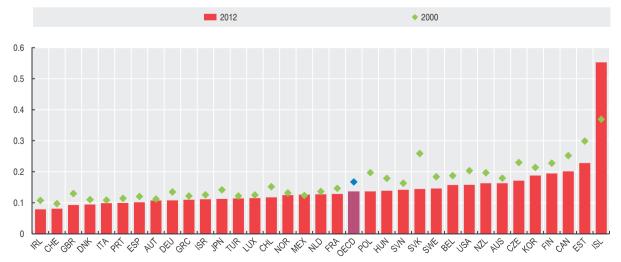
Tonnes of oil equivalent (toe) per thousand 2005 US dollars of GDP calculated using PPPs

	1971	1990	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Australia	0.21	0.20	0.17	0.16	0.16	0.16	0.15	0.15	0.16	0.15	0.15	0.14	0.16
Austria	0.16	0.13	0.12	0.12	0.12	0.12	0.12	0.11	0.11	0.11	0.12	0.11	0.11
Belgium	0.26	0.19	0.18	0.18	0.18	0.17	0.17	0.16	0.16	0.16	0.17	0.16	0.16
Canada	0.36	0.28	0.24	0.25	0.24	0.24	0.23	0.23	0.22	0.22	0.21	0.20	0.20
Chile	0.17	0.16	0.15	0.14	0.14	0.14	0.14	0.13	0.13	0.13	0.12	0.13	0.12
Czech Republic	0.39	0.29	0.23	0.23	0.22	0.21	0.20	0.19	0.18	0.17	0.18	0.17	0.17
Denmark	0.21	0.13	0.11	0.12	0.11	0.10	0.11	0.10	0.10	0.10	0.11	0.10	0.09
Estonia		0.61	0.26	0.27	0.26	0.23	0.21	0.21	0.22	0.22	0.25	0.23	0.23
Finland	0.30	0.25	0.24	0.24	0.24	0.21	0.22	0.21	0.20	0.20	0.22	0.20	0.19
France	0.19	0.16	0.15	0.15	0.15	0.15	0.14	0.14	0.14	0.13	0.14	0.13	0.13
Germany	0.24	0.17	0.13	0.13	0.13	0.13	0.13	0.12	0.12	0.12	0.12	0.11	0.11
Greece	0.08	0.12	0.12	0.12	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.11	0.11
Hungary	0.24	0.21	0.17	0.17	0.16	0.16	0.15	0.15	0.15	0.15	0.15	0.14	0.14
Iceland	0.30	0.32	0.38	0.37	0.35	0.34	0.38	0.42	0.46	0.50	0.52	0.53	0.55
Ireland	0.24	0.16	0.10	0.10	0.09	0.09	0.09	0.08	80.0	0.09	0.09	0.08	0.08
Israel	0.15	0.14	0.13	0.13	0.13	0.11	0.12	0.11	0.12	0.11	0.12	0.11	0.11
Italy	0.14	0.11	0.11	0.11	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.10	0.10
Japan	0.19	0.13	0.14	0.13	0.14	0.13	0.13	0.13	0.12	0.12	0.13	0.12	0.11
Korea	0.20	0.20	0.20	0.20	0.20	0.19	0.19	0.18	0.18	0.18	0.19	0.19	0.19
Luxembourg	0.51	0.21	0.13	0.13	0.14	0.14	0.13	0.12	0.12	0.12	0.12	0.12	0.11
Mexico	0.11	0.15	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
Netherlands	0.21	0.17	0.14	0.14	0.14	0.14	0.13	0.13	0.13	0.13	0.14	0.12	0.13
New Zealand	0.15	0.20	0.18	0.17	0.17	0.16	0.16	0.16	0.16	0.16	0.17	0.16	0.16
Norway	0.19	0.15	0.12	0.13	0.12	0.12	0.12	0.12	0.13	0.13	0.14	0.12	0.12
Poland	0.37	0.33	0.19	0.19	0.18	0.18	0.17	0.16	0.16	0.15	0.15	0.15	0.14
Portugal	0.08	0.10	0.12	0.11	0.12	0.12	0.11	0.11	0.10	0.11	0.10	0.10	0.10
Slovak Republic	0.33	0.34	0.25	0.24	0.22	0.22	0.20	0.17	0.17	0.16	0.16	0.15	0.14
Slovenia		0.17	0.16	0.16	0.16	0.16	0.15	0.14	0.14	0.14	0.14	0.14	0.14
Spain	0.10	0.12	0.12	0.12	0.12	0.12	0.11	0.11	0.11	0.10	0.10	0.10	0.10
Sweden	0.26	0.22	0.19	0.18	0.18	0.17	0.16	0.16	0.16	0.15	0.16	0.15	0.15
Switzerland	0.10	0.11	0.10	0.10	0.10	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.08
Turkey	0.11	0.12	0.12	0.12	0.11	0.11	0.11	0.11	0.11	0.12	0.12	0.11	0.11
United Kingdom	0.25	0.16	0.12	0.12	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.09	0.09
United States	0.36	0.24	0.20	0.19	0.19	0.18	0.18	0.18	0.17	0.17	0.17	0.17	0.16
EU 28		0.17	0.14	0.14	0.14	0.13	0.13	0.12	0.12	0.12	0.12	0.12	
OECD	0.26	0.19	0.16	0.16	0.16	0.16	0.15	0.15	0.15	0.14	0.15	0.14	0.14
Brazil	0.15	0.13	0.14	0.14	0.14	0.14	0.14	0.13	0.14	0.13	0.14	0.13	
China	1.30	0.70	0.32	0.33	0.34	0.33	0.32	0.30	0.28	0.28	0.28	0.27	
India	0.34	0.30	0.24	0.23	0.23	0.21	0.21	0.20	0.20	0.21	0.19	0.19	
Indonesia	0.35	0.27	0.27	0.26	0.26	0.25	0.25	0.23	0.22	0.23	0.23	0.21	
Russian Federation		0.47	0.45	0.43	0.41	0.38	0.37	0.34	0.33	0.33	0.35	0.35	
South Africa	0.25	0.32	0.31	0.32	0.33	0.32	0.30	0.30	0.31	0.31	0.30	0.29	
World	0.29	0.24	0.20	0.20	0.20	0.20	0.20	0.19	0.19	0.19	0.19	0.19	

StatLink http://dx.doi.org/10.1787/888933028045

## Total primary energy supply per unit of GDP

Tonnes of oil equivalent (toe) per thousand 2005 US dollars of GDP calculated using PPPs



StatLink http://dx.doi.org/10.1787/888933025480

#### **ELECTRICITY GENERATION**

The amount of electricity generated by a country, and the breakdown of that production by type of fuel, reflects the natural resources, imported energy, national policies on security of energy supply, population size, electrification rate as well as the stage of development and rate of growth of the economy in each country.

#### **Definition**

Shown here are data on electricity generation from fossil fuels, nuclear, hydro (excluding pumped storage), geothermal, solar, biofuels, etc. It includes electricity produced in electricity-only plants and in combined heat and power plants. Both main activity producer and autoproducer plants are included, where data are available. Main activity producers generate electricity for sale to third parties as their primary activity. Autoproducers generate electricity wholly or partly for their own use as an activity which supports their primary activity. Both types of plants may be privately or publicly owned.

Electricity generation is measured in terawatt hours, which expresses the generation of 1 terawatt ( $10^{12}$  watts) of electricity for one hour.

#### Overview

World electricity generation rose at an average annual rate of 3.7% from 1971 to 2011, greater than the 2.2% growth in total primary energy supply. This increase was largely due to more electrical appliances, the development of electrical heating in several developed countries and of rural electrification programmes in developing countries.

The share of electricity production from fossil fuels has gradually fallen, from 74% in 1971 to 68% in 2011. This decrease was due to a progressive move away from oil, which fell from 21% to 5%.

Oil for world electricity generation has been displaced in particular by dramatic growth in nuclear electricity generation, which rose from 2% in 1971 to 18% in 1996. However, the share of nuclear has been falling steadily since then and represented 12% in 2011.

The share of coal remained stable, at 40-41%, while that of natural gas increased from 13% in 1971 to 22% in 2011. The share of hydro-electricity decreased from 23% to 16% over the same time range.

Due to large development programmes in several OECD countries, the share of new and renewable energies, such as solar, wind, geothermal, biofuels and waste increased. However, these energy forms remain of limited importance: in 2011, they accounted for only around 4.5% of total electricity production for the world as a whole.

### Comparability

Some countries, both OECD member and non-member countries, have trouble reporting electricity generation from autoproducer plants. In some non-member countries it is also difficult to obtain information on electricity generated by biofuels and waste. For example, electricity generated from waste biofuel in sugar refining remains largely unreported in a number of countries.

EU28 does not include Croatia.

#### Sources

- IEA (2013), Energy Balances of OECD Countries, IEA, Paris.
- IEA (2013), Energy Balances of Non-OECD Countries, IEA, Paris.

# Further information Analytical publications

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• International Energy Agency, www.iea.org.

## **ENERGY AND TRANSPORTATION • ENERGY REQUIREMENT**

## **ELECTRICITY GENERATION**

## **Electricity generation**

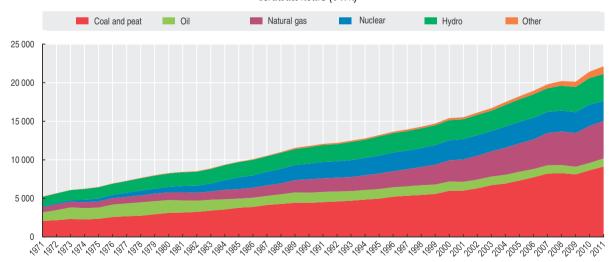
Terawatt hours (TWh)

	1971	1990	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Australia	53.0	154.3	227.4	221.9	229.6	228.3	232.7	243.0	243.1	248.7	252.1	252.6	252.3
Austria	28.2	49.3	60.7	58.1	61.9	64.1	62.1	62.6	64.5	66.3	67.9	62.2	64.5
Belgium	33.2	70.3	80.9	83.6	84.4	85.7	84.3	87.5	83.6	89.8	93.8	89.0	77.3
Canada	221.8	482.0	601.2	589.5	599.9	626.0	613.4	638.9	640.9	613.9	601.9	636.9	645.7
Chile	8.5	18.4	43.7	46.8	51.2	52.5	55.3	58.5	59.7	60.7	60.4	65.7	68.4
Czech Republic	36.4	62.3	76.0	82.8	83.8	81.9	83.7	87.8	83.2	81.7	85.3	86.8	86.9
Denmark	18.6	26.0	39.3	46.2	40.4	36.2	45.6	39.3	36.6	36.4	38.8	35.2	30.4
Estonia		17.4	8.6	10.2	10.3	10.2	9.7	12.2	10.6	8.8	13.0	12.9	12.0
Finland	21.7	54.4	74.9	84.3	85.8	70.6	82.3	81.2	77.4	72.1	80.7	73.5	70.4
France	155.8	417.2	553.9	561.8	569.1	571.5	569.3	564.2	569.2	530.8	564.3	556.9	555.1
Germany	327.2	547.7	582.0	601.5	608.5	613.4	629.4	629.5	631.2	584.3	622.0	602.4	610.9
Greece	11.6	34.8	53.9	57.9	58.8	59.4	60.2	62.7	62.9	61.1	57.4	59.2	57.6
Hungary	15.0	28.4	36.2	34.1	33.7	35.8	35.9	40.0	40.0	35.9	37.4	36.0	34.4
Iceland	1.6	4.5	8.4	8.5	8.6	8.7	9.9	12.0	16.5	16.8	17.1	17.2	17.5
Ireland	6.3	14.2	24.8	24.9	25.2	25.6	27.1	27.8	29.9	28.0	28.4	27.7	27.5
Israel	7.6	20.9	45.5	47.0	47.3	48.6	50.6	53.8	57.0	55.0	58.6	59.6	60.7
Italy	123.9	213.1	277.5	286.3	295.8	296.8	307.7	308.2	313.5	288.3	298.8	300.6	294.4
Japan	382.9	835.5	1 049.0	1 038.4	1 068.3	1 089.9	1 094.8	1 125.5	1 075.5	1 043.4	1 108.7	1 042.7	1 025.8
Korea	10.5	105.4	329.8	343.2	366.6	387.9	402.3	425.9	443.9	451.7	496.7	520.1	528.4
Luxembourg	1.3	0.6	2.8	2.8	3.4	3.3	3.5	3.2	2.7	3.2	3.2	2.6	2.7
Mexico	31.0	115.8	215.9	213.7	232.6	243.8	249.5	257.3	261.9	261.0	271.1	295.8	296.0
Netherlands	44.9	71.9	95.9	96.8	102.4	100.2	98.4	105.2	107.6	113.5	118.1	113.0	102.2
New Zealand	15.5	32.3	40.6	40.8	42.5	43.0	43.6	43.8	43.8	43.5	44.9	44.5	44.3
Norway	63.5	121.6	130.2	106.7	110.1	137.2	121.2	136.1	141.2	131.0	123.2	126.9	146.8
Poland	69.5	134.4	142.5	150.0	152.6	155.4	160.8	158.8	154.7	151.1	157.1	163.1	161.6
Portugal	7.9	28.4	45.7	46.5	44.8	46.2	48.6	46.9	45.5	49.5	53.7	51.9	45.5
Slovak Republic	10.9	25.5	32.2	31.0	30.5	31.4	31.3	27.9	28.8	25.9	27.5	28.3	28.3
Slovenia		12.4	14.6	13.8	15.3	15.1	15.1	15.0	16.4	16.4	16.2	15.9	15.5
Spain	61.6	151.2	239.9	257.3	276.7	289.4	295.6	301.8	311.0	291.9	298.3	289.0	293.5
Sweden	66.5	146.0	146.7	135.4	151.7	158.4	143.3	148.8	149.9	136.6	148.5	150.3	165.4
Switzerland	31.2	55.0	65.5	65.4	63.9	57.8	62.1	66.4	67.0	66.7	66.1	62.9	68.0
Turkey	9.8	57.5	129.4	140.6	150.7	162.0	176.3	191.6	198.4	194.8	211.2	229.4	239.5
United Kingdom	255.8	317.8	384.6	395.5	391.3	395.4	393.4	393.0	384.9	373.1	378.6	364.9	360.2
United States	1 703.4	3 202.8	4 026.4	4 054.6	4 148.1	4 268.9	4 275.0	4 323.9	4 343.0	4 165.4	4 354.4	4 326.6	4 281.7
EU 28		2 567.8	3 097.7	3 187.4	3 254.1	3 275.5	3 319.3	3 333.7	3 339.7	3 172.3	3 314.7	3 250.7	
OECD	3 836.9	7 629.3	9 886.6	9 978.0	10 245.7	10 500.7	10 573.9	10 780.3	10 796.2	10 397.1	10 855.2	10 802.2	10 771.3
Brazil	51.6	222.8	345.7	364.3	387.5	403.0	419.3	445.1	463.1	466.2	515.8	531.8	
China	138.4	621.2	1 654.9	1 911.7	2 204.7	2 502.5	2 869.8	3 287.5	3 482.0	3 742.0	4 208.1	4 715.7	
India	66.4	289.4	597.3	634.0	666.6	698.2	753.3	813.9	841.7	906.8	959.9	1 052.3	
Indonesia	1.8	32.7	108.2	114.5	120.2	127.4	133.1	142.2	149.4	155.6	168.7	182.4	
Russian Federation		1 082.2	889.3	914.3	929.9	951.2	993.9	1 013.4	1 038.4	990.0	1 036.1	1 053.0	
South Africa	54.6	165.4	218.6	231.2	240.9	242.1	250.9	260.5	255.5	246.8	256.6	259.6	
World	5 245.8	11 818.5	16 132.5	16 701.1	17 490.5	18 251.1	18 946.4	19 803.8	20 203.2	20 136.8	21 437.6	22 125.8	

StatLink http://dx.doi.org/10.1787/888933028064

## World electricity generation by source of energy

Terawatt hours (TWh)



StatLink http://dx.doi.org/10.1787/888933025499

#### **NUCLEAR ENERGY**

Nuclear energy expanded rapidly in the 1970s and 1980s, but in the last 20 years only small numbers of new nuclear power plants have entered operation. The role of nuclear energy in reducing greenhouse gas emissions and in increasing energy diversification and security of supply has been increasingly recognised over the last few years, leading to renewed interest in building new nuclear plants in several countries. However, the accident at the Fukushima Daiichi nuclear power plant in Japan following a major earthquake and tsunami in March 2011 has led some countries to review their nuclear programmes. Belgium, Germany and Switzerland decided to hasten the phase out of nuclear power while others conducted safety checks of nuclear facilities causing a delay in nuclear development programmes. With successful completion of these safety reviews no other countries decided to exit nuclear power, development plans were resumed and, as a result, global nuclear capacity is expected to increase over the next few years.

Much of the future growth in nuclear capacity is expected to be in non-OECD economies. China in particular has begun a rapid expansion of nuclear capacity, with a total of 27 units under construction as of 1 June 2013. India and the

#### Overview

In 2011, nuclear energy provided nearly 20% of total electricity supply in OECD countries (and 12% of the world's electricity). However, the use of nuclear energy varies widely. In all, 18 of the 34 OECD countries use nuclear energy at present, with eight generating one-third or more of their power from this source in 2011. Collectively, OECD countries produce about 80% of the world's nuclear energy. The remainder is produced in 12 non-OECD economies.

The analysis in the International Energy Agency's (IEA) Energy Technology Perspectives 2012, indicates that, as part of a scenario to limit global temperature rise to two degrees, nuclear generating capacity should rise from about 370 GW at present to around 1 100 GW by 2050, supplying almost 20% of global electricity. This would be a major contribution to cutting the emissions of greenhouse gases from the electricity supply sector. However, uncertainties remain concerning the successful construction and operation of the next generation of nuclear plants, public and political acceptance of nuclear energy in the wake of the Fukushima Daiichi accident, and the extent to which other low-carbon energy sources are successfully developed. As pointed out in the IEA's Tracking Clean Energy Progress 2013 report, the current level of development of nuclear energy is lagging behind these projections, with recent annual capacity additions only a third of what is required to meet the two degree scenario objectives by 2025.

Russian Federation also have several new plants under construction. Among OECD countries, Finland, France, Japan, Korea, the Slovak Republic and the United States all presently have one or more nuclear plants under construction, while Turkey is finalising plans for the construction of its first two nuclear power plants (a total of four reactors each) and Poland is actively planning its first nuclear units. However, there remains uncertainty on the role of nuclear power in Japan since all but 2 operational units were idled as of 1 June 2013 and the number that will be re-started is not clear.

#### **Definition**

Shown is nuclear electricity generation in terawatt hours (TWh) and the percentage share of nuclear in total electricity generation. The table also provides information on the number of nuclear power plants in operation and under construction as of 1 June 2013.

#### Comparability

Some generation data are provisional and may be subject to revision. Generation data for Japan are for the fiscal year.

#### **Sources**

- Nuclear Energy Agency (NEA) (2013), Nuclear Energy Data, OECD Publishing.
- Data for non-OECD countries provided by the International Atomic Energy Agency (IAEA).

# Further information Analytical publications

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## **ENERGY AND TRANSPORTATION • ENERGY REQUIREMENT**

NUCLEAR ENERGY

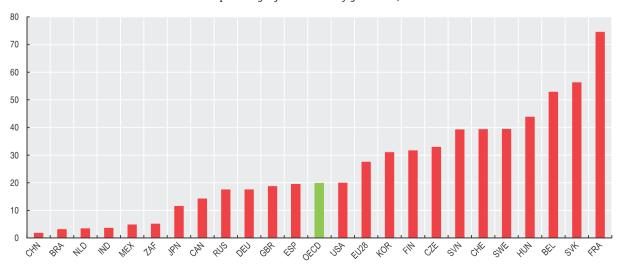
## Nuclear electricity generation and nuclear plants

		2011	Number as at	1 June 2013
	Terawatt hours	As a percentage of total electricity generation	Plants connected to the grid	Plants under construction
Australia	-	-	-	-
Austria	-	-	-	-
Belgium	45.9	52.9	7	-
Canada	88.3	14.3	19	-
Chile	-	-	-	-
Czech Republic	26.7	33.0	6	-
Denmark	-	-	-	-
stonia	-	-	-	-
inland	22.3	31.7	4	1
rance	404.9	74.6	58	1
Germany	102.0	17.6	9	-
Greece	-	-	-	-
Hungary	14.7	43.9	4	-
celand	-	-	<u>.</u>	-
reland	<u>-</u>	-	<u>-</u>	-
srael	<u>-</u>	-	<u>-</u>	-
taly	_	-	<u>-</u>	_
Japan	96.7	11.6	50	4
Corea	154.7	31.1	23	5
.uxembourg	-	-	-	-
Mexico	9.7	4.9	2	-
Vetherlands	3.9	3.5	1	-
lew Zealand	-	-	· -	_
lorway	- -	-	- -	<u>-</u>
Poland	<u> </u>	-	-	
Portugal	-	- -	- -	-
	14.3	56.3	4	2
lovak Republic				<u>-</u>
Blovenia	5.9	39.3	1	
Spain Sweden	55.1	19.5	8	-
	58.0	39.5	10	-
Switzerland	26.0	39.4	5	-
urkey	-	-	-	-
Jnited Kingdom	69.0	18.8	16	
Inited States	790.0	20.0	102	3
EU 28	858.8	27.6	132	4
DECD	1 988.1	19.9	329	16
razil	14.8	3.2	2	1
china	82.6	1.9	17	27
ndia	29.0	3.7	20	7
ndonesia				
Russian Federation	162.0	17.6	33	10
South Africa	12.9	5.2	2	-
Vorld	2 518.0	12.3	435	68

StatLink http://dx.doi.org/10.1787/888933028083

## **Nuclear electricity generation**

As a percentage of total electricity generation, 2011



StatLink http://dx.doi.org/10.1787/888933025518

## RENEWABLE ENERGY

More and more governments are recognising the importance of promoting sustainable development and combating climate change when setting out their energy policies. Higher energy use has contributed to higher greenhouse gas emissions and higher concentration of these gases in the atmosphere. One way to reduce greenhouse gas emissions, while diversifying the energy portfolio, is to replace energy from fossil fuels by energy from renewables.

#### Definition

The table refers to the contribution of renewables to total primary energy supply (TPES) in OECD and Key Partner (Brazil, China, India, Indonesia, South Africa and the Russian Federation) countries. Renewables include the primary energy equivalent of hydro (excluding pumped storage), geothermal, solar, wind, tide and wave. It also includes energy derived from solid biofuels, biogasoline, biodiesels, other liquid biofuels, biogases, and the renewable fraction of municipal waste. Biofuels are defined as fuels derived directly or indirectly from biomass (material obtained from living or recently living organisms). Included here are wood, vegetal waste (including wood waste and crops used for energy production), ethanol, animal materials/wastes and sulphite lyes. Municipal waste comprises wastes produced by the residential, commercial and public service sectors that are collected by local authorities for disposal in a central location for the production of heat and/or power.

#### Overview

In OECD countries, total renewables supply grew on average by 2.5% per year between 1971 and 2012 as compared to 1.1% per year for total primary energy supply. Annual growth for hydro (1.2%) was lower than for other renewables such as geothermal (5.6%) and biofuels and waste (2.7%). Due to a very low base in 1971, solar and wind experienced the most rapid growth in OECD member countries, especially where government policies have stimulated expansion of these energy sources.

For the OECD as a whole, the contribution of renewables to energy supply increased from 4.8% in 1971 to 8.5% in 2012. The contribution of renewables varied greatly by country. On the high end, renewables represented 85% of energy supply in Iceland and 47% in Norway. On the low end, renewables contributed less than 5 to the energy supply for Japan, Korea, Luxembourg the Netherlands and the United Kingdom. For the OECD Key Partner countries, in 2011 renewables contributed 43% to the energy supply of Brazil, 34% in Indonesia, 27% in India, 11% in China, 11% in South Africa and 2% in the Russian Federation.

### Comparability

Biofuels and waste data are often based on small sample surveys or other incomplete information. Thus, the data give only a broad impression of developments and are not strictly comparable between countries. In some cases, complete categories of vegetal fuel are omitted due to lack of information.

EU28 does not include Croatia.

#### Sources

- IEA (2013), Energy Balances of OECD Countries, IEA, Paris.
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## **Further information**

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- IEA (2013), Medium-Term Renewable Energy Market Report, IEA, Paris.
- IEA (2012), Solar Heating and Cooling, IEA Technology Roadmaps, IEA, Paris.
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## **ENERGY AND TRANSPORTATION • ENERGY REQUIREMENT**

RENEWABLE ENERGY

## Contribution of renewables to energy supply

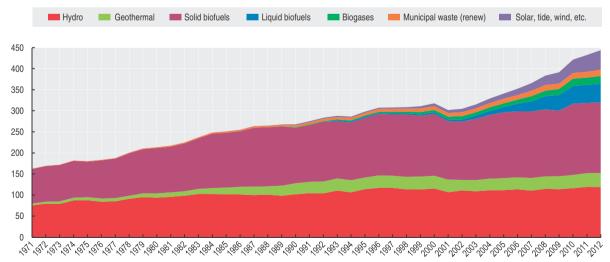
As a percentage of total primary energy supply

	1971	1990	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Australia	8.8	5.9	6.2	6.0	5.8	5.7	5.8	5.8	5.8	4.6	4.8	5.1	4.6
Austria	11.0	20.3	21.3	18.7	19.7	21.0	22.1	24.1	25.3	27.8	27.2	26.6	29.5
Belgium	-	1.0	1.3	1.5	1.6	2.0	2.3	2.7	3.1	3.8	4.2	4.9	5.1
Canada	15.3	16.1	16.9	15.6	15.6	15.9	15.7	16.2	16.8	17.5	17.1	18.0	17.9
Chile	20.8	27.8	26.2	24.8	24.2	25.1	25.3	23.5	24.4	26.1	22.0	23.1	24.1
Czech Republic	0.2	1.8	3.7	3.4	3.8	4.0	4.2	4.7	4.9	5.8	6.3	6.9	7.5
Denmark	1.8	5.9	11.0	11.9	13.6	15.0	14.2	16.1	16.7	17.8	20.0	22.2	24.4
Estonia		1.9	11.7	11.2	11.4	11.4	10.5	10.7	11.9	15.2	15.3	14.8	14.5
Finland	27.3	19.3	22.4	21.3	23.4	23.6	23.3	23.5	25.8	24.0	25.4	26.1	29.1
France	8.6	6.8	5.8	5.8	5.8	5.7	5.9	6.3	7.1	7.5	7.9	7.2	7.9
Germany	1.2	1.5	3.2	3.8	4.4	5.0	5.8	7.9	8.0	8.8	9.9	10.0	10.7
Greece	7.8	5.1	4.9	5.3	5.3	5.4	5.9	5.7	5.6	6.4	7.7	7.9	8.7
Hungary	2.9	2.6	3.4	3.5	3.6	4.3	4.5	5.1	6.0	7.4	7.6	7.6	8.0
Iceland	46.7	67.0	75.0	75.2	74.8	75.9	78.4	81.6	81.3	81.8	82.5	83.8	84.7
Ireland	0.6	1.7	1.8	1.7	2.0	2.5	2.9	3.2	3.9	4.6	4.7	6.2	6.1
Israel	-	3.1	3.6	3.5	3.8	4.0	3.7	3.7	4.7	5.0	5.0	4.9	4.8
Italy	5.6	4.4	5.8	6.0	6.6	6.3	6.9	6.7	7.7	9.7	10.6	11.9	13.2
Japan	2.7	3.5	3.2	3.4	3.3	3.2	3.4	3.2	3.3	3.4	3.9	4.2	4.2
Korea	0.6	1.1	0.4	0.5	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.7	0.7
Luxembourg	-	0.6	1.1	1.0	1.2	1.6	1.8	3.1	3.1	3.3	3.1	2.9	3.2
Mexico	16.8	12.2	10.2	10.2	10.4	10.3	9.9	9.9	10.0	9.5	9.8	9.3	8.7
Netherlands	-	1.1	1.9	1.8	2.1	2.7	3.0	3.0	3.5	4.0	3.8	4.3	4.3
New Zealand	32.0	32.8	29.8	29.7	31.3	31.6	32.0	32.2	32.9	35.8	38.9	40.4	38.3
Norway	40.9	54.3	49.5	38.2	40.0	48.5	42.6	46.5	44.9	40.9	36.1	42.8	46.9
Poland	1.4	1.5	4.7	4.6	4.7	4.8	4.8	5.0	5.7	6.7	7.2	7.8	8.8
Portugal	19.6	19.6	13.7	16.9	14.7	13.1	17.1	17.7	17.7	19.9	23.3	22.3	21.2
Slovak Republic	2.3	1.5	4.0	3.5	4.0	4.3	4.5	5.3	5.1	6.8	7.4	7.4	7.6
Slovenia		9.1	10.5	10.3	11.5	10.6	10.5	10.1	11.0	14.2	14.7	13.1	13.9
Spain	6.5	6.9	5.4	6.9	6.3	5.9	6.5	7.0	7.6	9.7	11.7	11.7	11.9
Sweden	20.4	24.4	25.3	24.5	25.0	28.8	28.7	30.5	31.5	34.8	33.9	32.1	35.6
Switzerland	15.5	14.9	16.8	16.8	16.4	16.0	15.5	17.8	17.8	17.8	19.0	18.1	20.5
Turkey	31.0	18.3	13.5	12.9	13.3	12.0	11.1	9.6	9.5	10.2	11.1	10.0	10.2
United Kingdom	0.1	0.5	1.2	1.2	1.5	1.8	1.9	2.2	2.6	3.2	3.3	4.1	4.5
United States	3.7	5.0	4.0	4.3	4.4	4.5	4.8	4.7	5.1	5.4	5.6	6.1	6.3
EU 28		4.3	5.7	5.9	6.3	6.5	6.9	7.6	8.2	9.2	10.0	10.2	
OECD	4.8	5.9	5.7	5.9	6.0	6.2	6.4	6.6	7.0	7.5	7.8	8.1	8.5
Brazil	56.4	46.7	39.4	42.0	42.3	42.9	43.3	44.4	44.5	45.8	44.0	42.7	
China	40.1	24.3	18.4	16.2	14.5	13.7	12.8	12.5	12.6	12.1	11.4	10.7	
India	62.8	44.1	33.2	32.9	31.7	31.2	30.4	29.9	28.9	26.8	26.5	26.5	
Indonesia	75.3	46.6	37.3	37.4	35.5	34.9	34.7	35.3	36.2	34.8	33.9	33.6	
Russian Federation		3.0	2.8	2.7	2.9	2.9	2.8	2.9	2.6	2.8	2.5	2.4	
South Africa	10.4	11.5	12.1	11.3	10.5	10.7	11.0	10.2	9.7	10.1	10.3	10.5	
World	13.2	12.7	12.7	12.6	12.4	12.4	12.4	12.5	12.7	13.1	13.0	13.0	

StatLink http://dx.doi.org/10.1787/888933028102

## OECD renewable energy supply

Million tonnes of oil equivalent (Mtoe)



**StatLink** http://dx.doi.org/10.1787/888933025537

#### OIL PRODUCTION

The Middle East and North Africa are exceptionally well-endowed with energy resources, holding about 68% of the world's proven conventional oil reserves at the end of 2011. Current oil production is relatively low in comparison to these reserves and further development of them will be critical to meeting global energy needs in the coming decades. Unconventional oil (e.g. oil shale and sands, liquid supplies based on coal and biomass, and liquids arising for the chemical processing of natural gas) is also expected to play an increasing role in meeting world demand.

**Definition** 

Crude oil production refers to the quantities of oil extracted from the ground after the removal of inert matter or impurities. For the purpose of this indicator, it includes crude oil, natural gas liquids (NGLs) and additives. Crude oil is a mineral oil consisting of a mixture of hydrocarbons of natural origin, being yellow to black in colour, of variable density and viscosity. NGLs are the liquid or liquefied hydrocarbons produced in the manufacture, purification and stabilisation of natural gas. Additives are non-hydrocarbon substances added to or blended with a product to modify its properties, for example, to improve its combustion characteristics (e.g. MTBE and tetraethyl lead).

Refinery production refers to the output of secondary oil products from an oil refinery.

### Comparability

In general, data on oil production are of high quality. In some instances, information has been based on secondary

#### Overview

World crude oil production has increased by 66% over the 41 years from 1971 to 2012. In 2012, production reached 4 142 million tonnes or about 91 million barrels per day. Growth was not constant over the period as production declined in the aftermath of two oil shocks in the early and late 1970s.

In 2012, the Middle East region's share of oil production was 32% of the world total. However, both the level of production and its share in the world total varied significantly over the period, from 38% of the world total in 1974 to 19% in 1985. Increased production in the 1980s and 1990s put the OECD on par with the Middle East during that period, but by 2012, the share of OECD oil production had fallen to 22%.

Refinery production of secondary oil products changed significantly between 1971 and 2011. The share of fuel oil in the refinery mix fell from 34% in 1971 to 13% in 2011, whereas the share of middle distillates increased from 25% to 35%.

sources or estimated by the International Energy Agency (IEA).

EU28 does not include Croatia.

#### Sources

- IEA (2013), Energy Balances of Non-OECD Countries, IEA, Paris.
- IEA (2013), Energy Balances of OECD Countries, IEA, Paris.
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#### Websites

• International Energy Agency, www.iea.org.

## **ENERGY AND TRANSPORTATION • ENERGY REQUIREMENT**

OIL PRODUCTION

#### Production of crude oil

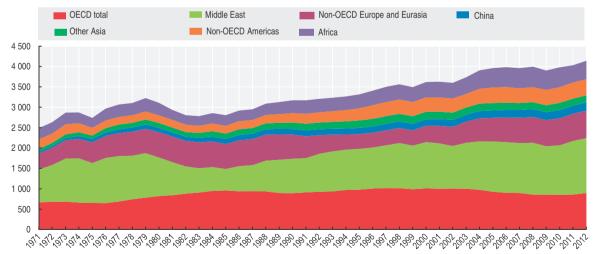
Million tonnes

	1971	1990	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Australia	14.3	27.5	31.3	30.5	27.1	24.4	22.0	24.6	22.6	23.3	22.7	21.9	21.8
Austria	2.6	1.2	1.0	1.0	1.1	1.0	1.0	1.0	1.0	1.0	1.0	0.8	0.9
Belgium	-	-	-	-	-	-	-	-	-	-	-	-	-
Canada	70.6	91.6	132.9	140.4	145.4	143.5	151.3	158.0	153.8	152.6	159.4	169.4	182.2
Chile	1.7	1.1	0.4	0.4	0.4	0.3	0.3	0.5	0.5	0.6	0.6	0.6	0.5
Czech Republic	-	0.2	0.4	0.5	0.6	0.6	0.4	0.4	0.3	0.3	0.3	0.3	0.3
Denmark	-	6.0	18.1	18.1	19.3	18.5	16.8	15.2	14.0	12.9	12.2	10.9	10.3
Estonia	-	-	-	-	-	-	-	-	-	-	-	-	-
Finland	-	-	0.1	0.1	0.1	0.1	0.2	-	-	0.1	0.1	0.1	0.1
France	2.5	3.5	1.5	1.6	1.6	1.4	1.2	1.4	1.5	1.2	1.2	1.1	1.0
Germany	7.6	5.3	4.6	4.8	4.9	5.2	5.2	5.2	4.9	4.5	3.8	3.9	3.8
Greece	-	0.8	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Hungary	2.0	2.3	1.6	1.6	1.6	1.4	1.3	1.2	1.2	1.2	1.1	1.0	1.0
Iceland	-	-	-	-	-	-	-	-	-	-	-	-	-
Ireland	-	-	-	-	-	-	-	-	-	-	-	-	-
Israel	5.7	-	-	-	-	-	-	-	-	-	-	-	-
Italy	1.3	4.7	5.8	5.9	5.7	6.4	6.3	6.6	6.0	5.2	5.9	5.8	5.8
Japan	0.8	0.5	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.6
Korea	-	-	0.5	0.5	0.4	0.5	0.6	0.6	0.5	0.7	0.7	0.7	0.7
Luxembourg	-	-	-	-	-	-	-	-	-	-	-	-	-
Mexico	25.4	151.1	178.3	189.3	191.4	187.6	183.2	172.5	156.9	146.0	144.7	143.4	142.9
Netherlands	1.7	4.0	3.1	3.1	2.9	2.3	2.0	2.9	2.5	2.2	1.8	1.8	1.9
New Zealand	-	1.9	1.6	1.3	1.1	1.1	1.0	2.0	2.8	2.7	2.6	2.3	2.0
Norway	0.3	82.1	157.8	153.7	144.0	133.0	123.8	119.5	114.6	110.0	99.6	94.2	87.5
Poland	0.4	0.2	0.8	0.8	0.9	0.9	0.8	0.7	0.8	0.7	0.7	0.7	0.7
Portugal	-	-	-	-	-	-	-	-	-	-	-	-	-
Slovak Republic	0.2	0.1	0.1	-	-	-	-	-	-	-	-	-	-
Slovenia	-	-	-	-	-	-	-	-	-	-	-	-	-
Spain	0.1	1.1	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Sweden	-	-	-	-	-	-	-	-	-	-	-	-	-
Switzerland	-	-	-	-	-	-	-	-	-	-	-	-	-
Turkey	3.5	3.7	2.4	2.4	2.3	2.3	2.2	2.1	2.2	2.4	2.5	2.4	2.3
United Kingdom	0.2	91.6	116.1	106.2	95.5	84.7	76.6	76.6	71.7	68.2	63.0	52.0	44.5
United States	527.7	413.3	348.1	338.4	325.9	310.0	304.4	304.0	299.4	321.7	330.0	343.2	387.0
EU 28		129.0	161.5	151.7	140.7	129.0	118.1	116.6	109.1	102.3	95.6	83.0	75.0
OECD	668.6	893.8	1 007.6	1 001.7	973.3	926.1	901.5	896.1	858.3	858.3	854.7	857.4	898.3
Brazil	8.5	32.7	75.4	77.9	77.1	85.1	90.3	92.2	95.5	102.1	107.4	110.6	108.3
China	39.4	138.3	167.1	169.7	175.9	181.4	184.9	186.4	190.6	189.6	203.2	203.0	206.3
India	7.3	34.6	37.4	37.7	38.3	36.3	38.1	37.9	37.5	37.7	41.9	42.2	42.0
Indonesia	44.1	73.2	61.9	56.7	53.5	52.4	49.3	46.7	48.3	47.3	47.5	45.3	43.6
Russian Federation	-	523.7	377.2	418.6	456.3	466.4	475.8	487.7	486.2	491.2	504.1	512.4	519.8
South Africa	-	-	1.0	0.7	1.7	0.9	0.8	0.2	0.1	0.1	0.1	0.1	0.1
World	2 488.7	3 170.4	3 597.9	3 735.0	3 904.8	3 959.1	3 982.0	3 961.9	3 993.4	3 901.7	3 978.7	4 030.3	4 141.8

StatLink http://dx.doi.org/10.1787/888933028121

## Production of crude oil by region

Million tonnes



StatLink http://dx.doi.org/10.1787/888933025556

#### **OIL PRICES**

The price of crude oil, from which oil products such as gasoline are derived, is influenced by a number of factors beyond the traditional movements of supply and demand, notably geopolitics. Some of the lowest cost reserves are located in sensitive areas of the world. In addition, technological advances can have a significant influence on crude oil prices, for example by making new oil fields profitable to exploit or by providing substitute energy sources such as biofuels. So far though, the transport sector, driving global oil demand, remains heavily dependent on oil products. Therefore, demand for oil and

### Overview

The 1973 Arab oil embargo had a major price impact as Arabian Light prices surged from USD 1.84/barrel in 1972 to USD 10.98 in 1974. The next spike after 1973 came in 1981, in the wake of the Iranian revolution, when prices rose to a high of nearly USD 40. Prices declined gradually after this crisis. They dropped considerably in 1986 when Saudi Arabia increased its oil production substantially. The first Gulf crisis in 1990 brought a new peak. In 1997, crude oil prices started to decline due to the impact of the Asian financial crisis. Prices started to increase again in 1999 with OPEC target reductions and tightening stocks. A dip occurred in 2001 and 2002, but the expectation of war in Iraq raised prices to over USD 30 in the first quarter of 2003. Prices remained high in the latter part of 2003 and in 2004. Crude oil prices increased dramatically in late August 2005 after Hurricane Katrina hit the US coast of the Gulf of Mexico. Prices continued to increase throughout 2006 as the demand for oil in emerging economies, especially China, put pressure on the supply/demand balance, averaging 24 per cent higher than in the previous year. In 2007, the increase continued with Dubai hitting USD 89/barrel at the beginning of November and WTI climbing to USD 97/ barrel.

In early 2008, prices crossed the symbolic USD 100/barrel threshold and reached a new peak of just under USD 150/barrel in July 2008; this brought the real price of oil in 2008 to an record high. At the beginning of 2009, prices fell to USD 40/barrel as the impact of high prices and the onset of the global financial crisis sharply curbed oil demand. Later in the year, prices ranged between USD 70 and 80/barrel.

Crude oil prices increased steadily throughout 2010 and 2011 with the post-recession demand rebound, tightening stocks and low spare capacity. After reaching a peak of USD 122/barrel in March 2012, prices fell to USD 94/barrel in June 2012. Prices then fluctuated around the USD 105/barrel mark until April 2013, falling to USD 100/barrel in May and June 2013.

consequently oil prices are closely linked to economic cycles.

There is not one price for crude oil but many (see "Comparability" below for more details). World crude oil prices are established in relation to three market traded benchmarks (West Texas Intermediate [WTI], Brent [or North Sea], Dubai), and are often seen quoted at premiums or discounts to these prices.

#### **Definition**

Crude oil import prices come from the IEA's Crude Oil Import Register. Information is collected from national agencies according to the type of crude, by geographic origin and by quality of crude. Average prices are obtained by dividing value by volume as recorded by customs administrations for each tariff position. Values are recorded at the time of import and include cost, insurance and freight (c.i.f.) but exclude import duties. The nominal crude oil spot price from 2003 to 2011 is for Dubai and from 1970 to 2002 for Arabian Light. These nominal spot prices are expressed in US dollars per barrel of oil. The real price was calculated using the deflator for GDP at market prices and rebased with reference year 1970 = 100.

## Comparability

Average crude oil import prices depend on the quality of the crude oil imported. High quality crude oils such as UK Forties, Norwegian Oseberg and Venezuelan Light can be significantly more expensive than lower quality crude oils such as Canadian Heavy and Venezuelan Extra Heavy. High quality crudes command a higher premium because, amongst other factors, they are easier, being less corrosive, to transport and process, and produce higher yields of quality oil products. For any given country, the mix of crude oils imported each month will directly influence the average monthly price.

#### Sources

• IEA (2013), Energy Prices and Taxes, IEA, Paris.

# Further information Analytical publications

- IEA (2013), Energy Policies of IEA Countries, IEA, Paris.
- IEA (2013), Medium-Term Gas Market Report, IEA, Paris.
- IEA (2013), Medium-Term Oil Market Report, IEA, Paris.
- IEA (2013), World Energy Outlook, IEA, Paris.

#### Online databases

• IEA Energy Prices and Taxes Statistics.

#### Wehsites

- International Energy Agency, www.iea.org.
- Oil Market Report, www.oilmarketreport.org.

OIL PRICES

## **Crude oil import prices**

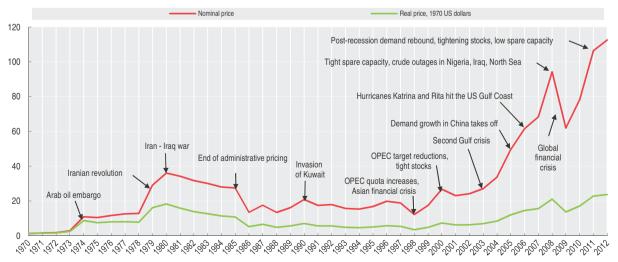
US dollars per barrel, average unit value, c.i.f.

	1976	1990	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Australia		24.21	25.80	31.24	40.93	56.71	66.71	77.13	107.83	63.40	82.60	115.66	117.78
Austria	12.85	24.58	24.64	29.59	38.21	53.15	64.44	71.86	103.05	60.69	80.00	110.92	112.50
Belgium	12.64	21.11	24.35	27.72	35.35	50.06	61.06	70.35	96.01	61.77	79.65	110.50	110.83
Canada		24.15	24.97	29.53	38.13	52.37	64.33	70.04	101.41	60.29	79.14	110.80	110.61
Chile													
Czech Republic			23.37	28.13	34.82	51.28	62.05	68.54	97.71	60.77	79.04	110.42	112.33
Denmark	12.98	23.18	24.88	29.68	38.78	54.40	66.92	74.94	96.48	62.87	80.40	112.77	107.90
Estonia													
Finland			24.51	27.72	36.09	51.12	63.37	70.48	94.79	61.01	79.10	109.23	110.47
France			24.63	28.87	37.61	52.74	63.69	72.22	97.63	61.64	79.78	111.78	112.01
Germany	13.27	23.17	24.40	28.44	36.65	52.30	63.29	71.60	96.70	61.18	78.49	110.63	112.21
Greece	12.13	22.42	24.08	27.17	34.53	50.33	60.97	69.93	93.60	60.10	78.97	109.41	111.92
Hungary													
Iceland													
Ireland		25.55	25.52	29.66	39.24	55.24	66.38	74.16	100.39	62.61	80.95	113.92	115.64
Israel													
Italy	12.41	23.23	24.34	28.58	36.60	51.33	62.50	70.20	96.67	60.69	79.29	110.23	112.18
Japan	12.59	22.64	24.96	29.26	36.59	51.57	64.03	70.09	100.98	61.29	79.43	109.30	114.75
Korea			24.12	28.80	36.15	50.19	62.82	70.01	98.11	61.12	78.72	108.63	113.24
Luxembourg													
Mexico													
Netherlands	13.06	21.83	23.99	27.67	35.02	50.00	61.47	68.74	97.89	60.54	78.55	109.19	111.54
New Zealand		21.97	25.89	31.00	41.71	56.07	67.36	73.84	105.80	65.85	80.62	112.38	117.70
Norway		18.46	24.46	30.41	39.20	53.08	58.83	70.16	80.22	69.08	81.06	111.18	108.23
Poland									94.02	60.83	77.89	109.58	109.97
Portugal	12.14	22.75	24.27	28.72	37.89	51.94	62.77	70.23	98.83	62.49	79.13	112.33	112.21
Slovak Republic								69.97	90.49	59.37	78.72	108.90	109.83
Slovenia													
Spain	12.54	21.88	23.95	28.13	36.03	50.54	60.99	68.66	94.86	59.78	77.84	108.50	109.48
Sweden	13.22	23.02	23.86	28.60	36.47	51.78	62.50	70.13	95.09	60.58	79.00	110.67	112.36
Switzerland	13.87	24.23	25.34	30.26	38.73	55.81	66.76	74.92	101.03	63.27	80.92	112.51	111.30
Turkey		23.11	23.57	27.05	34.90	50.65	61.48	68.59	98.07	61.27	78.26	109.81	111.70
United Kingdom	12.57	22.92	24.58	29.13	37.75	53.79	65.00	73.80	99.34	62.39	80.60	113.49	112.62
United States	13.48	21.07	23.52	27.66	35.86	48.82	59.17	66.77	94.97	58.83	76.02	102.43	101.16
EU 28													
OECD													
Brazil					-		-		-				
China													
India													
Indonesia													
Russian Federation													
South Africa													
Journ / Hillou													

StatLink http://dx.doi.org/10.1787/888933028140

## Crude oil spot prices

US dollars per barrel



StatLink http://dx.doi.org/10.1787/888933025575

#### GOODS TRANSPORT

There is an increasing demand for data on the transport sector to assess its various impacts on the economy, the environment and societies. However comparability of transport data between countries is not always possible worldwide due to the lack of harmonised definitions and methods. The Glossary for Transport Statistics (4th edition) provides common definitions.

**Definition** 

Goods transport data refer to the total movement of goods using inland transport modes (rail, road, inland waterways and pipelines) on a given network. Data are expressed in tonne-kilometres which represents the transport of one tonne over one kilometre. The distance to be taken into consideration is the distance actually run.

#### Comparability

Transport is classified as national if both loading and unloading take place in the same country. If one of them occurs in another country then the transport is considered as international. The statistics on international road transport, based on the nationality concept are different for statistics for other modes that are based on the territoriality concept.

Statistics based on the territoriality concept reflect the goods and the vehicles entering or leaving a country

Overview

Following the 2008 economic crisis and the collapse of world trade most regions of the world in 2011 continued the recovery started in 2010, but at a slower pace. If global freight volumes transported by sea and air rebounded strongly, then for rail and road freight the recovery has been slower, reflecting domestic economic performance more than trade.

After having been hit severely by economic crisis, rail freight transport volumes in 2011 reached their precrisis levels. Rail tonne-kilometres increased overall 3% in 2011. In the European Union, rail freight volume increased by 7% to slightly over than 400 billion tonne-kilometres in total. This is still 6% below their level in 2008. In the Russian Federation and the United States, rail freight volumes increased by 6% and 3% respectively, reaching their 2008 levels.

Road freight transport suffered in 2009 and recovery in road freight has been slow. Data for 2011 show an overall increase but volumes remain below their 2008 levels. The increase in activity, expressed in tonnekilometres, was 1% for both the OECD and the EU in 2011. However road freight activity in emerging economies continued to increase throughout the 2008-11 period.

irrespective of the nationality of the transporting vehicle. Statistics based on the nationality concept only reflect the vehicles registered in the reporting country.

#### Sources

- International Transport Forum (ITF) (2012), "Coastal Shipping", International Transport Forum(Database).
- ITF (2012), "Container Transport" (Database).
- ITF (2012), "Inland Freight Transport" (Database).

## **Further information**

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- ITF (2013), Spending on transport infrastructure 1995-2011, ITF Paris.
- ITF (2012), Trends in the Transport Sector, ITF, Paris.

#### Methodological publications

 ITF, Statistical Office of the European Communities and United Nations Economic Commission (2010), Illustrated Glossary for Transport Statistics 4th Edition, OECD Publishing.

#### Websites

 International Transport Forum, www.internationaltransportforum.org.

GOODS TRANSPORT

## Inland goods transport

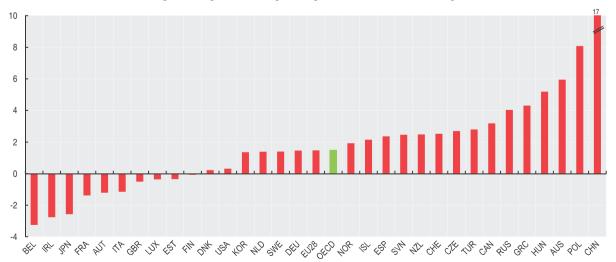
Billion tonne-kilometres

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Australia	258.7	268.8	276.3	296.6	311.0	324.9	349.4	362.4	387.2	394.2	428.0	453.9	464.6
Austria	59.1	61.7	65.0	66.4	66.5	67.5	64.6	70.2	68.6	66.1	56.1	57.9	58.2
Belgium	62.3	67.6	69.5	70.5	67.7	65.6	62.1	62.1	60.7	57.0			
Canada	392.4	403.1	409.3	403.0	434.8	497.5	507.9	520.9	523.5	513.0	479.4	525.6	
Chile													
Czech Republic	56.4	58.9	56.5	63.2	64.8	63.4	61.4	69.2	67.4	69.5	60.5	68.5	71.8
Denmark	16.6	17.7	17.5	18.1	18.2	17.9	18.2	18.3	18.2	16.8	15.6	16.4	17.9
Estonia	11.3	12.0	13.2	14.1	16.1	17.3	18.3	19.3	19.1	14.2	12.2	12.6	12.8
Finland	35.4	37.9	36.6	37.8	41.1	42.5	41.6	40.9	40.4	41.9	36.6	40.2	36.4
France	264.4	270.4	269.8	267.8	266.2	271.4	262.6	271.2	279.6	265.4	226.1	231.1	238.1
Germany	428.0	439.7	445.7	440.9	444.3	470.1	486.4	516.8	538.6	536.9	474.9	499.0	507.8
Greece	14.2	14.7	14.8	15.0	15.2	16.1	16.5	17.2	18.2	17.7	17.5	20.7	
Hungary	25.2	25.2	32.4	31.5	33.0	36.7	41.9	48.4	53.9	53.5	50.1	50.5	51.1
Iceland			0.6	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8
Ireland	10.8	12.8	12.9	14.9	16.3	17.7	18.5	17.9	19.3	17.4	12.1	11.0	10.0
Israel													
Italy	186.4	194.9	190.0	193.9	176.4	192.3	205.3	189.9	187.2	198.7	182.1	173.2	
Japan	329.7	335.3	335.3	334.2	344.7	350.1	357.8	369.7	378.1	368.7	353.5	338.4	265.3
Korea			101.4	102.8	109.4	111.7	111.0	119.6	116.1	113.0	108.4	112.3	114.5
Luxembourg	7.3	8.6	9.7	10.4	10.5	10.9	9.6	9.7	9.9	10.2	8.9	9.3	9.4
Mexico													
Netherlands	84.2	83.3	83.1	81.3	83.9	89.8	88.9	89.1	90.7	91.7	80.5	88.0	94.0
New Zealand	16.1	17.2	17.9	18.6	19.5	20.5	21.2	21.3	22.0	22.5	20.5	21.4	22.3
Norway	18.6	18.3	18.9	18.9	19.2	21.7	22.7	22.8	22.9	24.0	22.5	23.0	22.4
Poland	146.0	150.6	147.2	150.0	160.3	188.7	196.4	216.9	238.6	248.8	258.9	288.1	296.3
Portugal													
Slovak Republic													
Slovenia	4.7	4.8	4.8	5.0	5.3	5.4	5.6	5.7	6.2	6.2	4.9	5.7	5.9
Spain	153.3	168.4	181.1	204.6	212.3	241.1	254.1	262.6	278.9	262.4	227.5	226.1	223.5
Sweden	51.3	51.4	49.5	51.0	51.6	53.5	56.4	57.7	59.6	60.9	52.5	56.2	56.1
Switzerland	23.2	25.0	25.7	25.6	26.0	27.2	27.8	29.2	29.3	29.9			
Turkey	216.0	224.6	202.5	205.8	179.0	178.2	181.7	192.9	204.1	229.1	231.9	241.5	259.4
United Kingdom	182.9	183.4	183.3	183.9	186.4	193.0	197.8	202.1	207.5	197.6	176.8	183.9	
United States	5 157.5	5 165.9	5 186.0	5 302.6	5 379.4	5 588.5	5 649.8	5 729.3	5 850.3	5 884.0	5 299.4		
EU 28	1 897.7	1 959.9	1 991.5	2 046.4	2 073.6	2 215.5	2 285.7	2 370.4	2 456.6	2 424.0	2 159.2	2 245.2	2 273.0
OECD			8 456.6	8 628.9	8 759.3	9 181.9	9 336.1	9 553.8	9 797.0	9 812.2	8 976.9	9 533.1	9 676.1
Brazil													
China	2 351.1	2 719.7	2 679.3	2 890.2	3 149.6	3 711.8	4 162.8	4 616.8	5 261.7	7 733.0	8 248.3	9 566.0	10 979.5
India							1 437.4	1 701.2	1 928.0	2 107.1	2 643.3		
Indonesia													
Russian Federation	2 120.1	2 341.9	2 473.5	2 657.9	2 925.4	3 192.4	3 295.2	3 390.1	3 523.1	3 509.1	3 220.9	3 387.6	3 529.9
South Africa													

StatLink http://dx.doi.org/10.1787/888933028159

## Inland goods transport

Average annual growth rate in percentage, 2001-11 or latest available period



StatLink http://dx.doi.org/10.1787/888933025594

## PASSENGER TRANSPORT

Although some studies have suggested a saturation of passenger travel by car in some developed countries, the demand for passenger mobility continues to increase worldwide. There is a need for good and comprehensive data on passenger mobility in order to develop sustainable passenger mobility systems. Comparability of transport data between countries is not always possible worldwide due to the lack of harmonised definitions and methods. The Glossary for Transport Statistics (4th edition) provides common definitions to all member states of the European Union, the International Transport Forum and the United Nations Economic Commission for Europe.

#### Overview

The economic crisis had a relatively small impact on rail passenger transport. If rail passenger-kilometers fell in 2009 in the OECD and the EU, volumes have recovered since then and in 2011 they are back to the pre-crisis levels. However there are marked differences between countries. Indeed, some European countries showed a decrease in their rail passenger traffic in 2011, notably Slovenia (minus 5%). A few countries resisted the otherwise downward trend; Austria (5%), the Slovak Republic (5%), the United Kingdom (5%), Denmark (5%) and France (4%). Outside Europe, rail passenger-kilometres for the Russian Federation and Japan show close to zero growth in 2011. Rail passenger-kilometers continues to show strong growth in China and India which account for nearly 70% of the estimated global rail passenger transport.

There continues to be marked differences between countries in the EU. In France and Germany, passenger-kilometres have remained consistent at around their pre-crisis levels. Passenger transport by rail in the United Kingdom has experienced continuous growth in volumes while in contrast passenger traffic in Italy has continued to deteriorate since the economic crisis.

Data on passenger-kilometres travelled in private cars are less detailed and less up to date in many countries. Within the EU, the decline was on average 0.5% in the 13 countries where data are available for 2011. In the United States, passenger travel by car fell 1% in 2011. Some studies have suggested a saturation of passenger travel by car in some developed countries and while the data available does not lend itself to a detailed analysis, it seems that some levelling off of car travel has taken place in some of the developed economies. How much these trends are due to the economic crisis or to oil price changes, amongst other potential factors, is as yet uncertain.

#### **Definition**

For this indicator, passenger transport data refer to the total movement of passengers using rail or road (passenger cars, buses or coaches) transport modes. Data are expressed in passenger-kilometres which represents the transport of one passenger over one kilometre. The distance to be taken into consideration is the distance actually run.

## **Comparability**

If passenger transport by rail or by regular buses and coaches can be estimated fairly easily, passengers transport by passenger car or by un-schedule coaches are much more difficult to track down. Some countries do not report passenger car transport at all, others carry out different types of surveys to estimate passenger travel on their territory. There is no common methodology for this and since no method provides a complete vision of passenger movements, data are not always comparable between countries.

#### Sources

• International Transport Forum (ITF) (2012), "Inland passenger transport" (Database).

#### **Further information**

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#### Methodological publications

 ITF, Statistical Office of the European Communities and United Nations Economic Commission (2010), Illustrated Glossary for Transport Statistics 4th Edition, OECD Publishing.

#### Websites

 International Transport Forum, www.internationaltransportforum.org.



## Inland passenger transport

Billion passenger-kilometres

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Australia	264.9	270.2	268.5	274.4	281.1	293.2	294.0	293.3	296.5	297.4	297.5	300.3	303.3
Austria	8.0	8.2	8.2	8.3	8.2	8.3	8.5	9.3	9.6	10.8	10.7	10.3	10.9
Belgium	123.8	127.2	129.5	132.2	133.0	135.5	136.1	137.6	140.7	139.1	140.6	140.3	
Canada	502.5	503.5	482.6	494.6	486.4	489.8	514.2	511.6	504.9	494.0	494.4		
Chile													
Czech Republic	78.0	80.6	81.4	81.6	83.3	82.7	83.9	86.1	88.0	88.6	88.3	81.0	81.5
Denmark	70.1	69.7	69.1	69.2	69.9	71.5	71.7	72.5	74.2	74.3	73.6	73.1	74.4
Estonia	2.5	2.9	2.9	2.8	2.8	2.9	3.2	3.4	3.2	3.0	2.6	2.5	
Finland	65.9	66.8	68.0	69.3	70.6	71.9	72.9	73.5	75.1	75.0	75.7	76.2	76.9
France	856.1	866.3	898.2	911.8	917.7	923.5	919.5	924.3	938.9	935.0	937.6	946.6	952.8
Germany	990.2	975.7	997.1	1 001.9	996.5	1 009.1	998.9	1 008.2	1 011.0	1 017.3	1 024.7	1 033.0	
Greece	41.9	42.1	42.9	43.6	43.6	44.3	44.3	44.1	44.5	43.8			
Hungary	73.8	74.3	74.5	75.2	76.4	78.1	76.5	79.2	79.2	79.3	78.6	76.5	76.3
Iceland	4.1	4.3	4.5	4.6	4.7	4.9	5.1	5.5	5.7	5.6	5.6	5.6	5.4
Ireland	1.5	1.4	1.5	1.6	1.6	1.6	1.8	1.9	2.0	2.0	1.7	1.7	1.6
Israel													
Italy	798.7	854.6	860.0	854.6	854.5	865.1	828.1	829.5	829.5	828.3	869.7	847.8	769.1
Japan	1 340.7	1 335.5	1 339.7	1 337.7	1 339.2	1 333.0	1 324.2	1 313.6	1 324.6	1 310.5			
Korea	46.9	49.6	326.7	296.9	289.8	242.9	255.4	260.4	260.9	364.3	366.3	437.2	
Luxembourg	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Mexico	387.7	381.8	389.4	393.3	399.1	410.1	423.0	437.1	450.0	464.0	437.3	452.9	466.5
Netherlands	171.4	172.0	172.6	175.1	176.2	181.5	179.6	179.5	182.2	178.5		150.5	140.1
New Zealand													
Norway	57.9	58.7	59.7	60.6	60.9	61.7	61.5	62.5	64.4	65.7	66.3	67.0	68.3
Poland	197.8	201.1	206.9	214.0	222.0	230.2	244.5	265.6	286.1	320.5	328.1	337.4	352.0
Portugal	97.5	98.0	98.9	99.5	100.1	101.4	101.3	101.1	101.7	101.0			
Slovak Republic	32.3	35.2	35.1	35.9	35.3	34.4	35.7	35.9	35.9	35.3	33.4	33.7	34.0
Slovenia	24.8	24.5	24.9	25.4	25.6	26.0	26.3	26.9	28.4	28.9	29.8	29.6	
Spain	361.0	350.4	357.3	383.8	392.3	404.0	412.6	412.4	424.3	427.4	430.6	415.0	412.6
Sweden	117.7	119.1	120.3	123.5	124.2	124.7	125.1	125.4	128.6	127.8	128.1	127.8	129.3
Switzerland	94.2	96.0	97.0	98.6	99.7	100.8	102.9	104.1	105.6	106.7	108.9	110.2	
Turkey	181.4	191.5	173.8	168.5	170.2	179.5	187.2	192.9	214.7	211.2	217.8	232.4	248.1
United Kingdom	726.2	724.5	736.2	759.2	756.4	759.7	754.7	761.2	768.3	761.6	757.4	754.3	754.1
United States	4 285.1	4 362.7	4 364.7	4 459.5	4 492.3	4 573.3	4 590.9	4 538.8	5 855.6	5 663.2	5 007.5	5 009.6	
EU 28	4 889.2	4 942.2	5 032.0	5 129.8	5 154.6	5 225.7	5 206.0	5 263.3	5 336.7	5 363.1			
OECD	12 004.8	12 148.9	12 492.3	12 657.5	12 713.9	12 845.9	12 884.0	12 897.6	14 334.6	14 260.5			
Brazil													
China	1 033.5	1 119.0	1 197.4	1 277.5	1 248.4	1 446.1	1 535.4	1 675.3	1 872.3	2 025.5	2 139.0	2 378.3	2 637.3
India	2 262.7	2 534.0	2 903.9	3 330.0	3 611.2	4 044.7	4 867.6	5 240.8	5 630.0	6 034.0	6 100.5	6 535.0	
Indonesia													
Russian Federation	312.9	340.4	329.6	323.1	323.1	332.6	314.1	313.4	323.6	327.6	292.7	279.2	278.0
South Africa													

StatLink http://dx.doi.org/10.1787/888933028178

## Inland passenger transport

Average annual growth rate in percentage, 2001-11 or latest available period



StatLink http://dx.doi.org/10.1787/888933025613

## **ROAD FATALITIES**

The number of road motor vehicles is high amongst member countries of the International Transport Forum and reducing road accidents is a concern for all governments. Such concern becomes more challenging with increasing needs for more mobility.

#### **Definition**

A road motor vehicle is a road vehicle fitted with an engine whence it derives its sole means of propulsion, and which is normally used for carrying persons or goods or for drawing, on the road, vehicles used for the carriage of persons or goods. They include buses, coaches, trolley buses, goods road vehicles and passenger road motor vehicles. Although tramways (street-cars) are rail borne vehicles they are integrated into the urban road network and considered as road motor vehicles.

Road fatality means any person killed immediately or dying within 30 days as a result of a road injury accident. Suicides involving the use of a road motor vehicle are excluded.

## **Comparability**

Road motor vehicles are attributed to the countries where they are registered while deaths are attributed to the countries in which they occur.

Fatalities per million inhabitants can be compared with other causes of death in a country (heart diseases, cancer, HIV, etc.), however when comparing countries road fatality risks, this indicator loses its relevance if countries do not have the same level of motorisation. Fatalities per vehicle-kilometre provides a better measure of fatality risk on road

#### Overview

The first ten years of the 21st century saw record road safety performance in most countries of the International Transport Forum (ITF). Following three consecutive years of record improvements in 2008, 2009 and 2010, the number of people killed in crashes continued to fall in 2011 recording a drop of 1.1% in ITF member countries (excluding China and India). However, in 2011 one third of ITF countries reported an increase in road fatalities when compared to 2010, including countries used to good road safety performance; Russia (5%), Poland (7%), Germany (9%) and the United Kingdom (3%). These overall positive developments should not hide the economic costs and human tragedies behind the data. While high-income countries look back on a record decade in reducing road fatalities, 90% of global road deaths occur in low and middle income countries and estimates put annual world road fatalities above 1.3 million, with 50 million serious injuries.

networks, but there is currently no harmonisation in the methodology to calculate distances travelled, and not all countries collect this indicator.

The numbers of vehicles entering the existing stock is usually accurate, but information on the numbers of vehicles withdrawn from use is less certain. Shown here are the numbers of road fatalities per million inhabitants and per million vehicles.

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#### **Road fatalities**

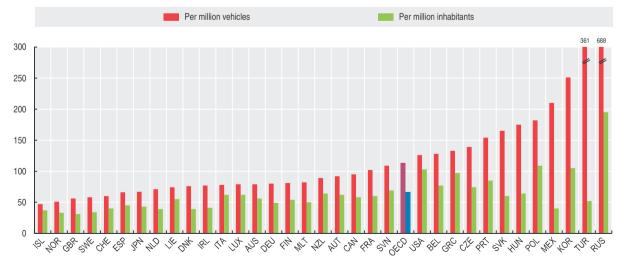
Per million inhabitants

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Australia	93	95	89	87	81	79	80	77	76	67	68	62	57
Austria	135	122	119	118	115	107	93	88	83	81	76	66	62
Belgium	137	143	144	131	117	112	104	101	100	88	87	77	78
Canada	98	94	89	93	88	85	90	89	84	73	65	64	59
Chile				**									**
Czech Republic	141	145	130	140	142	135	126	104	118	103	86	76	74
Denmark	97	93	80	86	80	68	61	56	74	74	55	46	39
Estonia	169	149	146	164	121	126	126	152	146	98	75	58	75
Finland	83	77	83	80	73	72	72	64	72	65	52	51	54
France	97	93	80	86	80	68	61	56	74	74	55	46	39
Germany	95	91	85	83	80	71	65	62	60	55	51	45	49
Greece	194	187	172	154	146	151	149	149	141	138	129	112	97
Hungary	128	118	122	141	131	128	127	129	123	99	82	74	64
Iceland	76	114	84	101	79	79	64	102	48	38	53	25	38
Ireland	110	109	106	96	84	92	95	86	78	63	53	47	41
Israel													
Italy	118	124	125	122	114	105	99	96	86	79	70	68	63
Japan	82	82	79	75	70	66	62	57	52	47	45	45	43
Korea	201	218	171	152	151	137	132	131	127	120	119	111	105
Luxembourg	135	174	159	139	117	109	101	91	96	72	96	63	64
Mexico	50	50	49	46	43	42	43	44	48	47	42		
Netherlands	75	73	67	66	67	54	50	50	48	46	44	39	40
New Zealand	133	120	117	103	114	106	98	94	100	86	89	86	64
Norway	68	76	61	68	61	56	48	52	49	53	44	43	34
Poland	174	164	145	152	148	150	143	137	146	143	120	102	109
Portugal	196	182	162	162	148	123	118	92	92	83	79	88	84
Slovak Republic	125	120	116	116	121	113	111	113	122	112	71	65	60
Slovenia	168	157	140	134	121	137	129	131	145	106	84	67	69
Spain	144	143	135	129	129	111	89	93	85	68	59	54	45
Sweden	65	67	66	63	59	53	49	49	51	43	39	28	34
Switzerland	82	82	75	70	74	69	55	49	51	47	45	42	40
Turkey	92	87	68	63	60	66	67	68	72	60	61	56	52
United Kingdom	61	61	61	60	61	56	55	54	50	43	38	31	31
United States	150	149	148	150	148	146	147	143	136	123	110	106	104
EU 28	119	117	112	110	103	96	91	87	85	78	70	62	60
OECD	115	114	108	106	101	97	94	91	88	80	73	65	63
Brazil													
China						83	76	68	62	55	51	49	46
India	80	76	76	79	79	83	84	92	99	102	106	112	117
Indonesia													
Russian Federation	203	202	212	229	246	240	237	230	234	211	195	187	196
South Africa					2.10	2.0							

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## **Road fatalities**

2011 or latest available year



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## **EMPLOYMENT AND HOURS WORKED**

EMPLOYMENT RATES
EMPLOYMENT RATES BY AGE GROUP
PART-TIME EMPLOYMENT
SELF-EMPLOYMENT
EMPLOYMENT BY REGION
HOURS WORKED

## **UNEMPLOYMENT**

UNEMPLOYMENT RATES LONG-TERM UNEMPLOYMENT UNEMPLOYMENT BY REGION

## **EMPLOYMENT RATES**

Employment rates are a measure of the extent of utilisation of available labour resources. In the short term, these rates are sensitive to the economic cycle, but in the longer term they are significantly affected by government policies with regard to higher education and income support and by policies that facilitate employment of women and disadvantaged groups.

#### **Definition**

Employment rates are calculated as the ratio of the employed to the working age population. Employment is generally measured through household labour force surveys. According to the ILO Guidelines, employed persons are defined as those aged 15 or over who report that they have worked in gainful employment for at least one hour in the previous week or who had a job but were absent from work during the reference week. Those not in employment consist of persons who are classified as either unemployed or inactive, in the sense that they are not

#### Overview

Employment rates for men are higher than those for women in all OECD countries with an average OECD difference of 16.1 percentage points in 2012. However, there are large cross country differences in the employment gaps, which range from less than 4 percentage points in Finland, Iceland, Sweden and Norway, to more than 20 percentage points in Korea, Chile, Mexico and Turkey. The employment gap has closed significantly since 2000 by about 5 percentage points in the OECD area due to an increase in women's employment rates while those of men declined since the onset of the crisis in late 2007 and in particular in countries hard hit by the crisis. The increase in employment rates for women was widespread before the crisis, exceeding 5 or more percentage points in 13 countries, in particular in Ireland, Greece and Spain.

Despite the recent increase, Turkey has by far the lowest women's employment rate, at 28.7% in 2012, with Iceland remaining the highest, at 78.5%. Other than Turkey, eleven countries have below OECD average employment rates for women despite increases over the last decade, while those for men declined in eight of these countries following the onset of the crisis. By contrast, 9 countries have below OECD average employment rates for men and above OECD average employment rates for women. Among those countries, Ireland, Portugal and the United States had above OECD average employment rates for men in 2000.

In the emerging economies, employment rates of men are markedly higher than those of women, by more than 12 percentage points in South Africa and by more than 8 percentage points in the Russian Federation.

included in the labour force for reasons of experiencing difficulty to find a job, study, incapacity or the need to look after young children or elderly relatives or personal choice.

The working age population refers to persons aged 15 to 64.

#### Comparability

All OECD countries use the ILO Guidelines for measuring employment. Operational definitions used in national labour force surveys may vary slightly from country to country. Employment levels are also likely to be affected by changes in the survey design, the survey scope and the survey conduct. Despite these changes, the employment rates shown here are fairly consistent over time.

There are two breaks in series due a major redesign of the national labour force survey in Chile between 2009 and 2010 and in Israel between 2011 and 2012. For Israel there was a change from a quarterly to a monthly survey as well as a change in concept from "civilian" to "total" labour force.

#### Sources

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## Employment rates by gender

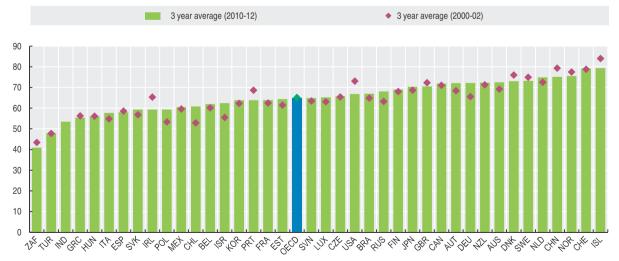
Share of persons of working age in employment

		Wo	men			M	en			To	otal	
_	2000	2008	2010	2011	2000	2008	2010	2011	2000	2008	2010	2011
Australia	61.4	66.2	66.7	66.6	77.1	78.6	78.7	78.1	69.3	72.4	72.7	72.3
Austria	59.4	66.4	66.5	67.3	77.3	77.1	77.8	77.8	68.3	71.7	72.1	72.5
Belgium	51.9	56.5	56.7	56.8	69.8	67.4	67.1	66.9	60.9	62.0	61.9	61.8
Canada	65.6	68.8	68.9	69.2	76.2	74.2	75.0	75.2	70.9	71.5	72.0	72.2
Chile	35.1	46.7	49.1	50.2	71.9	72.1	73.6	73.6	53.3	59.3	61.3	61.8
Czech Republic	56.9	56.3	57.2	58.2	73.6	73.5	74.0	74.6	65.2	65.0	65.7	66.5
Denmark	72.1	71.1	70.4	70.0	80.7	75.6	75.9	75.2	76.4	73.3	73.1	72.6
Estonia	57.0	60.5	62.7	64.6	65.4	61.5	67.8	69.9	61.0	61.0	65.2	67.2
Finland	64.5	66.9	67.5	68.2	70.5	69.7	70.9	70.9	67.5	68.3	69.2	69.5
France	54.8	59.7	59.7	60.0	68.8	68.2	68.2	68.0	61.7	63.9	63.9	63.9
Germany	58.1	66.1	67.7	68.0	72.9	76.1	77.4	77.6	65.6	71.2	72.6	72.8
Greece	41.3	48.1	45.1	41.9	71.3	70.9	65.9	60.6	55.9	59.6	55.6	51.3
Hungary	49.6	50.6	50.6	52.1	62.7	60.4	61.2	62.5	56.0	55.4	55.8	57.2
Iceland	81.0	77.0	77.3	78.5	88.2	80.6	80.8	81.9	84.6	78.9	79.0	80.2
Ireland	53.7	56.0	55.6	55.2	76.3	63.9	62.8	62.4	65.1	60.0	59.2	58.8
Israel	50.9	56.9	57.5	62.4	61.4	63.4	64.3	70.7	56.1	60.2	60.9	66.5
Italy	39.6	46.8	47.2	47.8	68.2	68.7	68.5	67.5	53.9	57.7	57.8	57.6
Japan	56.7	60.1	60.3	60.7	80.9	80.0	80.2	80.3	68.9	70.1	70.3	70.6
Korea	50.0	52.6	53.1	53.5	73.1	73.9	74.5	74.9	61.5	63.3	63.9	64.2
Luxembourg	50.0	57.2	56.9	59.0	75.0	73.1	72.1	72.5	62.7	65.2	64.6	65.8
Mexico	39.6	43.8	43.4	45.3	82.8	78.5	77.8	78.9	60.1	60.3	59.8	61.3
Netherlands	62.7	69.4	69.9	70.4	81.2	80.0	79.8	79.7	72.1	74.7	74.9	75.1
New Zealand	63.2	66.7	67.2	67.0	77.9	78.2	78.2	77.5	70.4	72.3	72.6	72.1
Norway	74.0	73.3	73.4	73.8	81.7	77.4	77.2	77.7	77.9	75.4	75.3	75.8
Poland	48.9	52.6	52.7	53.1	61.2	65.3	66.0	66.3	55.0	58.9	59.3	59.7
Portugal	60.5	61.1	60.4	58.7	76.3	70.1	68.1	64.9	68.3	65.6	64.2	61.8
Slovak Republic	51.5	52.3	52.7	52.7	62.2	65.2	66.3	66.7	56.8	58.8	59.5	59.7
Slovenia		62.6	60.9	60.5		69.6	67.7	67.4		66.2	64.4	64.1
Spain	42.0	53.0	52.8	51.3	72.7	65.6	64.1	61.0	57.4	59.4	58.5	56.2
Sweden	72.2	69.7	71.3	71.8	76.3	74.5	75.8	75.6	74.3	72.1	73.6	73.8
Switzerland	69.4	72.5	73.3	73.6	87.3	84.6	85.4	85.2	78.4	78.6	79.3	79.4
Turkey	26.2	26.2	27.8	28.7	71.7	66.7	69.3	69.2	48.9	46.3	48.4	48.9
United Kingdom	65.6	65.3	65.3	65.7	78.9	75.3	75.5	76.1	72.2	70.3	70.4	70.9
United States	67.8	62.4	62.0	62.2	80.6	71.1	71.4	72.3	74.1	66.7	66.6	67.1
EU 28		58.1	58.4	58.5		70.0	70.0	69.6		64.0	64.2	64.1
OECD	55.0	56.7	56.8	57.2	76.1	72.8	73.0	73.2	65.4	64.6	64.8	65.1
Brazil			55.2	55.7			79.3	79.3			66.8	67.2
China	73.8	68.0			84.6	82.0			79.3	75.1		
India		28.5		27.3		77.3		78.5		53.6		53.3
Indonesia												
Russian Federation	58.9	63.3	64.0	64.7	67.2	71.6	72.4	73.6	62.9	67.3	68.0	69.0
South Africa		34.4	34.6	34.9		47.7	47.4	47.5		40.8	40.8	41.0

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## **Employment rates: total**

Share of persons of working age in employment



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## EMPLOYMENT RATES BY AGE GROUP

Labour markets differ in how employment opportunities are allocated among people of different ages. Employment rates for people of different ages are significantly affected by government policies with regard to higher education, pensions and retirement age.

#### **Definition**

The employment rate for a given age group is measured as the number of employed people of a given age as a ratio of the total number of people in that same age group.

Employment is generally measured through national labour force surveys. In accordance with the ILO Guidelines, employed persons are those aged 15 or over who report that they have worked in gainful employment for at least one hour in the previous week or who had a job but were absent from work in the reference week. Those

#### Overview

Employment rates for people aged 25 to 54 (prime-age) are relatively similar between OECD countries, with rates in all countries except Turkey ranging between 64.1% and 86.7% in 2012. Ten countries have prime-age rates below the OECD average whereas the rates are 8 percentage points above the average in six countries. Cross country differences are larger when looking at the youngest age group (aged 15-24) where, in 2012, employment rates ranged between less than 26% in eleven countries - Greece, Hungary, Spain, the Slovak Republic, Italy, Luxembourg, Portugal, Korea, Poland, the Czech Republic and Belgium – and over 60% in just three countries - Switzerland, the Netherlands and Iceland. Employment rates for the oldest age group (aged 55-64) also vary considerably, between 70% or more in five countries - Switzerland, Norway, Sweden, New Zealand and Iceland - and less than 40% in seven countries - Turkey, Slovenia, Greece, Hungary, Poland, and Belgium. In the emerging economies, employment rates for youth are above the OECD average in Brazil and China, and only in China for older workers, while those for people of prime working age exceed the OECD average by around 10 percentage points in China and the Russian Federation.

As a consequence of the ongoing jobs crisis, prime-age employment rates have fallen quite significantly in a few countries by 5 percentage points or more in Greece, Ireland, Spain and Portugal and by 2 to 4 percentage points in the United States and Denmark. The employment rates for older workers increased by 8 percentage points on average in the OECD area, even during the jobs crisis, with the largest increases of more than 10 percentage points recorded in Germany, the Netherlands, the Slovak Republic, Chile and Austria.

not in employment consist of persons who are classified as either unemployed or inactive, in the sense that they are not included in the labour force for reasons of experiencing difficulty to find a job, study, incapacity or the need to look after young children or elderly relatives or personal choice.

Employment rates are shown for three age groups: persons aged 15 to 24 are those just entering the labour market following education; persons aged 25 to 54 are those in their prime working lives; persons aged 55 to 64 are those who have passed the peak of their career and are approaching retirement.

#### Comparability

Employment levels are likely to be affected by changes in the survey design, the survey scope, the survey conduct and adjustments to the population controls based on census results and intercensal population estimates between censuses. Despite these changes, the employment rates shown here are fairly consistent over time.

#### **Sources**

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- For non-member countries: National sources.

#### **Further information**

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- OECD Ageing and Employment Policies (supplementary material), www.oecd.org/els/employment/olderworkers.
- Off to a Good Start? Jobs for Youth (supplementary material), www.oecd.org/employment/youth.



## Employment rates by age group

As a percentage of population in that age group

		Persons 15-24	in employment			Persons 25-54	in employment			Persons 55-64 ir	employment	
_	1990	2000	2005	2012 or latest available year	1990	2000	2005	2012 or latest available year	1990	2000	2005	2012 or latest available year
Australia	62.7	62.1	63.3	59.7	76.0	76.3	78.8	79.5	41.5	46.2	53.5	61.4
Austria		52.8	53.1	54.6		82.5	82.6	85.4		28.3	31.8	43.1
Belgium	30.4	30.3	27.5	25.3	71.7	77.9	78.3	79.3	21.4	25.0	31.8	39.5
Canada	61.3	56.2	57.7	54.5	78.1	79.9	81.3	81.4	46.2	48.1	54.7	59.8
Chile		26.4	25.4	31.1		65.0	67.5	74.5		47.5	51.0	62.7
Czech Republic		38.3	27.3	25.2		81.6	82.0	82.9		36.3	44.6	49.4
Denmark	65.0	67.1	62.3	55.0	84.0	84.3	84.5	81.9	53.6	54.6	59.5	60.8
Estonia	51.7	32.9	29.8	34.3	91.8	75.7	79.3	79.2	60.4	44.0	55.7	60.5
Finland	55.2	42.9	42.1	43.3	87.9	80.9	81.7	82.0	42.8	42.3	52.6	58.2
France	35.7	28.3	30.2	28.8	77.3	78.4	80.7	80.8	30.7	29.3	38.5	44.5
Germany	56.4	47.2	42.6	46.6	73.6	79.3	77.4	83.2	36.8	37.6	45.5	61.5
Greece	30.3	26.9	25.0	13.1	68.5	70.2	74.0	64.1	40.8	39.0	41.6	36.4
Hungary		32.5	21.8	18.6		73.0	73.7	74.6		21.9	33.0	36.9
Iceland		68.2	71.6	66.0		90.6	88.2	85.1		84.2	84.8	79.2
Ireland	41.4	49.3	47.8	27.9	60.0	75.5	77.8	69.4	38.6	45.3	51.7	49.5
Israel	23.6	28.2	26.6	43.5	66.5	70.4	70.6	76.8	48.5	46.6	52.4	63.1
Italy	29.8	27.8	25.5	20.5	68.2	68.0	72.2	70.3	32.6	27.7	31.4	40.4
Japan	42.2	42.7	40.9	38.5	79.6	78.6	79.0	80.5	62.9	62.8	63.9	65.4
Korea	32.5	29.4	29.9	24.2	73.2	72.2	73.4	74.7	61.9	57.8	58.7	63.1
Luxembourg	43.3	31.8	24.9	21.7	71.8	78.2	80.7	83.1	28.2	27.2	31.7	41.0
Mexico	10.0	48.9	43.7	43.1	71.0	67.4	68.8	71.1		51.7	52.6	55.6
Netherlands	54.5	66.5	61.7	63.3	71.2	81.0	81.5	83.8	29.7	37.6	44.8	58.6
New Zealand	59.1	54.2	56.4	49.5	76.3	78.3	81.6	79.8	41.8	56.9	69.5	73.9
Norway	53.4	58.1	52.9	52.7	82.2	85.3	83.2	84.6	61.5	67.1	67.6	70.9
Poland		24.5	20.9	24.7	OL.L	70.9	69.5	77.2		28.4	29.1	38.7
Portugal	51.2	41.8	36.1	23.6	77.4	81.8	80.8	75.4	47.6	50.7	50.5	46.5
Slovak Republic	J1.2	29.0	25.6	20.1		74.7	75.3	76.4		21.3	30.4	43.1
Slovenia			34.1	27.3			83.8	83.3			30.7	32.9
Spain	38.3	36.3	41.9	20.0	61.4	68.4	74.4	66.3	36.9	37.0	43.1	43.9
Sweden	66.1	46.7	43.3	40.0	91.6	83.8	83.9	85.2	69.5	65.1	69.6	73.1
Switzerland	00.1	65.1	59.9	61.7	91.0	85.4	85.1	86.7	09.5	63.3	65.1	70.5
Turkey	45.9	37.0	39.9	31.5	61.6	56.7	53.0	58.3	42.7	36.4	28.0	31.9
United Kingdom	70.1	61.5	58.7	50.0	79.1	80.2	81.1	80.3	49.2	50.4	56.7	58.1
United States	59.8	59.7	53.9	46.0	79.1	81.5	79.3	75.7	54.0	57.8	60.8	60.7
EU 28												
OECD Brazil	49.1	45.5	42.7 52.7	39.7	75.8	75.9	75.8 75.9	75.6	47.7	47.6	51.7 54.1	55.6
	**			50.0				76.3				52.7
China		61.9		53.7		88.0		85.8		59.2		59.0
India				33.1				65.3				53.8
Indonesia												
Russian Federation		34.3	33.1	33.7		79.6	82.9	85.7		34.6	45.9	47.1
South Africa			15.0	12.2			59.3	56.9			42.2	38.0

StatLink | http://dx.doi.org/10.1787/888933028235

## **Employment rates for age group 15-24**

Persons in employment as a percentage of population in that age group



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## PART-TIME EMPLOYMENT

Opportunities for part-time work are especially important for people who do not want to work full-time because of family circumstances, such as woman with young children and those caring for the elderly. Indeed, recent surveys in a large number of OECD countries show that most people who work part-time do so by choice. This suggests that countries with little part-time employment could foster increased employment by policies that promote the availability of part-time jobs.

#### **Definition**

Part-time employment refers to persons who usually work less than 30 hours per week in their main job. This definition has the advantage of being comparable across countries as national definitions of part-time employment vary greatly from one country to another. Part-time workers include both employees and the self-employed.

#### Overview

The incidence of part-time employment for the OECD area as a whole was 16.9% in 2012. But this incidence differed significantly across countries. In Ireland, the Netherlands and Switzerland, over 25% of all those in employment were working part-time, while this share was under 10% in 7 OECD countries and below 5% in Hungary, the Slovak Republic and the Czech Republic. In the Russian Federation this rate is also low at 4.1% and at 7.8% in South Africa.

In recent years, part-time work has accounted for a substantial share of overall employment growth in many OECD countries. For the OECD as a whole, the incidence of part-time employment increased by close to 5 percentage points between 2000 and 2012, while overall employment rates declined since the onset of the jobs crisis in late 2007. Part-time employment rates grew by 5 percentage points or more in the Netherlands, Mexico, Austria and Chile, but also in Italy, Spain and Ireland, that were hard hit by the crisis. The largest increase in part-time employment rates occurred in Chile (11.9 percentage points) which benefited from an overall increase in employment rates over the 2000-12 period. In Iceland and Poland as well as in the Russian Federation and South Africa, parttime employment declined, by more than 1 percentage point in 2000-12.

The growth of part-time employment has been especially important for groups that are often under-represented in the labour force such as women – over 5 percentage points in Austria, Chile, Korea, Ireland, Italy, Spain and Turkey; youth – over 15 percentage points in Chile, Denmark, Ireland, Korea and Spain; and older workers – over 10 percentage points in Austria, Chile and Ireland.

Employment is generally measured through household labour force surveys. According to the ILO Guidelines, employed persons are those aged 15 or over who report that they have worked in gainful employment for at least one hour in the previous week or who had a job but were absent from work in the reference week. The rates shown here refer to the number of persons who usually work less than 30 hours per week as a percentage of the total number of those in employment.

### Comparability

All OECD countries use the ILO Guidelines for measuring employment. Operational definitions used in national labour force surveys may, however, vary slightly across countries. Employment levels are also likely to be affected by changes in the survey design, the survey scope and the survey conduct. Despite these changes, the employment rates shown here are fairly consistent over time. Information on the number of hours usually worked is mostly collected in household labour force surveys. The part-time rates shown here are considered to be of good comparability.

There are two breaks in series due a major redesign of the national labour force survey in Chile between 2009 and 2010 and in Israel between 2011 and 2012. For Israel there was a change from a quarterly to a monthly survey as well as a change in concept from "civilian" to "total" labour force.

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#### Statistical publications

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#### Online databases

OECD Employment and Labour Market Statistics.

#### Websites

- Employment policies and data, www.oecd.org/els/ employment.
- Labour statistics, www.oecd.org/std/labour-stats.

## PART-TIME EMPLOYMENT

## Incidence of part-time employment

As a percentage of total employment

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Australia		23.7	24.0	24.3	23.8	24.0	23.9	23.8	23.8	24.7	24.9	24.7	24.6
Austria	12.2	12.4	13.3	13.7	15.4	16.3	16.8	17.3	17.7	18.5	19.0	18.9	19.2
Belgium	19.0	17.0	17.6	18.3	18.5	18.5	18.7	18.1	18.3	18.2	18.3	18.8	18.7
Canada	18.1	18.1	18.8	19.0	18.6	18.4	18.2	18.3	18.5	19.3	19.4	19.1	18.8
Chile	4.7	5.6	5.2	5.7	6.6	7.2	7.7	8.0	9.1	10.5	17.4	17.2	16.7
Czech Republic	3.2	3.2	2.9	3.2	3.1	3.3	3.3	3.5	3.5	3.9	4.3	3.9	4.3
Denmark	16.1	14.7	15.5	16.2	17.0	17.3	17.9	17.3	17.8	18.8	19.2	19.2	19.4
Estonia	7.1	7.1	6.9	7.5	6.8	6.7	6.7	6.8	6.2	8.4	8.7	8.8	8.1
Finland	10.4	10.5	11.0	11.3	11.3	11.2	11.4	11.7	11.5	12.2	12.5	12.7	13.0
France	14.2	13.8	13.8	13.0	13.2	13.2	13.2	13.3	12.9	13.3	13.6	13.6	13.8
Germany	17.6	18.3	18.8	19.6	20.1	21.5	21.8	22.0	21.8	21.9	21.7	22.1	22.1
Greece	5.5	4.9	5.4	5.6	5.9	6.4	7.4	7.7	7.9	8.4	8.8	9.0	9.7
Hungary	2.9	2.5	2.6	3.2	3.3	3.2	2.7	2.8	3.1	3.6	3.6	4.7	4.7
Iceland	20.4	20.4	20.1	16.0	16.6	16.4	16.0	15.9	15.1	17.5	18.4	17.0	17.3
Ireland	18.1	17.9	18.4	18.9	18.9	19.3	19.3	19.8	20.8	23.7	24.9	25.7	25.0
Israel	14.6	15.3	15.5	15.3	15.2	15.1	15.2	14.8	14.7	14.8	14.0	13.7	15.0
Italy	12.2	12.2	11.6	11.7	14.7	14.6	15.0	15.2	15.9	15.8	16.3	16.7	17.8
Japan			17.7	18.2	18.1	18.3	18.0	18.9	19.6	20.3	20.2	20.6	20.5
Korea	7.0	7.3	7.6	7.7	8.4	9.0	8.8	8.9	9.3	9.9	10.7	13.5	10.2
Luxembourg	12.4	13.3	12.5	13.3	13.2	13.9	12.7	13.1	13.4	16.4	15.8	16.0	15.5
Mexico	13.5	13.7	13.5	13.4	15.1	16.8	17.0	17.6	17.6	17.9	18.9	18.3	19.5
Netherlands	32.1	33.0	33.9	34.5	35.0	35.6	35.4	35.9	36.1	36.7	37.1	37.2	37.8
New Zealand	22.2	22.3	22.5	22.2	21.9	21.6	21.2	22.0	22.2	22.5	21.9	22.0	22.2
Norway	20.2	20.1	20.6	21.0	21.1	20.8	21.1	20.4	20.3	20.4	20.1	20.0	19.8
Poland	12.8	11.6	11.7	11.5	12.0	11.7	10.8	10.1	9.3	8.7	8.7	8.3	8.0
Portugal	9.4	9.2	9.6	9.9	9.6	9.4	9.3	9.9	9.7	9.6	9.3	11.5	12.2
Slovak Republic	1.9	1.9	1.6	2.2	2.6	2.4	2.4	2.4	2.6	2.9	3.7	3.9	3.8
Slovenia			4.9	5.0	7.5	7.4	7.8	7.8	7.5	8.3	9.4	8.6	7.9
Spain	7.7	7.8	7.6	7.8	8.4	11.0	10.8	10.7	11.1	11.9	12.4	12.9	13.8
Sweden	14.0	13.9	13.8	14.1	14.4	13.5	13.4	14.4	14.4	14.6	14.5	14.3	14.3
Switzerland	24.4	24.8	24.8	25.1	24.9	25.1	25.5	25.4	25.9	26.5	26.1	25.9	26.0
Turkey	9.4	6.2	6.6	6.0	6.1	5.6	7.6	8.1	8.5	11.1	11.5	11.7	11.8
United Kingdom	23.0	22.7	23.2	23.5	23.6	23.0	23.2	22.9	23.0	23.9	24.6	24.6	24.9
United States	12.6	12.8	13.1	13.2	13.2	12.8	12.6	12.6	12.8	14.1	13.5	12.6	13.4
EU 28													
OECD	11.9	12.0	14.4	14.6	15.0	15.2	15.2	15.4	15.6	16.4	16.6	16.5	16.9
Brazil		16.8	17.9	18.0	18.2	19.0	19.2	18.3	18.0	17.8		16.0	
China													
India													
Indonesia													
Russian Federation	7.4	5.2	3.8	5.3	5.4	5.6	5.3	5.1	5.0	4.7	4.3	4.1	4.1
South Africa		8.8	8.5	8.8	7.5	8.4	9.1	8.0	8.2	8.3	8.1	7.6	7.8

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## Incidence of part-time employment

As a percentage of total employment



StatLink as http://dx.doi.org/10.1787/888933025689

### **SELF-EMPLOYMENT**

Self-employment may be seen either as a survival strategy for those who cannot find any other means of earning an income or as evidence of entrepreneurial spirit and a desire to be one's own boss. The self-employment rates shown here reflect these various motives.

#### **Definition**

Employment is generally measured through national labour force surveys. According to the ILO Guidelines, employed persons are defined as those aged 15 or over who report that they have worked in gainful employment for at least one hour in the previous week or who had a job but were absent from work in the reference week.

Self-employed persons include employers, own-account workers, members of producers' co-operatives, and unpaid family workers. People in the last of these groups do not have a formal contract to receive a fixed amount of income at regular intervals, but they share in the income generated by the enterprise; unpaid family workers are particularly important in farming and retail trade. Note that all persons who work in corporate enterprises, including company directors, are considered to be employees.

The rates shown here are the percentages of the selfemployed in total employment.

### Comparability

All OECD countries use ILO Guidelines for measuring employment. Operational definitions used in national labour force surveys may, however, vary slightly across countries. Only unincorporated self-employed are included in self-employed in Australia, Canada and the United States. Employment levels are also likely to be affected by changes in the survey design, questions sequencing and/or the ways in which surveys are conducted. Despite this, self-employment rates are likely to be fairly consistent over time.

#### Overview

In 2012, the share of self-employed workers in total employment ranged from under 8% in Luxembourg, Norway and the United States to well over 30% in Greece, Mexico and Turkey. In general, self-employment rates are highest in countries with low per capita income although Italy, with a self-employment rate of around 25%, is an exception. Ireland and Spain also combine high per capita incomes and high self-employment rates.

Over the period 2000-12, self-employment rates have fallen in more than two thirds of countries and by 1.5 percentage points in the OECD area. These falls have mostly occurred prior to the onset of the global financial crisis in late 2007. However the Czech Republic, the Netherlands, and the United Kingdom saw moderate to strong increases and the Slovak Republic even sharper increases exceeding 7 percentage points, albeit from low levels. Conversely, and starting from a higher level, there have been sharp declines in self-employment rates in Chile, Greece, Italy, Korea, Poland, New Zealand, Mexico, Portugal and Spain.

Levels and changes in total self-employment rates conceal significant differences between men and women. In 2012, only Mexico and Turkey recorded self-employment rates for women higher than those for men. In the case of Turkey, almost half of all working women are self-employed, albeit down from 64.7% in 2000.

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#### Websites

- Employment policies and data, www.oecd.org/els/ employment.
- OECD Centre for Entrepreneurship, SMEs and Local Development, www.oecd.org/cfe.



## **Self-employment rates**

As a percentage of total employment by gender

		Wor	men			M	en		Total				
_	2000	2010	2011	2012	2000	2010	2011	2012	2000	2010	2011	2012	
Australia	10.4	8.9	8.6	8.3	16.1	13.9	13.3	12.3	13.6	11.6	11.2	10.5	
Austria	12.2	11.3	11.3	10.8	13.9	16.0	15.9	15.6	13.1	13.8	13.8	13.3	
Belgium	13.5	10.8	10.5	10.5	17.5	17.3	17.5	17.6	15.8	14.4	14.3	14.3	
Canada	9.2	8.1	8.0	8.0	11.8	10.2	9.9	9.7	10.6	9.2	9.0	8.9	
Chile	24.5	24.9	26.0		32.4	27.5	27.0		29.8	26.5	26.6		
Czech Republic	10.2	12.2	12.9	13.5	19.1	22.0	22.0	22.3	15.2	17.8	18.1	18.5	
Denmark	5.7	5.6	5.4	5.6	12.1	12.3	12.4	12.3	9.1	9.1	9.1	9.1	
Estonia	6.4	5.3	5.2	5.1	11.6	11.5	11.8	12.3	9.1	8.3	8.5	8.6	
Finland	9.2	9.0	8.8	8.9	17.8	17.7	17.7	18.2	13.7	13.5	13.4	13.6	
France	7.2	6.9	7.1		11.0	11.5	11.8		9.3	9.3	9.5		
Germany	7.9	8.4	8.5	8.3	13.4	14.4	14.5	14.4	11.0	11.6	11.7	11.6	
Greece	38.9	31.0	31.7	31.2	43.7	38.6	39.5	40.6	42.0	35.5	36.3	36.8	
Hungary	10.5	8.8	8.5	8.8	19.1	15.4	15.2	14.3	15.2	12.3	12.1	11.7	
Iceland	11.0	8.8	8.9	9.0	24.0	16.9	16.5	16.2	18.0	13.0	12.9	12.7	
Ireland	8.6	7.7	7.4	7.5	25.9	25.3	24.6	24.8	18.8	17.1	16.6	16.7	
Israel	9.3	8.0	8.3		18.3	17.0	16.5		14.2	12.8	12.6		
Italy	22.0	18.5	18.2	18.3	32.3	30.3	30.1	30.0	28.5	25.5	25.2	25.1	
Japan	18.3	11.3	10.4	10.7	15.5	12.8	11.9	12.6	16.6	12.2	11.3	11.8	
Korea	38.4	27.1	26.4	26.0	35.7	30.0	29.6	29.8	36.8	28.8	28.2	28.2	
Luxembourg	6.9	4.6	4.5		7.7	6.7	6.5		7.4	5.8	5.6		
Mexico	35.2	35.5	34.8	35.1	36.4	34.2	33.1	32.9	36.0	34.7	33.7	33.7	
Netherlands	9.4	11.5	11.5	11.7	12.6	18.0	18.0	18.5	11.2	15.0	15.0	15.3	
New Zealand	14.5	11.8	12.4	12.2	25.6	19.8	20.1	20.0	20.6	16.1	16.5	16.4	
Norway	4.8	4.4	4.1	4.1	9.8	10.8	9.7	9.4	7.4	7.7	7.0	6.9	
Poland	24.8	20.1	19.8	19.2	29.5	25.3	25.3	25.0	27.4	23.0	22.9	22.4	
Portugal	24.4	20.1	17.0	17.5	27.4	25.3	25.0	25.8	26.0	22.9	21.3	21.9	
Slovak Republic	4.6	9.4	9.7	9.9	10.8	21.3	20.8	19.8	8.0	16.0	15.9	15.5	
Slovenia	13.0	14.0	13.4	12.8	18.6	20.0	19.7	19.2	16.1	17.3	16.8	16.2	
Spain	16.6	12.4	12.3	13.0	22.2	20.5	20.1	21.5	20.2	16.9	16.6	17.6	
Sweden	5.7	6.4	6.0	5.9	14.5	15.0	14.4	14.6	10.3	11.0	10.4	10.5	
Switzerland	12.3	10.1	10.9	10.5	13.9	11.1	10.5	10.7	13.2	10.6	10.7	10.7	
Turkey	64.7	49.3	48.4	45.7	46.5	35.1	34.2	33.5	51.4	39.1	38.3	37.1	
United Kingdom	8.3	8.9	9.0	9.6	16.7	18.2	18.3	19.0	12.8	13.9	14.0	14.6	
United States	6.1	5.6	5.5		8.6	8.3	8.0	**	7.4	7.0	6.8	6.8	
EU 28											**		
0ECD	15.1	13.2	13.0		19.6	18.3	17.9		17.7	16.0	15.8		
Brazil			22.4	22.1			31.5	31.3			27.7	27.4	
China													
India													
Indonesia													
Russian Federation													
South Africa													

StatLink http://dx.doi.org/10.1787/888933028273

## Self-employment rates: total

As a percentage of total employment



StatLink http://dx.doi.org/10.1787/888933025708

## **EMPLOYMENT BY REGION**

Inequalities in economic performance across regions partly reflect the extent to which each region is able to utilise its available labour resources, and especially to increase job opportunities for under-represented groups.

#### **Definition**

Employed persons are all persons who during the reference week of the survey worked at least one hour for pay or profit, or were temporarily absent from such work. The employment rate is the number of employed persons as a percentage of the working age (15-64) population.

The employment rate for women is calculated as the ratio between women in employment and women of the working age (15-64) in the population.

### **Comparability**

As for other regional statistics, comparability is affected by differences in the meaning of the word "region". This results in significant differences in terms of geographic area and population both within and among countries. To address this issue, the OECD has classified regions within

#### Overview

Differences in employment opportunities within countries are often larger than across countries. In almost half of the countries, differences in regional employment growth rates across regions were above 3 percentage points. Regional differences in employment in OECD countries were the largest in Mexico, Canada, and the United States, and among the emerging economies, the Russian Federation.

During 1999-2012 differences in regional employment growth rates across regions were above two percentage points in Chile, Israel, Luxembourg and Australia.

A small number of regions drive employment creation at the national level. On average, 39% of overall employment creation in OECD countries between 1999 and 2012 was accounted for by just 10% of regions. The regional contribution to national employment creation was particularly concentrated in certain countries. In South Africa, the Russian Federation, Hungary and the United States, more than half of employment growth was spurred by 10% of regions.

During the recent economic crisis, the regional concentration of employment creation has increased in 15 of the 31 countries, resulting in higher differences in employment among regions.

In around 26% of OECD regions, less than one out of two women was employed in 2012. Regional differences in employment for women were the largest in Turkey, Italy, Spain, Israel, the United States and the Slovak Republic.

each country based on two levels: territorial level 2 (TL2, large regions) and territorial level 3 (TL3, small regions). Labour market data for Canada refers to a different regional grouping, labelled non-official grids (NOG) comparable to TL3. For Brazil, China, the Russian Federation and South Africa only large regions have been defined so far.

Data on employment growth refer to the period 1999-2012 for all countries, except for Slovenia and Switzerland, the first available year is 2001 and the last available year is 2009 for South Africa, 2010 for the Russian Federation, 2011 for Israel, Japan and Mexico. Portugal 1999-2010. Denmark, Finland and Turkey are excluded for lack of data on comparable years. Data on employment increase contributed by the top 10% of TL2 regions include only countries with average positive growth of employment over 1999-2012. Greece and Japan are excluded.

Data on regional employment growth and female employment refer to large (TL2) regions for all countries.

#### Sources

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## Further information

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#### Websites

- Regional Development, www.oecd.org/gov/regional-policy.
- Regions at a Glance Interactive, rag.oecd.org.



### Differences in annual employment growth across regions

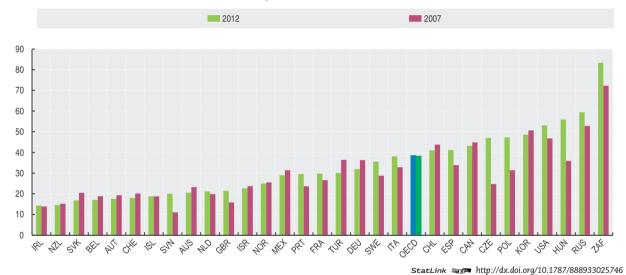
Percentage, 2012



## StatLink http://dx.doi.org/10.1787/888933025727

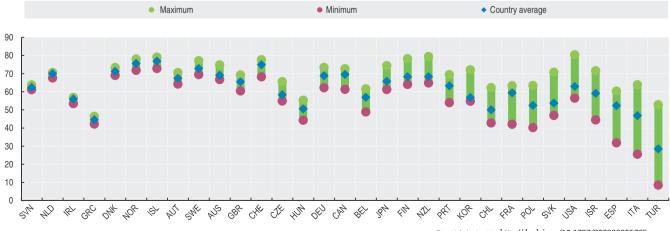
## Share of national employment growth due to the 10% of most dynamic regions

Percentage, 1999-2012 and 1999-2007



## Regional differences in the employment rate of women

Percentage, 2012



## **HOURS WORKED**

Lower hours worked is one of the forms in which the benefits of productivity growth have been shared by people. Hours worked is also one of the ways that labour markets adjust most intensively during business cycles. In recent years, governments of several OECD countries have also pursued policies to make it easier for parents to reconcile work and family life, and some of these policies have tended to reduce working time.

#### **Definition**

The average number of hours worked per year is calculated as the total numbers of hours actually worked over the year divided by the average number of people in employment. The data cover employees and self-employed workers; they include both full-time and part-time employment.

Employment is generally measured through household labour force surveys. In accordance with the ILO Guidelines, employed persons are defined as those aged 15 years or over who report that they have worked in gainful employment for at least one hour in the previous week or were temporarily absent from work.

Estimates of the hours actually worked are based on national labour force surveys in many countries, while

## Overview

Over the period from 2000 to 2012, average hours worked per employed person have fallen in all OECD countries. However, this decline was smaller in about half of the countries, as compared to the decline in earlier decades. Part of the observed decline in average hours worked between these two years reflect business cycle effects.

For the OECD as a whole, the average hours worked per employed person fell from 1 843 annual hours in 2000 to 1 769 in 2012; this is equivalent to a reduction of more than one and a half hours per week over a year with 45 work weeks. Sharp reductions in annual hours worked over this period occurred in half of the OECD countries where they fell by 80 or more hours, with a further decline of 150 or more hours in Chile (minus 346), Korea (minus 234), Ireland, Iceland, Slovenia and Austria. Most of the decline in hours worked materialised following the onset of the global crisis in ten countries - some hard hit by the crisis, such as Estonia, Hungary, Ireland, Italy, Portugal and Slovenia, but also Austria, Japan, Poland and Turkey.

Although one should exercise caution when comparing levels across countries, actual hours worked are significantly above the OECD average, by 200 or more hours, in Mexico, Korea, Greece and Chile and significantly below the OECD average, by 200 or less hours, in the Netherlands, Germany, Norway, Denmark, France, Luxembourg, Ireland and Slovenia.

others use establishment surveys, administrative records or a combination of sources. Actual hours worked include regular work hours of full-time and part-time workers, over-time (paid and unpaid), hours worked in additional jobs, and time not worked because of public holidays, annual paid leave, illness, maternity and parental leave, strikes and labour disputes, bad weather, economic conditions and several other minor reasons.

## Comparability

Data are based on a range of sources of varying reliability. Annual working hours reported for 30 out of 34 countries are provided by national statistical offices and are estimated using the best available sources. These national data are intended for comparisons of trends in productivity and labour inputs (or total hours hours) and are not fully suitable for inter-country comparisons of the level of hours worked because of differences in their sources and other uncertainties about their international comparability.

There has been a major revision to the Mexican data on annual hours worked in 2012, the result of a change in the methodology.

#### Sources

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#### Online database

• OECD Employment and Labour Market Statistics.

#### Website

- Productivity statistics, www.oecd.org/statistics/productivity.
- Online OECD employment database, www.oecd.org/ employment/database.



## Average hours actually worked

Hours per year per person in employment

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Australia	1 759	1 734	1 737	1 743	1 733	1 723	1 720	1 719	1 708	1 690	1 692	1 699	1 685
Austria	1 727	1 714	1 710	1 704	1 714	1 695	1 673	1 667	1 648	1 603	1 590	1 598	1 576
Belgium	1 599	1 592	1 587	1 581	1 576	1 569	1 578	1 583	1 577	1 559	1 563	1 574	1 572
Canada	1 777	1 770	1 752	1 739	1 758	1 745	1 743	1 739	1 733	1 700	1 701	1 698	1 711
Chile	2 263	2 242	2 250	2 235	2 232	2 157	2 165	2 128	2 095	2 074	2 068	2 047	2 029
Czech Republic	1 904	1 827	1 825	1 815	1 827	1 827	1 808	1 793	1 800	1 778	1 811	1 811	1 784
Denmark	1 468	1 472	1 467	1 462	1 462	1 457	1 463	1 438	1 431	1 434	1 416	1 433	1 430
Estonia	1 988	1 979	1 982	1 986	1 997	2 010	2 001	1 998	1 968	1 833	1 880	1 924	1 889
Finland	1 751	1 733	1 726	1 719	1 723	1 716	1 709	1 706	1 688	1 673	1 677	1 677	1 679
France	1 523	1 514	1 476	1 473	1 501	1 495	1 473	1 485	1 492	1 472	1 480	1 482	1 479
Germany	1 471	1 453	1 441	1 436	1 436	1 431	1 424	1 422	1 422	1 382	1 404	1 405	1 393
Greece	2 130	2 131	2 118	2 112	2 092	2 095	2 066	2 037	1 950	1 997	2 016	2 039	2 034
Hungary	2 033	1 993	2 005	1 978	1 986	1 987	1 983	1 978	1 982	1 965	1 956	1 975	1 886
Iceland	1 885	1 847	1 812	1 811	1 825	1 816	1 805	1 781	1 783	1 704	1 689	1 731	1 706
Ireland	1 719	1 713	1 698	1 671	1 668	1 654	1 644	1 633	1 600	1 540	1 542	1 541	1 529
Israel	2 017	1 979	1 993	1 974	1 942	1 931	1 919	1 934	1 935	1 935	1 931	1 932	1 928
Italy	1 861	1 843	1 831	1 826	1 826	1 819	1 815	1 816	1 803	1 771	1 772	1 772	1 752
Japan	1 821	1 809	1 798	1 799	1 787	1 775	1 784	1 785	1 771	1 714	1 733	1 728	1 745
Korea	2 509	2 496	2 455	2 424	2 392	2 351	2 346	2 306	2 246	2 232	2 187	2 090	2 163
Luxembourg	1 632	1 617	1 606	1 581	1 579	1 560	1 558	1 566	1 580	1 516	1 518	1 516	1 509
Mexico	2 311	2 285	2 271	2 277	2 271	2 281	2 281	2 262	2 260	2 253	2 242	2 250	2 226
Netherlands	1 435	1 424	1 408	1 401	1 399	1 393	1 392	1 389	1 392	1 384	1 381	1 382	1 384
New Zealand	1 828	1 817	1 817	1 813	1 828	1 811	1 788	1 766	1 750	1 738	1 758	1 762	1 739
Norway	1 455	1 429	1 414	1 401	1 421	1 423	1 419	1 426	1 429	1 407	1 415	1 421	1 418
Poland	1 988	1 974	1 979	1 984	1 983	1 994	1 985	1 976	1 969	1 948	1 940	1 938	1 929
Portugal	1 791	1 795	1 793	1 768	1 790	1 778	1 783	1 752	1 771	1 744	1 740	1 711	1 691
Slovak Republic	1 816	1 801	1 754	1 698	1 742	1 769	1 774	1 791	1 793	1 780	1 807	1 793	1 785
Slovenia	1 710	1 696	1 720	1 724	1 737	1 697	1 667	1 655	1 670	1 569	1 580	1 557	1 537
Spain	1 731	1 736	1 734	1 719	1 704	1 686	1 673	1 658	1 662	1 670	1 673	1 679	1 666
Sweden	1 642	1 618	1 595	1 582	1 606	1 605	1 599	1 612	1 617	1 609	1 635	1 636	1 621
Switzerland	1 674	1 635	1 614	1 627	1 657	1 652	1 643	1 633	1 623	1 617	1 632	1 634	1 619
Turkev	1 937	1 942	1 943	1 943	1 918	1 936	1 944	1 911	1 900	1 881	1 877	1 864	1 855
United Kingdom	1 700	1 705	1 684	1 674	1 674	1 673	1 669	1 677	1 659	1 651	1 652	1 625	1 654
United States	1 836	1 814	1 810	1 800	1 802	1 799	1 800	1 798	1 792	1 768	1 778	1 787	1 790
EU 28													
OECD	1 843	1 827	1 817	1 811	1 810	1 805	1 803	1 797	1 788	1 764	1 771	1 768	1 769
Brazil				1011						1704		1700	1703
China													
India													
Indonesia													
Russian Federation	1 982	1 980	1 982	1 993	1 993	1 989	1 998	1 999	1 997	1 974	1 976	1 979	1 982
South Africa													1 902
SUUIII AIIIG													

StatLink 🐃 http://dx.doi.org/10.1787/888933028292

## Average hours actually worked

Hours per year per person in paid employment



StatLink http://dx.doi.org/10.1787/888933025784

## **UNEMPLOYMENT RATES**

The unemployment rate is one measure of the extent of labour market slack, as well as being an important indicator of economic and social well-being. Breakdowns of unemployment by gender show how women are faring compared to men.

#### **Definition**

Unemployed persons are defined as those who report that they are without work, that they are available for work and that they have taken active steps to find work in the last four weeks. The ILO Guidelines specify what actions count as active steps to find work; these include answering vacancy notices, visiting factories, construction sites and other places of work, and placing advertisements in the press as well as registering with labour offices.

The unemployment rate is defined as the number of unemployed persons as a percentage of the labour force,

#### Overview

When looking at total unemployment rates averaged over the three years ending 2012, countries can be divided into three groups: a low unemployment group with rates below 5% (Austria, Japan, Korea, Luxembourg, Norway, the Netherlands and Switzerland); a middle group with unemployment rates between 5% and 10%; and a high unemployment group with unemployment rates of 10% and above (Estonia, Greece, Hungary, Ireland, Portugal, Spain, the Slovak Republic and South Africa).

In most OECD countries, unemployment rates grew over the period from 2008 to 2011, with marked increases in Estonia, Greece, Ireland and Spain. In 2012, the OECD rate was stable, masking different patterns between the European Union, where the rate continued to increase and most non-European countries where it fell.

The breakdown of unemployment by gender shows that, in line with the overall rate, the OECD unemployment rates for both men and women was significantly higher in 2011 than in 2008. The unemployment rate for men, which had been lower than the rate for women, rose considerably faster and by 2009 was higher than the rate for women. This is first explained by the fact that job losses over the first stage of the crisis were particularly severe in sectors which traditionally have been occupied by men namely construction, manufacturing, mining and quarrying. Between 2009 and 2010, the rise in the overall OECD unemployment rates decelerated faster for men and the men to women unemployment ratio has now begun to decrease in about two third of the countries, but in 2012, the rate for men was still higher than the rate for women in half of the countries.

where the latter consists of the unemployed plus those in paid or self-employment.

When unemployment is high, some persons become discouraged and stop looking for work; they are then excluded from the labour force. This implies that the unemployment rate may fall, or stop rising, even though there has been no underlying improvement in the labour market.

## Comparability

All OECD countries use the ILO Guidelines for measuring unemployment in their national labour force surveys. The operational definitions used in national labour force surveys may, however, vary slightly across countries. Unemployment levels are also likely to be affected by changes in the survey design and the survey conduct. Despite these limits, the unemployment rates shown here are of good international comparability and fairly consistent over time.

The unemployment rates shown here differ from rates derived from registered unemployed at labour offices that are often published in individual countries. Data on registered unemployment have limited international comparability, as the rules for registering at labour offices vary from country to country.

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- Employment policies and data, www.oecd.org/els/ employment.
- Labour statistics, www.oecd.org/std/labour-stats.

## **Unemployment rates**

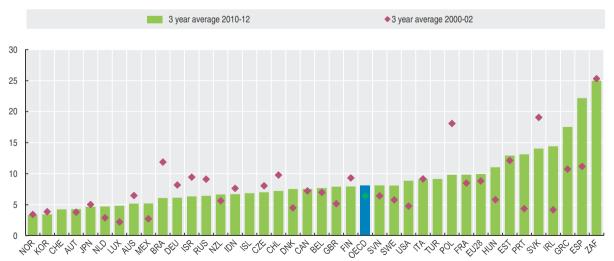
As a percentage of labour force

		Wor	men			M	en			To	ital	
_	2000	2008	2011	2012	2000	2008	2011	2012	2000	2008	2011	2012
Australia	6.1	4.6	5.3	5.3	6.5	4.0	4.9	5.2	6.3	4.2	5.1	5.2
Austria	4.3	4.1	4.3	4.3	3.1	3.6	4.0	4.4	3.5	3.8	4.1	4.3
Belgium	8.5	7.6	7.2	7.4	5.6	6.5	7.1	7.7	7.0	7.0	7.1	7.5
Canada	6.7	5.7	7.0	6.8	7.0	6.6	7.8	7.7	6.8	6.1	7.5	7.2
Chile	10.3	9.5	8.7	7.9	9.3	6.8	6.1	5.4	9.7	7.8	7.1	6.4
Czech Republic	10.6	5.6	7.9	8.2	7.3	3.5	5.8	6.0	8.8	4.4	6.7	7.0
Denmark	4.8	3.8	7.4	7.6	3.9	3.2	7.7	7.5	4.3	3.5	7.6	7.5
Estonia	12.6	5.2	11.9	9.2	14.5	5.9	13.2	11.0	13.6	5.5	12.4	10.0
Finland	10.6	6.7	7.1	7.1	9.1	6.1	8.4	8.3	9.8	6.4	7.8	7.7
France	10.8	8.4	10.2	10.4	7.5	7.2	9.1	10.1	9.0	7.5	9.2	9.8
Germany	8.4	7.7	5.7	5.2	7.8	7.4	6.2	5.7	8.0	7.5	6.0	5.5
Greece	17.1	11.4	21.4	28.1	7.4	5.1	15.0	21.4	11.2	7.7	17.7	24.3
Hungary	5.6	8.1	10.9	10.7	6.8	7.6	11.0	11.2	6.3	7.8	11.0	10.9
Iceland		2.6	6.2	5.7		3.3	7.9	6.4		3.0	7.1	6.0
Ireland	4.1	4.9	10.8	11.0	4.3	7.6	17.8	17.7	4.2	6.4	14.7	14.7
Israel	9.2	6.5	5.6	7.0	8.4	5.7	5.6	6.8	8.8	6.1	5.6	6.9
Italy	13.6	8.5	9.6	11.9	7.7	5.5	7.5	9.9	10.1	6.7	8.4	10.7
Japan	4.5	3.9	4.2	4.0	4.9	4.1	4.9	4.6	4.7	4.0	4.6	4.4
Korea	3.7	2.6	3.1	3.0	5.0	3.6	3.6	3.4	4.4	3.2	3.4	3.2
Luxembourg	2.9	5.9	6.0	5.8	1.8	4.1	3.9	4.5	2.2	4.9	4.8	5.1
Mexico		4.1	5.3	5.0		3.9	5.2	4.9	2.5	4.0	5.2	5.0
Netherlands	3.9	3.4	4.4	5.2	2.4	2.8	4.5	5.3	3.1	3.1	4.5	5.3
New Zealand	6.0	4.2	6.7	7.3	6.3	4.1	6.4	6.5	6.2	4.2	6.5	6.9
Norway	3.1	2.4	3.1	2.8	3.4	2.7	3.5	3.6	3.2	2.6	3.3	3.2
Poland	18.2	7.9	10.4	10.9	14.4	6.4	9.0	9.5	16.1	7.0	9.7	10.1
Portugal	5.0	9.0	13.2	15.8	3.2	6.6	12.7	16.0	4.0	7.7	12.9	15.9
Slovak Republic	18.7	11.0	13.7	14.5	19.1	8.4	13.7	13.5	18.9	9.6	13.7	14.0
Slovenia	7.0	4.8	8.2	9.4	6.5	4.0	8.2	8.4	6.7	4.4	8.2	8.9
Spain	17.0	13.0	22.2	25.4	8.2	10.1	21.2	24.7	11.7	11.3	21.6	25.1
Sweden	5.3	6.5	7.7	7.7	5.9	5.9	7.8	8.2	5.6	6.2	7.8	8.0
Switzerland			4.4	4.5			3.7	3.9			4.0	4.2
Turkey		10.0	10.1	9.4		9.6	8.3	7.6		9.7	8.8	8.2
United Kingdom	4.8	5.1	7.3	7.4	5.9	6.1	8.7	8.3	5.4	5.7	8.0	7.9
United States	4.1	5.4	8.5	7.9	3.9	6.1	9.4	8.2	4.0	5.8	9.0	8.1
EU 28	10.1	7.6	9.8	10.6	7.9	6.7	9.6	10.5	8.9	7.0	9.6	10.5
OECD		6.1	8.0	8.1		5.9	7.9	7.9	6.1	5.9	7.9	7.9
Brazil									12.7	7.9	6.0	5.5
China												
India												
Indonesia									6.1	8.4	6.7	6.2
Russian Federation	10.4	6.1	6.2	5.3	10.6	6.6	7.0	6.0	10.5	6.4	6.5	5.5
South Africa	26.5	26.3	27.9	27.8	20.4	20.0	22.4	22.9	23.3	22.9	24.9	25.1

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## **Unemployment rates: total**

As a percentage of labour force



StatLink http://dx.doi.org/10.1787/888933025803

## LONG-TERM UNEMPLOYMENT

Long-term unemployment is of particular concern to the people affected and to policy makers. Quite apart from the mental and material stress caused to the unemployed and their families, high rates of long-term unemployment indicate that labour markets are operating inefficiently.

Rates of long-term unemployment are generally lower in countries that have enjoyed high GDP growth rates in recent years. Lower rates of long-term unemployment may also occur at the onset of an economic downturn due to rising inflow of newly unemployed persons, as witnessed during the first years of the current jobs crisis. Subsequently, long-term unemployment may gradually begin to unfold in the case of a prolonged crisis as is currently the case in a number of OECD countries.

#### **Definition**

Long-term unemployment is defined as referring to people who have been unemployed for 12 months or more. The ratios calculated here show the proportion of these long-term unemployed among all unemployed, hereafter called

#### Overview

In 2012, more than one-third of the unemployed were long-term unemployment in the OECD area with half of the countries recording around or above the OECD average incidence of long-term unemployment. The rates varied from 10% or less in Korea, Mexico and Norway, to 50% or more in Estonia, Greece, Ireland, Italy and the Slovak Republic. In Germany, the share of long-term unemployed remains stubbornly high at 45.5% in 2012 despite a rising trend in employment rates since 2005.

Over the period 2000-12, long-term unemployment rates increased by more than 3 percentage points for the OECD as a whole. Country patterns differ depending on how deeply national labour markets were affected by the global financial and the Euro area sovereign debt crisis. Since 2000, sharp rises, of 5 percentage points or more, were recorded in 12 countries, exceeding 10 percentage points in Iceland, Ireland, Japan, with a dramatic increase of 23.3 percentage points in the United States from just 6.0% in 2000. Falls of over 5 per cent occurred in just nine countries, with Belgium recording the steepest fall of over 10 percentage points. In two thirds of the latter countries, long-term unemployment has actually increased since 2011, notably in New Zealand and Slovenia.

In the Russian Federation and South Africa, long-term unemployment declined markedly since 2000; by more than 10 percentage points. In South Africa however, close to 58% of unemployed people were still long-term unemployed in 2012.

long-term unemployment rates. Lower duration limits (e.g. six months or more) are sometimes considered in national statistics on the subject.

Unemployment is defined in all OECD countries in accordance with the ILO Guidelines. Unemployment is usually measured by national labour force surveys and refer to persons who report that they have worked in gainful employment for less than one hour in the previous week, who are available for work and who have taken actions to seek employment in the previous four weeks. The ILO Guidelines specify the kinds of actions that count as seeking work.

## Comparability

All OECD countries use the ILO Guidelines for measuring unemployment. Operational definitions used in national labour force surveys may vary slightly across countries. Unemployment levels may also be affected by changes in the survey design and the survey conduct. Despite these caveats the long-term unemployment rates shown here are fairly consistent over time.

In comparing rates of long-term unemployment, it is important to bear in mind differences in institutional arrangements between countries. Rates of long-term unemployment will generally be higher in countries where unemployment benefits are relatively generous and are available for long periods of unemployment. In countries where benefits are low and of limited duration, unemployed persons will more quickly lower their wage expectations or consider taking jobs that are in other ways less attractive than those which they formerly held.

#### Sources

- OECD (2013), OECD Labour Force Statistics, OECD Publishing.
- For non-member countries: National sources.

## Further information

### **Analytical publications**

- OECD (2013), OECD Employment Outlook, OECD Publishing.
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#### Online databases

• OECD Employment and Labour Market Statistics.

#### Websites

- OECD Employment Outlook (supplementary material), www.oecd.org/employment/outlook.
- Employment policies and data, www.oecd.org/els/ employment.
- Labour statistics, www.oecd.org/std/labour-stats.

## Long-term unemployment

Persons unemployed for 12 months or more as a percentage of total unemployed

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Australia	28.3	23.9	22.4	21.5	20.6	18.3	18.1	15.4	14.9	14.7	18.5	18.9	20.3
Austria	25.8	23.3	19.2	24.5	27.6	25.3	27.3	26.8	24.2	21.3	25.2	25.9	24.8
Belgium	56.3	51.7	48.8	45.4	49.0	51.7	51.2	50.4	47.6	44.2	48.8	48.3	44.7
Canada	11.3	9.5	9.6	10.0	9.5	9.6	8.7	7.4	7.1	7.8	12.0	13.5	12.5
Chile							**	**					
Czech Republic	48.8	52.7	50.7	49.9	51.8	53.6	55.2	53.4	50.2	31.2	43.3	41.6	43.4
Denmark	20.0	22.2	19.1	20.4	21.5	23.4	20.8	16.1	13.5	9.5	20.2	24.4	28.0
Estonia	46.3	48.3	52.9	45.9	52.2	53.4	48.2	49.5	30.9	27.4	45.4	56.8	54.1
Finland	29.0	26.2	24.4	24.7	23.4	24.9	24.8	23.0	18.2	16.6	23.6	22.6	21.7
France	39.6	36.8	32.7	39.2	40.6	41.1	41.9	40.2	37.4	35.2	40.2	41.4	40.3
Germany	51.5	50.4	47.9	50.0	51.8	53.0	56.4	56.6	52.5	45.5	47.4	48.0	45.5
Greece	56.4	52.8	51.3	54.9	53.1	52.1	54.3	50.0	47.5	40.8	45.0	49.6	59.3
Hungary	48.9	46.5	44.8	42.2	45.1	46.1	46.1	47.5	47.6	42.6	50.6	49.1	46.3
Iceland	11.8	12.5	11.1	8.1	11.2	13.3	7.3	8.0	4.1	6.9	21.3	27.8	27.9
Ireland		33.1	30.1	32.8	34.9	33.4	31.6	29.5	27.1	29.2	49.1	59.3	61.7
Israel	12.0	11.8	13.5	18.0	24.2	25.3	27.3	24.9	22.7	20.3	22.4	20.2	13.3
Italy	61.3	63.4	59.6	58.1	49.2	49.9	49.6	47.3	45.7	44.4	48.5	51.9	53.0
Japan	25.5	26.6	30.8	33.5	33.7	33.3	33.0	32.0	33.3	28.5	37.6	39.4	38.5
Korea	2.3	2.3	2.5	0.6	1.1	0.8	1.1	0.6	2.7	0.5	0.3	0.4	0.3
Luxembourg	22.4	28.4	27.4	24.7	21.0	26.4	29.5	28.7	32.4	23.1	29.3	28.8	30.3
Mexico	1.2	1.0	0.9	0.9	1.1	2.3	2.5	2.7	1.7	1.9	2.4	2.0	1.9
Netherlands			26.5	27.8	34.2	40.2	43.0	39.4	34.4	24.8	27.6	33.6	33.7
New Zealand	19.8	17.2	14.8	13.6	11.7	9.7	7.8	6.1	4.4	6.3	9.0	9.0	13.2
Norway	5.3	5.5	6.4	6.4	9.2	9.5	14.5	8.8	6.0	7.7	9.5	11.6	8.7
Poland	37.9	43.1	48.4	49.7	47.9	52.2	50.4	45.9	29.0	25.2	25.5	31.6	34.8
Portugal	42.9	38.1	34.6	35.0	44.3	48.2	50.2	47.1	47.4	44.1	52.3	48.2	48.7
Slovak Republic	54.6	53.7	59.8	61.2	60.6	68.1	73.1	70.8	66.0	50.9	59.3	63.9	63.7
Slovenia			55.6	52.8	51.5	47.3	49.3	45.7	42.2	30.1	43.3	44.2	47.9
Spain	42.4	36.9	33.7	33.6	32.0	24.5	21.7	20.4	17.9	23.7	36.6	41.6	44.5
Sweden	26.4	22.3	20.9	17.8	18.9			12.8	12.1	12.8	17.3	18.2	17.5
Switzerland	29.0	29.9	21.8	26.1	33.5	39.0	39.1	40.8	34.3	30.1	33.1	38.8	35.3
Turkey	21.1	21.3	29.4	24.4	39.2	39.4	35.7	30.3	26.9	25.3	28.6	26.5	24.9
United Kingdom	28.0	27.8	21.7	21.5	20.6	21.0	22.3	23.7	24.1	24.5	32.6	33.4	34.8
United States	6.0	6.1	8.5	11.8	12.7	11.8	10.0	10.0	10.6	16.3	29.0	31.3	29.3
EU 28													
OECD	30.8	29.1	29.0	30.1	31.3	32.0	31.4	28.6	25.0	23.7	31.6	33.7	34.3
Brazil													
China													
India													
Indonesia													
Russian Federation	46.2	39.2	38.9	37.6	39.2	39.0	42.3	40.6	35.2	28.7	30.0	32.9	30.9
South Africa	10.2	68.4	68.5	68.4	65.1	63.7	59.5	57.7	49.5	49.3	56.1	58.8	57.7

StatLink as http://dx.doi.org/10.1787/888933028330

## Long-term unemployment

Persons unemployed for 12 months or more as a percentage of total unemployed



StatLink http://dx.doi.org/10.1787/888933025822

## **UNEMPLOYMENT BY REGION**

The unemployment rate is an important indicator of economic and social well-being. Breakdowns by region show that large international differences hide even larger differences among regions within each country.

#### **Definition**

Unemployed persons are defined as those who are without work, who are available for work and have taken active steps to find work in the last four weeks. The unemployment rate is defined as the ratio between unemployed persons and the labour force, where the latter is composed of unemployed and employed persons.

The long-term unemployment rate is defined as the ratio of those unemployed for 12 months or more out of the total labour force. The incident of long-term unemployment is defined as the ratio of the long-term unemployed out of the total unemployed. The youth unemployment rate is defined as the ratio between the unemployed persons aged between 15 and 24 and the labour force in the same age class.

The Gini index is a measure of inequality among all regions of a given country. The index takes on values between 0 and 1, with zero interpreted as no disparity. It assigns equal weight to each region regardless of its size; therefore differences in the values of the index among countries may be partially due to differences in the average size of regions.

While in the study of income inequality individuals are the obvious unit of analysis, there is no such straightforward

#### Overview

The Gini index gives a measure of differences in unemployment rates among all regions in a country. According to this measure, regional disparities in unemployment were already high before the economic crisis in countries such as the Slovak Republic, Finland, Italy and the Czech Republic and where the overall the economic downturn has aggravated problems in the most fragile regions.

Youth unemployment, which is of particular concern in Spain, Italy, Mexico, Greece, Poland, Portugal and the Slovak Republic where regional differences are high and some regions display a youth unemployment rate over 40%.

Among the unemployed, the long-term unemployed are of particular concern to policy makers both for their impact on social cohesion and because those individuals become increasingly unattractive to employers. The long-term unemployment rate shows large regional variations not only in dual economies such as Italy, but also in the Slovak Republic, Spain, Belgium, Greece and Hungary.

parallel in regional economics. The size of regions varies significantly both within and between countries so that the degree of geographic concentration and territorial disparity depends on the very definition of a region. Typically, as the size of a region increases, territorial differences tend to be averaged out and disparities to decrease.

## Comparability

Comparability of regional statistics is affected by differences in the meaning of the word "region". This results in significant differences in terms of geographic area and population both within and among countries. To address this issue, the OECD has classified regions within each country based on two levels: territorial level 2 (TL2, large regions) and territorial level 3 (TL3, small regions). Labour market data for Canada refers to a different regional grouping, labelled non-official grids (NOG), which is comparable to the small regions. For Brazil, China, India, the Russian Federation and South Africa only large regions have been defined so far.

Data on unemployment, youth and long-term unemployment refer to large (TL2) regions.

Data on unemployment refer to period 2008-12 for all countries.

Data on youth unemployment rate refer to 2012 for all countries. Australia is not included due to lack of data on comparable years. No regional data for Iceland and Korea exist.

Data on the long-term unemployment refer to 2011 for all countries. Australia is not included due to lack of data on comparable years. No regional data for Iceland, Korea, Mexico and the United States exist.

#### **Sources**

• OECD (2013), OECD Regions at a Glance, OECD Publishing.

### **Further information**

## **Analytical publications**

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- OECD (2012), Promoting Growth in All Regions, OECD Publishing.

#### Online databases

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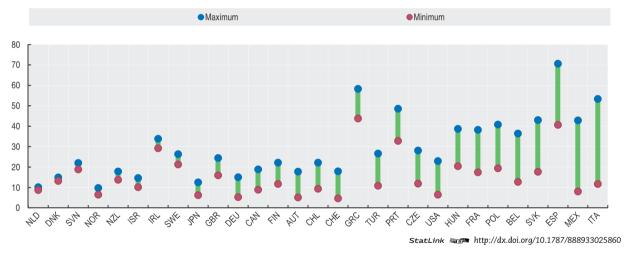
- Regional Development, www.oecd.org/gov/regional-policy.
- Regions at a Glance Interactive, rag.oecd.org.

## Gini index of regional unemployment rates



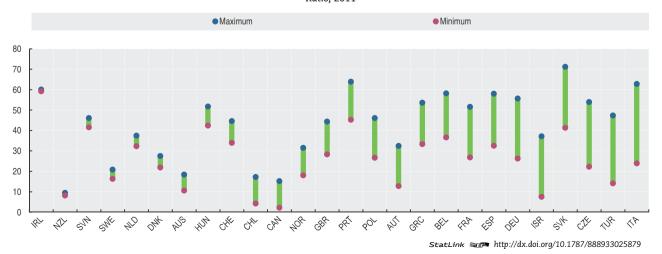
## Regional variation of the youth unemployment rate

Percentage, 2012



## Variation in incidence of long-term unemployment

Ratio, 2011







## RESEARCH AND DEVELOPMENT

EXPENDITURE ON R&D
RESEARCHERS
PATENTS
PATENT ACTIVITY IN METROPOLITAN AREAS

## **INFORMATION AND COMMUNICATIONS**

SIZE OF THE ICT SECTOR
EXPORTS OF ICT GOODS
COMPUTER, INTERNET AND TELECOMMUNICATIONS

## **EXPENDITURE ON R&D**

Expenditure on research and development (R&D) is a key indicator of countries' innovative efforts. Research and development comprise creative work undertaken on a systematic basis in order to increase the stock of knowledge (including knowledge of man, culture and society) and the use of this knowledge to devise new applications.

#### **Definition**

Research and development covers three activities: basic research; applied research; and experimental development. Basic research is experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundation of phenomena and observable facts, without any particular application or use in view. Applied research is also original investigation undertaken in order to acquire new knowledge; it is, however, directed primarily towards a specific practical aim or objective. Experimental development is systematic work, drawing on existing knowledge gained from research and/or practical experience, which is directed to producing new materials, products or devices, to installing new processes, systems and services, or to improving substantially those already produced or installed.

The main aggregate used for international comparisons is gross domestic expenditure on R&D (GERD). This consists of the total expenditure (current and capital) on R&D carried out by all resident companies, research institutes, university and government laboratories, etc. It includes R&D funded from abroad but excludes domestic funds for R&D performed outside the domestic economy. GERD is here expressed in

#### Overview

Among OECD countries, the United States is the main performer with 42% of the total OECD GERD in 2012, followed by Japan (14%) and Germany (9%). Since 2000, real R&D expenditure has been growing the fastest in Estonia (15.8%), Turkey (10.0%), Korea (9.6%) and Slovenia (8.3%). Outside the OECD area, China's average annual real growth in R&D spending has been 17.6%, making it the world's second largest R&D performer and ahead of Japan since 2009.

In 2012, R&D amounted to 2.4% of GDP for the OECD as a whole. Finland, Israel, Japan, Korea and Sweden were the only OECD countries whose R&D-to-GDP ratio exceeded 3%.

Over the last decade, R&D intensity grew in the EU (from 1.76% to 1.97%), in Japan (from 3.12% to 3.34%) and in the United States (from 2.55% to 2.79%). Estonia, Korea, Portugal and Slovenia were the fastest growing OECD countries. In the same period, R&D intensity in China increased from 1.07% to 1.98% and surpassed the EU for the first time in 2012.

constant 2005 dollars (adjusted for purchasing power parity) and as a share of GDP (R&D intensity).

## **Comparability**

The R&D data shown here have been compiled according to the guidelines of the OECD Frascati Manual. Estimates of the resources allocated to R&D are affected by national characteristics such as the periodicity and coverage of national R&D surveys across institutional sectors and industries (and the inclusion of firms and organisations of different sizes); and the use of different sampling and estimation methods.

Data for Israel exclude defence. Those for Korea, prior to 2007, exclude social sciences and the humanities. For the United States, R&D capital expenditures are excluded and depreciation charges of the business enterprises are included.

The latest update to the System of National Accounts (SNA), the 2008 SNA, recognised the role of R&D as an activity leading to the creation of an intellectual asset. One implication of this is that the level of GDP will be revised upwards and the R&D intensity ratio will be reduced, as the numerator stays constant and the denominator increases. Users should be careful when comparing the R&D intensity of countries that have and have not capitalised R&D in their national accounts. Likewise, they should avoid comparing previously published measures of R&D intensity and more recent ones.

#### Sources

 OECD (2013), Main Science and Technology Indicators, OECD Publishing.

## **Further information**

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#### Online databases

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- Frascati Manual: Proposed Standard Practice for Surveys on Research and Experimental Development, 6th edition (supplementary material), www.oecd.org/sti/frascatimanual.
- Main Science and Technology Indicators, www.oecd.org/sti/ msti
- Research and Development Statistics, www.oecd.org/sti/rds.



#### **EXPENDITURE ON R&D**

## Gross domestic expenditure on R&D

Million US dollars, 2005 constant prices and PPPs

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Australia	8 897		10 675		12 059		14 952		17 701		18 017		
Austria	4 920	5 266	5 546	5 902	6 043	6 803	6 996	7 455	8 055	7 858	8 265	8 400	8 689
Belgium	6 125	6 497	6 165	6 018	6 150	6 171	6 437	6 744	7 077	7 088	7 532	8 058	8 132
Canada	19 063	21 215	21 352	21 687	22 709	23 090	23 336	23 356	22 976	22 948	22 359	21 999	21 660
Chile								712	889	961	1 035		
Czech Republic	2 079	2 125	2 159	2 335	2 442	2 665	3 006	3 363	3 291	3 282	3 472	4 152	4 711
Denmark		4 063	4 289	4 421	4 363	4 419	4 608	4 875	5 342	5 589	5 381	5 393	5 388
Estonia	95	117	128	148	175	207	277	285	324	307	361	578	553
Finland	4 733	4 799	4 955	5 170	5 401	5 601	5 846	6 151	6 576	6 401	6 553	6 552	6 073
France	36 946	38 479	39 521	38 794	39 395	39 236	40 191	40 623	41 394	42 869	43 090	44 067	44 325
Germany	61 579	62 557	63 289	63 981	63 800	64 299	67 595	69 569	74 705	74 370	76 830	81 921	83 233
Greece		1 356		1 449	1 471	1 615	1 672	1 776				1 682	1 629
Hungary	1 124	1 348	1 516	1 474	1 447	1 616	1 788	1 751	1 803	1 956	1 981	2 094	2 192
Iceland	224	258	258	252		287	324	308	308	337		257	
Ireland	1 414	1 458	1 545	1 698	1 865	2 009	2 124	2 290	2 526	2 757	2 732	2 741	2 855
Israel	6 076	6 473	6 408	6 121	6 387	6 966	7 505	8 605	8 768	8 383	8 434	8 803	9 051
Italy	16 411	17 376	18 110	17 766	17 920	17 999	19 095	20 204	20 528	20 337	20 697	20 613	20 287
Japan	110 017	113 086	114 930	117 927	120 301	128 695	134 844	139 916	138 684	126 872	128 685	133 226	133 979
Korea	20 213	22 641	23 586	25 067	28 305	30 618	34 712	38 923	41 685	44 311	49 448	55 402	60 993
Luxembourg	441			477	492	495	554	561	584	581	517		
Mexico	4 011	4 239	4 727	4 769	5 014	5 346	5 158	5 227	5 792	5 854	6 517	6 304	
Netherlands	10 385	10 572	10 290	10 533	10 823	10 904	11 157	11 134	11 071	10 961	11 377	12 539	13 178
New Zealand		1 001		1 140		1 189		1 301		1 417		1 437	
Norway		3 009	3 082	3 208	3 175	3 316	3 500	3 829	4 023	4 044	3 974	4 104	4 241
Poland	2 912	2 850	2 595	2 606	2 831	2 982	3 107	3 384	3 790	4 301	4 870	5 294	6 349
Portugal	1 574	1 704	1 627	1 565	1 663	1 755	2 256	2 728	3 519	3 728	3 684	3 484	3 311
Slovak Republic	444	450	424	446	418	440	459	480	522	506	692	766	945
Slovenia	543	605	616	549	629	675	775	769	911	938	1 077	1 276	1 408
Spain	9 193	9 607	10 635	11 657	12 203	13 331	14 832	16 220	17 457	17 302	17 296	16 814	15 877
Sweden		10 814		10 443	10 233	10 510	11 346	10 929	11 686	10 862	10 855	11 158	11 325
Switzerland	6 360				7 536				8 686				
Turkey	2 996	3 171	3 293	3 184	3 735	4 617	4 845	6 314	6 380	7 110	7 709	8 546	
United Kingdom	31 125	31 406	32 228	32 644	32 452	34 081	35 458	37 338	37 118	36 624	36 206	36 754	35 598
United States	302 754	307 750	302 718	311 591	315 443	328 128	342 790	359 434	377 504	373 481	372 286	382 537	397 341
EU 28	208 139	215 184	220 012	222 152	224 559	230 238	242 262	251 665	263 217	263 044	267 932	278 040	279 738
OECD	691 306	713 374	717 143	733 613	748 297	781 258	820 832	861 377	894 554	882 488	894 354	926 352	951 853
Brazil													
China	30 405	34 677	42 575	49 624	59 271	71 063	83 912	96 315	111 196	140 620	160 513	183 138	213 119
India													
Indonesia													
Russian Federation	13 242	15 602	17 308	19 139	18 364	18 121	19 689	22 230	21 892	24 190	22 822	23 038	24 355
South Africa		2 536		2 921	3 271	3 654	4 005	4 178	4 370	4 019	3 623		

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## Gross domestic expenditure on R&D

As a percentage of GDP



StatLink http://dx.doi.org/10.1787/888933025898

## **RESEARCHERS**

Researchers are key actors in the research and development system. On average, in OECD countries, labour costs account for half of the R&D expenditure. Researchers represent around 60% of total R&D personnel.

#### **Definition**

Researchers are professionals engaged in the conception and creation of new knowledge, products, processes, methods and systems, as well as those who are directly involved in the management of projects for such purposes. They include researchers working in both civil and military research in government, universities and research institutes as well as in the business sector.

Researchers are part of human resources devoted to R&D. Other categories of R&D personnel are technicians (and equivalent staff) who participate in R&D by performing scientific and technical tasks, and other supporting staff (skilled and unskilled craftsmen, secretarial and clerical staff participating in R&D projects).

The number of researchers is measured in full-time equivalents (i.e. a person working half-time on R&D is

counted as 0.5 person-year) and expressed per thousand people employed in each country. The number of researchers includes staff engaged in R&D during the course of one year.

## Comparability

The data on researchers have been compiled on the basis of the methodology of the OECD Frascati Manual. Comparability over time is affected to some extent by improvements in the coverage of national R&D surveys and by the efforts of countries to improve the international comparability of their data.

For the United States, the total numbers of researchers are OECD estimates. Data for the United States exclude military personnel in the government sector. For China, from 2009 researcher data are collected according to the OECD Frascati Manual definition of researcher.

#### Overview

In the OECD area, around 4.3 million persons were employed as researchers in 2011. There were about 7.7 researchers per thousand of employed people, compared with 5.3 per thousand employed in 1995. This indicator has steadily increased over the last two decades.

The Nordic countries (Denmark, Finland, Iceland, Norway and Sweden) top the table for the numbers of researchers per thousand persons employed, with Finland the highest in the group, and the OECD, recording 16.1 researchers per thousand persons employed in 2012. Among the remaining OECD countries, rates are highest in Israel (15.0), Korea (11.9) and Portugal (11.0). Conversely, researchers per thousand of employed people are low in Chile and Mexico. Other countries with low rates, below 5.0 researchers per thousand of employed people, include Italy, Poland and Turkey.

In 2011, in the OECD, about 2.6 million researchers were engaged in the business sector. This represents approximately 60% of the total although there are differences across countries: two out of three researchers work in the business sector in the United States, about three out of four in Japan and Korea, but less than one out of two in the EU. Chile, Mexico, and South Africa have a low intensity of business researchers (less than one per 1 000 employees in industry). In these countries, the business sector plays a much smaller role in the national R&D system than the higher education and government sectors.

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## **Further information**

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- Research and Development Statistics, www.oecd.org/sti/ rds.



**RESEARCHERS** 

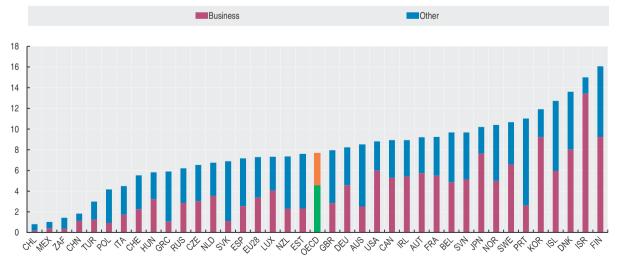
**Researchers**Per thousand employed, full-time equivalent

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Australia	7.3		7.8		8.3		8.4		8.5				
Austria			6.4		6.8	7.4	7.5	7.9	8.5	8.6	8.9	9.0	9.2
Belgium	7.4	7.7	7.4	7.4	7.7	7.8	8.1	8.3	8.2	8.6	9.1	9.4	9.7
Canada	7.2	7.5	7.4	7.7	8.1	8.3	8.4	8.9	9.1	8.8	9.0	8.9	
Chile								0.9	0.9	0.7	0.8		
Czech Republic	2.9	3.1	3.1	3.3	3.4	4.9	5.3	5.5	5.7	5.6	5.8	6.1	6.5
Denmark		7.0	9.2	9.0	9.6	10.2	10.2	10.4	12.1	12.9	13.5	13.7	13.6
Estonia	4.7	4.6	5.2	5.1	5.7	5.5	5.5	5.7	6.2	7.5	7.4	7.7	7.6
Finland	15.2	15.9	16.5	17.8	17.4	16.6	16.6	15.7	16.0	16.4	16.7	15.9	16.1
France	6.7	6.8	7.1	7.4	7.7	7.7	7.9	8.2	8.4	8.8	9.1	9.2	
Germany	6.5	6.7	6.8	6.9	6.9	7.0	7.1	7.3	7.5	7.9	8.1	8.2	8.2
Greece		3.3		3.5		4.2	4.2	4.4				5.5	5.9
Hungary	3.4	3.5	3.5	3.6	3.6	3.8	4.2	4.1	4.5	5.0	5.2	5.6	5.8
Iceland		11.7		12.2		13.4	14.2	12.5	12.9	17.0		12.7	
Ireland	5.0	5.1	5.3	5.5	5.9	5.9	5.9	6.0	6.9	7.4	7.7	8.4	8.9
Israel												15.0	0.0
Italy	2.9	2.9	3.0	2.9	3.0	3.4	3.6	3.7	3.8	4.1	4.2	4.3	4.5
Japan	9.7	9.8	9.5	10.0	10.0	10.4	10.4	10.4	10.0	10.1	10.2	10.2	
Korea	5.1	6.3	6.4	6.8	6.9	7.9	8.6	9.5	10.0	10.4	11.1	11.9	
Luxembourg	6.2	0.0		6.7	6.8	7.2	6.4	6.6	6.5	6.8	7.3		
Mexico		0.6	0.8	0.9	1.0	1.1	0.9	0.9	0.9	1.0	1.0	1.0	
Netherlands	5.2	5.5	5.3	5.3	5.9	5.8	6.3	5.9	5.8	5.4	6.2	6.7	6.7
New Zealand	U.L	5.6		6.3		6.2		6.7		7.4	U.L	7.4	
Norway		8.5		8.9	8.9	9.0	9.3	9.6	9.8	10.1	10.2	10.4	10.4
Poland	3.8	4.0	4.1	4.3	4.4	4.4	4.1	4.1	3.9	3.9	4.1	4.0	4.2
Portugal	3.3	3.5	3.7	4.0	4.0	4.1	4.8	5.5	7.9	8.8	9.4	10.4	11.0
Slovak Republic	4.9	4.7	4.5	4.7	5.2	5.2	5.5	5.7	5.6	6.0	7.0	6.9	6.9
Slovenia	4.7	4.7	5.0	4.1	4.3	5.6	6.2	6.4	7.0	7.6	8.0	9.3	9.7
Spain	4.7	4.9	5.0 4.8	5.2	4.3 5.4	5.7	5.8	5.9	6.3	6.9	7.1	7.0	7.2
Sweden		10.5		11.0	11.2	12.7	12.6	10.1	11.0	10.6	11.0	10.6	10.7
Switzerland	6.3				6.0				5.5				10.7
	1.2	1.2	1.2	1.7	1.7	2.0	2.1	2.4	2.5	2.7	2.8	3.0	
Turkey United Kingdom	5.7	6.1	6.5	7.1	7.4	7.9	8.0	7.9	2.5 7.9	8.1	2.8 8.2	8.0	8.0
United States		7.3	7.5	8.0	7.4	7.9	7.7	7.9	7.9 8.1	8.8	8.5	8.8	
United States EU 28	7.1 5.2	7.3 5.4	7.5 5.6	5.8	6.0	7.b 6.2	6.3	6.3	6.6	6.8	8.5 7.1	8.8 7.2	7.3
													7.3
OECD Brazil	6.0	6.2	6.4	6.7	6.7	6.9	7.0	6.9	7.1	7.5	7.5	7.7	
China	1.0	1.0	1.1	1.2	1.2	1.5	1.6	1.9	2.1	1.5	1.6	1.7	1.8
India							-		-				
Indonesia													
Russian Federation	7.8	7.8	7.4	7.3	7.1	6.8	6.7	6.6	6.4	6.4	6.3	6.3	6.2
South Africa		1.2		1.2	1.5	1.4	1.4	1.4	1.4	1.5	1.4		

StatLink http://dx.doi.org/10.1787/888933028368

## Researchers

Per thousand employed, full-time equivalent, 2012 or latest available year



StatLink http://dx.doi.org/10.1787/888933025917

## **PATENTS**

Patent-based indicators provide a measure of the output of a country's R&D, i.e. its inventions. The methodology used for counting patents can however influence the results, as simple counts of patents filed at a national patent office are affected by various kinds of limitations (such as weak international comparability) and highly heterogeneous patent values. To overcome these limits, the OECD has developed triadic patent families, which are designed to capture all important inventions and to be internationally comparable.

quality of patent-based indicators. Indeed, only patents registered in the same set of countries are included in the family: home advantage and influence of geographical location are therefore eliminated. Furthermore, patents included in the triadic family are typically of higher economic value: patentees only take on the additional costs and delays of extending the protection of their invention to other countries if they deem it worthwhile.

#### **Definition**

A patent family is defined as a set of patents registered in various countries (i.e. patent offices) to protect the same invention. Triadic patent families are a set of patents filed at three of these major patent offices: the European Patent Office (EPO), the Japan Patent Office (JPO) and the United States Patent and Trademark Office (USPTO).

Triadic patent family counts are attributed to the country of residence of the inventor and to the date when the patent was first registered.

Triadic patent families are expressed as numbers and per million inhabitants.

## Comparability

The concept of triadic patent families has been developed in order to improve the international comparability and

## Overview

Although the volume of triadic patent families remained relatively steady over time, with about 43 600 triadic patent families filed in 2011, there has been a significant shift in the origin of patented inventions. The share of triadic patent families originating from Europe (27.5%), Japan (31.4%) and the United States (29%) report a loss of 1 to 2 percentage points compared to the levels observed in 2001. Asian countries are increasingly contributing to patent families: the most spectacular growth has been observed by Korea, whose share of all triadic patent families increased from 1.6% in 2001 to 4.0% in 2011. Strong rises are also observed for China and India, with an average growth in the number of triadic patents of more than 30% and 13% a year respectively seen between 2001 and 2011.

When triadic patent families are expressed relative to the total population, Japan, Switzerland, Sweden, Germany and Finland were the five most inventive countries in 2011, with the highest values recorded in Japan (107) and Switzerland (90). Ratios for Austria, Denmark, Israel, Austria, Denmark, Finland, Israel, Korea, the Netherlands and the United States are also above the OECD average (34).

#### Sources

• OECD (2013), OECD Patent Statistics (Database).

## **Further information**

## **Analytical publications**

- OECD (2013), OECD Science, Technology and Industry Scoreboard, OECD Publishing.
- OECD (2012), OECD Science, Technology and Industry Outlook, OECD Publishing.

#### Methodological publications

- Dernis, H. and M. Khan (2004), "Triadic patent families methodology", OECD Science, Technology and Industry Working Papers, No. 2004/2.
- OECD (2009), OECD Patent Statistics Manual, OECD Publishing.
- Squicciarini, M., H. Dernis and C. Criscuolo (2013), "Measuring patent quality: Indicators of technological and economic value", OECD Science, Technology and Industry Working Papers, No. 2013/03.

#### Websites

 OECD work on patent statistics, www.oecd.org/sti/iprstatistics.



**PATENTS** 

## Triadic patent families

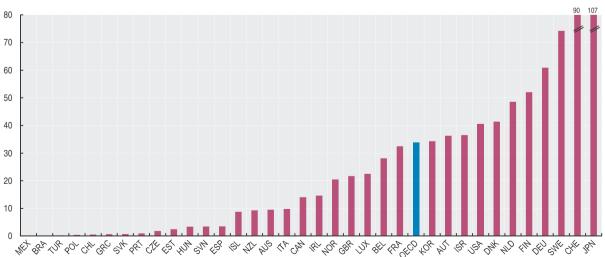
Number

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Australia	298	379	281	290	284	303	283	251	245	235	224	219	212
Austria	260	276	258	234	244	271	298	298	286	273	293	303	306
Belgium	375	329	317	295	281	355	324	321	329	319	293	305	311
Canada	527	525	501	506	492	556	529	521	521	482	482	510	485
Chile	2	2	5	5	3	5	6	7	6	5	9	9	9
Czech Republic	10	9	12	15	16	16	16	17	19	20	18	19	19
Denmark	236	226	186	186	197	235	276	247	257	258	226	226	230
Estonia	1	1	2	0	3	0	1	5	3	3	3	3	3
Finland	453	352	311	204	231	261	264	267	270	264	271	273	280
France	2 353	2 151	1 976	1 998	2 042	2 158	2 150	2 028	2 034	2 041	2 026	2 017	2 053
Germany	6 028	5 823	5 178	5 043	4 996	5 163	5 297	5 107	5 105	4 962	4 985	4 931	4 982
Greece	6	6	8	8	10	8	12	12	11	9	9	7	7
Hungary	40	29	30	28	31	34	32	32	36	36	35	35	34
Iceland	7	11	3	10	4	5	4	4	5	4	4	4	3
Ireland	75	31	49	41	55	58	70	62	74	73	69	66	67
Israel	279	326	288	237	261	310	365	319	299	298	285	279	283
Italy	665	640	654	607	606	640	642	619	615	610	598	597	595
Japan	13 205	14 913	13 321	13 545	14 314	14 851	13 864	13 418	13 451	12 190	12 164	13 269	13 705
Korea	580	732	891	1 182	1 481	1 747	1 651	1 547	1 654	1 438	1 564	1 660	1 709
Luxembourg	22	20	26	10	17	19	15	18	13	15	12	13	12
Mexico	11	9	12	10	12	12	13	15	13	12	9	9	10
Netherlands	919	1 026	924	984	950	956	913	900	848	838	841	779	811
New Zealand	48	48	33	56	58	64	50	52	49	47	43	44	41
Norway	109	106	78	79	81	88	95	91	90	85	101	98	101
Poland	8	9	12	12	10	9	8	8	11	13	15	16	17
Portugal	5	2	5	6	8	5	9	9	17	12	9	9	10
Slovak Republic	3	2	2	3	2	1	2	3	2	3	2	3	4
Slovenia	4	9	6	11	9	8	10	7	7	8	7	7	7
Spain	126	146	153	147	110	152	155	146	151	156	161	165	162
Sweden	884	621	565	531	516	533	636	697	728	712	676	686	701
Switzerland	774	814	746	674	702	727	721	735	699	690	699	707	708
Turkey	3	4	10	8	9	13	12	11	12	12	16	20	21
United Kingdom	1 652	1 633	1 469	1 507	1 519	1 512	1 520	1 501	1 434	1 398	1 390	1 374	1 371
United States	14 598	13 855	13 080	13 878	14 175	14 538	14 686	13 956	13 360	12 986	12 295	12 416	12 649
EU 28	14 138	13 355	12 152	11 895	11 885	12 413	12 675	12 322	12 267	12 040	11 955	11 849	11 998
OECD	44 566	45 066	41 392	42 350	43 730	45 611	44 930	43 233	42 653	40 505	39 835	41 078	41 919
Brazil	27	29	46	33	28	31	29	31	35	35	34	35	36
China	59	71	100	157	202	219	299	311	393	429	630	768	958
India	38	54	82	128	110	106	121	111	119	133	154	171	183
Indonesia	1	4	2	3	2	1	1	4	1	2	2	2	2
Russian Federation	62	73	56	56	51	42	50	44	45	42	41	46	48
South Africa	28	36	16	15	33	20	25	25	23	26	22	22	21
World	45 006	45 570	41 949	43 036	44 419	46 326	45 781	44 098	43 675	41 571	41 119	42 552	43 590

StatLink http://dx.doi.org/10.1787/888933028387

## Triadic patent families

Number per million inhabitants, 2011



StatLink http://dx.doi.org/10.1787/888933025936

## PATENT ACTIVITY IN METROPOLITAN AREAS

Innovation is highly concentrated in a few countries where these activities take place. Agglomeration forces determine an environment with a large proportion of specialised workers, firms and capital, where ideas are easily exchanged and can lead to the creation of new goods and production processes.

#### **Definition**

The metropolitan areas are defined as the functional urban areas with population above 500 000. The functional urban areas are defined as densely populated municipalities (urban cores) and adjacent municipalities with high levels of commuting towards the densely populated urban cores (hinterland).

Functional urban areas can extend across administrative boundaries, reflecting the economic geography of where people actually live and work.

A patent is an exclusive right granted for an invention, which is a product or a process with industrial applicability that provides, in general, a new way of doing something, or

#### Overview

In 2008, 65% of all patent applications of the 16 OECD countries where data are available were granted in metropolitan areas. The concentration of patents in metropolitan areas is high in top patenting countries such as Japan and the United States but also in France, the Netherlands, Spain and Denmark. Alternatively, Finland, Norway and Italy displayed a lower share of patents granted by metropolitan areas, signalling innovation activities outside the capital areas of Helsinki (e.g. in Pirkanmaa and Pohjois-Pohjanmaa) and Oslo (e.g. in Rogaland, Hodaland and Sor-Trondelag) as well in medium-sized cities in northeast Italy.

On aggregate, around 5% of OECD metropolitan areas accounted for around 45% of total metropolitan patent applications in 2008; the next 10% metropolitan areas contributed roughly to 25%; while the remaining 85% accounted for only 30% of the total metropolitan patents. San Francisco was the metropolitan area with the highest number of patents: 9 000 patent applications in one year; followed by Tokyo and Osaka, each with more than 4 000 patent applications in a year.

Patent intensity – the number of patents per million inhabitants – is the highest in the metropolitan areas in Sweden, the Netherlands, Denmark and Finland. Eindhoven in the Netherlands was the metropolitan area with the highest patent intensity in 2008, around 2 200 patents per million inhabitants, followed by San Diego and San Francisco (United States), each with more than 700 patents per million population.

offers a new technical solution to a problem ("inventive step"). A patent provides protection for the invention to the owner of the patent. The protection is granted for a limited period, generally 20 years.

Data refer overall to patent applications made under the Patent Co-operation Treaty (PCT). Patent documents report the inventors (where the invention takes place), as well as the applicants (owners), along with their addresses and country of residence. Patent counts are based on the inventor's region of residence and fractional counts.

The patent intensity is the ratio between the number of patent applications and the metropolitan area's population.

## Comparability

Functional urban areas (FUA) have not been identified in Australia, Iceland, Israel, New Zealand and Turkey. The FUA of Luxembourg does not appear in the figures since it has a population below 500 000 inhabitants.

Data on patent activity in metropolitan areas are available only for 16 OECD countries.

#### Sources

• OECD (2013), OECD Regions at a Glance, OECD Publishing.

#### **Further information**

 OECD (2012), Redefining "Urban": A New Way to Measure Metropolitan Areas, OECD Publishing.

### Methodological publications

- Dernis, H. and M. Khan (2004), "Triadic Patent Families Methodology", OECD Science, Technology and Industry Working Papers, No. 2004/2.
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## Online database

- OECD Metropolitan Areas database.
- OECD Patent Statistics.

#### Websites

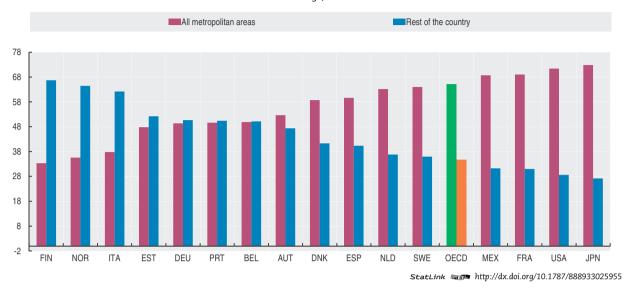
- Regions at a Glance Interactive, rag.oecd.org.
- Regional statistics and indicators, www.oecd.org/gov/ regional/statisticsindicators.



## PATENT ACTIVITY IN METROPOLITAN AREAS

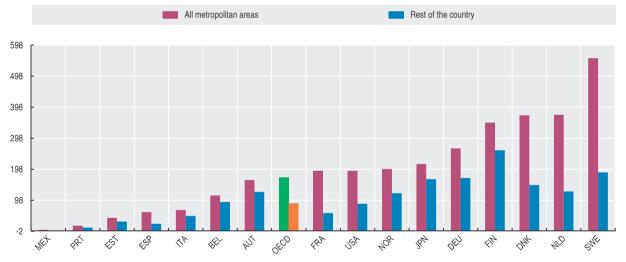
## Share of patent applications in metropolitan areas and the rest of the country

Percentage, 2008



## Patent intensity in metropolitan areas and the rest of the countries

Patents per million inhabitants, 2008



StatLink http://dx.doi.org/10.1787/888933025974

## SIZE OF THE ICT SECTOR

While demand for the products of information industries increased relentlessly from 2000, the share in value added of these activities fell in most OECD economies. There were also changes in their composition. Indeed, the manufacture of computers and electronics and, to a lesser extent, telecommunication services saw their importance diminish as production shifted to other (mostly non-OECD) economies and unit prices fell as a result of productivity growth and increased competition.

Meanwhile, the share of information technology (IT) services in total value added rose across all reporting economies, largely offsetting losses in the other sectors.

#### **Definition**

The aggregate of information industries here includes ISIC rev. 4 Division 26 (Manufacture of computer, electronic and optical products) and Section J (Information and communication), which in turn consists of Divisions 58-60 (Publishing and broadcasting industries), 61 (Telecommunications) and 62-63 (Computer programming, and Information service activities). Hence information industries here encompass ICT industries (Divisions 26, 61 and 62-63, plus group 58.2, software publishing), with the exception of Trade and repair activities, as well as Media and content industries (included in Divisions 58-60 and in the Group 63.9).

#### Overview

In the last decade, the manufacture of computers and electronics and, to a lesser extent, telecommunication services saw their importance diminish as production shifted to other, mostly non-OECD economies, and unit prices fell as a result of productivity growth and increased competition.

On average, the share of the information industries in total value added passed from 6.1% to 6.0% of total value added, growing by more than 1 percentage point only in Estonia, Greece, Ireland and the Slovak Republic, which benefited from delocalisation, and falling steeply in Austria and Finland.

Trends in employment are similar to those reported for value added. In this case, though, the shift towards more labour intensive IT service activities is reflected in a slight increase of average employment.

Changes in the composition of employment accelerated through the crisis. Between 2000 and 2011, in nearly all countries employment in manufacturing of computer, electronic and optical products employment fell significantly and losses were also apparent in publishing and telecommunication services, while IT and other information services were among the few industries to register gains across most reporting countries.

## Comparability

Statistics on value added by activity are not always directly comparable across countries, owing to the co-existence of different regional classifications of economic activities, the transition to a revised classification (e.g. from NACE rev.1 to NACE rev.2), and the lack of sufficiently detailed information. In the case of Information industries, an important issue is the presence of significant shares of value added embodied in the output of other industries.

#### **Sources**

- OECD (2013), OECD Science, Technology and Industry Scoreboard 2013, OECD Publishing
- OECD (2012), OECD Internet Economy Outlook, OECD Publishing.

# Further information Analytical publications

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- OECD (2012), OECD Science, Technology and Industry Outlook, OECD Publishing.

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### Websites

• OECD Key ICT Indicators, www.oecd.org/sti/ictindicators.



SIZE OF THE ICT SECTOR

## Share of ICT in value added and in employment

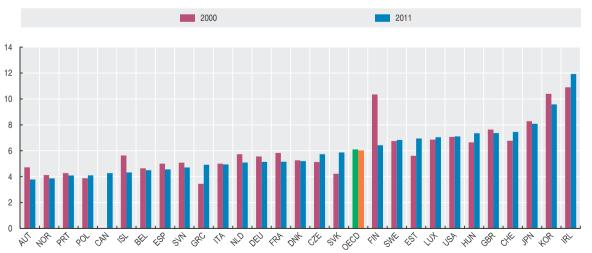
Percentage

	Share of ICT value added in	business sector value added	Share of ICT employment in I	ousiness sector employment
	2011 or latest available year	Percentage point change 2000-11	2011 or latest available year	Percentage point change 2000-11
Australia				
Austria	3.8	-0.9	2.9	-0.2
Belgium	4.5	-0.2	2.7	-0.1
Canada	5.1		2.6	-0.4
Chile				
Czech Republic	5.7	0.6	3.2	0.6
Denmark	5.2	-0.1	4.4	-0.1
stonia	6.9	1.3	4.4	1.1
inland	6.4	6.4	6.4	6.4
rance	5.1	-0.7	3.3	-0.2
Germany	5.1	-0.4	3.9	-0.1
Greece	4.9	1.5	1.8	0.1
lungary	7.4	0.7	4.9	1.1
celand	4.3	-1.3		
reland	11.9	1.0	5.2	-0.8
srael				
taly	4.9	-0.1	3.2	0.1
apan	8.1	-0.2	4.7	0.1
Corea	9.6	-0.8		
uxembourg	7.0	0.2	4.4	0.2
Mexico				
letherlands	 5.1	 -0.6	3.5	-0.3
lew Zealand				
lorway	 3.9	 -0.3	3.3	-0.9
Poland	4.1			
		0.2	1.9	0.3
ortugal	4.1	-0.2		
Slovak Republic	5.9	1.6	3.3	0.4
Slovenia	4.7	-0.4	3.4	0.2
pain	4.6	-0.4	2.7	0.0
weden	6.8	0.1	4.5	-0.9
witzerland	7.4	0.7	5.4	0.2
urkey				
Inited Kingdom	7.4	-0.3	4.3	-0.4
Inited States	7.1	0.0	3.8	-0.9
U 28				
DECD	6.0	-0.1	3.7	0.1
razil				
China				
ndia				
ndonesia				
Russian Federation				
South Africa				

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## Share of ICT in value added

As a percentage of total value added



## **EXPORTS OF ICT GOODS**

ICT products are amongst the most important components of merchandise trade, and in 2011 represented slightly more than 10% of global exports.

#### **Definition**

Exports in ICT goods data are calculated using the World Customs Organisation's Harmonised System (HS). A definition of ICT products (including ICT goods) was designed by the OECD to facilitate the construction of internationally comparable indicators on ICT consumption, investment, trade and production.

The first definition of ICT goods was established in 2003, based on a list of 6-digit items according to the HS 1996 and HS 2002. The second definition of ICT products was adopted in 2008, based on the then newly released second revision of the Central Product Classification (CPC rev. 2).

ICT products are defined by the OECD with reference to the CPC rev.2 and include 99 subclasses of products, of which 52 goods and 47 services, grouped into four and six broad categories respectively.

The current definition includes ICT goods, ICT services and the first content and media product classification. The scope of the 2008 definition is narrower than the 2003 definition.

The 2008 definition is based on principles which emphasise the intended use or functionality of products. The guiding principles for the delineation of the ICT sector led to a definition of ICT goods as follows: ICT goods must either be intended to fulfil the function of information processing and communication by electronic means, including transmission and display, or use electronic processing to detect, measure and/or record physical phenomena, or to control a physical process.

## Overview

Exports in ICT goods are highly related to global economic conditions. Due to this, and the rapid fall in unit prices, the weight of ICT products on international merchandise trade shrunk about 5 percentage points with respect to the peak of 2000.

Partly owing to the offshoring of production, China's share on total ICT exports grew from less than 5% to 28%, corresponding to a tenfold increase in current dollars; Korea and Mexico were the only OECD economies managing to maintain their share in world markets.

These trends were accompanied by a major shift in world trade (and consumption) patterns, with a fall in the share of computers and peripherals, and an increase in trade of communication equipment and consumer electronics.

The result is an ICT goods definition which consists in the selection of 95 items from the HS 2007.

## **Comparability**

It is difficult to compare values of the OECD ICT goods trade for 2007 and following years with those for earlier years owing to the new HS classification adopted in 2007, which differs radically from earlier revisions. The OECD developed a correspondence between the HS 1996, HS 2002 and the HS 2007 for ICT goods.

Adjustment efforts were required to quantify and correct the impact of Missing Trader Intra-Community VAT Fraud from the mid-2000s, which mainly affected the movements of ICT goods within the EU. Exports data for China are not corrected for re-exports and re-imports to and from Hong Kong China.

#### Source

• OECD (2013), International Trade by Commodity Statistics, OECD Publishing.

## **Further information**

## **Analytical publications**

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- OECD (2013), OECD Science, Technology and Industry Working Papers, OECD Publishing.
- OECD (2012), OECD Internet Economy Outlook, OECD Publishing.
- OECD (2010), OECD Information Technology Outlook, OECD Publishing.

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### Websites

• OECD Key ICT Indicators, www.oecd.org/sti/ictindicators.



## EXPORTS OF ICT GOODS

## **Exports of ICT goods**

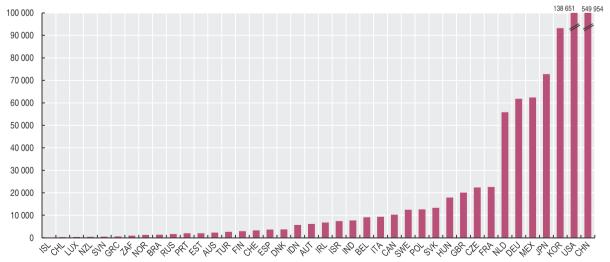
Million US dollars

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Australia	1 727	1 619	1 456	1 571	1 713	1 781	1 788	1 917	2 071	1 643	1 989	2 275	2 241
Austria	3 941	4 006	4 533	5 004	5 908	6 467	6 710	7 295	7 439	5 242	5 704	6 407	6 112
Belgium	10 825	11 453	9 734	11 617	12 868	12 941	12 181	11 599	12 161	9 219	9 464	10 372	9 108
Canada	20 967	13 094	10 163	10 052	11 846	13 990	14 878	15 058	14 099	10 922	10 645	11 129	10 249
Chile	30	33	36	147	141	206	263	294	305	301	264	293	265
Czech Republic	1 334	2 582	5 145	5 207	7 907	8 668	12 330	16 724	19 945	15 568	19 493	24 728	22 361
Denmark	3 654	3 470	4 691	4 282	4 662	4 067	4 158	4 742	3 898	3 110	3 510	3 821	3 680
Estonia	967	853	579	820	1 126	1 405	1 310	730	743	494	1 019	2 081	1 977
Finland	10 781	8 526	8 913	10 025	10 411	13 238	13 242	13 986	14 409	6 741	4 461	3 872	2 899
France	31 939	26 310	23 629	23 277	26 864	27 327	31 586	26 034	25 224	19 624	22 448	24 686	22 606
Germany	48 717	46 634	48 665	55 304	72 388	77 168	82 809	77 542	73 845	54 197	64 134	67 643	61 850
Greece	466	347	325	388	512	488	630	561	666	496	542	634	592
Hungary	7 231	7 244	8 804	10 899	15 694	15 944	17 841	21 298	24 506	21 445	24 228	23 972	17 872
Iceland	2	2	2	3	2	3	5	7	9	3	3	4	8
Ireland	27 697	31 638	27 490	22 481	23 482	24 675	24 121	22 724	19 939	12 775	8 839	7 306	6 762
Israel	6 668	5 842	2 681	3 392	3 815	3 210	3 527	1 470	6 298	7 852	7 177	7 247	7 387
Italy	10 675	10 612	9 239	9 851	11 455	11 581	11 376	11 127	10 512	8 194	9 614	10 990	9 339
Japan	108 795	81 953	82 919	91 435	104 339	100 814	103 139	92 333	91 197	69 151	81 522	75 515	72 781
Korea	59 426	44 871	53 501	65 323	84 555	85 314	86 167	93 798	89 435	78 497	98 433	98 317	93 260
Luxembourg	889	1 179	945	720	859	998	840	757	524	395	399	467	374
Mexico	34 771	34 943	33 340	31 845	37 003	38 533	46 916	48 149	56 872	49 737	60 037	59 231	62 414
Netherlands	38 160	34 286	28 584	42 633	53 610	58 714	62 306	67 717	62 847	53 142	60 999	62 527	55 840
New Zealand	158	141	249	284	351	369	374	414	402	348	372	445	419
Norway	1 104	1 165	955	1 015	1 169	1 268	1 471	1 669	2 116	1 771	1 869	1 655	1 278
Poland	1 290	1 619	1 956	2 314	2 819	3 558	5 519	7 854	11 941	12 798	15 096	13 212	12 609
Portugal	1 492	1 701	1 711	2 364	2 777	2 972	3 673	4 041	3 842	1 757	1 939	2 247	1 972
Slovak Republic	388	487	492	850	1 698	2 991	5 267	8 454	11 818	11 569	12 237	12 625	13 281
Slovenia	169	204	220	251	275	229	291	384	618	520	532	552	484
Spain	5 355	5 270	5 000	6 470	7 014	7 197	7 347	6 683	6 810	4 876	5 385	4 559	3 609
Sweden	15 487	8 485	9 232	10 153	13 634	14 613	15 115	14 521	15 815	11 769	15 385	17 108	12 438
Switzerland	3 080	2 680	2 013	2 296	2 742	3 408	3 015	3 007	3 327	2 715	3 194	3 419	3 247
Turkey	1 024	1 056	1 603	1 988	2 933	3 227	3 178	2 883	2 406	2 032	2 092	2 235	2 645
United Kingdom	50 419	47 999	46 747	37 280	37 736	53 881	84 834	29 084	27 293	22 961	23 732	23 234	20 080
United States	156 670	128 513	111 448	114 855	124 097	128 943	140 314	135 342	137 144	112 645	133 920	139 927	138 651
EU 28													
OECD	666 298	570 817	547 000	586 396	688 405	730 188	808 521	750 198	760 476	614 509	710 677	724 735	680 690
Brazil	2 232	2 329	2 178	2 106	2 013	3 701	3 969	2 668	3 135	2 312	1 977	1 783	1 325
China	44 135	53 221	78 243	121 365	177 742	234 086	297 653	353 476	390 843	351 825	455 025	503 784	549 954
India	714	858	781	957	1 082	1 113	1 344			6 099	4 404	6 507	5 719
Indonesia	7 573	6 095	6 301	5 687	6 527	6 944	6 138	6 025	6 517	6 921	7 862	7 845	7 713
Russian Federation	411	284	311	324	451	423	771	777	780	836	887	1 226	1 634
South Africa	417	442	388	462	578	587	745	846	805	677	695	762	904

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## **Exports of ICT goods**

Million US dollars, 2012



StatLink http://dx.doi.org/10.1787/888933026012

## COMPUTER, INTERNET AND TELECOMMUNICATIONS

Communication access and computers are increasingly present in homes in OECD countries, both in countries that already have high penetration rates and in those where adoption has lagged.

#### **Definition**

Access to home computers is the number of households that reported having at least one personal computer in working order in their home. Also presented are the percentage of households who reported that they had access to the Internet. In almost all cases this access is via a personal computer either using a dial-up, DSL, cable modem or fibre broadband access.

Internet access with the Fixed (wired) broadband subscriptions per 100 inhabitants is based on the Fixed broadband subscriptions which include the total number of subscriptions to the following broadband technologies with download speeds greater than 256 kbit/s: DSL, Cable modem, fibre-to-the-home and other fixed technologies (such as broadband over power-line and leased lines).

## **Comparability**

The OECD has addressed issues of international comparability by developing a model survey on ICT used in households and by individuals. The model survey uses modules addressing different topics so that additional components can be added reflecting usage practices and policy interests.

Statistics on ICT use by households may run into problems of international comparability because of structural differences in the composition of households. On the other hand, statistics on ICT use by individuals may refer to people of different ages, and age is an important determinant of ICT use. Household- and person-based measures yield different figures in terms of levels and growth rates of ICT use and complicate international comparisons.

Fixed (wired) broadband subscriptions per 100 inhabitants data for OECD and non-OECD countries are collected according to agreed definitions and are highly comparable.

The data shown for non-OECD countries were collected according to OECD definitions and provided by the International Telecommunication Union (ITU). The broadband definitions used by the ITU are harmonised with the OECD definitions. For data collected before 2009, Fixed wireless and Satellite subscriptions were included in the Fixed (wired) broadband data. From 2009 these two broadband technologies are excluded.

## Overview

In the majority of OECD countries, more than 70% of households had access to computers by 2012. Iceland, the Netherlands, Sweden, Denmark, Luxembourg and Norway, have penetration rates of over 90% for households.

The picture with regard to Internet access is similar. In about than two thirds of OECD countries, more than 70% of households had access to the Internet, with rates reaching 90% or more in Korea, Iceland, the Netherlands, Luxembourg, Norway, Denmark and Sweden.

Fixed wired broadband subscriptions reached 327.6 million in the OECD area in 2012. Year-on-year subscriptions growth is slowly decreasing to be just over 3.5% as more than half of OECD countries reach 25 subscriptions per 100 inhabitants.

In 2012, Switzerland is still the top ranking OECD country for fixed broadband subscribers, with 42.0 subscribers per 100 inhabitants, followed closely by the Netherlands (39.7) and Denmark (38.9). The OECD average is 26.3 subscribers per 100 inhabitants.

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- OECD Broadband Portal, www.oecd.org/sti/ict/broadband.



## COMPUTER, INTERNET AND TELECOMMUNICATIONS

## Households with access to home computers, Internet and telephone

	Percentage of	households wi	th access to a h	ome computer	Pe	rcentage of hou	seholds with ac	cess to the Inter	net	Fixed	(wired) broadb	and subscription	ns per 100 inhat	oitants
	2006	2010	2011	2012	2000	2005	2010	2011	2012	2008	2009	2010	2011	2012
Australia	73.0	82.6			32.0	60.0	78.9			22.9	24.0	24.1	25.2	25.6
Austria	67.1	76.2	78.1	81.3	19.0	46.7	72.9	75.4	79.3	21.2	22.8	24.3	25.0	25.6
Belgium	57.5	76.7	78.9	80.3		50.2	72.7	76.5	77.7	27.7	30.8	32.1	33.3	34.0
Canada	75.4	82.7	84.5		42.6	64.3	78.4	80.5	80.5	28.2	30.7	31.7	32.4	32.8
Chile	34.5	43.9		68.3	8.7	19.7	30.0		60.5	8.5	10.4	11.6	12.4	12.8
Czech Republic	39.0	64.1	69.9	67.3		19.1	60.5	66.6	65.4	17.0	14.6	15.8	16.6	17.0
Denmark	85.0	88.0	90.4	92.3	46.0	74.9	86.1	90.1	92.0	36.3	37.2	37.6	38.9	39.7
Estonia	52.4	69.3	71.4	75.5		38.7	67.8	70.8	75.0	21.0	23.3	24.8	24.5	24.8
Finland	71.1	82.0	85.1	87.6	30.0	54.1	80.5	84.2	86.8	27.9	28.6	29.5	30.4	30.5
France		76.5	78.2	81.0	11.9	40.9	73.6	75.9	80.0	27.6	32.8	34.7	36.4	37.0
Germany	76.9	85.7	86.9	87.1	16.4	61.6	82.5	83.3	85.5	27.4	31.9	33.2	34.1	34.5
Greece	36.7	53.4	57.2	56.8		21.7	46.4	50.2	53.6	13.4	19.9	21.8	23.7	24.7
Hungary	49.6	66.4	69.7	71.4		22.1	60.5	65.2	68.6	17.1	19.6	20.9	21.8	22.3
Iceland	84.6	93.1	94.7	95.5		84.4	92.0	92.6	94.6	32.5	33.7	34.5	34.8	35.1
Ireland	58.6	76.5	80.6	82.8	20.4	47.2	71.7	78.1	81.1	19.9	20.6	21.7	22.6	23.3
Israel	65.8	76.7	78.2		19.8	48.9	68.1	70.3	70.3	22.7	23.9	24.2	24.7	25.0
Italy	51.6	64.9	66.2	67.1	18.8	38.6	59.0	61.6	62.9	18.9	21.6	22.1	22.1	22.4
Japan	80.8	83.4	80.0	77.9		57.0	67.1			23.5	26.6	27.3	27.7	27.8
Korea	79.6	81.8	81.9	82.3	49.8	92.7	96.8	97.2	97.3	31.6	34.8	35.9	36.5	37.1
Luxembourg	77.3	90.2	91.7	92.1		64.6	90.3	90.6	93.1	29.4	30.7	31.5	32.1	32.6
Mexico	20.6	29.8	30.0	32.2		9.0	22.2	23.3	26.0	7.1	10.3	10.9	11.7	11.9
Netherlands	80.0	92.0	94.2	94.5	41.0	78.3	90.9	93.6	93.6	35.6	38.1	38.9	39.7	40.0
New Zealand	72.0	80.0				65.0	75.0		80.0	21.4	24.9	26.6	28.6	29.5
Norway	75.4	90.9	91.0	91.9		64.0	89.8	92.2	92.7	33.7	34.5	35.2	36.2	36.6
Poland	45.4	69.0	71.3	73.4		30.4	63.4	66.6	70.5	10.5	13.8	14.9	15.7	15.4
Portugal	45.6	59.5	63.7	66.1	8.0	31.5	53.7	58.0	61.0	15.9	19.8	21.1	22.5	23.2
Slovak Republic	50.1	72.2	75.4	78.8		23.0	67.5	70.8	75.4	11.4	12.8	13.8	14.8	15.2
Slovenia	65.3	70.5	74.4	76.1		48.2	68.1	72.6	73.9	20.8	22.8	23.8	24.4	24.8
Spain	57.2	68.7	71.5	73.9		35.5	59.1	63.9	67.9	20.1	23.4	24.5	24.6	25.3
Sweden	82.5	89.5	91.6	92.3	48.2	72.5	88.3	90.6	91.7	31.5	31.9	32.0	32.2	32.3
Switzerland	77.4	83.6				70.5	80.7			32.7	38.2	40.3	42.0	43.8
Turkey	0.0	44.2			6.9	86.6	41.6	42.9	47.2	8.1	9.7	10.3	10.4	10.7
United Kingdom	71.5	82.6	84.6	87.2	19.0	60.2	79.6	82.7	86.8	28.1	31.2	32.8	34.2	34.9
United States		UL.U	75.6		41.5		71.1	71.7	71.7	25.5	26.7	27.7	29.0	29.3
EU 28	60.6	74.4	76.7	78.4	41.0	48.4	70.1	73.2	76.1					
OECD						10.1	70.1			22.0	24.5	25.5	26.3	26.7
Brazil										5.1	6.8	8.6	9.2	20.1
China										6.2	9.4	11.6	13.0	
India			**							0.2	0.9	1.1	1.1	
Indonesia			**			**				0.4	1.0	1.1	1.1	
Russian Federation										6.5	11.0	12.2	14.5	
South Africa										0.9	1.5	1.8	2.2	
SUUIII AITICA										0.9	1.0	1.0	۷.۷	

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## Households with access to home computers

As a percentage of all households



StatLink http://dx.doi.org/10.1787/888933026031





## **NATURAL RESOURCES**

WATER CONSUMPTION FISHERIES MUNICIPAL WASTE

## **AIR AND CLIMATE**

EMISSIONS OF CARBON DIOXIDE
SULPHUR AND NITROGEN EMISSIONS
GREENHOUSE GAS EMISSIONS
ENVIRONMENTAL SUSTAINABILITY IN METROPOLITAN AREAS

## WATER CONSUMPTION

Freshwater resources are of major environmental and economic importance. Their distribution varies widely among and within countries. In arid regions, freshwater resources may at times be limited to the extent that demand for water can be met only by going beyond sustainable use.

Freshwater abstractions, particularly for public water supplies, irrigation, industrial processes and cooling of electric power plants, exert a major pressure on water resources, with significant implications for their quantity and quality. Main concerns relate to the inefficient use of water and to its environmental and socio-economic consequences.

#### **Definition**

Water abstractions refer to freshwater taken from ground or surface water sources, either permanently or temporarily, and conveyed to the place of use. If the water is returned to a surface water source, abstraction of the same water by the downstream user is counted again in compiling total abstractions: this may lead to double counting.

Mine water and drainage water are included, whereas water used for hydroelectricity generation (which is considered an in situ use) is normally excluded.

## **Comparability**

Definitions and estimation methods employed by countries to compile data on water abstractions and supply may vary considerably and change over time. In general, data availability and quality are best for water abstractions for public supply, which represent about 15% of the total water abstracted in OECD countries. The OECD totals are

## Overview

Most OECD countries increased their total water abstractions over the 1960s and 1970s in response to higher demand by the agricultural and energy sectors. However, since the 1980s, some countries have succeeded in stabilising their total water abstractions through more efficient irrigation techniques, the decline of water-intensive industries (e.g. mining, steel), the increased use of cleaner production technologies and reduced losses in pipe networks. More recently, this stabilisation of water abstractions has partly reflected the consequences of droughts (with population growth continuing to drive increases in public supply).

At world level, it is estimated that, over the last century, the growth in water demand was more than double the rate of population growth, with agriculture being the largest user of water.

OECD Secretariat's estimates based on linear interpolations to fill missing values and exclude Chile. Data for the United Kingdom refers only to England and Wales.

Please note that breaks in time series exist for the Czech Republic, Estonia, France, Germany, Hungary, Ireland, Luxembourg, Mexico, Norway, Slovenia, Turkey and the United Kingdom.

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## WATER CONSUMPTION

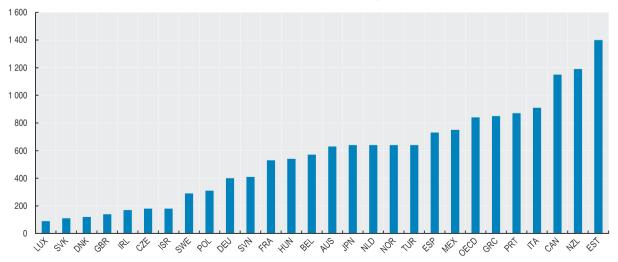
## Water abstractions

				ions per capita r capita						abstractions llions m <sup>3</sup>		
-	1985	1990	1995	2000	2005	2011 or latest available year	1985	1990	1995	2000	2005	2011 or latest available year
Australia	920		1 330	1 140	950	630	14 600		24 071	22 196	19 336	14 060
Austria	470	490	430				3 580	3 807	3 449			
Belgium			810	740	610	570			8 251	7 536	6 389	6 176
Canada	1 620	1 610	1 610		1 300	1 150	42 342	43 888	47 250		41 955	38 801
Chile												
Czech Republic	360	350	270	190	190	180	3 679	3 623	2 743	1 918	1 949	1 887
Denmark	330	250	170	140	120	120	1 705	1 261	887	726	644	660
Estonia		2 050	1 240	1 070	1 170	1 400		3 215	1 780	1 471	1 578	1 874
Finland	820	470	510	450	1 250		4 000	2 347	2 586	2 346	6 562	
France	630	660	710	550	550	530	34 887	37 687	40 671	32 715	33 872	33 110
Germany	530	600	530	460	430	400	41 216	47 873	43 374	38 006	35 557	32 716
Greece	550	770	730	910	870	850	5 496	7 862	7 788	9 924	9 654	9 539
Hungary	590	610	580	650	490	540	6 267	6 293	5 976	6 621	4 929	5 432
Iceland	460	660	620	580	560		112	167	165	163	165	
Ireland			330		190	170			1 176		799	730
Israel		380	330	270	250	180		1 780	1 812	1 727	1 728	1 340
Italy		000		740	200	910				41 982		53 751
Japan	720	720	710	690	650	640	87 209	88 906	88 881	86 972	83 427	81 454
Korea	460	480	520	560	610		18 580	20 570	23 670	26 020	29 198	
Luxembourg	180	160	140	140		 90	67	59	57	60		48
Mexico			800	720	 740	750	07		73 672	70 428	76 508	81 588
Netherlands	640	530	420	560	700	640	9 349	7 984	6 507	8 915	11 453	10 668
New Zealand				820	1 170	1 190	9 349			3 140	4 908	5 201
	490		550	530	620	640	2 025		2 420	2 348	2 864	3 026
Norway	440	400	340	310	300	310	16 409	 15 164	12 924	2 348 11 994	2 804 11 522	11 911
Poland												
Portugal	200	730 400		1 100	870	870	2 003	7 288		11 136	9 151	9 151 593
Slovak Republic	400		260	220	170	110	2 061	2 116	1 386	1 171	907	
Slovenia				450	460	410				899	924	850
Spain	1 200	1 180	850	910	820	730	46 250	45 845	33 288	36 525	35 664	33 544
Sweden	360	350	310	300	290	290	2 970	2 968	2 725	2 688	2 631	2 690
Switzerland	410	400	370	360	340		2 646	2 665	2 571	2 564	2 507	
Turkey	390	510	560	680	650	640	19 400	28 073	33 482	43 650	44 684	46 956
United Kingdom	230	240	190	210	190	140	11 533	12 052	9 549	11 174	10 323	7 682
United States	1 950	1 850	1 750	1 710	1 630		464 737	462 250	466 118	482 558	482 972	
EU 28												
OECD	970	950	920	900	880	840	976 118	997 679	1 002 960	1 020 275	1 025 868	1 021 801
Brazil												
China					**							
India												
Indonesia												
Russian Federation												
South Africa												

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## Water abstractions

m³/capita, 2011 or latest available year



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## **FISHERIES**

Fisheries make an important contribution to sustainable incomes, employment opportunities and overall food protein intake. On the other hand, overfishing of some species in some areas is threatening stocks with depletion. In certain countries, including at least two OECD countries – Iceland and Japan – fish is the main source of animal protein intake.

#### **Definition**

The figures refer to the tonnage of landed catches of marine fish, and to cultivated fish and crustaceans taken from marine and inland waters and sea tanks. Landed catches of marine fish for each country cover landings in both foreign and domestic ports. This indicator distinguishes between marine capture fisheries and aquaculture because of their different production systems and growth rates.

## Comparability

The time series presented are relatively comprehensive and consistent across the years, but some of the variation over time may reflect changes in national reporting systems. In one case, the data shown are estimated by the OECD Secretariat.

#### Overview

Marine capture fisheries landings in the OECD countries amounted to around 25 million tons in 2008, which is roughly 28% of the total world marine capture production. OECD catches have been trending downward since the late 1980s. This steady downward trend is due to changes in market demand and prices as well as from the need to rebuild stocks to maximum sustainable yield levels in order to achieve long-term sustainable use of marine resources.

Growth in aquaculture production in OECD countries has been relatively slow at around 3% per year. OECD countries produced around 10% of world aquaculture production in 2008 with the largest producers being Korea, Japan, Chile and Norway. Aquaculture is seen as playing a key role in future green growth, especially in many emerging economies, by virtue of its potential to contribute to increased food production while helping reduce pressure on fish resources.

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## Marine capture and aquaculture production

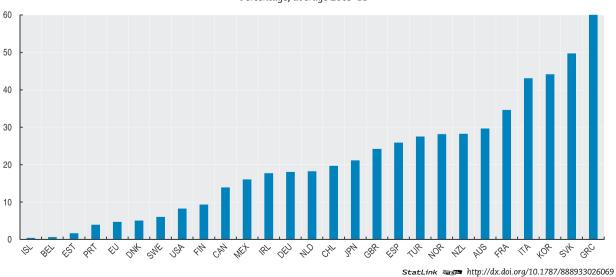
Thousand tonnes

		Fis	sh landings in dom	estic and foreign p	orts				Aqua	culture		
_	2000	2005	2009	2010	2011	2012	2000	2005	2009	2010	2011	2012
Australia	185	236	172	173	164	158	37	47	70	72	73	82
Austria												
Belgium	27	22	19	20	20	22	2					
Canada	1 008	1 079	960	920	858	800	127	154	143	150	149	0
Chile	4 032	4 462	3 379	3 048	3 466	2 675	425	739	758	713	970	1 105
Czech Republic							19	20	20	20	21	21
Denmark	1 524	899	770	820	708	488	44	40	42	40	40	
Estonia	101	90	29	92	78	65						
Finland	92	77	117	121	119		15	14	14	12	11	
France	682	606	446				267	238	236	0		
Germany	194	247	211	210	207	224	45	46	39	41	60	
Greece	93	92	83	70	64	61	88	110	126	123	121	
Hungary									14	14	16	15
Iceland	1 930	1 411	1 151			1 449	4	8	5	4	4	7
Ireland	291	282	227	293			41		47	0		
Israel	6	4	3				20	22				
Italy	387	268	242	225	212		228	234	180	189		
Japan	5 092	4 511	4 200	4 172	3 859	3 729	1 292	1 254	1 243	1 151	908	1 077
Korea	2 090	1 829	1 839	1 725	1 746		667	1 057	1 332	1 376	1 500	
Luxembourg												
Mexico	1 193	1 203	1 483	1 357	1 398	1 433	46	102	285	263	263	254
Netherlands	312	547	380	266	263	338	92	70	73	89	41	
New Zealand	536	633	280	278	286	290	87	105	105	111	117	100
Norway	2 894	2 546	2 697	2 838	2 451	2 280	492	662	962	1 020	1 144	1 326
Poland	200	136	112	115	116		32	38	36	28	31	
Portugal	172	172	191	201	224	186	8	7	8	8	9	
Slovak Republic								1	1			
Slovenia	2	1	1	1	1							
Spain	1 002	717	728	768	859	812	312	273	268	254		
Sweden	341	239	197	204	169	103	6	7	10	12	14	15
Switzerland									15	16	17	18
Turkey	461	523	430	446	478		79	118	159	167	189	
United Kingdom	748	670	584	608	600	619	144	165	194	200	176	180
United States	4 245	4 463	0	0	5 235		373	358				
EU 28				**	**							
OECD	29 654	27 730	20 928	18 969	23 580	15 730	4 989	5 888	6 387	6 070	5 873	4 200
Brazil												
China												
India												
Indonesia												
Russian Federation	4 289						205					
South Africa												

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## Share of aquaculture in total fish production

Percentage, average 2009-11



## MUNICIPAL WASTE

The amount of municipal waste generated in a country is related to the rate of urbanisation, the types and patterns of consumption, household revenue and lifestyles. While municipal waste is only one part of total waste generated in each country, its management and treatment often absorbs more than one third of the public sector's financial efforts to abate and control pollution.

The main concerns raised by municipal waste are the potential impacts from inappropriate waste management on human health and the environment (soil and water contamination, air quality, land use and landscape).

#### **Definition**

Municipal waste is waste collected and treated by or for municipalities. It covers waste from households, including bulky waste, similar waste from commerce and trade, office buildings, institutions and small businesses, as well as yard and garden waste, street sweepings, the contents of litter containers, and market cleansing waste if managed as household waste. The definition excludes waste from municipal sewage networks and treatment, as well as waste from construction and demolition activities.

The kilogrammes of municipal waste per capita produced each year – or "waste generation intensities" – provide one broad indicator of the potential environmental and health pressures from municipal waste. They should be complemented with information on waste management practices and costs, and on consumption levels and patterns.

## Comparability

The definition of municipal waste and the surveying methods used to collect information vary from country to country and over time. Breaks in time series exist for: the

#### Overview

The quantity of municipal waste generated in the OECD area has risen strongly since 1980, and exceeded an estimated 660 million tonnes in 2011 (530 kg per capita).

In most countries for which data are available, increased affluence, associated with economic growth, and changes in consumption patterns tend to generate higher rates of waste per capita. Over the past twenty years, waste generation has however risen at a lower rate than private final consumption expenditure and GDP, with a slowdown in recent years.

The amount and composition of municipal waste going to final disposal depends on national waste management practices. Despite improvements in these practices, only a few countries have succeeded in reducing the quantity of solid waste to be disposed of.

Czech Republic, Denmark, Estonia, Hungary, Ireland, Italy, Korea, Luxembourg, Mexico, New Zealand, Norway, Poland, the Slovak Republic, Slovenia and Turkey.

The main problems in terms of data comparability relate to the coverage of waste from commerce and trade, and of separate waste collections carried out by private companies.

In some cases the reference year refers to the closest available year.

Data for New Zealand refer to the amount going to landfill only. Portugal includes Azores and Madeira Islands. Data for China do not cover waste produced in rural areas.

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## MUNICIPAL WASTE

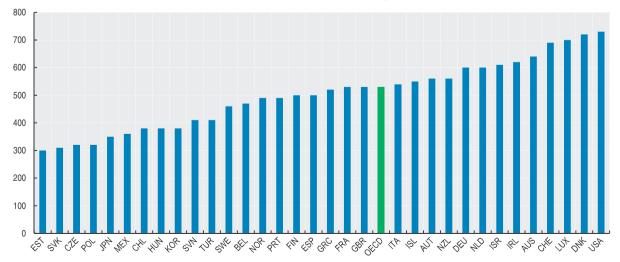
## Municipal waste generation

				Generation intensities kg per capita				Total amount generated Thousand tonnes
_	1980	1985	1990	1995	2000	2005	2011 or latest available year	2011 or latest available year
Australia	680		690		690		640	14 035
Austria			420	430	530	570	560	4 678
Belgium	280	310	340	450	480	480	470	5 125
Canada								
Chile	200	230	250	280	330	350	380	6 517
Czech Republic				300	330	290	320	3 358
Denmark	400	480		520	610	660	720	4 001
Estonia				370	460	440	300	399
Finland				410	500	480	500	2 719
France			450	480	510	530	530	34 336
Germany			630	620	640	560	600	49 237
Greece	260	300	300	300	410	440	520	5 917
Hungary			530	460	450	460	380	3 809
Iceland				430	460	520	550	177
Ireland	190	310		510	600	730	620	2 846
Israel			**		630	590	610	4 759
Italy	 250	 270	 350	 450	510	540	540	32 479
Japan	380	350	410	420	430	410	350	45 359
Korea		510	710	390	360	370	380	18 581
	 350	360	580	580	650	680	700	356
Luxembourg			250	330	310	340	360	41 063
Mexico								
Netherlands	490	480	500 990	550	610	620 780	600 560	9 947 2 461
New Zealand	650			870	770			
Norway	550	590	550	640	620	430	490	2 392
Poland	280	300	290	290	320	320	320	12 129
Portugal	200		300	390	440	450	490	5 139
Slovak Republic		360	300	300	320	270	310	1 679
Slovenia				600	510	490	410	844
Spain				480	610	590	500	22 997
Sweden	300	320	370	400	430	480	460	4 374
Switzerland	440	530	610	600	660	660	690	5 478
Turkey	270	360	360	460	480	460	410	29 733
United Kingdom			470	500	580	590	530	32 450
United States	610	630	760	740	780	780	730	226 669
EU 28								
OECD			500	520	560	560	530	661 458
Brazil				-				
China								157 340
India								
Indonesia								
Russian Federation								69 257
South Africa								

StatLink | http://dx.doi.org/10.1787/888933028501

## Municipal waste generation

kg per capita, 2010 or latest available year



StatLink http://dx.doi.org/10.1787/888933026088

## **EMISSIONS OF CARBON DIOXIDE**

Carbon dioxide (CO<sub>2</sub>) makes up the largest share of manmade greenhouse gases. The addition of man-made greenhouse gases to the atmosphere disturbs the earth's radiative balance (i.e. the balance between the solar energy that the earth absorbs and radiates back into space). This is leading to an increase in the earth's surface temperature and to related effects on climate, sea level and world agriculture.

#### **Definition**

The indicator refers to emissions of  ${\rm CO}_2$  from burning oil, coal, natural gas and waste materials for energy use. Carbon dioxide also enters the atmosphere from deforestation and from some industrial processes such as

#### Overview

Global emissions of carbon dioxide have more than doubled since 1971, increasing on average 2% per year. In 1971, the current OECD countries were responsible for 67% of world  $\rm CO_2$  emissions. As a consequence of rapidly rising emissions in the developing world, the OECD contribution to the total fell to 39% in 2011. By far, the largest increase in non-OECD countries occurred in Asia, where China's emissions of  $\rm CO_2$  from fuel combustion have risen, on average, by 6% per annum between 1971 and 2011. Driven by the use of coal, China increased the levels of  $\rm CO_2$  emissions by 7.2 billion tonnes over the last 40 years.

Two significant downturns in OECD  $\rm CO_2$  emissions occurred following the oil shocks of the mid-1970s and early 1980s. Emissions from the economies in transition declined in the 1990s, helping to offset the OECD increases between 1990 and the present. However, this decline did not stabilise global emissions as emissions in developing countries continued to grow. With the economic crisis in 2008/2009, world  $\rm CO_2$  emissions declined by 2% in 2009. However, the growth in  $\rm CO_2$  emissions rebounded afterwards increasing by 5% in 2010 and 3% in 2011.

Disaggregating the emissions estimates shows substantial variations within individual sectors. Between 1971 and 2011, the combined share of electricity and heat generation and transport shifted from one-half to two-thirds of the total. The share of fossil fuels in overall emissions changed significantly during the period. The share of oil decreased from 48% to 35%, while the share of natural gas increased from 15% to 20% and that of coal in global emissions increased from 37% to 44%. Fuel switching, including the penetration of nuclear, and the increasing use of other non-fossil energy sources only reduced the CO<sub>2</sub>/ total primary energy supply ratio by 6% over the past 40 years.

cement production. However, emissions of  $CO_2$  from these other sources are a relatively small part of global emissions, and are not included in the statistics shown here. The Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories provide a fuller, technical definition of how  $CO_2$  emissions have been estimated for this indicator.

## Comparability

These emissions estimates are affected by the quality of the underlying energy data. For example, some countries, both OECD and non-OECD members, have trouble reporting information on bunker fuels and incorrectly define bunkers as fuel used abroad by their own ships and planes. Since emissions from bunkers are excluded from the national totals, this affects the comparability of the estimates across countries. On the other hand, since these estimates have been made using the same method and emission factors for all countries, in general, the comparability across countries is quite good.

EU28 does not include Croatia.

#### Sources

- OECD (2013), Effective Carbon Prices, OECD Publishing.
- OECD (2013), Taxing Energy Use, A Graphical Analysis, OECD Publishing.

## **Further information**

#### Analytical publications

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- IEA (2012), Electricity and a Climate-Constrained World: Data and Analyses, IEA, Paris.
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- OECD (2013), Inventory of Estimated Budgetary Support and Tax Expenditures for Fossil Fuels 2013, OECD Publishing.

## Statistical publications

 IEA (2013), CO2 Emissions from Fuel Combustion, OECD Publishing.

#### Methodological publications

Intergovernmental Panel on Climate Change (IPCC)
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 Gas Inventories, Intergovernmental Panel on Climate
 Change (IPCC), London, UK.

### Online databases

OECD Environment Statistics.



## EMISSIONS OF CARBON DIOXIDE

## CO<sub>2</sub> emissions from fuel combustion

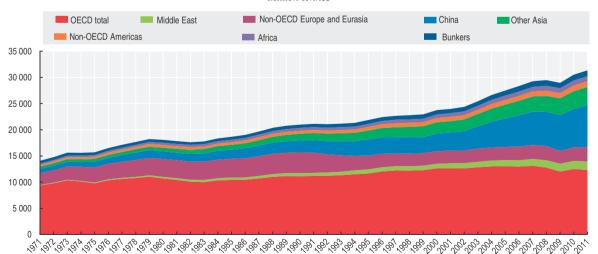
Million tonnes

	1971	1990	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Australia	144	260	351	359	362	376	380	385	395	397	405	396	397
Austria	49	56	66	67	73	74	75	72	70	71	64	70	68
Belgium	117	108	120	112	120	117	113	110	106	112	101	108	109
Canada	340	428	522	531	555	551	555	536	563	552	519	528	530
Chile	21	31	50	51	53	58	58	60	67	68	65	70	76
Czech Republic	151	155	121	117	121	122	120	121	122	117	110	114	113
Denmark	55	51	52	52	57	52	48	56	52	49	47	47	42
Estonia		36	15	15	17	17	17	16	19	18	15	18	19
Finland	40	54	61	63	71	67	55	67	65	57	55	63	56
France	432	353	385	378	385	385	388	380	373	370	349	357	328
Germany	979	950	843	831	824	828	800	813	787	794	737	769	748
Greece	25	70	90	90	94	93	95	94	98	94	90	84	84
Hungary	60	66	56	55	57	56	56	56	54	53	48	49	47
Iceland	1	2	2	2	2	2	2	2	2	2	2	2	2
Ireland	22	30	43	42	42	42	44	45	44	44	39	39	35
Israel	14	34	56	59	61	61	59	62	64	64	64	68	67
Italy	293	397	429	435	452	459	461	455	447	435	389	398	393
Japan	759	1 062	1 161	1 198	1 205	1 206	1 213	1 197	1 233	1 147	1 089	1 138	1 186
Korea	52	229	452	446	449	470	469	477	490	502	516	564	588
Luxembourg	15	10	9	9	10	11	11	11	11	11	10	11	10
Mexico	97	265	350	357	363	369	386	395	410	404	400	418	432
Netherlands	130	156	178	178	183	185	183	178	181	183	176	187	174
New Zealand	14	22	33	33	34	33	34	34	33	34	31	31	30
Norway	24	28	35	34	37	38	36	37	38	38	37	39	38
Poland	287	342	290	279	290	293	293	304	304	299	287	306	300
Portugal	14	39	59	63	58	60	63	56	56	53	53	48	48
Slovak Republic	39	57	38	38	38	37	38	37	37	36	33	35	34
Slovenia		13	15	15	15	15	16	16	16	17	15	15	15
Spain	120	205	286	302	310	327	339	332	344	317	282	268	270
Sweden	82	53	52	54	55	54	50	48	46	44	42	47	45
Switzerland	39	42	43	42	44	44	45	44	42	44	42	44	40
Turkey	41	127	182	192	202	207	216	240	265	264	256	266	286
United Kingdom	623	549	537	522	535	535	533	535	523	513	465	482	443
United States	4 291	4 869	5 678	5 605	5 680	5 764	5 772	5 685	5 763	5 587	5 185	5 429	5 287
EU 28		4 052	3 908	3 880	3 979	4 000	3 971	3 978	3 932	3 861	3 560	3 667	3 543
OECD	9 370	11 151	12 661	12 628	12 853	13 009	13 024	12 957	13 120	12 789	12 021	12 510	12 341
Brazil	90	192	309	309	303	321	323	328	343	362	338	389	408
China	816	2 245	3 396	3 605	4 177	4 837	5 403	5 913	6 316	6 490	6 793	7 253	7 955
India	200	582	984	1 014	1 040	1 118	1 164	1 258	1 357	1 452	1 641	1 710	1 745
Indonesia	25	146	291	297	325	331	336	354	368	361	379	410	426
Russian Federation		2 179	1 498	1 487	1 518	1 509	1 512	1 567	1 566	1 585	1 478	1 577	1 653
South Africa	157	254	282	293	320	336	329	330	355	383	364	371	368
World	14 080	20 989	23 980	24 359	25 440	26 628	27 502	28 333	29 269	29 479	28 967	30 510	31 343

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## World CO<sub>2</sub> emissions from fuel combustion, by region

Million tonnes



StatLink http://dx.doi.org/10.1787/888933026107

## SULPHUR AND NITROGEN EMISSIONS

Atmospheric pollutants from energy transformation and energy consumption, but also from industrial processes, are the main contributors to regional and local air pollution and raise concerns as to their effects on human health and ecosystems.

In the atmosphere, emissions of sulphur and nitrogen compounds are transformed into acidifying substances. When these substances reach the ground, acidification of soil, water and buildings arises. Soil acidification is one important factor causing forest damage; acidification of the aquatic environment may severely impair the life of plant and animal species.

Nitrogen oxides ( $NO_x$ ) also contribute to ground-level ozone formation and are responsible for eutrophication, reduction in water quality and species richness. High concentrations of  $NO_x$  cause respiratory illnesses.

#### **Definition**

The indicators presented here refer to total emissions from human activities of sulphur oxides ( $SO_x$ ) and nitrogen oxides ( $NO_x$ ), given as quantities of  $SO_2$  and  $NO_2$  as well as emission intensities per capita.

It should be kept in mind that  $SO_x$  and  $NO_x$  emissions provide only a partial view of air pollution problems. They should be supplemented with information on the acidity of rain and snow, and the excedance of critical loads in soil and water, which reflect the actual acidification of the environment, and with information on population exposure to air pollutants.

#### Comparability

International data on  $SO_x$  and  $NO_x$  emissions are available for almost all OECD countries. The details of estimation methods for emissions such as emission factors and reliability, extent of sources and pollutants included in estimation, etc., may differ from one country to another.

## Overview

Compared to 1990,  $SO_x$  emissions have decreased significantly for the OECD as a whole as a combined result of structural changes in the economy, changes in energy demand through energy savings and fuel substitution, pollution control policies and technical progress.

 $\rm NO_x$  emissions have decreased in the OECD overall since 1990, but less than  $\rm SO_x$  emissions. Major progress in the early 1990s, particularly in OECD Europe, reflects changes in energy demand, pollution control policies and technical progress. However, these results have not compensated in all countries for steady growth in road traffic, fossil fuel use and other activities generating  $\rm NO_x$ .

The high emission levels of  $SO_x$  for Iceland are due to  $SO_x$  emissions from geothermal energy which represented 79% of total emissions in 2011.

OECD totals do not include Chile and Mexico.

#### Sources

- European Monitoring and Evaluation Programme (EMEP) (2013), www.emep.int.
- OECD (2013), "Emissions of air pollutants", OECD Environment Statistics (database).
- United Nations Framework Convention on Climate Change (UNFCCC), "National Inventory Submissions", National Reports.

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#### Online databases

• OECD Environment Statistics.

#### Websites

 OECD Environmental Strategy, www.oecd.org/env/ indicators-modelling-outlooks/oecdenvironmentalstrategy.htm



## Sulphur and nitrogen oxides emissions

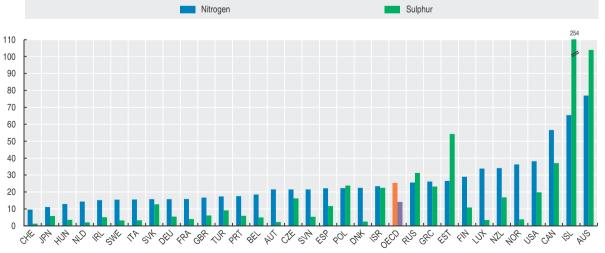
Thousand tonnes

	Sulphur oxides							Nitrogen oxides						
•	2006	2007	2008	2009	2010	2011	2006	2007	2008	2009	2010	2011		
Australia	2 473.6	2 436.4	2 615.3	2 591.3	2 373.2	2 350.3	1 632.1	1 677.4	1 700.8	1 700.9	1 804.5	1 741.9		
Austria	27.7	24.3	21.9	17.6	18.8	18.4	221.7	215.4	203.0	187.5	191.7	181.1		
Belgium	133.7	124.1	96.9	75.4	62.7	54.5	268.9	258.0	232.6	201.9	214.1	203.3		
Canada	1 970.1	1 904.2	1 733.8	1 480.5	1 370.6	1 276.3	2 306.1	2 270.8	2 140.9	2 029.3	2 066.1	1 951.3		
Chile	893.0						302.3							
Czech Republic	211.2	216.5	174.3	173.5	170.3	169.0	282.2	283.2	261.1	251.4	239.1	225.9		
Denmark	28.3	25.6	20.1	15.0	14.8	13.9	187.0	173.2	155.2	136.3	133.0	124.9		
stonia	69.9	88.0	69.4	54.8	83.2	72.7	35.3	38.6	35.7	30.2	36.7	35.6		
inland	84.6	82.5	68.5	58.9	66.9	58.2	192.1	183.1	167.9	153.7	165.7	156.0		
rance	436.8	425.2	360.2	311.2	287.7	254.8	1 336.7	1 269.2	1 177.5	1 096.9	1 073.4	1 003.6		
Germany	486.7	469.2	469.1	419.0	444.0	444.6	1 558.9	1 481.1	1 403.7	1 305.2	1 328.7	1 288.3		
Greece	533.2	537.9	445.1	425.5	265.4	262.1	412.7	414.0	391.8	379.1	318.9	295.5		
Hungary	118.2	84.4	87.6	79.7	32.3	34.9	207.8	189.9	183.4	166.9	162.5	129.2		
celand	44.2	58.0	74.2	68.7	74.4	81.2	25.4	26.3	24.4	24.8	22.4	20.9		
reland	61.1	55.4	45.4	32.4	26.1	23.3	121.9	119.4	108.1	85.9	78.1	69.6		
srael	212.6	198.9	183.8	167.8	164.0	174.2	201.4	201.4	196.3	183.9	186.1	182.0		
taly	383.0	339.8	284.6	233.0	215.2	195.5	1 163.8	1 123.1	1 056.9	987.0	955.3	935.6		
lapan	826.1	810.0	784.7	766.7	755.5	747.5	1 706.1	1 661.7	1 596.0	1 525.3	1 477.1	1 422.1		
Korea	446.5	402.5	418.0	387.7	401.7		1 275.0	1 187.8	1 044.9	1 014.1	1 061.1			
_uxembourg	2.9	2.4	2.2	2.2	2.2	1.7	18.4	17.9	16.6	16.5	17.2	17.3		
Mexico			2 241.2						3 206.9					
Vetherlands	62.8	59.3	50.0	36.8	33.5	33.4	304.6	289.2	280.8	259.7	255.6	239.6		
New Zealand	89.7	82.2	86.3	74.3	74.3	73.9	161.3	158.7	159.7	149.4	147.7	150.3		
Vorway	21.1	20.1	20.0	15.4	19.5	18.8	202.7	205.6	193.5	182.9	185.6	179.7		
Poland	1 310.8	1 223.1	1 001.1	866.5	950.4	910.0	891.1	868.0	830.0	790.7	863.4	850.7		
Portugal	166.8	159.5	115.5	79.5	70.4	62.3	254.3	247.6	221.3	209.5	196.1	185.6		
Slovak Republic	87.8	70.6	69.4	64.1	69.4	68.5	96.4	95.6	93.6	84.2	88.6	85.0		
Slovenia	16.4	14.5	12.7	10.4	9.8	10.9	46.9	47.5	52.4	45.1	44.4	44.3		
Spain	1 215.4	1 209.2	565.4	519.6	488.2	539.5	1 359.8	1 359.2	1 177.4	1 062.5	984.2	1 021.0		
Sweden	35.7	32.4	30.2	28.6	31.7	29.7	176.3	170.4	162.5	151.7	154.1	146.2		
Switzerland	15.1	13.1	13.6	11.7	12.0	10.2	91.2	88.3	86.6	82.2	81.1	76.1		
Turkey	974.3	1 004.3	1 071.6	806.5	462.8	673.4	1 113.4	1 194.5	1 288.7	1 425.9	1 280.6	1 286.7		
Jnited Kingdom	649.7	567.4	488.3	394.7	406.6	378.4	1 513.6	1 447.8	1 309.8	1 139.9	1 101.9	1 027.9		
Jnited States	12 042.6	10 685.4	9 328.2	7 455.8	6 811.5	6 167.7	16 634.0	16 074.2	15 514.4	14 140.1	13 264.1	11 899.0		
EU 28														
DECD	25 238.6	23 426.3	20 807.7	17 724.8	16 269.1	15 586.7	35 999.2	35 038.1	33 467.4	31 200.4	30 179.0	28 259.1		
Brazil														
China														
ndia														
ndonesia														
Russian Federation	4 904.0	4 709.0	4 675.0	4 512.0	4 512.0	4 462.0	3 678.0	3 764.0	3 809.0	3 669.0	3 735.0	3 562.0		
South Africa				. 012.0					0 000.0					

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## Sulphur and nitrogen oxides emissions

Kilograms per capita, 2011 or latest available year



StatLink http://dx.doi.org/10.1787/888933026126

## **GREENHOUSE GAS EMISSIONS**

Emissions of greenhouses gases (GHG) from human activities disturb the radiative energy balance of the earth's atmosphere system. They exacerbate the natural greenhouse effect, leading to temperature changes and other consequences for the earth's climate.

Climate change is of concern mainly as regards its impact on ecosystems (biodiversity), human settlements and agriculture, and on the frequency and scale of extreme weather events. It could have significant consequences for human well-being and socio-economic activities, which could in turn affect global economic output.

#### **Definition**

The indicator presented here refer to the sum of emissions of six GHGs that have direct effects on climate change and are considered responsible for a major part of global warming: carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), chlorofluorocarbons (CFCs), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF<sub>6</sub>).

They show total gross emissions expressed in  $\rm CO_2$  equivalents as well as emission intensities per capita. They refer to GHG emitted within the national territory;  $\rm CO_2$  emissions and removals from land use change and forestry are excluded as are international transactions of emission reduction units or certified emission reductions.

#### Comparability

These indicators should be read in conjunction with indicators on  $CO_2$  emissions, energy intensity, and energy prices and taxes. Their interpretation should take into account the structure of countries' energy supply and climatic factors.

## Overview

GHG emissions are still growing in many countries and overall, although at a slightly lower pace than  $CO_2$  emissions from energy use.  $CO_2$  remains predominant and determines the overall trend. Together with  $CH_4$  and  $N_2O$ , it accounts for about 98% of GHG emissions. The other gases account for about 2%, but their emissions are growing.

Individual OECD countries' contributions to the additional greenhouse effect, and their rates of progress, vary significantly. These differences partly reflect different national circumstances, such as composition and rate of economic growth, population growth, energy resource endowment, and the extent to which the countries have taken steps to reduce emissions from various sources. Many countries have not succeeded in meeting their commitments under the Kyoto Protocol.

Data on GHG emissions are reported annually to the Secretariat of the United Nations Framework Convention on Climate Change (UNCCC) with 1990 as a base year but not by all OECD countries. They display a good level of comparability. The high per capita emissions of Luxembourg result from the lower taxation of road fuels compared to neighbouring countries, which attracts drivers to refuel in the country.

The OECD total does not include Israel.

#### Sources

- OECD (2013), OECD Environment Statistics (Database).
- United Nations Framework Convention on Climate Change (UNFCCC) (2013), Greenhouse Gas Inventory Data (Database).

## **Further information**

## **Analytical publications**

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- OECD (2012b), "Review of the OECD Environmental Strategy for the First Decade of the 21st Century", OECD, Paris.

### Statistical publications

 IEA (2013), CO2 Emissions from Fuel Combustion, OECD Publishing.

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#### Online databases

• OECD Environment Statistics.

#### Websites

• Climate change, www.oecd.org/env/cc.



## **GREENHOUSE GAS EMISSIONS**

## Greenhouse gas emissions

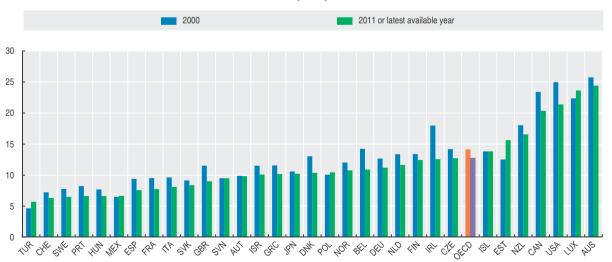
Thousand tonnes CO<sub>2</sub> equivalent

Australia 417 722 483 272 594 033 505 443 506 503 552 285 529 321 584 201 542 515 500 338 540 124 548 744 582 285 500 338 143 580 138 570 138 645 124 488 131 782 120 172 52 500 183 510 185 52 10 185 52 145 500 178 51 71 50 177 525 73 50 178 51 71 50 177 52 51 71 50 177 52 51 71 50 177 52 51 71 50 177 52 51 71 50 177 52 51 71 50 177 52 51 71 50 177 52 51 71 50 17 50 177 52 51 71 50 17 50													
Austria   78   157   80   198   84   194   85   881   1976   91   1976   91   1976   91   1976   91   1976	1990	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Belgium 143 096 145 992 145 401 144 296 142 296 147 165 143 299 138 505 133 670 138 645 124 498 131 782 120 172 Carata 591 079 77 792 77 225 78 047 74 390 737 457 727 296 77 496 77 891 66 890 70 796 87 70 197 77 225 78 047 74 390 77 895 74 896 748 840 78 916 89 890 70 896 895 79 71 434 75 838 77 821 79 057	417 742	493 272	504 033	505 443	509 630	525 285	529 321	534 201	542 531	550 339	549 123	548 744	552 286
Carecke May 19 107 97 17 581 97 19 77 581 71 987 17 18 944 74 390 737 457 727 196 748 40 739 16 68 90 30 70 98 49 70 17 197 107 196 10	78 157	80 198	84 184	85 881	91 876	91 520	92 895	90 092	87 246	86 962	79 956	85 012	82 842
Dalle	143 095	145 992	145 401	144 295	146 226	147 165	143 269	138 505	133 670	136 645	124 468	131 782	120 172
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StatLink http://dx.doi.org/10.1787/888933028558

## Greenhouse gas emissions

Tonnes per capita



StatLink http://dx.doi.org/10.1787/888933026145

## ENVIRONMENTAL SUSTAINABILITY IN METROPOLITAN AREAS

Green areas such as parks and natural vegetation contribute to reducing pollution, improving the health and quality of life of residents, and making metropolitan areas more attractive to residents and tourists.

#### **Definition**

Metropolitan areas are defined as the functional urban areas (FUA) with population above 500 000.

The functional urban areas are defined as densely populated municipalities (urban cores) and adjacent municipalities with high levels of commuting towards the densely populated urban cores (hinterland). Functional urban areas can extend across administrative boundaries,

## Overview

International comparable measures of green areas can be derived by overlapping satellite-based measures of land cover with the metropolitan boundaries.

According to these estimates, North American cities such as Edmonton, Des Moines and Madison are the metropolitan areas with the largest share of green area per person (higher than 5 000 square metres per person). Juares, Bari, Anjo and Athens, on the other hand, recorded the lowest estimates of green areas, i.e. below the minimum level of 9 square metres per person recommended by the World Health Organization.

While metropolitan areas are considered large consumers of energy and producers of carbon dioxide ( $CO_2$ ), high differences are observable among cities both within and across countries. The metropolitan areas with the highest levels of emissions per capita are found in Canada, Korea and the United States. Within countries, the highest differences in  $CO_2$  emissions per capita in metropolitan areas are observed in Mexico, Italy, Korea and France.

Metropolitan areas can also be more energy efficient than the rest of the country. Evidence shows that the  $CO_2$  emissions per capita in the metropolitan areas are lower than in less densely populated regions in half of the OECD countries, where data are available.

Source of  $CO_2$  emissions depends on many factors, including urban form. For the United States, the high levels of  $CO_2$  from the transport sector are the result of a continuous sprawl of cities and the intensive use of private vehicles to commute. In Canada, high levels of  $CO_2$  emissions per capita in Edmonton are mainly due to coal and oil refineries. On the other hand, in European cities, which account on average for lower levels of  $CO_2$  emissions per capita, the share of  $CO_2$  emissions coming from the energy production sector is relatively larger than the share of emissions coming from the transport sector.

reflecting the economic geography of where people actually live and work.

Carbon dioxide (CO<sub>2</sub>) emissions in metropolitan areas are estimated by adjusting national emission data with population grid data and infrastructure location. They include emissions from all sources with the exception of air transport, international aviation and shipping.

 ${\rm CO_2}$  emissions and green areas in metropolitan areas are estimates based on global satellite datasets.

 $\mathrm{CO}_2$  emissions from transport include road and non-road transportation.

Green areas are defined as the land in metropolitan areas covered by vegetation, croplands, forests, shrub lands and grasslands.

## Comparability

The functional urban areas have not been identified in Australia, Iceland, Israel, New Zealand and Turkey. The FUA of Luxembourg does not appear in the figures since it has a population below 500 000 inhabitants.

## Sources

• OECD (2013), OECD Regions at a Glance, OECD Publishing.

## **Further information**

## **Analytical publications**

- OECD (2012), Redefining "Urban": A New Way to Measure Metropolitan Areas, OECD Publishing.
- Piacentini, M. and K. Rosina (2012), Measuring the Environmental Performance of Metropolitan Areas with Geographic Information Sources, OECD Regional Development Working Papers, No. 2012/05, OECD Publishing.

## Online databases

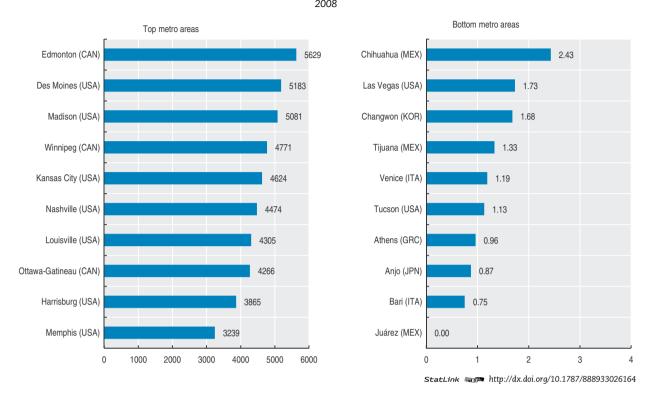
• OECD Metropolitan Database.

#### Website

- Regions at a Glance interactive, rag.oecd.org.
- Regional statistics and indicators, www.oecd.org/gov/ regional/statisticsindicators.

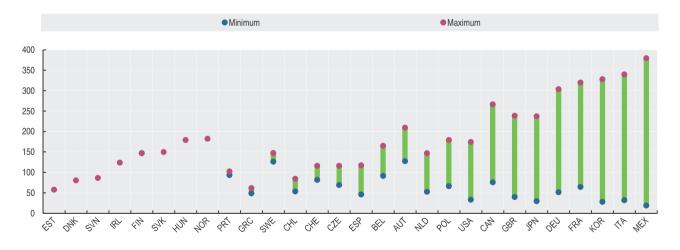
## ENVIRONMENTAL SUSTAINABILITY IN METROPOLITAN AREAS

## Top and bottom 10 metropolitan areas by share of green area per person



## Metropolitan areas range in CO<sub>2</sub> emissions per capita

2008 (country value = 100)



StatLink http://dx.doi.org/10.1787/888933026183





## **OUTCOMES**

INTERNATIONAL STUDENT ASSESSMENT
TRENDS IN MATHEMATICS
INTERNATIONAL ASSESSMENT OF ADULT COMPETENCIES
YOUTH INACTIVITY
HOW MANY STUDENTS STUDY ABROAD?
EDUCATIONAL ATTAINMENT

## **RESOURCES**

EDUCATIONAL EXPENDITURE
TEACHERS
EXPENDITURE IN TERTIARY EDUCATION

## INTERNATIONAL STUDENT ASSESSMENT

How effective are school systems in providing young people with a solid foundation in the knowledge and skills that will equip them for life and learning beyond school? The OECD Programme for International Student Assessment (PISA) assesses student knowledge and skills at age 15, i.e. toward the end of compulsory education. The PISA 2012 survey covers mathematics, reading, science and problem-solving. For the first time, PISA 2012 also included an assessment of the financial literacy of young people and an optional computer-based assessment of mathematics.

#### **Definition**

PISA is a triennial survey of 15-year-old students around the world. The survey examines how well students can extrapolate from what they have learned and can apply that knowledge in unfamiliar settings, both in and outside of school. The PISA survey covers 3 main subjects: mathematics, reading and science and in each round, one of these subjects is the major domain and the other two are minor domains. In PISA 2012 the major domain was mathematics.

For PISA, mathematical literacy means the capacity to formulate, employ and interpret mathematics in a variety of contexts to describe, predict and explain phenomena. It assists individuals in recognising the role that mathematics plays in the world and to make the wellfounded judgments and decisions needed by constructive, engaged and reflective citizens. Reading literacy is the capacity to understand, use and reflect on written texts in order to achieve one's goals, develop one's knowledge and

#### Overview

Shown are scores in mathematics, reading and science from the PISA 2012 results. The average score across OECD countries: 494 score points for mathematics, 496 score points for reading and 501 score points for science. Korea has the highest score in mathematics, with a mean score of 554 points, while Japan shows the highest scores in reading and science, with mean scores of 538 and 547 respectively.

Marked gender differences in mathematics performance - in favour of boys - are observed in 27 countries presented. Only in Iceland do girls outperform boys in mathematics. Across OECD countries, boys outperform girls with an 11 score-point difference. By contrast, girls outperform boys in reading everywhere. Across OECD countries, the difference in favour of girls is about 38 score points. In science, boys outperform girls in eight countries, while in five countries girls outperform boys. Across OECD countries, the gender differences in science tend to be smaller than in mathematics and reading, with only one score point in favour of boys.

potential, and participate in society. Scientific literacy is the capacity to use scientific knowledge to identify questions, acquire new knowledge, explain scientific phenomena, and draw evidence-based conclusions about science-related issues.

## Comparability

Leading experts in countries participating in PISA provide advice on the scope and nature of the assessments, with final decisions taken by the PISA Governing Board. Substantial efforts and resources are devoted to achieving cultural and linguistic breadth and balance in the assessment materials. Stringent quality assurance mechanisms are applied in the item development and translation, sampling, data collection, scoring and data management stages to ensure comparability of the results.

Around 510 000 15-year-old students in 65 participating countries or economies were assessed in PISA 2012. Because the results are based on probability samples, standard errors (S.E.) are normally shown in the tables.

#### Sources

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## **Further information**

## **Analytical publications**

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#### Methodological publications

• OECD (2013), PISA 2012 Assessment and Analytical Framework: Mathematics, Reading, Science, Problem Solving and Financial Literacy, PISA, OECD Publishing.

## Online databases

• OECD PISA Database.

#### Websites

• Programme for International Student Assessment (PISA), www.oecd.org/pisa.



## INTERNATIONAL STUDENT ASSESSMENT

## Mean scores by gender in PISA

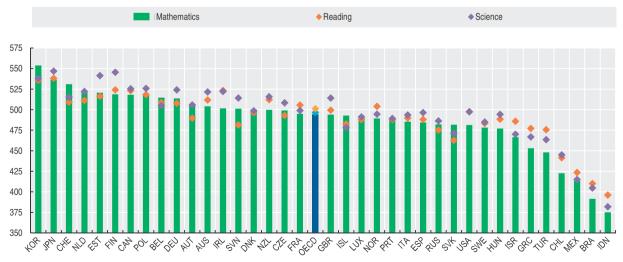
2012

		Mathema	atics scale			Readir	ng scale			Scien	ce scale	
	Femal	es	Male	s	Fema	es	Male	es	Fema	es	Male	s
	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.
Australia	498	2.0	510	2.4	530	2.0	495	2.3	519	2.1	524	2.5
Austria	494	3.3	517	3.9	508	3.4	471	4.0	501	3.4	510	3.9
Belgium	509	2.6	520	2.9	525	2.7	493	3.0	503	2.6	507	3.0
Canada	513	2.1	523	2.1	541	2.1	506	2.3	524	2.0	527	2.4
Chile	411	3.1	436	3.8	452	2.9	430	3.8	442	2.9	448	3.7
Czech Republic	493	3.6	505	3.7	513	3.4	474	3.3	508	3.5	509	3.7
Denmark	493	2.3	507	2.9	512	2.6	481	3.3	493	2.5	504	3.5
Estonia	518	2.2	523	2.6	538	2.3	494	2.4	543	2.3	540	2.5
Finland	520	2.2	517	2.6	556	2.4	494	3.1	554	2.3	537	3.0
France	491	2.5	499	3.4	527	3.0	483	3.8	500	2.4	498	3.8
Germany	507	3.4	520	3.0	530	3.1	486	2.9	524	3.5	524	3.1
Greece	449	2.6	457	3.3	502	3.1	452	4.1	473	3.0	460	3.8
Hungary	473	3.6	482	3.7	508	3.3	468	3.9	493	3.3	496	3.4
Iceland	496	2.3	490	2.3	508	2.5	457	2.4	480	2.9	477	2.7
Ireland	494	2.6	509	3.3	538	3.0	509	3.5	520	3.1	524	3.4
Israel	461	3.5	472	7.8	507	3.9	463	8.2	470	4.0	470	7.9
Italy	476	2.2	494	2.4	510	2.3	471	2.5	492	2.4	495	2.2
Japan	527	3.6	545	4.6	551	3.6	527	4.7	541	3.5	552	4.7
Korea	544	5.1	562	5.8	548	4.5	525	5.0	536	4.2	539	4.7
Luxembourg	477	1.4	502	1.5	503	1.8	473	1.9	483	1.7	499	1.7
Mexico	406	1.4	420	1.6	435	1.6	411	1.7	412	1.3	418	1.5
Netherlands	518	3.9	528	3.6	525	3.5	498	4.0	520	3.9	524	3.7
New Zealand	492	2.9	507	3.2	530	3.5	495	3.3	513	3.3	518	3.2
Norway	488	3.4	490	2.8	528	3.9	481	3.3	496	3.7	493	3.2
Poland	516	3.8	520	4.3	539	3.1	497	3.7	527	3.2	524	3.7
Portugal	481	3.9	493	4.1	508	3.7	468	4.2	490	3.8	488	4.1
Slovak Republic	477	4.1	486	4.1	483	5.1	444	4.6	467	4.2	475	4.3
Slovenia	499	2.0	503	2.0	510	1.8	454	1.7	519	1.9	510	1.9
Spain	476	2.0	492	2.4	503	1.9	474	2.3	493	1.9	500	2.3
Sweden	480	2.4	477	3.0	509	2.8	458	4.0	489	2.8	481	3.9
Switzerland	524	3.1	537	3.5	527	2.5	491	3.1	512	2.7	518	3.3
Turkey	444	5.7	452	5.1	499	4.3	453	4.6	469	4.3	458	4.5
United Kingdom	488	3.8	500	4.2	512	3.8	487	4.5	508	3.7	521	4.5
United States	479	3.9	484	3.8	513	3.8	482	4.1	498	4.0	497	4.1
EU 28												7.1
OECD	489	0.5	499	0.6	515	0.5	478	0.6	500	0.5	502	0.6
Brazil	383	2.3	401	2.2	425	2.2	394	2.4	404	2.3	406	2.3
China					-							
India												
Indonesia	373	4.3	377	4.4	410	4.3	382	4.8	383	4.1	380	4.1
Russian Federation	483	3.1	481	3.7	495	3.2	455	3.5	489	2.9	484	3.5
South Africa												
Journ Allica												

StatLink http://dx.doi.org/10.1787/888933028577

## Performance in mathematics, reading and science, PISA 2012

Mean score



StatLink http://dx.doi.org/10.1787/888933026202

## TRENDS IN MATHEMATICS

Each year, OECD countries invest over USD 230 billion in mathematics education at schools. While this is a major investment, the returns are many times larger. The OECD Programme for International Student Assessment (PISA) provides a comprehensive picture of the mathematics skills developed across education systems and how these skills have changed over time. The results show wide differences between countries and economies in the mathematics knowledge and skills of 15-year-olds and demonstrate that many countries and economies have been able to improve the mathematics performance of their 15-year-old students in the past decade.

#### **Definition**

Every PISA assessment assesses students' reading, mathematics and science literacy, and in each round, one of these subjects is the major domain. The first full assessment of mathematics was conducted in 2003. Mathematics is the major domain of PISA 2012, thereby allowing for observations of trends in mathematics performance since PISA 2003. series

#### Overview

On average across OECD countries with comparable data in PISA 2003 and PISA 2012, performance has remained broadly stable. Of the countries presented here, 10 show an average annual improvement in mathematics performance; by contrast, 13 countries show an average deterioration in performance between 2003 and 2012. For the remaining 14 countries, there is no change in mathematics performance during the period.

Improvement in mathematics performance is observed in Brazil, and Israel (with an average improvement of more than four score points per year), Mexico, Turkey (more than three score points per year), Italy, Poland, Portugal (more than two score points per year), and Chile, Germany and Greece (more than one score point per year).

Portugal, Italy and Poland have reduced their share of low performing students (those who score below proficiency Level 2) and simultaneously increased the share of top performing students (those who score at or above proficiency Level 5) between 2003 and 2012. In these countries, the improvement in education has spread among all students. By contrast, Brazil, Turkey, Mexico, Germany and the Russian Federation have reduced their share of low performing students, maintaining their share of top performers. In this period, Korea saw an increase in the share of top performing students, with no change in the share of low performing students.

Mathematical literacy is an individuals' capacity to formulate, employ and interpret mathematics in a variety of contexts. It assists individuals in recognising the role that mathematics play in the world and to make the well-founded judgements and decisions needed by citizens.

## Comparability

Leading experts in countries participating in PISA provide advice on the scope and nature of the assessments, with final decisions taken by the PISA Governing Board. Substantial efforts and resources are devoted to achieving cultural and linguistic comparability in the assessment materials. Stringent quality assurance mechanisms are applied in the item development, translation, sampling, data collection, scoring and data management stages to ensure comparability of the results. Around 510 000 15year-old students in 65 participating countries or economies were assessed in PISA 2012. Comparability in the assessments over time (equating of the tests) is possible by the inclusion of common items in successive assessments. Because the results are based on probability samples, standard errors (S.E.) are normally shown in the tables and only statistically significant differences should be considered as differences that exist in the population of 15-year-old students.

#### Sources

 OECD (2013), PISA 2012 Results: What Students Know and Can Do: Student Performance in Mathematics, Reading and Science (Volume I), PISA, OECD Publishing.

# Further information Analytical publications

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## Statistical publications

• OECD (2013), Education at a Glance, OECD Publishing.

#### Methodological publications

 OECD (2013), PISA 2012 Assessment and Analytical Framework: Mathematics, Reading, Science, Problem Solving and Financial Literacy, PISA, OECD Publishing.

### Online databases

• OECD PISA Database.

#### Websites

• Programme for International Student Assessment (PISA), www.oecd.org/pisa.



#### TRENDS IN MATHEMATICS

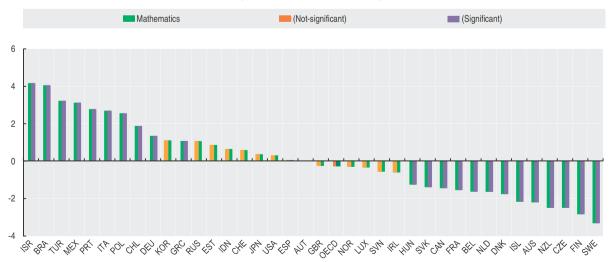
## Changes in mathematics performance from PISA 2003 to PISA 2012

				Change in math	ematics performance across	PISA assessments	
	Mean score in mathematics 2012	Annualised change in mathematics	All students	Boys	Girls	Share of students below proficiency level 2	Share of top performing students, proficiency level 5 or above
Australia	504	-2.2	-20.1	-16.8	-23.7	5.3	-5.0
Austria	506	0.0	-0.1	7.3	-7.4	-0.1	0.0
Belgium	515	-1.6	-14.8	-12.8	-16.4	2.5	-6.9
Canada	518	-1.4	-14.4	-17.6	-16.6	3.7	-3.9
Chile	423	1.9					
Czech Republic	499	-2.5	-17.5	-19.1	-16.0	4.4	-5.4
Denmark	500	-1.8	-14.3	-15.8	-13.1	1.4	-5.9
Estonia	521	0.9					
Finland	519	-2.8	-25.5	-30.6	-20.4	5.5	-8.1
France	495	-1.5	-15.8	-15.9	-15.9	5.7	-2.2
Germany	514	1.4	10.5	12.3	7.7	-3.9	1.2
Greece	453	1.1	8.1	2.1	13.4	-3.3	-0.1
Hungary	477	-1.3	-13.0	-11.9	-13.2	5.1	-1.4
Iceland	493	-2.2	-22.3	-17.9	-27.1	6.5	-4.3
Ireland	501	-0.6	-1.3	-1.1	-1.7	0.1	-0.7
Israel	466	4.2					
Italy	485	2.7	19.7	19.3	18.7	-7.3	2.9
Japan	536	0.4	2.3	6.4	-3.1	-2.3	-0.6
Korea	554	1.1	11.5	10.4	15.9	-0.4	6.1
Luxembourg	490	-0.3	-3.4	0.3	-7.6	2.6	0.4
Mexico	413	3.1	28.1	29.5	26.5	-11.2	0.3
Netherlands	523	-1.6	-14.9	-12.4	-17.5	3.9	-6.3
New Zealand	500	-2.5	-23.7	-23.6	-24.2	7.6	-5.7
Norway	489	-0.3	-5.8	-7.9	-3.8	1.5	-2.0
Poland	518	2.6	27.3	26.5	28.1	-7.7	6.7
Portugal	487	2.8	21.0	20.3	21.1	-5.2	5.3
Slovak Republic	482	-1.4	-16.5	-21.2	-11.9	7.5	-1.7
Slovenia	501	-0.6					
Spain	484	0.1	-0.8	2.8	-4.8	0.6	0.1
Sweden	478	-3.3	-30.8	-35.4	-26.1	9.8	-7.8
Switzerland	531	0.6	4.4	2.8	6.5	-2.1	0.2
Turkey	448	3.2	24.6	21.7	28.9	-10.2	0.4
United Kingdom	494	-0.3					
United States	481	0.3	-1.5	-2.3	-0.7	0.1	-1.3
EU 28							
OECD	496	-0.3	-3.4	-3.5	-3.6	0.7	-1.6
Brazil	391	4.1	35.4	36.1	34.5	-8.1	-0.4
China							
India							
Indonesia	375	0.7	15.0	15.5	14.3	-2.4	0.0
Russian Federation	482	1.1	13.8	7.9	19.6	-6.3	0.8
South Africa							

StatLink http://dx.doi.org/10.1787/888933028596

## Change in performance on the mathematics scale

Average annual change in mathematics performance between a countries' first participation in PISA and PISA 2012



StatLink http://dx.doi.org/10.1787/888933026221

## INTERNATIONAL ASSESSMENT OF ADULT COMPETENCIES

The technological revolution that began in the last decades of the 20th century has affected every aspect of life in the 21st. These transformations have changed the demand for skills as well. With manufacturing and low-skill tasks increasingly becoming automated, the need for routine and craft skills is declining, while the demand for information-processing and high-level skills is growing. Workers in the 21st century must also have a stock of information-processing and generic skills, including interpersonal communication, self-management, and the ability to learn, to help them weather the uncertainties of a rapidly changing labour market.

#### **Definition**

The Survey of Adult Skills (PIAAC) was designed to provide insights into the availability of some of these key skills in society and how they are used at work and at home. It directly measures proficiency in several information-processing skills – namely literacy, numeracy and problem solving in technology-rich environments.

The Survey of Adult Skills focuses on how adults develop their skills, how they use those skills, and what benefits they gain from using them. To this end, the Survey of Adult Skills collects information on how skills are used at home, in the workplace and in the community; how these skills are developed, maintained and lost over a lifetime; and how these skills are related to labour market participation, income, health, and social and political engagement.

## Overview

If there is one central message emerging from this new Survey of Adult Skills, it is that what people know and what they can do with what they know has a major impact on their life chances. For example, the median hourly wage of workers who can make complex inferences and evaluate subtle truth claims or arguments in written texts is more than 60% higher than for workers who can, at best, read relatively short texts to locate a single piece of information. Those with low literacy skills are also more than twice as likely to be unemployed.

The survey also shows that how skills are distributed across a population has significant implications on how economic and social outcomes are distributed within the society. In fact, per capita incomes are higher in countries with larger proportions of adults who reach the highest levels of literacy or numeracy proficiency and with smaller proportions of adults at the lowest levels of proficiency. At the same time, if large proportions of adults have low reading and numeracy skills, introducing and disseminating productivity-improving technologies and workorganisation practices can therefore be hampered.

## Comparability

Around 166 000 adults aged 16-65 were surveyed in 22 OECD Member countries and the Russian Federation. The language of assessment was the official language or languages of each participating country. In some countries, the assessment was also conducted in widely spoken minority or regional languages.

The data from the Russian Federation are preliminary and may be subject to change. Readers should note that the sample for the Russian Federation does not include the population of the Moscow municipal area. The data published, therefore, do not represent the entire resident population aged 16-65 in Russia but rather the population of Russia excluding the population residing in the Moscow municipal area.

#### Sources

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#### Analytical publications

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### Online databases

• OECD PIAAC Database.

#### Websites

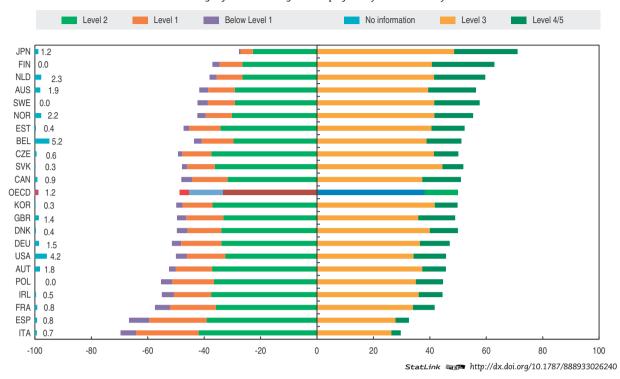
 Programme for the International Assessment of Adult Competencies (PIAAC), www.oecd.org/site/piaac/

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## INTERNATIONAL ASSESSMENT OF ADULT COMPETENCIES

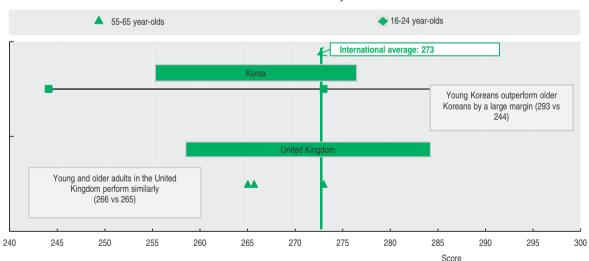
## Literacy proficiency among 16-65 year-olds

Percentage of adults scoring at each proficiency level in literacy



## Literacy skills gap between older and younger generations

Mean scores in literacy



StatLink http://dx.doi.org/10.1787/888933026259

## YOUTH INACTIVITY

Young people who are neither in employment nor in education and training (the "NEET" population) are at risk of becoming socially excluded – individuals with income below the poverty-line and lacking the skills to improve their economic situation. To improve the transition from school to work, regardless of the economic climate, education systems should work to ensure that individuals have the skills that are needed in the labour market, and reduce the proportion of young adults who are neither in school nor in work.

#### **Definition**

The indicator presents the share of young people who are neither in education and training nor in employment, as a percentage of the total number of young people in the corresponding age group. Young people in education include those attending part-time as well as full-time education, but exclude those in non-formal education and in educational activities of very short duration. Employment is defined according to the ILO Guidelines and covers all those who have been in paid work for at least one hour in the reference week of the survey or were temporarily absent from such work.

## Comparability

The length and the quality of the schooling individuals receive have an impact on students' transition from education to work; so do labour-market conditions, the economic environment and demographics. National traditions also play an important role. For example, in

Overview

On average across OECD countries, 18.4% of the 20-24 year-olds and 8.3% of the 15-19 year-olds were neither in school nor at work in 2011. For OECD countries as a whole, the proportion of the 20-24 year-olds who were neither in employment nor in education increased by 2.4 percentage points between 2008 and 2011, whereas it decreased by 1.6 percentage points between 2000 and 2008. The share of 15-19 year-olds who were not in employment nor in education also declined between 2000 and 2008 (by 1.5 percentage points), while between 2008 and 2011 it increased by only 0.5 percentage points.

Differences across countries are large: in Luxembourg and the Netherlands less than 9% of young people in the age group 20-24 belonged to the NEET population. The ratio is substantially higher in Ireland, Israel, Italy, Mexico and Spain, where this figure exceeded 25%, and in Turkey, where the share reaches almost 40%. The ageing of the population and the declining size of the population of 15-19 year-olds in OECD countries should favour employment among young adults.

some countries, young people traditionally complete schooling before they look for work; in others, education and employment are concurrent. In some countries, there is little difference between how young women and men experience their transitions from school to work, while in other countries, significant proportions of young women raise families full-time after leaving the education system and do not enter employment. The ageing of the population in OECD countries should favour employment among young adults, as, theoretically, when older people leave the labour market, their jobs are made available to the young. However, during recessionary periods, high general unemployment rates make the transition from school to work substantially more difficult for young people, as those with more work experience are favoured over new entrants into the labour market. In addition, when labour-market conditions are unfavourable, younger people often tend to stay in education longer, because high unemployment rates drive down the opportunity costs of education.

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## YOUTH INACTIVITY

## Youth who are not in education nor in employment

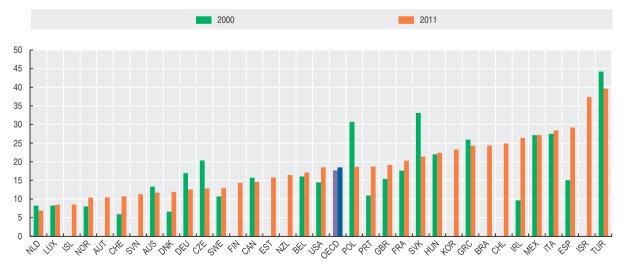
As a percentage of persons in that age group

			Youth aged bet	ween 15 and 19					Youth aged bet	ween 20 and 24		
_	2000	2007	2008	2009	2010	2011	2000	2007	2008	2009	2010	2011
Australia	6.8	6.5	6.3	8.3	8.1	7.8	13.3	10.7	10.7	11.6	11.2	11.7
Austria		5.3	5.6	6.5	5.3	5.5		11.0	11.4	11.8	12.6	10.5
Belgium	6.5	5.2	5.5	5.7	5.9	6.1	16.0	15.4	14.1	16.1	18.0	17.1
Canada	8.2	7.3	7.3	8.1	8.2	7.7	15.7	13.7	13.0	15.2	15.3	14.6
Chile						21.4						24.9
Czech Republic	7.9	2.9	2.7	3.5	3.8	3.7	20.3	11.0	10.6	13.1	13.6	12.8
Denmark	2.7	4.1	4.0	5.0	5.5	5.3	6.6	8.0	8.2	10.1	12.1	11.9
Estonia		5.7	4.9	8.0	6.1	6.4		15.3	10.7	19.8	22.4	15.8
Finland		3.5	5.1	5.1	5.1	5.1		13.3	12.0	15.1	15.8	14.3
France	7.0	6.3	5.8	6.8	7.9	7.1	17.6	17.9	16.6	20.0	20.6	20.3
Germany	5.7	4.2	3.7	3.8	3.7	3.5	16.9	15.2	14.0	13.7	13.7	12.6
Greece	9.3	8.5	8.4	7.9	7.5	8.3	25.9	17.7	17.1	18.2	21.6	24.3
Hungary	8.6	5.0	5.7	5.6	4.6	4.8	22.0	16.9	18.4	20.9	21.5	22.4
Iceland					5.5			6.4		9.4	10.5	8.5
Ireland	4.4	5.1	8.5	11.0	10.4	9.4	9.7	12.1	14.6	20.8	26.4	26.4
Israel		25.7	22.2	24.7	22.5	24.2		39.6	37.5	37.5	36.9	37.4
Italy	13.1	10.2	9.6	11.2	12.5	11.4	27.5	22.6	22.0	24.8	27.1	28.4
Japan	8.8	7.6	7.4	8.5	9.9	10.1						
Korea			7.0	7.0	8.5	8.7			22.2	23.0	23.5	23.3
Luxembourg		2.9	2.1	2.7	6.3	2.3	8.2	9.2	9.8	8.7	7.5	8.5
Mexico	18.3	17.5	17.8	18.4	18.7	18.9	27.1	26.5	26.5	27.6	26.9	27.2
Netherlands	3.7	3.6	2.1	3.6	3.1	3.4	8.2	6.9	5.6	7.9	7.4	6.9
New Zealand		7.5	7.0	9.5	8.6	8.6		13.6	14.1	17.7	17.8	16.5
Norway		3.7	4.0	4.2	3.5	3.2	8.0	8.8	7.0	9.4	9.0	10.4
Poland	4.5	2.5	2.4	3.6	3.6	3.9	30.8	18.3	15.6	16.4	17.7	18.7
Portugal	7.7	8.6	7.1	6.9	7.4	8.0	11.0	15.2	13.5	15.7	16.4	18.7
Slovak Republic	26.3	5.4	5.7	4.5	4.6	5.3	33.1	19.9	16.6	17.1	22.1	21.4
Slovenia		4.3	4.4	2.5	3.2	3.4		10.4	10.3	11.4	9.3	11.3
Spain	8.0	10.9	10.5	13.4	12.8	12.0	15.0	17.2	19.4	26.3	27.4	29.2
Sweden	3.6	5.4	4.4	5.5	5.4	4.2	10.7	13.1	12.9	16.5	14.3	12.9
Switzerland	7.9	8.2	9.4	7.9	4.8	5.0	5.9	10.4	9.1	10.7	11.1	10.7
Turkey	31.2	34.5	37.1	28.7	25.6	24.8	44.2	46.3	46.1	46.1	43.7	39.6
United Kingdom	8.0	10.7	9.8	9.6	10.0	9.5	15.4	18.1	18.3	19.1	19.3	19.1
United States	7.0	6.3	7.2	8.8	7.6	7.1	14.4	16.2	17.2	20.1	19.4	18.5
EU 28												
OECD	9.4	8.1	8.2	8.5	8.3	8.2	17.7	16.1	15.7	17.8	18.5	18.5
Brazil		14.7	13.8	14.0		13.1		23.4	22.5	23.3		24.3
China												
India												
Indonesia												
Russian Federation												
South Africa												

StatLink http://dx.doi.org/10.1787/888933028615

## Youth aged between 20 and 24 who are not in education nor in employment

As a percentage of persons in that age group



StatLink http://dx.doi.org/10.1787/888933026278

## **HOW MANY STUDENTS STUDY ABROAD?**

As national economies become more interconnected, governments and individuals are looking to higher education to broaden students' horizons. It is through the pursuit of high level studies in countries other than their own that students may expand their knowledge of other

cultures and languages, and to better equip themselves in an increasingly globalised labour market. Some countries, particularly in the European Union, have established policies and schemes that promote such mobility to foster intercultural contacts and help build social networks.

#### Overview

Over the past three decades, the number of students enrolled outside their country of citizenship has risen dramatically, from 0.8 million worldwide in 1975 to 4.3 million in 2011, more than a fivefold increase. Growth in the internationalisation of tertiary education has accelerated during the past several decades, reflecting the globalisation of economies and societies, and also the expansion of tertiary systems and institutions throughout the world. The destinations of international students highlight the attractiveness of specific education systems, whether because of their academic reputation or because of subsequent immigration opportunities. Foreign students enrolled in G20 countries account for 83% of total foreign students, and students in the OECD area represent 77% of the total foreign students enrolled worldwide. European countries in the OECD were the destination for 41% of foreign students in 2011 followed by North American countries (23%).

Compared to 2000, the share of international students who chose the United States as their country of destination for tertiary education dropped from 23% to 17% in 2011, and the share of international students who chose Germany fell by almost three percentage points. In contrast, the shares of international students who chose Australia, Korea, New Zealand or Spain as their country of destination grew by at least one percentage point, while the share of students who chose the United Kingdom or the Russian Federation grew by around two percentage points. Some of these changes reflect differences in countries' approaches to internationalisation, ranging from marketing campaigns in the Asia-Pacific region to a more local and university-driven approach in the United States. Language as well as cultural considerations, quality of programmes, geographic proximity and similarity of education systems are determining factors driving student mobility.

Despite the strong increase in absolute numbers, these proportions have remained stable during the last decade. In the OECD area, the number of foreign students in tertiary education is nearly three times as high as the number of national citizens enrolled abroad. In the 21 European countries who are OECD Members there is a ratio of 2.7 foreign students per each citizen from an European country studying abroad.

#### **Definition**

Students are classified as "international" if they left their country of origin only for the purpose of study. Students are classified as "foreign" when they are not citizens of the country where they are enrolled. This includes some students who are permanent residents, albeit not citizens, of the countries in which they are studying such as young people from immigrant families. Consequently, foreign graduation rates are not comparable with data on international graduation rates and are therefore presented separately.

## Comparability

Data on international and foreign students refer to the academic year 2010/2011, based on data collected on education statistics, annually by the OECD. Additional data from the UNESCO Institute for Statistics are also included. Data on the impact of international students on tertiary graduation rates are based on a special survey conducted by the OECD in December 2011.

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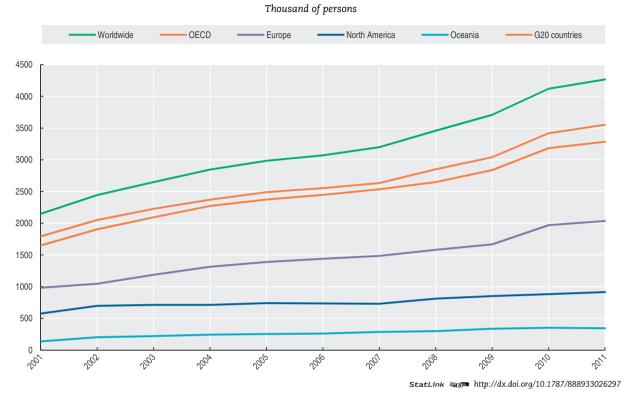
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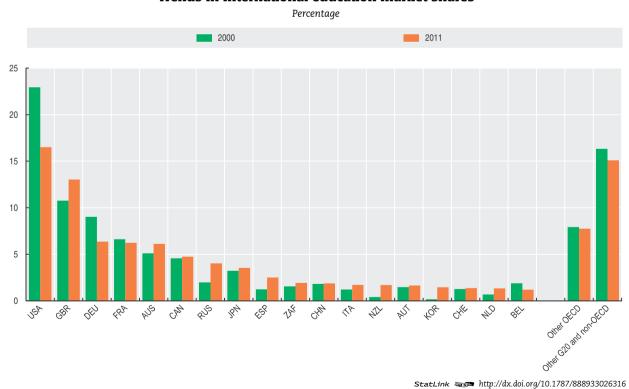


## HOW MANY STUDENTS STUDY ABROAD?

## Evolution by destination in the number of students enrolled outside their country of citizenship



## Trends in international education market shares



## **EDUCATIONAL ATTAINMENT**

Educational attainment is a commonly used proxy for the stock of human capital – say, the skills available in the population and the labour force. As globalisation and technology continue to re-shape the needs of labour markets worldwide, the demand for individuals with a broader knowledge base and more specialised skills, e.g. advanced analytical capacities, and complex communication skills, continues to rise. As a result, more individuals are pursuing higher levels of education now than in previous generations, leading to significant shifts in attainment levels over time within countries.

## **Definition**

Educational attainment refers to the highest level of education completed by a person, shown as a percentage of all persons in that age group. Tertiary education includes both tertiary-type A programmes, which are largely theoretically-based and designed to provide qualifications

## Overview

An indication of long-term trends in educational attainment can be obtained by comparing the current attainment levels of younger and older adults. Tertiary attainment levels have increased considerably over the past 30 years. On average across OECD countries, 39% of 25-34 year-olds have a tertiary attainment, compared with 24% of 55-64 year-olds. Canada, Japan, Korea and the Russian Federation lead the OECD and G20 countries in the proportion of young adults (25-34 year-olds) with a tertiary attainment, with 55% or more having reached this level of education. In France, Ireland, Japan, Korea and Poland, there is a difference of 24 percentage points or more between the proportion of young adults and older adults who have attained this level of education.

In 2011, over 30% of the population aged between 25 and 64 has attained tertiary level education in more than half of the OECD countries. On average across OECD countries, 25% of adults now have only primary or lower secondary levels of education, 44% have upper secondary education and 32% have a tertiary qualification. Over the past decade most of the changes in educational attainment have occurred at the low and high ends of the attainment distribution. Between 2000 and 2011 the share of those who had not attained an upper secondary education decreased by 9 percentage points while the proportion with tertiary education increased by 10 percentage points across OECD countries. This largely reflects the fact that older workers with low levels of education have moved out of the labour force, and that many countries have expanded their focus on higher education in recent years.

for entry to advanced research programmes; and tertiary-type B programmes, which are generally not intended to lead to further university-level degrees, but rather directly to the labour market. Upper secondary education typically follows completion of lower secondary schooling. Lower secondary education completes provision of basic education, usually in a more subject-oriented way and with more specialised teachers.

## Comparability

The International Standard Classification of Education (ISCED-97) is used to define the levels of education in a comparable way across countries. The OECD Handbook for Internationally Comparative Education Statistics describes ISCED-97 education programmes and attainment levels and their mappings for each country.

In recent decades the education landscape has seen more efforts than ever before to build and invest in education systems worldwide. Educational attainment trends have been changing and countries that once had important deficiencies have seen their attainment rates increase at a solid pace. However, changes in attainment rates vary greatly between age groups. The differences in tertiary attainment rates between 25-34 year-olds and 55-64 year-olds can range from over 50 percentage points in Korea to the inverse (i.e. as many younger adults as older adults with tertiary attainment) in Israel.

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## **EDUCATIONAL ATTAINMENT**

## **Educational attainment**

As a percentage of total population in that age group

			Population	aged 25-34					Population	aged 25-64		
_	Below uppe	r secondary	Upper second secondary		Teri	tiary	Below uppe	er secondary		lary and post- non-tertiary	Tertiary (	education
_	2000	2011	2000	2011	2000	2011	2000	2011	2000	2011	2000	2011
Australia	31.7	15.6	36.9	39.8	31.4	44.6	41.2	25.9	31.7	15.6	27.5	38.3
Austria	16.2	11.8	16.2	11.8	14.5	21.2	23.9	17.5	16.2	11.8	13.9	19.3
Belgium	24.7	18.1	24.7	18.1	36.0	42.5	41.5	28.7	24.7	18.1	27.1	34.6
Canada	11.8	7.5	11.8	7.5	48.4	56.7	19.3	11.2	11.8	7.5	40.1	51.3
Chile		12.2		12.2		41.3		27.7		12.2		28.8
Czech Republic	7.6	5.7	7.6	5.7	11.2	25.1	14.1	7.7	7.6	5.7	11.0	18.3
Denmark	13.1	19.7	13.1	19.7	29.3	38.6	20.2	23.1	13.1	19.7	25.8	33.7
Estonia	9.0	14.2	9.0	14.2	31.3	39.1	15.3	11.1	9.0	14.2	28.9	36.8
Finland	13.7	9.8	13.7	9.8	38.7	39.4	26.8	16.3	13.7	9.8	32.6	39.3
France	23.6	16.7	23.6	16.7	31.4	43.0	37.8	28.4	23.6	16.7	21.6	29.8
Germany	15.1	13.2	15.1	13.2	22.3	27.7	18.3	13.7	15.1	13.2	23.5	27.6
Greece	31.3	19.9	31.3	19.9	23.9	32.5	50.7	32.9	31.3	19.9	17.7	26.1
Hungary	18.7	12.7	18.7	12.7	14.7	28.1	30.8	18.2	18.7	12.7	14.0	21.1
Iceland	37.3	25.3	37.3	25.3	29.5	39.4	44.2	29.3	37.3	25.3	23.8	33.9
Ireland	27.0	15.0	27.0	15.0	29.8	47.2	42.7	26.6	27.0	15.0	21.6	37.7
srael		10.3		10.3		45.0		17.0		10.3		46.4
taly	40.9	28.7	40.9	28.7	10.5	21.0	54.8	44.0	40.9	28.7	9.6	14.9
Japan	5.8		5.8	0.0	47.8	58.7	17.1		5.8	0.0	33.6	46.4
Korea	6.7	2.0	6.7	2.0	36.9	63.8	31.7	18.6	6.7	2.0	23.9	40.4
Luxembourg	31.8	16.6	31.8	16.6	22.9	46.6	39.1	22.7	31.8	16.6	18.3	37.0
Mexico	62.9	56.0	62.9	56.0	17.5	22.5	70.9	63.7	62.9	56.0	14.7	17.3
Netherlands	25.0	18.2	25.0	18.2	27.1	39.9	33.9	27.7	25.0	18.2	24.1	32.1
New Zealand	31.3	19.6	31.3	19.6	28.9	46.0	36.8	25.9	31.3	19.6	28.9	39.3
Norway	6.6	16.2	6.6	16.2	34.9	46.8	14.8	18.1	6.6	16.2	28.4	38.1
Poland	10.6	5.9	10.6	5.9	14.2	39.2	20.1	10.9	10.6	5.9	11.4	23.7
Portugal	68.2	44.3	68.2	44.3	12.9	26.9	80.6	65.0	68.2	44.3	8.8	17.3
Slovak Republic	6.3	5.9	6.3	5.9	11.2	25.7	16.2	8.7	6.3	5.9	10.4	18.8
Slovenia	14.6	6.0	14.6	6.0	19.3	33.8	25.2	15.5	14.6	6.0	15.7	25.1
Spain	44.6	35.2	44.6	35.2	34.1	39.2	61.7	46.0	44.6	35.2	22.6	31.6
Sweden	12.7	9.1	12.7	9.1	33.6	42.9	22.4	13.0	12.7	9.1	30.1	35.2
Switzerland	10.2	10.9	10.2	10.9	25.6	39.8	16.1	14.4	10.2	10.9	24.2	35.2
Turkey	72.3	56.5	72.3	56.5	8.9	18.9	76.7	67.9	72.3	56.5	8.3	14.0
United Kingdom	33.2	15.7	33.2	15.7	28.9	46.9	37.4	23.2	33.2	15.7	25.7	39.4
United States	11.8	11.0	11.8	11.0	38.1	43.1	12.6	10.7	11.8	11.0	36.5	42.4
EU 28												
0ECD	24.3	17.7	24.3	17.7	26.4	38.6	34.2	25.2	24.3	17.7	22.0	31.5
Brazil		43.3		43.3		12.7		56.7		43.3		11.6
China												
India												
Indonesia												
Russian Federation		6.0		6.0		56.5		5.9		6.0		53.5
South Africa												

StatLink http://dx.doi.org/10.1787/888933028634

## Population that has attained tertiary education

Percentage, 2011



StatLink http://dx.doi.org/10.1787/888933026335

## **EDUCATIONAL EXPENDITURE**

Expenditure on education is an investment that can foster economic growth, enhance productivity, contribute to personal and social development and reduce social inequality. The proportion of total financial resources devoted to education is one of the key choices made by governments, enterprises, students and their families. Policy makers must balance the importance of improving the quality of educational services with the desirability of expanding access to educational opportunities.

#### **Definition**

Expenditure on institutions is not limited to expenditure on instruction services but includes public and private expenditure on ancillary services for students and their families, where these services are provided through educational institutions.

In principle, public expenditure includes both direct expenditure on educational institutions and educational related public subsidies to households administered by educational institutions. Private expenditure is recorded net of these public subsidies attributable to educational institutions; it also excludes expenditure made outside educational institutions (such as textbooks purchased by

families, private tutoring for students and student living costs).

## Comparability

The data on expenditure were obtained by a special survey conducted in 2012 which applied consistent methods and definitions. Expenditure data are based on the definitions and coverage for the UNESCO-OECD-Eurostat data collection programme on education; they have been adjusted to 2010 prices using the GDP price deflator. The use of a common survey and definitions ensures good comparability of results across countries.

The level of expenditure on educational institutions is affected by the size of a country's school age population, enrolment rates, level of teachers' salaries, and the organisation and delivery of instruction. At the primary and lower secondary levels of education (corresponding broadly to the 5-14 year-old population), enrolment rates are close to 100% in OECD countries, and changes in the number of students are closely related to demographic changes. This is not as much the case in upper secondary and tertiary education, because part of the concerned population has left the education system.

## Overview

In 2010, expenditure on pre-primary education accounted for nearly one-tenth of expenditure on educational institutions, or 0.6% of the GDP, on average across OECD countries. There are large differences among countries. For instance, expenditure on pre-primary education is less than 0.2% of GDP in Australia and Turkey, but about 1% or more in Denmark and Iceland.

Primary, secondary and post-secondary non-tertiary education accounts for nearly two thirds of expenditure on educational institutions, or 3.9% of the GDP, on average across OECD countries. New Zealand and Norway spend more than 5% of their GDP on these levels of education, while the Czech Republic, Hungary, Japan, the Russian Federation and Turkey spend 3% or less.

In 2010, the OECD average level of annual expenditure per student for primary, secondary and post-secondary non-tertiary education was USD 8 550. Between 2000 and 2010, a period of relatively stable student enrolment at these levels, spending per students increased in every country, rising by 39% on average.

Over this period, expenditure per student increased by at least 16% in 24 of the 29 OECD and Partner countries with available data. The rise exceeded 50% in Brazil, the Czech Republic, Estonia, Hungary, Ireland, Korea, Poland, the Slovak Republic and the United Kingdom.

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## EDUCATIONAL EXPENDITURE

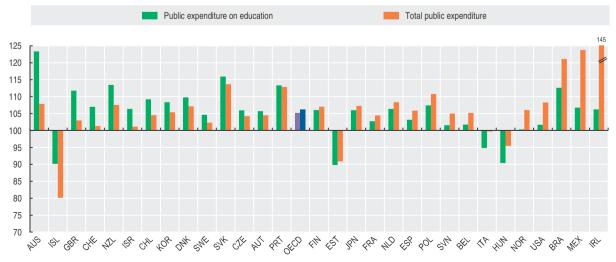
## Expenditure on primary, secondary, post-secondary non tertiary institutions

	Spending p	er student, USD,	, 2010, PPPs			Index 20	005 = 100				tage of total iditure		nditure (2000 = ant prices)
	Pre-primary	Primary	Secondary	Exper	diture	Number o	of students	Expenditure	per student	Share of public sources	Share of private sources	Public sources	Private sources
	2010	2010	2010	2000	2010	2000	2010	2000	2010	2010	2010	2010	2010
Australia	8 899	9 463	10 350	82.0	132.7	92.9	101.1	88.3	131.2	84.7	15.3	163.7	151.8
Austria	8 893	10 244	12 551	96.6	96.6	101.2	95.2	95.5	109.9	95.5	4.5	107.9	117.4
Belgium	6 024	8 852	11 004	93.8	93.8	90.9	95.5	103.2	120.5	96.0	4.0	124.3	92.8
Canada		8 933		85.8	85.8	99.1	98.0	86.5	118.9	89.3	10.7	131.4	190.6
Chile	3 544	3 301	3 110				93.0		137.0	78.6	21.4		
Czech Republic	4 247	4 120	6 546	76.2	76.2	107.4	88.7	71.0	125.1	90.8	9.2	144.3	161.3
Denmark	9 454	10 935	11 747	86.4	86.4	95.1	105.1	90.8	102.0	97.6	2.4	123.8	138.3
Estonia	2 533	5 140	6 444	80.0	80.0	121.2	84.9	66.0	133.8	98.7	1.3	141.9	
Finland	5 372	7 624	9 162	82.0	82.0	92.9	101.1	88.3	131.2	84.7	15.3	163.7	151.8
France	6 362	6 622	10 877	99.5	99.5	101.8	99.6	97.8	105.1	92.0	8.0	104.5	113.3
Germany				99.9	99.9	102.5		97.4					
Greece				77.9	77.9	100.5		77.4					
Hungary	4 773	4 684	4 553	68.6	68.6	107.5	89.1	63.8	94.6			122.8	
Iceland	8 606	9 482	7 841	72.4	72.4	94.4	101.1	76.7	91.5	97.6	3.8	127.6	133.6
Ireland		8 384	11 380	67.3	67.3	97.0	107.9	69.4	133.2	95.9	4.1	213.5	216.1
Israel	3 910	5 758	5 616	94.7	94.7	94.1	108.5	100.7	120.0	92.4	7.6	134.8	179.5
Italy	7 177	8 296	8 607	95.9	95.9	98.6	100.2	97.3	96.5	96.6	3.4	103.7	161.9
Japan	5 550	8 353	9 957	98.5	98.5	109.2	95.8	90.3	109.0	93.0	7.0	109.8	72.3
Korea	6 739	6 601	8 060	69.0	69.0	102.1	92.8	67.6	135.4	78.5	21.5	177.1	203.7
Luxembourg	20 958	21 240	17 633				89.1		116.3	97.8	2.2		200.7
Mexico	2 280	2 331	2 632	80.1	80.1	94.6	105.2	84.7	104.0	82.7	17.3	131.2	170.1
Netherlands	7 664	7 954	11 838	83.8	83.8	96.7	101.8	86.7	113.3	86.9	13.1	139.3	125.8
New Zealand	11 495	6 842	8 170	92.2	92.2	30.7	100.5		119.0	87.4	12.6	129.7	120.0
Norway	6 610	12 255	13 852	86.8	86.8	94.5	101.6	91.8	111.4	07.4	12.0	130.5	
Poland	5 737	5 937	5 483	89.4	89.4	114.2	80.4	78.3	153.2	93.8	6.2	135.4	187.9
Portugal	5 977	5 922	8 882	97.9	97.9	111.0	99.1	88.1	109.3	100.0	0.0	110.7	87.7
Slovak Republic	4 306	5 732	4 806	73.5	73.5	108.1	84.4	68.0	159.3	88.0	12.0	165.1	924.4
Slovenia	7 744	8 935	8 187				90.3		114.5	91.3	8.7		024.4
Spain	6 685	7 291	9 608	93.2	93.2	106.9	105.2	87.2	112.8	91.8	8.2	125.8	148.8
Sweden	6 582	9 987	10 185	88.1	88.1	98.4	91.3	89.5	112.7	99.9	0.0	116.8	62.6
Switzerland	5 186	11 513	14 972	87.5	87.5	98.0	98.1	89.3	108.3	88.1	11.9	120.1	130.4
Turkey	2 490	1 860	2 470										
United Kingdom	7 047	9 369	10 452	70.4	70.4	112.6	99.6	62.5	109.0	78.9	21.1	137.3	288.7
United States	10 020	11 193	12 464	86.5	70.4 86.5	97.7	99.6	88.5	112.8	92.3	7.7	131.0	117.9
EU 28			12 404										
OECD	6 762	7 974	9 014	 85.2	85.2	101.5	96.9	84.1	117.2		9.1	134.2	181.0
Brazil	2 111	2 778	2 571	85.2 65.6	65.6	98.2	96.9	66.8	186.0			258.7	181.0
China													
												100.7	151.0
India				82.0	82.0	92.9	101.1	88.3	131.2			163.7	151.8
Indonesia													
Russian Federation			4 100	65.7	65.7		87.3		147.7	96.9	3.1	196.5	
South Africa													

StatLink http://dx.doi.org/10.1787/888933028672

## Public expenditure on education and total public expenditure

2010 constant prices, 2008 = 100, 2010



StatLink http://dx.doi.org/10.1787/888933026373

## **TEACHERS**

Teachers' salaries represent the largest single cost in formal education and have a direct impact on the attractiveness of the teaching profession. They influence decisions to enrol in teacher education, become a teacher after graduation (as graduates' career choices are associated with relative earnings in teaching and non-teaching occupations, and their likely growth over time), return to the teaching profession after a career interruption, and/or remain a teacher (as, in general, the higher the salaries, the fewer the people who choose to leave the profession).

#### **Definition**

Salary structures define the salaries paid to teachers at different points in their careers. Deferred compensation, which rewards employees for staying in organisations or professions and for meeting established performance criteria, is also used in teachers' salary structures. OECD data on teachers' salaries are limited to information on statutory salaries at four points of the salary scale: starting salaries, salaries after 10 years of service, salaries after 15 years of experience, and salaries at the top of the scale. The salaries discussed here are those of teachers who have the minimum required training. Further qualifications can lead to wage increases in some countries.

## Overview

Teachers' salaries vary widely across countries. The salaries of lower secondary school teachers with 15 years of experience range from less than USD 15 000 in Estonia, Hungary, Indonesia and the Slovak Republic, to USD 60 000 or more in Germany, the Netherlands and Switzerland (for teachers with at least 11 years of experience) and exceed USD 100 000 in Luxembourg.

Between 2000 and 2011, teachers' salaries rose, in real terms, in most countries with available data. Notable exceptions are France and Japan, where there was a decline in teachers' salaries in real terms during that period.

The financial and economic crisis that hit the world economy in 2008 significantly affected the salaries for civil servants and public sector workers in general. The pressure to trim government spending in order to reduce national debt has resulted in cuts in teachers' and other civil-service salaries in a growing number of countries. On average across OECD countries with available data, teachers' salaries decreased, for the first time since 2000, by around 2% at all levels of education between 2009 and 2011. The economic downturn may also have an influence on the supply of teachers. In general, when the general economy is weak, and there is high unemployment among graduates and low graduate earnings, teaching might seem to be a more attractive job choice than other occupations.

## Comparability

Teachers' salaries are one component of teachers' total compensation. Other benefits, such as regional allowances for teaching in remote areas, family allowances, reduced rates on public transport and tax allowances on the purchase of cultural materials, may also form part of teachers' total remuneration. There are also large differences in taxation and social-benefits systems in OECD countries. All this should be borne in mind when comparing salaries across countries

In most OECD countries, teachers' salaries increase with the level of education they teach. For example, in Belgium, Denmark, Finland, Hungary, Indonesia, Poland and Switzerland, the salary of an upper secondary school teacher with 15 years of experience is at least 25% higher than that of a pre-primary school teacher with the same experience.

Salaries at the top of the scale are, on average, 58%, 59%, 61% and 62% higher, respectively, than starting salaries in preprimary, primary, lower secondary and upper secondary education, and the difference tends to be greatest when it takes many years to progress through the scale. In countries where it takes 30 years or more to reach the top of the salary scale, salaries at that level are an average of 78% higher than starting salaries.

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**TEACHERS** 

## Teachers' statutory salaries at different points in their careers

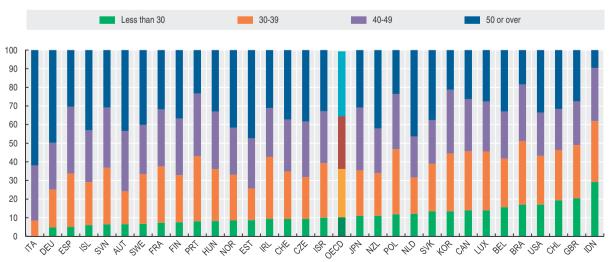
Primary education

	2000	= 100		Equivalent US	SD using PPPs	
		ry after 15 years nimum training	Starting salary, minimum training	Salary after 10 years experience, minimum training	Salary after 15 years experience, minimum training	Salary at top of scale, minimum training
	2005	2011	2011	2011	2011	2011
Australia	108.2	112.2	34 610	48 522	48 522	48 522
Austria	110.6	113.3	31 501	37 115	41 633	62 129
Belgium						
Canada			35 534	53 631	56 349	56 349
Chile			17 385	21 728	23 623	31 201
Zech Republic	180.1	201.2	16 680	19 321	20 185	22 236
Denmark	106.9	124.3	43 461	48 616	50 332	50 332
stonia	119.3	162.4	11 621	12 306	12 306	16 985
inland	116.8	118.8	30 587	35 742	37 886	40 160
rance	95.0	90.9	25 646	30 963	33 152	48 916
Germany			47 488		58 662	63 286
Greece	112.6	96.7	22 803	26 112	28 184	34 037
lungary	158.7	119.1	10 654	12 216	13 115	17 497
celand	112.1	111.3	23 988	26 297	26 991	28 145
reland	116.6	132.1	33 484	49 060	54 954	62 166
srael	99.6	141.7	18 692	24 224	27 174	38 377
taly	105.8	103.9	27 288	30 020	32 969	40 119
apan	98.6	91.4	26 031	38 665	45 741	57 621
Corea	125.4	119.0	27 581	41 373	48 251	76 528
uxembourg			64 043	82 736	93 397	112 997
Mexico	104.3	111.8	15 081	15 174	19 590	32 136
letherlands			36 626	44 951	52 292	53 974
lew Zealand	101.8	107.0	28 225	41 755	41 755	41 755
lorway			33 350	37 585	37 585	42 055
Poland			10 362	13 605	16 506	17 200
Portugal	114.5	126.4	30 946	37 152	39 424	52 447
Slovak Republic			10 241	12 499	12 858	13 864
Slovenia			26 486	29 385	32 193	33 817
Spain	105.1	106.0	35 881	39 077	41 339	50 770
Sweden	106.2	109.2	30 059	33 363	34 387	39 865
Switzerland	102.7	102.9	47 330	59 445		73 585
Turkey	181.3	196.6	23 494	24 241	25 189	27 201
Jnited Kingdom						
Jnited States	103.8	103.1	37 595	43 747	46 130	53 180
U 28						
DECD	116.0	120.8	28 854	35 503	38 136	45 602
razil						
China						
ndia					ii ii	
ndonesia			1 638	1 855	2 072	2 361
Russian Federation			1 000	1 000	2012	2001
South Africa				**	"	

StatLink http://dx.doi.org/10.1787/888933028653

## Age distribution of teachers in secondary education

2011



StatLink http://dx.doi.org/10.1787/888933026354

## **EXPENDITURE IN TERTIARY EDUCATION**

Educational institutions in OECD countries are mainly publicly funded, although there are substantial and growing levels of private funding at the tertiary level. At this level, the contribution to the costs of education by individuals and other private entities is more and more considered an effective way to ensure funding is available to students regardless of their economic backgrounds.

#### **Definition**

This indicator covers private expenditure on schools, universities and other private institutions delivering or supporting educational services. Other private entities include private businesses and non-profit organisations, e.g. religious organisations, charitable organisations and business and labour associations. Expenditure by private companies on the work-based element of school- and

#### Overview

In 2010, the average level of expenditure per tertiary student, across OECD countries, was USD 13 528. Spending per student at tertiary level ranged from USD 7 000 or less in Chile, Estonia, Indonesia, the Slovak Republic and South Africa to more than USD 20 000 in Canada, Switzerland and the United States.

Expenditure on tertiary education amounts to more than 1.5% of GDP in more than half of all countries, and exceeds 2.5% in Canada (2.7%), Korea (2.6%) and the United States (2.8%). Three countries devote less than 1% of GDP to tertiary education, namely Brazil (0.9%), Hungary (0.8%) and the Slovak Republic (0.9%)

High private returns to tertiary education suggest that a greater contribution to the costs of education by individuals and other private entities may be justified, as long as there are ways to ensure that funding is available to students regardless of their economic backgrounds.

The proportion of expenditure on tertiary institutions covered by individuals, businesses and other private sources, including subsidised private payments, ranges from 5% or less in Denmark, Finland and Norway (tuition fees charged by tertiary institutions are low or negligible in these countries), to more than 40% in Australia, Canada, Israel, Japan and the United States, and to over 70% in Chile, Korea and the United Kingdom. Of these countries, in Korea and the United Kingdom, most students are enrolled in private institutions (around 80% in private universities in Korea; 100% in government-dependent private institutions in the United Kingdom), and most of the budget of educational institutions comes from tuition fees (more than 70% in Korea, and more than 50% in the United Kingdom).

work-based training of apprentices and students is also taken into account.

Private expenditure is recorded net of public subsidies to educational institutions; it also includes expenditures made outside educational institutions.

## Comparability

The data on expenditure were obtained by a survey conducted in 2012 which applied consistent methods and definitions. Expenditure data are based on the definitions and coverage for the UNESCO-OECD-Eurostat data collection programme on education; they have been adjusted to 2010 prices using the GDP price deflator. The use of a common survey and definitions ensures good comparability of results across countries.

Educational expenditure in national currency for 2010 is converted into equivalent USD by dividing the national currency figure by the purchasing power parity (PPP) index for GDP. PPP exchange rates are used because market exchange rates are affected by many factors that are unrelated to the purchasing power of currencies in different countries.

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## EXPENDITURE IN TERTIARY EDUCATION

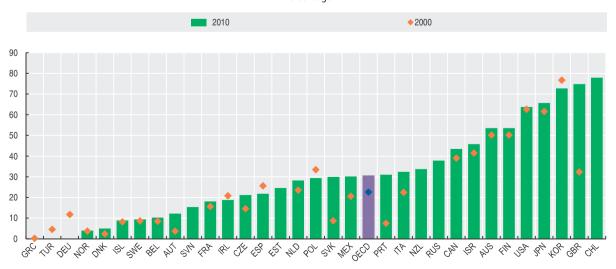
## **Expenditure on tertiary institutions**

	Spending per student, USD, 2010, PPPs			Index 2	005 = 100				As a percentage	of total expenditure	
	2010	Expe	nditure	Number	of students	Expenditur	e per student	Share of pu	ublic sources	Share of pri	vate sources
	2010	2000	2010	2000	2010	2000	2010	2000	2010	2000	2010
Australia	15 142	83.0	126.4		125.3		100.8	49.9	46.5	50.1	53.5
Austria	15 007	74.8	125.5	102.8	139.4	72.7	90.1	96.3	87.8	3.7	12.2
Belgium	15 179	98.2	124.0	94.4	112.4	104.0	110.4	91.5	89.8	8.5	10.2
Canada	22 475	85.7	116.6					61.0	56.6	39.0	43.4
Chile	7 101	85.4	173.0	73.1	160.6	116.8	107.8		22.1		77.9
Czech Republic	7 635	64.8	140.4	72.3	131.9	89.5	106.4	85.4	78.8	14.6	21.2
Denmark	18 977	86.0	110.3	97.8	108.1	88.0	102.1	97.6	95.0	2.4	5.0
Estonia	6 501	92.2	138.0	85.5	100.4	107.8	137.3		75.4		24.6
Finland	16 714	86.3	116.2	95.0	98.9	90.8	117.5	97.2	95.9	2.8	4.1
France	15 067	93.3	117.3	95.3	101.9	97.8	115.1	84.4	81.9	15.6	18.1
Germany		94.1		92.7		101.4		88.2		11.8	
Greece		42.3		67.5		62.7		99.7		0.3	
Hungary	8 745	80.8	95.8	66.3	86.4	121.8	110.9				
Iceland	8 728	69.5	100.7	67.6	116.8	102.8	86.2	91.8	91.2	8.2	8.8
reland	16 008	99.8	140.1	85.2	109.1	117.2	128.4	79.2	81.2	20.8	18.8
srael	10 730	89.7	107.3	81.8	108.2	109.7	99.1	58.5	54.2	41.5	45.8
taly	9 580	92.6	111.8	89.7	97.9	103.2	114.2	77.5	67.6	22.5	32.4
Japan	16 015	93.7	110.1	98.9	96.3	94.8	114.3	38.5	34.4	61.5	65.6
Korea	9 972	78.8	137.5	93.4	102.1	84.4	134.7	23.3	27.3	76.7	72.7
Luxembourg					102.1			20.0			
Vlexico	7 872	73.2	126.4	82.8	120.2	88.5	105.1	79.4	69.9	20.6	30.1
Netherlands	17 161	83.8	120.3	85.3	118.5	98.2	101.5	76.5	71.8	23.5	28.2
New Zealand	10 418	84.4	127.3		132.5		96.1		66.3		33.7
Norway	18 512	83.2	105.9	87.8	105.8	94.8	100.0	96.3	96.0	3.7	4.0
Poland	8 866	57.5	120.2	80.0	92.8	71.8	129.6	66.6	70.6	33.4	29.4
Portugal	10 578	70.1	113.8	90.4	107.0	77.6	106.4	92.5	69.0	7.5	31.0
Slovak Republic	6 904	66.8	127.6	71.3	124.1	93.6	102.9	91.2	70.2	8.8	29.8
Slovenia	9 693		108.1		103.7		104.2	1	84.7		15.3
Spain	13 373	87.8	126.1	107.5	111.1	81.6	113.5	74.4	78.2	25.6	21.8
Sweden	19 562	86.5	117.5	82.3	103.4	105.1	113.6	91.3	90.6	8.7	9.4
Sweden Switzerland	21 893	77.3	101.5	78.8	128.5	98.1	79.0			-	
										4.6	
Turkey Jnited Kingdom	 15 862	65.7	106.4	93.4	109.9	70.3	96.8	95.4 67.7	25.2	32.3	74.8
											63.7
Inited States	25 576	78.4	117.0	88.6	122.9	88.5	95.2	37.4	36.3	62.6	
EU 28											
DECD	13 528	80.8	120.3	86.0	113.0	94.1	107.6	77.4	68.4	22.6	30.6
Brazil	13 137	78.6	147.8	70.4	124.6	111.7	118.6				
China											
ndia				-							
ndonesia											
Russian Federation	7 039	44.3	148.0		156.0		94.8		62.2		37.8
South Africa											

StatLink http://dx.doi.org/10.1787/888933028691

## Share of private expenditure on tertiary institutions





StatLink http://dx.doi.org/10.1787/888933026392





## **GOVERNMENT DEFICITS AND DEBT**

GOVERNMENT EXPENDITURES, REVENUES AND DEFICITS

GOVERNMENT DEBT

## **GENERAL GOVERNMENT**

EXPENDITURES ACROSS LEVELS OF GOVERNMENT
GENERAL GOVERNMENT EXPENDITURES AND REVENUES PER CAPITA
GENERAL GOVERNMENT PRODUCTION COSTS

## **GOVERNMENT TRANSPARENCY**

CONFLICT OF INTEREST AND ASSET DISCLOSURE

## **PUBLIC EXPENDITURE**

SOCIAL EXPENDITURE PENSION EXPENDITURE

## AGRICULTURAL SUPPORT AND FOREIGN AID

GOVERNMENT SUPPORT FOR AGRICULTURE GOVERNMENT SUPPORT FOR FISHING OFFICIAL DEVELOPMENT ASSISTANCE

## **TAXES**

TAXES ON THE AVERAGE WORKER
TOTAL TAX REVENUE

## **GOVERNMENT EXPENDITURES, REVENUES AND DEFICITS**

Net lending reflects the fiscal position of government after accounting for capital expenditures. Positive net-lending means that government is providing financial resources to other sectors and negative net-lending means that government requires financial resources from other economic sectors.

While general government and net lending is an important concept in the System of National Accounts (SNA) accounting framework and provides the basis for sound international comparisons, net lending is not necessarily the key fiscal measure targeted by governments. Some countries for example manage their budgets using broader notions that incorporate the positions of public corporations and others focus on more narrow concepts such as central government.

#### **Definition**

Total general government expenditures (GGE) include the following items: intermediate consumption; compensation of employees, subsidies, social benefits and social transfers in kind (via market producers); other current transfers; property income; capital transfers (payable); the adjustment for the net equity of households in pension funds reserves; gross capital formation; and net acquisition of non-financial non-produced assets. It also includes taxes on income and wealth and other taxes on production that governments may be required to pay.

Revenues include taxes (on corporations and households, and those on income, wealth, production and imports),

#### Overview

Over the last ten years, the fiscal balance in the OECD as a whole has been typically in deficit. This, however, masks diversified levels and trends among the OECD countries. Following the global recession of 2008-09, the OECD deficit increased to record levels in 2009 and 2010. In 2010, deficits larger than 10% of GDP were recorded for Ireland, the United States, Greece, the United Kingdom and Iceland. The large deficit in Ireland of 30.6% partly reflected one-off payments to support the financial system. In contrast, Norway had a surplus of 11.1%. In 2012, the fiscal balance in most OECD countries for which data are available, improved. As with the fiscal balance, there is a big variation in the shares of expenditure and revenues in GDP across the OECD countries and over time. Looking at the revenues in 2012, the lowest government revenues as a percentage of GDP were reported for the United States (30.8%) and the Slovak Republic (33.2%). Amongst OECD countries, Mexico shows the lowest revenues as a percentage of GDP, 21.8% in 2010. On the other hand, the Scandinavian countries all reported revenues over 50% of GDP.

social security contributions, property income and other income.

## Comparability

The biggest issue affecting comparability across countries concerns the scope of the government sector. In many countries, hospitals, for example, are classified outside of the government sector and are instead recorded as public corporations on the grounds that they charge market prices for their services. EU countries have adopted a 50% rule, i.e. sales should cover at least 50% of the operating costs to qualify the relevant units as market producers outside government.

Another potential area where comparability may be affected relates to the determination of public ownership. The SNA requires that "control" be the determining factor for recording a non-market producer inside or outside government, and describes a number of criteria that can be used to assess this requirement. Recognising that this is non-trivial it includes a practical recommendation that a 50% rule relating to ownership should be adopted.

Generally however, the comparability of the figures presented here for countries is very high. For most general government expenditures there is little scope for ambiguity in treatment and the quality of underlying data is very good, so the level of comparability is generally good. Data for all countries are on a consolidated basis, except Canada (which consolidates only current transfers) and New Zealand.

Unlike previous years, all data for this indicator is now sourced from the OECD Annual National Accounts database.

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## GOVERNMENT EXPENDITURES, REVENUES AND DEFICITS

## General government revenues and expenditures

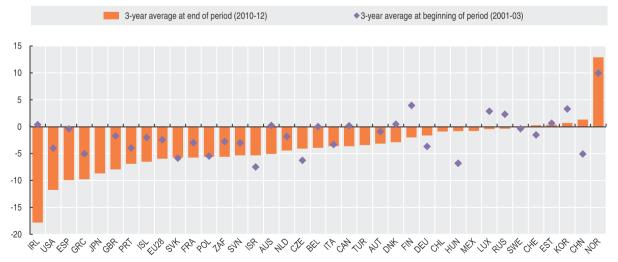
As a percentage of GDP

	-1.1 1.5 -5.0 -2.3					Reve	enues			Expen	ditures	
_	2000	2005	2010	2012	2000	2005	2010	2012	2000	2005	2010	2012
Australia	-1.1	1.5	-5.0	-2.3	34.7	35.6	31.4	30.0	35.7	34.1	36.4	32.3
Austria	-1.8	-1.8	-4.5	-2.5	50.1	48.2	48.3	49.2	51.9	50.0	52.8	51.7
Belgium	-0.1	-2.6	-3.9	-4.1	49.0	49.3	48.7	51.0	49.1	51.9	52.6	55.0
Canada	2.9	1.5	-5.6		42.6	39.3	37.4	37.2	39.7	37.6	42.3	40.6
Chile			0.0									
Czech Republic	-3.6	-3.2	-4.7	-4.4	38.0	39.8	39.1	40.1	41.6	43.0	43.7	44.5
Denmark	2.2	5.0	-2.7	-3.9	55.8	57.8	55.0	55.5	53.7	52.8	57.7	59.4
stonia	-0.2	1.6	0.2	-0.2	35.9	35.2	40.6	39.2	36.1	33.6	40.5	39.5
Finland	7.0	2.7	-2.8	-2.2	55.4	53.0	53.0	54.5	48.3	50.3	55.8	56.7
rance	-1.5	-3.0	-7.1	-4.8	50.2	50.6	49.5	51.8	51.7	53.6	56.6	56.6
Germany	1.1	-3.3	-4.2	0.1	46.2	43.6	43.7	44.8	45.1	46.9	47.9	44.7
Greece		-5.6	-10.8	-9.0		39.0	40.6	44.6		44.6	51.4	53.6
Hungary	-3.1	-7.9	-4.4	-2.1	44.7	42.2	45.6	46.6	47.8	50.1	50.0	48.7
Iceland	1.7	4.9	-10.1	-3.8	43.6	47.1	41.5	43.6	41.9	42.2	51.6	47.4
Ireland	4.9	1.6	-30.6	-8.1	36.1	35.6	34.9	34.5	31.1	33.9	65.5	42.6
Israel			-4.6	-5.1			37.6	36.5			42.3	41.7
Italy	-0.9	-4.5	-4.3	-2.9	45.0	43.4	46.1	47.7	45.9	47.9	50.4	50.6
Japan		-4.8	-8.3		31.3	31.6	32.4	33.3	38.8	36.4	40.7	42.0
Korea	5.4	3.4	1.3		27.9	30.0	31.4		22.4	26.6	30.1	
Luxembourg	6.0	0.0	-0.8	-0.6	43.6	41.5	42.7	43.7	37.6	41.5	43.5	44.3
Mexico		0.4	-1.4			21.2	23.0	24.4		19.0	23.1	24.7
Netherlands	2.0	-0.3	-5.0	-4.0	46.1	44.5	46.3	46.4	44.2	44.8	51.3	50.4
New Zealand												
Vorway	15.4	15.0	11.1	13.9	57.7	56.8	56.3	57.2	42.3	41.8	45.2	43.3
Poland	-3.0	-4.1	-7.9	-3.9	38.1	39.4	37.5	38.3	41.1	43.4	45.4	42.2
Portugal	-3.3	-6.5	-9.9	-6.5	38.3	40.1	41.6	40.9	41.6	46.6	51.5	47.4
Slovak Republic	-12.3	-2.8	-7.7	-4.5	39.9	35.2	32.3	33.2	52.1	38.0	40.0	37.8
Slovenia	-3.7	-1.5	-5.9	-3.8	42.8	43.6	43.6	44.2	46.5	45.1	49.4	48.1
Spain	-1.0	1.3	-9.6	-10.6	38.2	39.7	36.7	37.1	39.2	38.4	46.3	47.8
Sweden	3.6	1.9	0.0	-0.5	58.7	55.8	52.3	51.4	55.1	53.9	52.3	52.0
Switzerland	-0.4	-1.1	0.3	-0.2	35.2	34.1	34.1	33.8	35.6	35.2	33.9	34.1
Turkey			-2.9				37.3				40.2	
Jnited Kingdom	3.5	-3.4	-10.1	-6.1	39.9	40.0	39.8	41.8	36.4	43.4	49.9	47.9
Jnited States	0.8	-4.2	-12.0	-9.2	34.5	32.2	30.6	30.8	33.7	36.4	42.6	40.0
Euro area	-0.1	-2.5	-6.2	-3.7	46.0	44.8	44.8	46.3	46.2	47.3	51.0	49.9
EU 28	0.5	-2.5	-6.5	-3.9	45.2	44.2	44.1	45.4	44.7	46.7	50.6	49.3
DECD												
Brazil												
China	-7.0	-0.2	1.5									
ndia												
ndonesia												
Russian Federation		6.0	-1.2			40.2	38.5			34.2	39.7	
South Africa	-3.3	-2.0	-6.0	-6.2								

StatLink http://dx.doi.org/10.1787/888933028710

## General government net lending

As a percentage of GDP



StatLink http://dx.doi.org/10.1787/888933026411

## **GOVERNMENT DEBT**

The accumulation of government debt is a key factor for the sustainability of government finance. Apart from net acquisitions of financial assets, changes in government debt over time reflect the impact of government deficits.

The government debt-to-GDP ratio, calculated as the amount of total gross government debt of a country as a percentage of its Gross Domestic Product (GDP), is one of the indicators of the health of an economy.

### **Definition**

Debt is commonly defined as a specific subset of liabilities identified according to the types of financial instruments included or excluded. Generally, debt is defined as all liabilities that require payment or payments of interest or principal by the debtor to the creditor at a date or dates in the future.

Consequently, all debt instruments are liabilities, but some liabilities such as shares, equity and financial derivatives are not debt. Debt is thus obtained as the sum of the following liability categories, whenever available/applicable in the financial balance sheet of the general government sector: currency and deposits; securities other than shares, except financial derivatives; loans; insurance technical reserves; and other accounts payable. Most debt instruments are valued at market prices.

## **Comparability**

Across OECD countries, the comparability of data on general government debt can be affected by the delineation of the government sector. The degree of consolidation within the

#### Overview

In 2012, 17 OECD countries recorded debt-to-GDP ratios above 60% compared to 12 countries in 2007. In 2012, the highest recorded debt ratios were Greece (164%), Italy (142%), and Portugal (128%). Japan recorded the highest debt ratio at 228% in 2011, the latest year available. In 2012, the lowest debt-to-GDP ratios were found in Estonia (13%) and Chile (19%).

Ireland recorded the highest increase in its debt-to-GDP ratio between 2007 and 2012 (97 percentage points), reaching a level of 125.8% in 2012. Other countries with a considerable increase of more than 50 percentage points in the period 2007-12 were the United Kingdom (54.1 percentage points), Portugal (52.3 percentage points) and Spain (50.0 percentage points). In contrast, Norway's government debt, as a percentage of GDP, declined by 22.2 percentage points between 2007 and 2012.

The rapid rise in debt from 2007 reflects the effects of the crisis on governments worldwide, including reduced tax revenues, increases in government budget deficits and the cost of interventions to support the financial system.

government sector may also have an impact on the international comparability of data across OECD countries. The indicator is derived from consolidated data for all OECD countries, except: Chile, Japan, and Korea.

The status and treatment of government liabilities in respect of their employee pension plans in the national accounts is diverse across countries, making international comparability of government debts difficult. In particular, according to the 1993 SNA, only the funded component of the government employee pension plans should be reflected in its liabilities. However, the 2008 SNA recognises the importance of the liabilities of employers' pension schemes, regardless of whether they are funded or unfunded. For pensions provided by government to their employees, countries have some flexibility in the recording of the unfunded liabilities. A few OECD countries, such as Australia, Canada, Iceland, Sweden and the United States, record some unfunded liabilities of government employee pension plans in the general government debt data. For those countries, an adjusted general government debt-to-GDP ratio is calculated by excluding from the gross debt, these unfunded pension liabilities, to achieve a better comparability across OECD countries.

All countries compile data according to the 1993 SNA with the exception of Australia, Canada and the United States who compile the data according to the 2008 SNA.

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**GOVERNMENT DEBT** 

## General government debt

As a percentage of GDP

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Australia	36.2	34.7	33.6	30.9	29.0	27.7	26.8	25.8	27.8	35.5	39.5	43.9	56.5
Austria	70.8	71.7	72.8	71.1	70.6	70.6	66.0	62.4	67.2	73.1	78.0	79.8	85.3
Belgium	113.6	111.9	108.2	103.3	98.2	95.9	91.6	87.9	92.7	99.8	99.6	102.1	104.2
Canada	104.7	105.1	103.7	98.7	94.2	93.0	91.4	86.3	90.8	104.6	106.2	109.9	112.3
Chile						17.4	14.1	12.2	12.4	13.4	15.6	18.3	18.6
Czech Republic	25.1	29.3	31.5	33.2	33.0	32.7	32.5	30.9	34.3	40.8	44.7	47.8	55.7
Denmark				56.6	53.6	45.4	41.0	34.3	41.4	49.3	53.1	59.9	59.3
Estonia	6.8	6.7	7.6	8.4	8.6	8.2	8.0	7.3	8.5	12.6	12.4	9.6	13.3
Finland	52.5	50.1	49.7	51.1	51.3	48.5	44.7	40.4	39.7	51.5	57.0	58.6	64.4
France	67.9	67.2	70.7	75.2	77.1	78.9	73.9	73.0	79.2	91.4	95.5	99.2	109.3
Germany	60.9	60.2	62.6	66.0	69.1	71.7	69.8	65.7	69.8	77.4	86.0	85.6	88.5
Greece	116.3	118.4	116.9	110.7	113.1	114.9	120.4	117.8	121.3	137.9	130.2	108.8	164.2
Hungary	62.0	59.9	60.9	61.9	65.2	68.5	72.1	73.0	76.5	86.0	87.4	86.5	89.7
Iceland													
Ireland	40.2	37.1	35.4	34.1	32.7	32.7	28.7	28.4	49.2	70.1	87.3	102.3	125.8
Israel		97.4	101.6	107.0	104.9	102.3	90.4	88.1	87.6	89.9	86.7	84.2	
Italy	123.9	123.1	121.8	119.3	119.7	122.5	121.3	116.4	118.8	132.1	130.8	123.8	141.7
Japan	141.5	151.4	161.8	172.3	178.8	180.2	180.0	180.0	184.2	207.3	210.6	228.0	
Korea			19.2	19.7	23.3	25.5	28.6	28.7	29.9	33.3	34.2	35.8	37.6
Luxembourg							11.5	11.3	19.3	19.2	26.1	26.3	30.2
Mexico	31.1	31.2	33.2	32.7	31.0	31.2	28.9	28.2	30.1	37.7			
Netherlands	63.9	59.4	60.3	61.4	61.9	60.7	54.5	51.5	64.8	67.6	71.9	76.2	82.7
New Zealand													
Norway	32.6	31.9	39.4	48.8	50.7	47.6	58.7	56.6	55.2	49.0	49.3	33.9	34.4
Poland	45.4	43.8	55.0	55.6	53.3	54.1	54.2	50.4	55.5	57.6	61.4	61.6	63.0
Portugal	62.4	64.2	68.0	70.2	73.5	77.7	77.5	75.5	80.8	94.0	98.1	97.2	127.9
Slovak Republic	58.6	57.2	49.9	48.3	45.9	37.4	35.0	33.5	32.2	40.4	45.9	48.3	56.9
Slovenia		33.6	34.7	34.1	34.9	34.0	33.8	29.5	28.8	43.3	47.5	51.0	61.1
Spain	66.6	62.0	60.4	55.4	53.5	50.8	46.3	42.4	47.8	62.8	67.8	78.2	92.4
Sweden	64.0	62.0	61.8	60.4	59.9	60.6	54.0	49.2	47.8	51.5	48.8	49.2	48.7
Switzerland	56.0	55.3	61.5	60.5	61.0	59.1	52.8	52.8	48.3	47.4	46.1	46.2	
Turkey													
United Kingdom	45.8	41.0	41.7	42.0	44.2	46.4	46.0	46.9	57.3	72.1	81.6	97.0	101.0
United States	61.5	63.9	70.5	71.4	79.1	78.1	75.6	75.8	91.9	105.0	115.3	120.6	122.5
EU 28													
OECD													
Brazil											••		
China													
India													
Indonesia													
Russian Federation													
South Africa													

StatLink http://dx.doi.org/10.1787/888933028729

## Adjusted general government debt-to-GDP (excluding unfunded pension liabilities)

As a percentage of GDP

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Australia	19.7	18.1	16.8	13.9	13.2	11.9	11.1	11.1	12.8	17.7	21.6	26.4	30.7
Canada	85.9	87.7	86.8	82.4	78.5	77.8	76.8	72.0	76.7	89.6	91.6	95.8	98.4
Sweden	63.7	61.7	61.5	60.1	58.7	59.4	52.7	47.7	46.1	49.6	46.8	47.0	46.3
United States	53.0	53.0	55.4	58.5	65.5	64.9	63.6	64.0	72.8	86.0	94.8	99.0	102.4

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## **EXPENDITURES ACROSS LEVELS OF GOVERNMENT**

The responsibility for the provision of public goods and services and redistribution of income is divided between different levels of government. In some countries, local and regional governments play a larger role in delivering services, such as providing public housing or running schools. Data on the distribution of government spending by both level and function can provide an indication of the extent to which key government activities are decentralised to sub-national governments.

#### **Definition**

Data on government expenditures are derived from the OECD Annual National Accounts, which are based on the System of National Accounts (SNA), a set of internationally agreed concepts, definitions, classifications and rules for national accounting. The general government sector consists of central, state and local governments and the social security funds controlled by these units. Data on the distribution of general government expenditures across levels of government exclude transfers between levels of government and thus provide a rough proxy of the overall responsibility for providing goods and services borne by each level of government. For the central level of government, data on expenditures are shown here according to the Classification of the Functions of Government (COFOG). Data on central government expenditures by function include transfers between the different levels of government.

## Overview

Across the OECD, in 2011, 46% of general government expenditures were undertaken by central government. Sub-central governments (state and local) covered 32% and social security funds accounted for the remaining share. However, the level of fiscal decentralisation varies considerably across countries. In Ireland, for example, 76% of total expenditure is carried out by central government, representing an increase of 27 percentage points as compared to 2001. In contrast, central government accounts for less than 20% of total expenditures in Germany and Switzerland, both federal states.

In general, central governments spend a relatively larger proportion of their budgets on social protection (e.g. pensions and unemployment benefits), general public services (e.g. executive and legislative organs, public debt transactions) and defence. In over half of OECD member countries, expenditures on social protection represent the largest share of central government budgets. In Belgium and Spain, central governments allocate over 60% of their budgets to general public services.

## Comparability

Data for Australia, Japan and Turkey on the distribution of general government expenditures across levels of government include transfers between levels of government. The state government category is only applicable to the nine OECD member countries that are federal states: Australia, Austria, Belgium, Canada, Germany, Mexico, Spain (considered a quasi-federal country), Switzerland and the United States. Local government is included in state government for Australia and the United States.

Social security funds are included in central government in New Zealand, Norway, the United Kingdom and the United States. Australia does not operate government social insurance schemes. Data for Canada and New Zealand refer to 2010 rather than 2011. Data for Mexico are for 2003 rather than 2001. The OECD average does not include Chile, Japan, Poland and Turkey for general government expenditures across levels of government and does not include Australia, Canada, Chile, Japan, Mexico, New Zealand and Turkey for central government expenditures by function.

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## EXPENDITURES ACROSS LEVELS OF GOVERNMENT

## Structure of central government expenditures by function

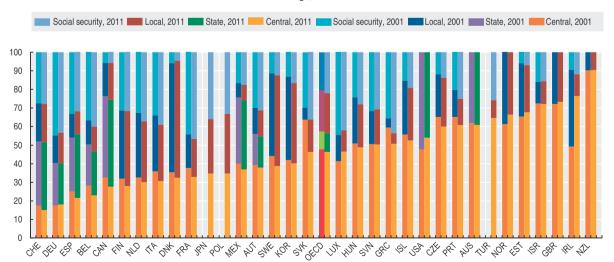
Percentage, 2011

	General public services	Defence	Public order and safety	Economic affairs	Environmental protection	Housing and community amenities	Health	Recreation, culture and religion	Education	Social protection
Australia										
Austria	17.2	2.7	5.0	12.6	0.6	0.7	4.5	1.3	13.7	41.8
Belgium	67.8	3.2	3.7	7.1	0.6	0.0	2.8	0.3	4.6	10.0
Canada										
Chile										
Czech Republic	12.7	3.0	5.6	12.8	1.4	1.7	5.4	1.3	11.9	44.4
Denmark	41.6	3.2	2.5	4.8	0.5	0.4	0.4	1.9	10.1	34.6
Estonia	15.4	5.5	7.4	12.6	-2.3	0.1	7.2	4.0	10.5	39.8
Finland	19.8	5.3	4.4	12.4	0.7	1.1	12.6	1.8	13.5	28.5
France	30.0	8.3	6.3	10.2	0.7	1.2	0.9	1.7	19.9	20.9
Germany	28.0	7.6	1.2	10.1	1.2	0.8	1.3	0.4	1.5	47.9
Greece	30.5	6.0	4.3	37.7	0.1	0.2	0.7	1.1	10.3	9.1
Hungary	27.8	3.4	5.5	19.6	1.0	1.1	10.0	3.3	10.2	18.2
Iceland	22.0	0.1	3.8	13.9	1.0	0.1	21.4	3.2	9.0	25.5
Ireland	14.1	1.1	3.9	17.7	0.8	0.9	18.4	1.4	12.2	29.6
Israel	17.9	17.0	4.1	6.5	0.4	0.8	13.4	2.9	16.9	20.3
Italy	31.5	5.4	6.5	8.2	0.6	1.0	13.8	0.6	11.7	20.8
Japan										
Korea	14.4	16.4	5.2	34.7	1.1	1.4	15.4	1.6	6.6	3.4
Luxembourg	18.9	1.4	3.2	11.6	1.5	1.8	1.8	3.7	14.2	41.9
Mexico										
Netherlands	27.8	4.7	6.6	12.9	0.8	0.4	6.7	1.2	16.5	22.5
New Zealand										
Norway	22.6	4.5	2.3	8.4	0.4	0.1	15.1	1.4	5.5	39.8
Poland	21.2	4.7	6.6	13.5	0.7	1.0	4.0	1.1	16.8	30.4
Portugal	35.4	3.7	5.3	7.1	0.2	0.2	17.1	1.1	15.2	14.7
Slovak Republic	17.6	4.6	10.5	15.7	2.3	1.6	9.2	3.6	13.4	21.5
Slovenia	16.3	3.6	4.7	14.9	1.4	0.7	11.2	3.5	16.4	27.5
Spain	63.2	6.2	7.1	10.9	0.4	0.1	1.5	1.7	1.0	8.0
Sweden	27.7	5.2	4.1	9.8	0.5	0.3	4.4	1.2	6.6	40.2
Switzerland	23.7	8.3	1.6	22.9	2.3	0.0	0.4	0.7	8.8	31.4
Turkey										
United Kingdom	14.5	5.6	4.0	4.7	0.9	4.1	18.1	1.3	11.5	35.4
United States	11.3	18.7	1.5	6.0	0.0	2.8	24.3	0.1	3.4	31.9
EU 28										
OECD	25.6	5.9	4.7	13.3	0.7	0.9	9.0	1.7	10.8	27.4
Brazil										
China										
India										
Indonesia										
Russian Federation										
South Africa										

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## Distribution of general government expenditures across levels of government

Percentage, 2001-11



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## GENERAL GOVERNMENT EXPENDITURES AND REVENUES PER CAPITA

Governments spend money to provide goods and services and redistribute income. To finance these activities governments raise money in the form of revenues (e.g. taxation) and/or borrowing. The amount of revenues and expenditures per capita provide an indication of the importance of the public sector in the economy across countries. Variations across countries however can also reflect different approaches to the delivery of public services (e.g. such as the use of tax breaks rather than direct expenditures). Additionally, both revenues and expenditures are heavily influenced by economic fluctuations. The global financial crisis had a strong impact on government revenues and expenditures in many OECD countries.

**Definition** 

Data are derived from the OECD Annual National Accounts, which are based on the System of National Accounts (SNA), a set of internationally agreed concepts, definitions, classifications and rules for national accounting. The general government sector consists of central, state and local governments and the social security funds controlled by these units. The underlying population estimates are based on the SNA notion of residency. They include

persons who are resident in a country for one year or more, regardless of their citizenship, and also include foreign diplomatic personnel, and defence personnel; together with their families and students studying and patients seeking treatment abroad, even if they stay abroad for more than one year. The "one year" rule means that usual residents who live abroad for less than one year are included in the population, while foreign visitors (for example, vacationers) who are in the country for less than one year are excluded.

## Comparability

Differences in the amounts of government revenues and expenditures per capita in some countries can be related to the fact that individuals may feature as employees of one country (contributing to the GDP of that country via production), but residents of another (with their wages and salaries reflected in the Gross National Income of their resident country). Data for Canada, New Zealand and the Russian Federation refer to 2010 rather than 2011. The OECD average does not include Chile and Turkey. Data for Japan and Mexico for 2001 are estimated. Data for the Russian Federation refer to 2002 rather than 2001.

#### Overview

On average in the OECD area, governments collected about USD 15 000 PPP per capita in revenues in 2011, while spending around USD 16 000 PPP per capita in the same year.

Luxembourg and Norway collected the most government revenues per capita in the OECD, topping more than USD 30 000 PPP per capita, and reflecting the importance of cross-border workers and corporate taxes in Luxembourg and oil revenues in Norway. These two countries also spent the most per citizen (above USD 25 000 PPP) in terms of government expenditures.

The governments of Turkey and Mexico collected the least revenues per capita; below USD 7 000 PPP in 2011. Likewise, government expenditures in these countries were also much lower than average (below USD 7 000 PPP per capita). In general, central European countries also collect comparatively less revenues per capita, and also spend less than most OECD countries.

All countries experienced increases in government revenues and expenditures per capita between 2001 and 2011. In real terms, over the period 2001-11 Korea recorded an annual growth in government expenditures per capita of 6% followed by Estonia (5%). During this same period, these two countries also top real annual growth of revenues collected per person (about 5%).

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## GENERAL GOVERNMENT EXPENDITURES AND REVENUES PER CAPITA

## General government revenues and expenditures per capita

US dollars, current prices and PPPs

		General governmen	t revenues per capita		General government expenditures per capita				
	2001	2007	2009	2011	2001	2007	2009	2011	
Australia	10 057	13 347	12 846	13 955	10 228	13 153	15 315	15 742	
Austria	14 838	18 129	18 915	20 348	14 894	18 507	20 524	21 381	
Belgium	14 115	17 163	17 595	19 240	14 015	17 197	19 658	20 748	
Canada	12 508	15 632	14 922	15 053	12 315	15 092	16 769	17 223	
Chile									
Czech Republic	6 451	10 257	9 971	10 477	7 392	10 442	11 454	11 330	
Denmark	16 303	20 964	21 176	22 799	15 955	19 155	22 235	23 598	
Estonia	3 715	7 845	8 468	8 680	3 722	7 330	8 854	8 422	
Finland	14 086	19 060	18 981	20 205	12 726	17 130	19 946	20 588	
France	13 312	16 516	16 629	17 965	13 753	17 427	19 185	19 843	
Germany	11 899	15 546	16 087	17 580	12 721	15 465	17 183	17 879	
Greece	8 158	11 302	11 196	10 950	9 043	13 177	15 754	13 424	
Hungary	5 855	8 623	9 497	11 537	6 409	9 592	10 419	10 637	
Iceland	12 761	17 710	15 309	15 270	12 970	15 703	19 023	17 314	
reland	10 459	16 521	13 758	14 474	10 168	16 488	19 251	19 994	
srael	11 037	11 436	10 133	11 621	12 534	11 844	11 868	12 899	
taly	12 149	14 751	14 965	15 075	13 018	15 260	16 713	16 278	
Japan	8 429	11 234	10 454	11 195	9 610	11 931	13 251	14 217	
Korea	5 130	8 695	8 521	9 582	4 342	7 479	8 826	9 000	
uxembourg	23 829	33 699	34 738	36 809	20 540	30 593	35 375	37 013	
Mexico	1 927	2 895	3 336	3 954	1 925	2 966	3 475	3 972	
Vetherlands	13 888	18 497	18 794	19 409	13 966	18 431	21 082	21 229	
New Zealand	8 488	12 352	11 865	12 487	8 163	11 093	12 692	14 707	
Vorway	21 305	32 190	31 100	34 987	16 364	22 527	25 328	26 812	
Poland	4 220	6 751	6 993	8 120	4 798	7 066	8 385	9 173	
Portugal	7 099	9 953	9 856	11 406	7 990	10 730	12 388	12 522	
Slovak Republic	4 582	6 759	7 562	8 023	5 368	7 138	9 371	9 243	
Slovenia	7 997	11 542	11 585	12 145	8 726	11 555	13 261	13 882	
Spain	8 609	13 252	11 221	11 469	8 732	12 633	14 795	14 503	
Sweden	15 843	20 972	20 104	21 235	15 396	19 595	20 468	21 222	
Switzerland	11 401	14 675	16 244	17 665	11 517	14 220	15 887	17 411	
Turkey		4 610	5 276	6 230		4 822	6 214	6 366	
Jnited Kingdom	11 211	14 670	13 721	14 525	11 077	15 679	17 645	17 305	
Jnited Rates	12 355	15 776	14 020	15 171	12 549	17 052	19 382	20 034	
EU 28	12 000	10770	14 020	10 17 1	12 040	11 002	10 002	20 00 1	
DECD	10 751	14 647	14 393	15 419	10 716	14 177	16 118	16 548	
Brazil	2 450	3 494	3 626	4 272	2 638	3 754	3 946	4 564	
China	395	1 097	1 369	1 897	469	1 048	1 577	2 004	
ndia	274	589	587	688	422	720	893	997	
ndonesia	490	712	677	832	558	750	749	862	
Russian Federation	3 341	6 804	7 178	7 706	3 395	5 874	7 942	7 917	
South Africa	1 704	2 963	2 795	3 098	1 784	2 824	3 362	3 537	

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## General government revenues and expenditures per capita

US dollars, current prices and PPPs, 2011



StatLink | http://dx.doi.org/10.1787/888933026449

## GENERAL GOVERNMENT PRODUCTION COSTS

Decisions on the amount and type of goods and services governments produce, as well as on how best to produce them, are often political in nature and based on a country's social and cultural context. While some governments choose to outsource a large portion of the production of goods and services to non-governmental or private entities, others decide to produce the goods and services themselves.

#### **Definition**

Governments use a mix of their own employees, capital and outside contractors (non-profit institutions or private sector entities) to produce goods and services. The latter is often referred to as "outsourcing".

This concept and methodology of production costs builds on the existing classification of public expenditures in the

#### Overview

In 2011, the production costs of government services and goods represented on average almost a quarter of GDP in the OECD across OECD member countries, ranging from 32% in Denmark and the Netherlands to 12% in Mexico.

Between 2001 and 2011, the share of government production costs in GDP increased on average by 1.6 percentage points across OECD member countries. Of this, 0.2 percentage points came from compensation of general government employees, 1.2 percentage points came from costs of goods and services used and financed by general government and the remaining difference from an increase in consumption of fixed capital.

In terms of the structure of production costs, on average, production by governments' own employees is still somewhat more prevalent than outsourcing: compensation of employees accounts for 47% of the cost of producing goods and services, compared to 44% paid to non-governmental actors for intermediate goods and services or to deliver services directly to households. Consumption of fixed capital represents the remaining 9% of total government production costs.

In 2011, government outsourcing represented on average 10% of GDP in OECD member countries. However, its importance varies greatly from 2.8% and 5.4% of GDP in Mexico and Switzerland to 14.2% and 19% of GDP in Finland and the Netherlands, respectively. In particular, the Netherlands, Germany and Japan rely comparatively more on corporations and private non-profit institutions to produce goods and services than other OECD countries, reaching a share of over 55% of the total production costs dedicated to outsourcing.

System of National Accounts (SNA) a set of internationally agreed concepts, definitions, classifications and rules for national accounting. Specifically, government production costs include: compensation costs of general government employees; goods and services used and financed by general government (including, in SNA terms, intermediate consumption and social transfer in kind via market producers paid for by government); and, consumption of fixed capital (depreciation of capital). The data include government employment and intermediate consumption for output produced by the government for its own use, such as roads and other capital investment projects built by government employees.

## Comparability

Data include some cross-country differences, for example, some countries do not record separately for social transfers in kind via market producers in their national accounts. Thus, the costs produced by non-government entities paid for by government may be understated in those countries.

Data for Canada, Chile, New Zealand and the Russian Federation are for 2010 rather than 2011. Data for Mexico are for 2003 rather than 2001. Data for the Russian Federation are for 2002 rather than 2001. The OECD average for production costs as percentage of GDP does not include Chile, Japan and Turkey.

#### Sources

• OECD (2013), Government at a Glance, OECD Publishing.

## **Further information**

### **Analytical publications**

- OECD (2012), Corporate Governance, Value Creation and Growth, The Bridge between Finance and Enterprise, Corporate Governance, OECD Publishing.
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## GENERAL GOVERNMENT PRODUCTION COSTS

## Production costs for general government

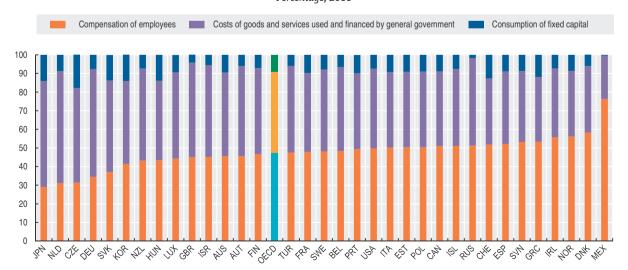
As a percentage of GDP

	Compensation of employees		Costs of goods and services used and financed by general government		Consumption of fixed capital		Total	
	2001	2011	2001	2011	2001	2011	2001	2011
Australia	9.3	9.7	9.1	9.6	2.3	2.0	20.7	21.4
Austria	9.8	9.5	9.3	10.0	1.4	1.2	20.5	20.7
Belgium	11.7	12.6	9.8	11.7	1.6	1.7	23.1	26.0
Canada	11.4	12.8	8.7	10.0	1.9	2.2	22.0	25.0
Chile		7.9						
Czech Republic	7.1	7.3	11.5	11.8	4.6	4.2	23.2	23.3
Denmark	17.4	18.5	9.5	11.3	1.9	1.9	28.8	31.7
Estonia	10.2	11.1	9.3	8.9	1.6	2.0	21.1	22.0
Finland	13.0	14.2	9.8	14.2	2.1	2.2	24.9	30.6
France	13.3	13.1	10.1	11.6	2.2	2.7	25.6	27.4
Germany	8.2	7.7	11.5	12.9	1.7	1.7	21.4	22.3
Greece	10.5	12.4	6.3	8.1	2.0	2.8	18.7	23.3
Hungary	11.2	10.2	9.1	10.0	3.8	3.3	24.1	23.5
Iceland	14.7	14.5	10.3	11.7	1.9	2.2	26.9	28.4
Ireland	8.9	12.0	6.8	8.0	1.4	1.6	17.1	21.6
Israel	13.7	11.8	13.9	12.8	1.3	1.5	28.8	26.0
Italy	10.5	10.7	7.5	8.6	1.6	2.0	19.6	21.3
Japan		6.3		12.3		3.1		21.6
Korea	6.6	6.8	5.5	7.3	1.7	2.3	13.9	16.5
Luxembourg	7.9	8.0	7.9	8.3	1.7	1.7	17.6	18.0
Mexico	9.1	9.0	2.6	2.8	0.0	0.1	11.8	11.8
Netherlands	9.6	9.8	14.1	19.0	2.4	2.8	26.0	31.6
New Zealand	8.5	10.3	10.1	11.7	1.6	1.8	20.2	23.7
Norway	13.0	13.6	8.8	8.5	1.9	2.1	23.7	24.1
Poland	10.7	9.7	8.0	7.8	2.2	1.7	20.8	19.3
Portugal	13.9	11.4	6.4	9.4	1.9	2.3	22.2	23.0
Slovak Republic	8.9	7.1	9.4	9.4	3.8	2.6	22.0	19.2
Slovenia	11.7	12.8	8.7	9.1	1.5	2.1	21.9	24.0
Spain	10.1	11.6	6.7	8.7	1.5	2.0	18.3	22.3
Sweden	15.6	13.9	12.1	12.7	2.2	2.3	29.9	28.9
Switzerland	7.9	7.8	5.7	5.4	2.0	1.9	15.5	15.2
Turkey		8.5		8.3		1.0		17.9
United Kingdom	 10.1	11.1	9.7	12.5	0.9	1.1	20.8	24.6
United States	9.8	10.7	7.3	9.2	1.4	1.6	18.5	21.5
EU 28								
OECD .	10.8	11.0	 8.9	 10.1	1.9	2.0	21.6	23.2
Brazil	10.0	11.0			1.9		21.0	23.2
China							-	
India								**
Indonesia								
Russian Federation	 8.7	 9.7	9.4	 8.8	0.5	 0.3	 18.6	18.8
South Africa			-					
JUUIII AIIIGa								

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## Structure of general government production costs

Percentage, 2011



StatLink http://dx.doi.org/10.1787/888933026468

## CONFLICT OF INTEREST AND ASSET DISCLOSURE

Growing needs to restore trust, as well as expectations of open and fair public decision making, increase pressure on governments to ensure that official decisions are not affected by private interests. A conflict of interest arises when a public official's private interests could compromise his or her performance. If not adequately identified and managed, conflict-of-interest situations could lead to corruption. At the same time, an excessively strict approach can be costly and unworkable, and may deter experienced and competent potential candidates from entering the public service.

## **Definition**

Data is an aggregate of the level of disclosure and public availability of disclosed information by top decision makers in the three branches of government (executive, legislature and judiciary). The term "public official" is defined as any person holding a legislative, executive, administrative or judicial office of a country, whether appointed or elected, whether permanent or temporary, whether paid or unpaid, irrespective of that person's seniority; and any other person who performs a public function, including for a public agency or public enterprise, or provides a public service, as defined in the domestic law

## Overview

Practice shows that asset and private interest disclosure by decision makers continues to be an essential tool for managing conflict of interest. Although it continues to be common practice in OECD countries, there are different levels of disclosure in the three branches of government. Disclosure practices are considerably higher in the executive and legislative branches than in the judiciary. For example, disclosure is not required for judges and prosecutors in the Czech Republic, France, Luxembourg and New Zealand. In Luxembourg, there are no disclosure requirements for decision makers in any of the three branches of government. Of the private interests covered, countries give the highest attention to paid outside positions as well as the receipt of gifts, by either prohibiting these or by requesting their disclosure.

Following the collection of disclosure forms, from those OECD countries that have disclosure requirements in place, over 80% verify that disclosure forms are submitted. However, less than half perform internal audits of the submitted information for accuracy. No actions are taken following the collection of the disclosure forms in Ireland, Italy, Switzerland and Turkey. However, in Ireland and Italy, most of the disclosed information is available to the public, allowing citizens themselves to scrutinise the information submitted.

of the country. Eight key types of information on private interests were analysed. Assets refer to real estate and any moveable assets. Liabilities include loans and debts. Outside income refers to any amount of income obtained other than from the compensation received in the current position. Outside employment includes both paid and non-paid positions held outside of their position in government. Previous employment refers to the name(s) of entities where officials were employed prior to taking up their current post.

## **Comparability**

All data were collected through the 2012 OECD Survey on Managing Conflict of Interest. In some countries, certain types of private interests are prohibited (e.g. holding outside employment or receiving gifts). Thresholds for disclosure of gifts received vary by country. Data reflect practices in member countries. Data for Brazil, the Czech Republic, Greece, Israel, and the Russian Federation refer to 2010 rather than 2012. Information provided in actions regarding disclosure of private interests for Australia, Austria, Canada, Chile, Denmark, Estonia, Germany, Hungary, Italy, Japan, Korea, Luxembourg, Mexico, Norway, the Slovak Republic, Spain, Switzerland, Turkey and the United States refers only to the executive branch of government.

#### Sources

• OECD (2013), Government at a Glance, OECD Publishing.

## Further information

## **Analytical publications**

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- OECD (2007), "OECD Guidelines for Managing Conflict of Interest in the Public Service: Report on Implementation", OECD.
- OECD (2004), Managing Conflict of Interest in the Public Service: OECD Guidelines and Country Experiences, OECD Publishing.
- OECD (2003), "Recommendation of the Council on Guidelines for Managing Conflict of Interest in the Public Service", OECD.

#### Methodological publications

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#### Websites

• Managing conflict of interest in the public service, www.oecd.org/gov/ethics/conflictofinterest.



## CONFLICT OF INTEREST AND ASSET DISCLOSURE

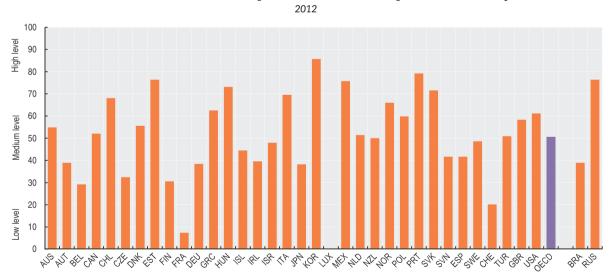
## Actions regarding disclosure of private interests by public officials

2012

	Verification that disclosure form was submitted	Review that all required information was provided	Internal audit of the submitted information for accuracy
Australia	•	0	0
Austria	•	•	•
Belgium	•	•	0
Canada	•	•	0
Chile	•	•	0
Denmark	•	•	0
Estonia	•	•	•
Finland	•	•	0
France	•	•	•
Germany	•	•	•
Hungary	•	0	0
Iceland	•	0	0
Ireland	0	0	0
Italy	0	0	0
Japan	0	•	•
Когеа	•	•	•
Luxembourg	X	X	х
Mexico	•	•	•
Netherlands	•	•	0
New Zealand	•	•	•
Norway	•	•	0
Poland	•	•	•
Portugal	•	•	•
Glovak Republic	•	•	0
Slovenia	•	•	•
Spain Spain	•	•	•
Sweden	•	•	•
Switzerland	0	0	0
Turkey	0	0	0
Jnited Kingdom	•	•	•
Inited States	•	•	0
Total OECD			
Procedure conducted for all those required to submit disclosure form	25	19	6
Procedure conducted for only some required to submit disclosure form	0	4	8
Procedure not conducted	5	7	16
Not applicable	1	1	1

StatLink http://dx.doi.org/10.1787/888933028824

## Asset disclosure: Level of disclosure of private interests and public availability of information



StatLink as http://dx.doi.org/10.1787/888933026487

#### SOCIAL EXPENDITURE

Social expenditures are a measure of the extent to which countries assume responsibility for supporting the standard of living of disadvantaged or vulnerable groups.

#### **Definition**

Social expenditure comprises cash benefits, direct in-kind provision of goods and services, and tax breaks with social purposes. Benefits may be targeted at low-income households, the elderly, disabled, sick, unemployed, or young persons. To be considered "social", programmes have to involve either redistribution of resources across households or compulsory participation. Social benefits are classified as public when general government (that is central, state, and local governments, including social security funds) controls the relevant financial flows. All social benefits not provided by general government are considered private. Private transfers between households are not considered as "social" and not included here. Net

#### Overview

Gross public social expenditure increased from about 16% in 1980 to 18% in 1990 and to 22% of GDP in 2009 across OECD countries. Since this date and after the global financial crisis it has stayed around this level. Spending was highest, at over 30% of GDP, in France and Denmark, and lowest, at below 10% of GDP, in Korea and Mexico. Keeping measurement-related differences in mind, non-OECD countries have lower levels of social protection than OECD countries, particularly in Indonesia and India. The three biggest categories of social transfers are pensions (on average 8% of GDP), health (7%) and income transfers to the working-age population (5%). Public spending on other social services exceeds 5% of GDP only in the Nordic countries, where the public role in providing services to the elderly, the disabled and families is the most

In 2009, gross private social spending was highest (at just over 10% of GDP) in the United States and lowest (at less than 1% of GDP) in the Czech Republic, Estonia, Hungary, Mexico, New Zealand, Poland, Spain and Turkey.

Moving from gross public to net total social expenditure not only leads to greater similarity in spending levels across countries it also changes the ranking among countries. Estonia, Denmark, Finland, Luxembourg, Norway, Poland and Spain drop 5 to 10 places in the rankings while Canada, Iceland, Japan, the United Kingdom move up the rankings by 5 to 10 places. As private social spending is so much larger in the United States compared with other countries its inclusion moves the United States from 23rd to 2nd place when comparing net total social spending across countries.

total social expenditure includes both public and private expenditure. It also accounts for the effect of the tax system by direct and indirect taxation and by tax breaks for social purposes.

#### Comparability

For cross-country comparisons, the most commonly used indicator of social support is gross (before tax) public social expenditure relative to GDP. Measurement problems do exist, particularly with regard to spending by lower tiers of government, which may be underestimated in some countries. Public social spending totals reflect detailed social expenditure programme data till 2009, national aggregated for 2010-12 and estimates for 2013.

Data on private social spending are often of lesser quality than for public spending. Private data for Israel refer to private health insurance only.

No data on net expenditure are currently available for Greece, Hungary, Switzerland and Turkey. Net data for Iceland, Luxembourg and Mexico have been estimated using data on direct tax rates of benefit income for 2007. In the absence of information on direct taxation of benefit income in Slovenia, net total social spending is overestimated for this country, and therefore it is not included in the OECD average.

For non-OECD countries, data are not strictly comparable with OECD countries.

#### **Sources**

- OECD (2013), Social Expenditure Statistics (Database).
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#### Websites

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- Social and Welfare Issues, www.oecd.org/social.
- Social Expenditure (supplementary material), www.oecd.org/social/expenditure.htm.



#### SOCIAL EXPENDITURE

## Public, private and total net social expenditure

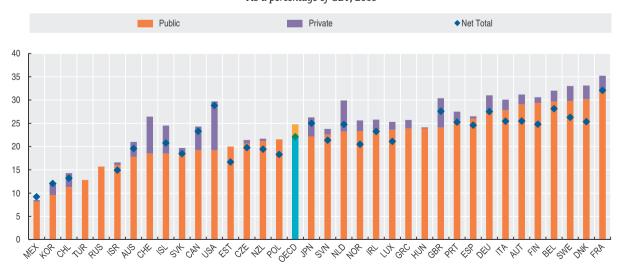
As a percentage of GDP

	Public expenditure										Total net socia expenditure		
_	1990	2000	2008	2009	2010	2011	2012	2013	1990	2000	2008	2009	2009
Australia	13.2	17.3	17.8	17.8	17.9	18.2	18.8	19.5	0.8	4.4	3.3	3.2	19.6
Austria	23.8	26.6	26.8	29.1	28.9	27.9	27.9	28.3	2.3	1.9	2.0	2.1	25.5
Belgium	24.9	25.3	27.3	29.7	29.5	29.7	30.5	30.7	1.6	1.7	2.2	2.3	28.1
Canada	18.1	16.5	17.6	19.2	18.7	18.1	18.1	18.2	3.3	5.0	4.9	5.1	23.3
Chile	9.9	12.8	9.6	11.3	10.8	10.4	10.2		0.6	1.2	2.9	3.0	13.2
Czech Republic	15.3	19.1	18.1	20.7	20.8	20.8	21.0	21.8		0.4	0.5	0.7	19.8
Denmark	25.1	26.4	26.8	30.2	30.6	30.6	30.8	30.8	2.1	2.4	2.7	2.9	25.4
Estonia		13.9	15.8	20.0	20.1	18.2	17.6	17.7					16.7
Finland	24.1	24.2	25.3	29.4	29.6	29.2	30.0	30.5	1.1	1.2	1.1	1.2	24.8
France	25.1	28.6	29.8	32.1	32.4	32.0	32.5	33.0	1.9	2.7	2.9	3.1	32.1
Germany	21.7	26.6	25.2	27.8	27.1	25.9	25.9	26.2	3.1	3.0	3.0	3.2	27.5
Greece	16.6	19.3	22.2	23.9	23.3	24.4	24.1	22.0	2.1	2.1	1.7	1.8	
Hungary		20.7	23.1	23.9	22.9	21.9	21.6	21.6			0.2	0.2	
Iceland	13.7	15.2	15.8	18.5	18.0	18.1	17.6	17.2	3.0	4.2	5.3	6.0	20.8
Ireland	17.3	13.4	19.7	23.6	23.7	23.3	22.4	21.6	1.4	1.3	1.6	2.2	23.2
Israel		17.2	15.5	16.0	16.0	15.8	15.8	15.8		0.3	0.6	0.6	14.9
Italy	19.9	23.1	25.8	27.8	27.7	27.5	28.0	28.4	3.9	2.1	2.2	2.3	25.5
Japan	11.1	16.3	19.8	22.2	22.3				0.3	3.8	3.7	4.0	25.0
Korea	2.8	4.8	8.4	9.6	9.2	9.1	9.3		0.4	2.7	2.2	2.4	12.1
Luxembourg	19.1	20.9	20.8	23.6	23.0	22.6	23.2	23.4		0.1	1.1	1.7	21.1
Mexico	3.3	5.3	7.4	8.2	8.1	7.7	7.4		0.1	0.1	0.2	0.3	9.2
Netherlands	25.6	19.8	20.9	23.2	23.4	23.4	24.0	24.3	6.0	7.4	6.3	6.7	24.8
New Zealand	21.5	19.0	19.8	21.2	21.3	21.4	22.0	22.4	0.2	0.5	0.5	0.5	19.4
Norway	22.3	21.3	19.8	23.3	23.0	22.4	22.3	22.9	1.8	2.1	1.9	2.3	20.5
Poland	14.9	20.5	20.3	21.5	21.8	20.5	20.6	20.9					18.3
Portugal	12.5	18.9	23.1	25.6	25.4	25.0	25.0	26.4	0.8	1.5	2.0	1.9	25.3
Slovak Republic		17.9	15.7	18.7	19.1	18.1	18.3	17.9		0.8	1.0	1.0	18.5
Slovenia		21.8	19.7	22.6	23.6	23.7	23.7	23.8			1.1	1.2	21.4
Spain	19.9	20.2	22.9	26.0	26.7	26.4	26.8	27.4	0.2	0.3	0.5	0.5	24.6
Sweden	30.2	28.4	27.5	29.8	28.3	27.6	28.1	28.6	1.2	2.6	3.0	3.2	26.3
Switzerland	13.5	17.8	18.5		20.6	19.5	18.8	19.1	5.3	8.3	7.9		
Turkey	5.7		10.7	12.8									
United Kingdom	16.7	18.6	21.8	24.1	23.8	23.6	23.9	23.8	5.0	7.7	5.7	6.3	27.6
United States	13.6	14.5	17.0	19.2	19.8	19.6	19.7	20.0	7.6	9.1	10.6	10.5	28.8
EU 28													
OECD	17.6	18.9	19.9	22.1	22.1	21.7	21.8	21.9					22.1
Brazil					14.4								
China			6.5				9.0						
India			4.6		-								
Indonesia				2.1									
Russian Federation				15.7									
South Africa			8.1										

StatLink http://dx.doi.org/10.1787/888933028843

## Public, private and total net social expenditure

As a percentage of GDP, 2009



StatLink http://dx.doi.org/10.1787/888933026506

#### PENSION EXPENDITURE

Pension systems vary across countries and no single model fits all. Generally, there is a mix of public and private provision. Public pensions are statutory, most often financed on a pay-as-you-go (PAYG) basis – where current contributions pay for current benefits – and managed by public institutions. Private pensions are in some cases mandatory but more usually voluntary, funded, employment-based (occupational) pension plans or individual retirement savings plans (personal pensions).

#### **Definition**

Old-age pension benefits are treated as public when relevant financial flows are controlled by general government (i.e. central and local governments or social security funds). Pension benefits provided by governments to their own employees and paid directly out of the government's current budget are also considered to be public. Public pensions are generally financed on a PAYG basis, but also include some funded arrangements. All pension benefits not provided by general government are within the private domain.

Private expenditures on pensions include payments made to private pension plan members (or dependants) after retirement. All types of plans are included (occupational and personal, mandatory and voluntary, funded and book reserved), covering persons working in both the public and private sectors.

#### Overview

Public spending on old-age benefits averaged 7.8% of GDP in 2009, compared with private pension benefits of an average of 1.6% of GDP in the same year (in the countries for which data are available that year). Public spending on old-age pensions is highest – greater than 10% of GDP – in Austria, Belgium, France, Germany, Greece, Italy, Japan, Poland, Portugal and Slovenia. By contrast, Australia, Chile, Iceland, Korea and Mexico spend 4% of GDP or less on public old-age pensions.

Private expenditure on old-age benefits is the highest in Australia, Belgium, Denmark, Iceland, the Netherlands and Switzerland, where it exceeds 3.5% of GDP in 2011. However, private benefit spending remains negligible in around a third of OECD countries.

The share of private pensions in total expenditures on old-age benefits exceeds 50% only in Australia and Iceland. The average share of private pensions in the total is 17%.

Over time, public pension expenditures have grown a little faster than national income: from an average of 6.1% of GDP in 1990 to 7.8% in 2009.

Expenditure on private pensions has also grown between 2001 and 2011, from an average of 1.4% of GDP in 2001 to 1.7% in 2011.

The data are shown for old-age and survivors cash benefits.

#### Comparability

Public pension expenditures come from the OECD Social Expenditure (SOCX) database while pension expenditures for private pension arrangements come from the OECD Global Pension Statistics (GPS) database. The GPS database provides information on funded pension arrangements, which includes both private and public pension plans that are funded.

Although the GPS database covers all types of private pension arrangements for most countries, for Austria, Canada, Germany, Luxembourg and the United States data only relate to autonomous pension funds. A break in series for Mexico reflects the inclusion of occupational pension plans registered by CONSAR since 2005. The large increase in private pension expenditures between 2008 and 2009 for Iceland reflects the increase in the number of people retiring due to the unemployment peak after the bank crisis and the passing of a special temporary Act allowing people to withdraw limited amounts of money from personal pension plans.

Countries ranked separately on the left-hand side of the chart do not have data for both private and public expenditure (i.e. they either have private or public expenditure data).

#### Sources

- OECD (2013), OECD Pensions Statistics (Database).
- OECD (2013), OECD Social Expenditure Statistics (database).

## **Further information**

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- Pension Markets in Focus, www.oecd.org/daf/pensions/ pensionmarkets.
- Social Expenditure Database (SOC<sub>X</sub>), www.oecd.org/els/ social/expenditure.



#### PENSION EXPENDITURE

## Public and private expenditure on pensions

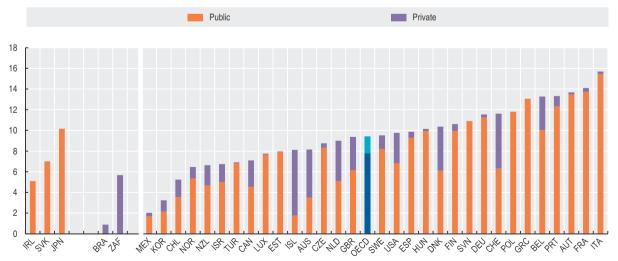
As a percentage of GDP

			Public ex	penditure					Private ex	cpenditure		
_	2000	2005	2006	2007	2008	2009	2007	2008	2009	2010	2011	2012
Australia	3.8	3.3	3.3	3.4	3.6	3.5	3.3	5.6	4.7	4.5	4.6	4.7
Austria	12.2	12.4	12.3	12.2	12.4	13.5	0.3	0.2	0.2	0.2		
Belgium	8.9	9.0	8.9	8.8	9.4	10.0	2.7	2.6	3.2	2.9	3.7	
Canada	4.3	4.1	4.1	4.1	4.2	4.5	2.2	2.3	2.5	2.5	2.8	3.0
Chile	7.3	5.7	5.1	4.9	3.3	3.6	1.9	2.0	1.7	2.0	2.2	2.3
Czech Republic	7.2	7.0	6.9	7.1	7.4	8.3	0.3	0.3	0.4	0.5	0.5	0.6
Denmark	5.3	5.4	5.5	5.5	5.6	6.1	3.3	4.1	4.3	4.5	4.9	5.1
Estonia	6.0	5.3	5.3	5.1	6.2	7.9			0.0	0.0	0.0	0.0
Finland	7.6	8.4	8.5	8.3	8.4	9.9	0.5	0.6	0.7	0.6	0.7	0.7
France	11.8	12.4	12.4	12.5	12.9	13.7			0.4	0.4	0.4	
Germany	11.1	11.4	11.0	10.6	10.5	11.3	0.1	0.1	0.3	0.2	0.2	0.2
Greece	10.8	11.8	11.8	12.1	12.4	13.0	0.0	0.0	0.0	0.0	0.0	0.0
Hungary	7.6	8.5	8.8	9.3	9.7	9.9	0.2	0.2	0.2	0.2	0.2	0.2
Iceland	2.2	2.0	1.8	1.9	1.8	1.7	3.6	3.8	6.4	5.5	6.3	5.7
Ireland	3.1	3.4	3.4	3.6	4.1	5.1						
Israel	4.9	5.1	5.0	5.0	4.8	5.0	1.7	1.7	1.7	1.7	1.7	1.7
Italy	13.5	13.9	13.9	14.0	14.5	15.4	0.2	0.3	0.2	0.3	0.2	0.3
Japan	7.3	8.7	8.7	8.9	9.3	10.2						
Korea	1.4	1.5	1.6	1.7	2.0	2.1	0.9	0.8	1.1	1.4	1.4	1.8
Luxembourg	7.5	7.2	6.8	6.5	6.6	7.7	0.1	0.1	0.1	0.1	0.1	0.1
Mexico	0.9	1.2	1.2	1.3	1.4	1.7	0.2	0.2	0.3	0.3	0.3	0.2
Netherlands	5.0	5.0	4.8	4.7	4.7	5.1	3.5	3.6	3.9	4.0	4.2	4.3
New Zealand	5.0	4.3	4.3	4.3	4.4	4.7	1.3	1.4	2.0	1.4	1.3	1.4
Norway	4.8	4.8	4.6	4.7	4.5	5.4	0.9	0.9	1.1	1.0	1.0	1.0
Poland	10.5	11.4	11.5	10.6	10.8	11.8	0.0	0.0	0.0	0.0	0.0	0.0
Portugal	7.9	10.3	10.6	10.7	11.3	12.3	0.9	1.4	1.0	0.7	0.8	0.5
Slovak Republic	6.3	6.2	6.0	5.9	5.7	7.0						0.1
Slovenia	10.5	9.9	10.0	9.6	9.5	10.9	0.0	0.0	0.0	0.0	0.5	0.9
Spain	8.6	8.1	8.0	8.1	8.4	9.3	0.5	0.6	0.6	0.6	0.7	0.7
Sweden	7.2	7.6	7.3	7.2	7.4	8.2	1.2	1.2	1.3	1.3		
Switzerland	6.6	6.8	6.5	6.4	6.3	6.3	5.1	5.0	5.3	4.9	4.9	5.0
Turkey	4.9	5.9	5.8	6.1	5.5	6.8	0.1	0.1	0.1	0.1	0.0	0.0
United Kingdom	5.3	5.6	5.3	5.3	5.8	6.2	2.8	2.9	3.2	3.3	3.2	
United States	5.9	6.0	5.9	6.0	6.2	6.8	3.2	3.0	2.9	3.2	3.1	
EU 28						0.0	0.2			0.2	0.1	
OECD .	6.9	7.0	7.0	7.0	7.1	7.8	1.4	1.5	1.6	1.6	1.7	1.6
Brazil						1.0	0.8	0.9	0.9	0.9	1.7	
China												
India												
Indonesia		**								-	0.1	
Russian Federation											0.1	
South Africa							4.6	6.2	5.7	5.3	3.9	
SUUIT AITICA							4.0	0.2	5./	5.3	3.9	

StatLink http://dx.doi.org/10.1787/888933028862

## Public and private expenditure on pensions

As a percentage of GDP, 2009



StatLink http://dx.doi.org/10.1787/888933026525

#### GOVERNMENT SUPPORT FOR AGRICULTURE

Governments provide support to agriculture through a variety of means, ranging from budgetary transfers financed by taxpayers to policies such as border protection and administered pricing that, by raising farm prices above the levels that would otherwise prevail, are equivalent to a tax on consumers. While some of these measures may pursue commendable goals such as sustaining rural communities and encouraging more environmentally-friendly agricultural practices, they may also lead to production and trade distortions and environmental damage.

#### **Definition**

The OECD Producer Support Estimate (PSE) is an indicator of the annual monetary value of gross transfers from consumers and taxpayers to agricultural producers, measured at the farmgate level, arising from policy measures that support agriculture, regardless of their nature, objectives or impacts on farm production or income. PSE can be expressed as a total monetary amount, but is usually quoted as a percentage of gross farm receipts. This is the measure used here.

The measure is agreed by OECD countries and is widely recognised as the only reliable indicator for comparing support across countries and over time. The European Union is treated as a single entity.

#### Comparability

Continuous efforts are made to ensure consistency in the treatment and completeness of coverage of policies in all OECD countries through the annual preparation of the Monitoring and Evaluation report. Each year, PSE provisional estimates are reviewed and approved by representatives of OECD's member countries, as are all methodological developments.

Due to the EU's Common Agricultural Policy (CAP), the EU is counted as one country and therefore data in the table cannot be shown for individual EU member countries. Austria, Finland and Sweden are included in the OECD total for all years and in the EU from 1995. The Czech Republic, Estonia, Hungary, Poland and the Slovak Republic are included in the OECD total for all years and in the EU from 2004. Slovenia is included in the OECD total from 1992 and in the EU from 2004. Croatia is not yet included in the EU total. Data for Chile and Israel are included in the OECD total from 1995. The OECD total does not include the non-OECD EU member states.

#### Overview

There are large differences in the levels of agricultural support among OECD countries. PSEs as a percentage of gross farm receipts (%PSE) for OECD countries currently range from almost zero to 63%. These differences reflect, among other things, variations in policy objectives, different historical uses of policy instruments, and the varying pace and degrees of progress in agricultural policy reform. Over the longer term, the level of producer support has fallen in most OECD countries. The average %PSE in 2010-12, at 19%, is lower than the 1986-88 average of 37%. There has also been some improvement in the way support is delivered to the sector towards policy measures which tend to be less market distortive.

For the emerging economies covered here, %PSEs have been lower than the OECD average for Brazil, China, the Russian Federation and South Africa, but for Indonesia it reached 19% and was at the OECD average in 2010-12. Trends in the level of producer support vary between the emerging economies. While in South Africa and the Russian Federation the level of producer support has fallen, in Brazil, China and Indonesia it has increased since the mid-1990s.

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#### Websites

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#### GOVERNMENT SUPPORT FOR AGRICULTURE

## Agricultural producer support estimate by country

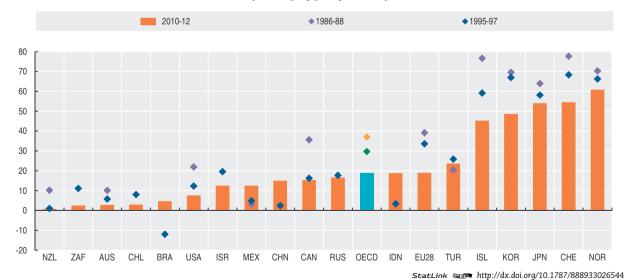
As a percentage of gross farm receipts

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Australia	3.3	3.3	4.7	3.7	3.4	3.6	4.4	4.8	4.4	3.1	2.8	2.9	2.7
Austria													
Belgium													
Canada	19.3	15.5	20.5	24.4	20.3	21.3	20.8	16.4	13.2	17.5	16.7	15.1	14.3
Chile	11.2	6.2	9.3	5.5	4.9	5.0	4.2	3.4	2.6	4.7	2.6	3.0	3.3
Czech Republic													
Denmark													
Estonia													
Finland													
France													
Germany													
Greece													
Hungary													
Iceland	69.6	62.6	66.4	65.0	65.9	66.9	64.7	55.4	50.6	49.2	44.3	44.3	47.3
Ireland													
Israel	22.7	20.5	16.1	11.8	10.3	10.6	7.9	1.8	16.3	13.1	13.2	12.8	11.4
Italy						-							
Japan	59.7	56.3	57.2	57.5	56.0	53.8	51.6	46.7	48.2	48.9	54.9	51.4	55.9
Korea	66.1	57.7	59.7	56.7	61.3	59.7	58.6	57.4	45.5	50.9	40.1	52.4	53.8
Luxembourg													
Mexico	23.4	18.3	26.8	19.1	11.5	12.9	13.1	13.0	12.3	14.0	12.4	12.8	12.3
Netherlands													
New Zealand	0.3	0.6	0.3	0.7	0.6	1.3	0.9	0.7	0.6	0.5	0.7	1.0	0.8
Norway	66.5	65.3	73.7	71.1	66.3	65.8	64.1	54.6	59.4	61.1	60.4	59.1	63.1
Poland													
Portugal													
Slovak Republic													
Slovenia													
Spain										**			
Sweden										**			
Switzerland	70.7	68.1	71.4	69.9	70.0	66.7	66.0	53.0	56.5	60.8	52.4	54.6	56.6
Turkey	30.5	14.3	26.1	31.2	31.5	33.1	33.4	26.2	26.2	28.4	26.3	22.3	22.4
United Kingdom													
United States	23.3	22.1	18.4	15.1	16.4	15.3	11.2	10.0	8.8	10.6	7.8	7.7	7.1
EU 28	32.7	30.2	33.8	33.6	33.2	30.8	29.1	22.8	23.5	23.3	19.8	18.0	19.0
OECD	32.7	28.8	30.6	29.1	29.3	27.7	25.6	20.8	20.7	21.9	19.0	18.3	18.6
Brazil	5.7	4.3	4.7	5.6	4.2	6.7	6.1	4.7	3.7	6.5	4.5	4.8	4.6
China	2.3	4.0	7.4	9.0	6.5	7.4	12.1	9.9	2.9	11.5	15.3	12.9	16.8
India													
Indonesia	6.9	3.6	12.3	12.6	8.8	3.7	15.2	14.9	-10.7	5.9	21.0	14.5	20.9
Russian Federation	1.1	8.0	7.5	15.0	21.2	14.5	14.6	15.1	20.5	20.7	21.0	15.1	13.5
South Africa	5.8	3.7	10.1	7.1	7.9	6.2	9.0	5.1	3.6	4.1	1.7	2.7	3.2
South Allica	ე.გ	3.7	10.1	7.1	7.9	0.2	9.0	5.1	3.0	4.1	1.7	2.1	3.2

StatLink http://dx.doi.org/10.1787/888933028881

## Agricultural producer support estimate by country

As a percentage of gross farm receipts



#### GOVERNMENT SUPPORT FOR FISHING

OECD governments provide financial support to the fishing industry, typically for the purposes of management, including surveillance and research. This financial support is important to ensure a sustainable and responsible fisheries sector.

#### **Definition**

The indicator on "Government financial transfers (GFTs)" provides a measure of the financial support provided by governments to the fisheries sector. GFT consists of direct revenue enhancing transfers (direct payments), i.e. transfers that reduce the operating costs and the costs of general services provided to the fishing industry. These general services consist mainly of fishery protection services and fisheries management; in some cases they also include the costs of local area weather forecasting and the costs of navigation and satellite surveillance systems designed to assist fishing fleets.

#### Comparability

The data are relatively comprehensive and consistent across the years. However, some year-to-year variations may reflect changes in national statistical systems. General services provided by governments may also include large and irregular capital investments. Some types of GFT (e.g. maritime surveillance) may be provided by another agency than fisheries agencies (e.g. in some countries maritime surveillance is carried out by the navy); some of these data may not be available. Also, some figures, in particular for later years, are still preliminary and there are number of missing data elements in different countries and years.

#### Overview

Total government support for fishing has been trending upward and was approximately USD 7.3 billion in 2010. Most financial transfers are for general services rather than provided directly to fishers. Such services primarily involve management, enforcement and research. Support for infrastructure is also included in the GFTs, such as for harbour construction and maintenance, stock enhancement and habitat conservation. Direct payments to fishers are predominantly payments for sector adjustment, and include vessel decommissioning schemes, vessel modernisation schemes and early retirement programmes. In 2010, USD 327 million was dedicated to decommissioning schemes, while USD 43 million was used for programs related to vessel construction or modernisation. OECD totals are approximate as not all countries submit data in all years.

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#### GOVERNMENT SUPPORT FOR FISHING

#### Government financial transfers to fishing

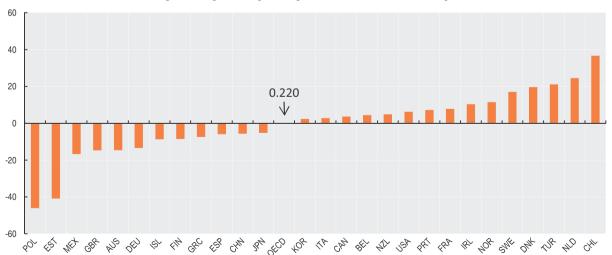
Thousand US dollars

Austriala   Record   Record	14 248 6 178 89 470 77 607 6 268 45 966
Belgium	6 178  89 470  77 607   6 268 45 966 
Canada         564 497         483 982         464 257         522 581         547 923         553 193         595 220         634 525         657 050         699 537         805 543            Chile                  39 351         48 247         58 610         100 397         107 733           Czech Republic   <	 89 470  77 607   6 268 45 966 
Chile </td <td>77 607   6 268 45 966 </td>	77 607   6 268 45 966 
Czech Republic           68 769         37 659         28 505         58 108         89 991         63 717         83 224         80 138         98 079         81 225           Estonia <td>77 607   6 268 45 966 </td>	77 607   6 268 45 966 
Denmark   16 316	77 607    6 268 45 966  
Estonia	  6 268 45 966  
Finland 13 908 16 510 16 025 20 231 19 397 24 816 17 569 20 877 20 900 14 987 5715 5 902 France 166 147 141 786 155 283 179 740 108 358 141 359 63 360 323 811 327 786	 6 268 45 966  
France         166 147         141 786         155 283         179 740         108 358         141 359         63 360          323 811         327 786	6 268 45 966  
Germany         29 834         28 988         28 208         33 890         6 088         17 284         4 899         6 815         5 129         4 817         7 053         3 334           Greece         87 315         86 957         88 334         119 045         35 500         61 013         57 188         56 276         66 744         41 184         6 667         37 360           Hungary <t< td=""><td>6 268 45 966  </td></t<>	6 268 45 966  
Greece         87 315         86 957         88 334         119 045         35 500         61 013         57 188         56 276         66 744         41 184         6 667         37 360           Hungary	45 966  
Hungary   Hung	 
Iceland         41 978         28 310         28 955         48 348         55 705         64 326         51 331         61 459         45 489         31 043         16 967         5 619           Ireland         87 636         71 421         60 811         62 326         21 231         21 926         65 000         200 181         245 913         212 712	
Ireland         87 636         71 421         60 811         62 326         21 231         21 926         65 000         200 181         245 913         212 712	
Israel   <	
Italy         217 679         231 680         159 630         149 270         170 055         74 524         194 696         123 276         56 855         270 694         286 472         241 055           Japan         2 913 149         2 574 086         2 323 601         2 310 744         2 437 934         2 166 188         1 952 853         1 821 144         2 008 992         2 152 652         1 697 529         1 920 135           Korea         320 449         428 313         538 695         495 280         495 280         649 387         644 000         702 990         793 569         490 126         403 345         321 23           Luxembourg	
Japan         2 913 149         2 574 086         2 323 601         2 310 744         2 437 934         2 165 198         1 952 853         1 821 144         2 008 992         2 152 652         1 697 529         1 920 135           Korea         320 449         428 313         538 695         495 280         495 280         649 387         644 000         702 990         793 569         490 126         403 345         342 123           Luxembourg <td> </td>	 
Korea         320 449         428 313         538 695         495 280         495 280         649 387         644 000         702 990         793 569         490 126         403 345         342 123           Luxembourg	
Luxembourg            177 000         114 000         84 973         88 760         85 267           33 133         29 724           Netherlands         1 389         12 779         12 443         6 569         5 218         13 685         18 501         5 635         42 726         3 206         12 405            New Zealand         2 7273         15 126         18 981         38 325         29 973         37 147         37 926         40 545         41 805         38 795         43 723         43 924           Norvay         104 564         99 465         156 340         139 200         142 315         149 521         188 488         237 347         261 244         277 880         284 090         316 945           Poland              .97 327         34 264         28 326           38 085         5 407         10 790	
Mexico           1.77 000         114 000         84 973         88 760         85 267           33 133         29 724           Netherlands         1 389         12 779         12 443         6 569         5 218         13 685         18 501         5 635         42 726         3 206         12 405            New Zealand         27 273         15 126         18 981         38 325         29 973         37 147         37 926         40 545         41 805         38 795         43 723         43 924           Norway         104 564         99 465         156 340         139 200         142 315         149 521         188 488         237 347         261 244         277 890         284 090         316 945           Poland	
Netherlands         1 389         12 779         12 443         6 569         5 218         13 685         18 501         5 635         42 726         3 206         12 405            New Zealand         27 273         15 126         18 981         38 325         29 973         37 147         37 926         40 545         41 805         38 795         43 723         43 924           Norway         104 564         99 465         156 340         139 200         142 315         149 521         188 488         237 347         261 244         277 890         284 090         316 945           Poland              97 327         34 264         28 326          38 085         5 407         10 790	
New Zealand         27 273         15 126         18 981         38 325         29 973         37 147         37 926         40 545         41 805         38 795         43 723         43 924           Norway         104 564         99 465         156 340         139 200         142 315         149 521         188 488         237 347         261 244         277 890         284 090         316 945           Poland               38 085         5 407         10 790	
Norway 104564 99465 156340 139200 142315 149521 188488 237347 261244 277890 284090 316945 Poland	
Poland	37 416
	326 844
Portugal 25 578 25 066 24 899 26 930 26 930 32 769 29 219 30 896 18 025 53 303 38 610 28 061	23 092
Slovak Republic	
Slovenia	
Spain         364 096         376 614         301 926         353 290         257 730         249 047         247 647         188 082         102 699         78 979         198 011         116 807	82 111
Sweden 25 186 22 505 24 753 30 650 51 129 49 780 50 057 89 310 92 766 105 327 121 358 115 578	77 376
Switzerland	-
Turkey 26 372 17 721 16 167 16 300 59 500 98 072 135 931 144 927 199 858 165 728 179 524 166 561	
United Kingdom 81 394 73 738 64 743 81 997 87 863 90 579 103 347 30 092 11 381 16 626 32 417	14 882
United States 1 037 710 1 169 590 1 1 30 810 1 290 440 1 147 521 1 407 813 1 793 833 1 985 497 2 084 409 1 623 589 1 901 267 2 481 532	-
EU 28	
OECD         6153 955         5 949 321         5 734 867         6 307 763         6 080 611         5 730 942         6 433 147         6 612 803         7 301 822         6 822 467         6 291 001         6 108 410	756 726
Brazil	
China	
India	
Indonesia	
Russian Federation	
South Africa	

StatLink http://dx.doi.org/10.1787/888933028900

#### Government financial transfers to fishing

Average annual growth in percentage, 1999-2010 or latest available period



StatLink http://dx.doi.org/10.1787/888933026563

#### OFFICIAL DEVELOPMENT ASSISTANCE

Promoting economic and social development in Partner countries has been a principal objective of the OECD since its foundation. The share of national income devoted to official development assistance (ODA) is a test of a country's commitment to international development. A long-standing United Nations target is that developed countries should devote 0.7% of their gross national income (GNI) to ODA.

#### **Definition**

This indicator shows total net ODA as shares of GNI as well as the distribution by geographical region and income group of ODA.

ODA is defined as government aid designed to promote the economic development and welfare of developing countries. Loans and credits for military purposes are excluded. Aid may be provided bilaterally, from donor to recipient, or channelled through a multilateral development agency such as the United Nations or the World Bank. Aid includes grants, "soft" loans and the provision of technical assistance. Soft loans are those where the grant element is at least 25% of the total.

The OECD maintains a list of developing countries and territories; only aid to these countries counts as ODA. The list is periodically updated and currently contains over 150 countries or territories with per capita incomes below USD 12 276 in 2010. Data on ODA flows are provided by the 29

OECD members of the Development Assistance Committee (DAC).

#### Comparability

Statistics on ODA are compiled according to directives drawn up by the DAC. Each country's statistics are subject to regular peer reviews by other DAC members.

In 2013 five new donors joined the DAC (the Czech Republic, Iceland, Poland, the Slovak Republic, and Slovenia). Because Slovenia's accession to the DAC was late in the calendar year (on 3rd December), the Secretariat was not able to include its data in the 2012 figures for DAC members published in December 2013. Therefore it still appears as a non-DAC donor in this indicator. Figures for Slovenia will be incorporated in the DAC total as of reporting in 2014 on flows in 2013.

As part of its overall engagement strategy the DAC encourages donors who are not members of the Committee, to report their aid flows to the OECD/DAC Secretariat. This reporting is voluntary and currently 14 non-DAC bilateral donors as well as over 33 multilateral agencies (regional development banks, UN agencies, international financial institutions, etc.) provide their data on their outflows to developing countries to the DAC.

#### Overview

From 1960 to 1990, official development assistance (ODA) flows from DAC countries to developing countries rose steadily. By contrast, total ODA as a percentage of DAC countries' combined gross national income (GNI) fell between 1960 and 1970, and then oscillated between 0.27% and 0.36% for a little over twenty years. Between 1993 and 1997, ODA flows fell by 16% in real terms due to fiscal consolidation in donor countries after the recession of the early 1990s.

Aid then started to rise in real terms in 1998, but was still at its historic low as a share of GNI (0.22%) in 2001. Since then, a series of high-profile international conferences have boosted ODA flows. In 2002, the International Conference on Financing for Development, held in Monterrey, Mexico, set firm targets for each donor and marked the upturn of ODA after a decade of decline. In 2005, donors made further commitments to increase their aid at the Gleneagles G8 and UN Millennium + 5 summits. In 2005 and 2006, aid peaked due to exceptional debt relief operations for Iraq and Nigeria.

Net ODA rose by 63% between 2000 and 2010, the year it reached its peak. In 2012, total net ODA from DAC members dropped to USD 127 billion representing a decrease of 3.6% in real terms compared to 2011. The weighted average of total ODA as a percentage of donor's combined GNI, was 0.29% in 2012.

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## **GOVERNMENT • AGRICULTURAL SUPPORT AND FOREIGN AID**



#### OFFICIAL DEVELOPMENT ASSISTANCE

## Net official development assistance

	As a percentage of gross national income								Millions o	f US dollars		
-	2007	2008	2009	2010	2011	2012	2007	2008	2009	2010	2011	2012
Australia	0.32	0.32	0.29	0.32	0.34	0.36	2 669	2 954	2 762	3 826	4 983	5 403
Austria	0.50	0.43	0.30	0.32	0.27	0.28	1 808	1 714	1 142	1 208	1 111	1 106
Belgium	0.43	0.48	0.55	0.64	0.54	0.47	1 951	2 386	2 610	3 004	2 807	2 315
Canada	0.29	0.33	0.30	0.34	0.32	0.32	4 080	4 795	4 000	5 214	5 459	5 650
Denmark	0.81	0.82	0.88	0.91	0.85	0.83	2 562	2 803	2 810	2 871	2 931	2 693
Finland	0.39	0.44	0.54	0.55	0.53	0.53	981	1 166	1 290	1 333	1 406	1 320
France	0.38	0.39	0.47	0.50	0.46	0.45	9 884	10 908	12 602	12 915	12 997	12 028
Germany	0.37	0.38	0.35	0.39	0.39	0.37	12 291	13 981	12 079	12 985	14 093	12 939
Greece	0.16	0.21	0.19	0.17	0.15	0.13	501	703	607	508	425	327
Ireland	0.55	0.59	0.54	0.52	0.51	0.47	1 192	1 328	1 006	895	914	808
Italy	0.19	0.22	0.16	0.15	0.20	0.14	3 971	4 861	3 297	2 996	4 326	2 737
Japan	0.17	0.19	0.18	0.20	0.18	0.17	7 697	9 601	9 467	11 058	10 831	10 605
Korea	0.07	0.09	0.10	0.12	0.12	0.14	696	802	816	1 174	1 325	1 597
Luxembourg	0.92	0.97	1.04	1.05	0.97	1.00	376	415	415	403	409	399
Netherlands	0.81	0.80	0.82	0.81	0.75	0.71	6 224	6 993	6 426	6 357	6 344	5 523
New Zealand	0.27	0.30	0.28	0.26	0.28	0.28	320	348	309	342	424	449
Norway	0.95	0.89	1.06	1.05	0.96	0.93	3 735	4 006	4 081	4 372	4 756	4 753
Portugal	0.22	0.27	0.23	0.29	0.31	0.28	471	620	513	649	708	581
Spain	0.37	0.45	0.46	0.43	0.29	0.16	5 140	6 867	6 584	5 949	4 173	2 037
Sweden	0.93	0.98	1.12	0.97	1.02	0.97	4 339	4 732	4 548	4 533	5 603	5 240
Switzerland	0.37	0.42	0.44	0.39	0.46	0.47	1 685	2 038	2 310	2 300	3 051	3 045
United Kingdom	0.36	0.43	0.51	0.57	0.56	0.56	9 849	11 500	11 283	13 053	13 832	13 892
United States	0.16	0.18	0.21	0.21	0.20	0.19	21 787	26 437	28 831	30 353	30 920	30 687

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## Distribution of net ODA from all sources by income group and by region

Million US dollars

	2008	2009	2010	2011	2012
By income group					
Least Developed Countries	39 107	40 300	44 607	45 289	43 334
Other low-income countries	2 833	3 299	3 257	4 189	4 620
Lower middle-income countries	34 607	33 024	31 744	31 430	31 215
Upper middle-income countries	13 561	12 794	11 475	16 077	15 227
Unallocated	37 003	36 818	39 853	43 936	38 779
More advanced developing countries and territories	808	886	735	0	0
By region					
Sub-Saharan Africa	39 627	42 465	43 716	45 600	44 700
South and Central Asia					
Other Asia and Oceania	9 859	10 887	10 629	8 530	9 244
Middle East and North Africa	24 139	13 442	12 158	15 415	13 780
Latin America and Carribean	9 288	9 022	11 296	11 538	10 105
Europe	5 377	5 793	5 856	8 856	8 011
Unspecified	23 648	27 048	29 379	30 911	29 390
Developing countries total	127 919	127 121	131 670	140 922	133 176

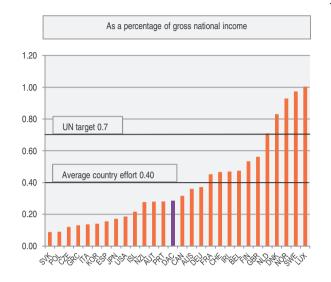
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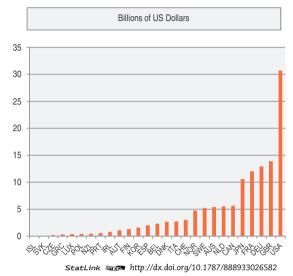
## **GOVERNMENT • AGRICULTURAL SUPPORT AND FOREIGN AID**

OFFICIAL DEVELOPMENT ASSISTANCE

#### Net official development assistance

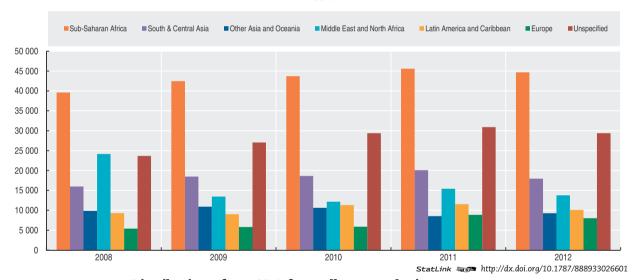
2012





## Distribution of net ODA from all sources by region

Million US dollars



## Distribution of net ODA from all sources by income group

Million US dollars Least developped countries
Upper middle-income countries Other low-income countries Low middle-income countries More advanced countries and territories Unallocated 50000 45000 40000 35000 30000 25000 20000 15000 10000 5000

StatLink http://dx.doi.org/10.1787/888933026620

## |

#### OFFICIAL DEVELOPMENT ASSISTANCE

## Distribution of gross bilateral ODA from DAC countries by income group

Unallocated, 32 350

Unper middle-income, 13 258

Million US dollars, 2011-12 average

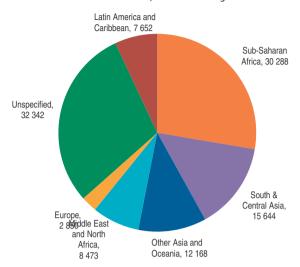
Least developed countries, 30 921

Other low-income, 2 827

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## Distribution of gross bilateral ODA from DAC countries by region

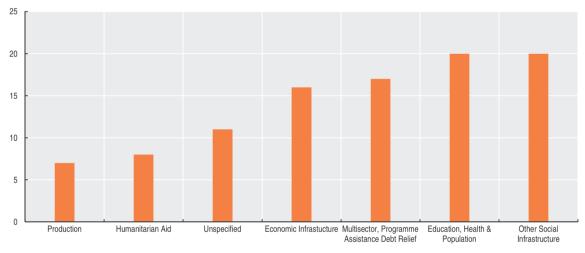
Million US dollars, 2011-12 average



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## Distribution of gross bilateral ODA from DAC countries by sector

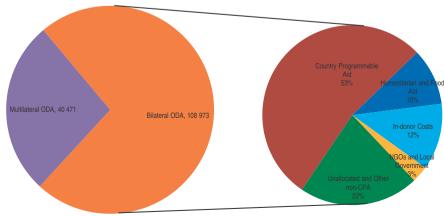
As a percentage of total gross bilateral ODA, 2011-12 average



StatLink http://dx.doi.org/10.1787/888933026677

#### Composition of aid from DAC countries

Million US dollars, 2011



StatLink http://dx.doi.org/10.1787/888933026696

#### TAXES ON THE AVERAGE WORKER

Taxes on the average worker measure the ratio between the amount of taxes paid by the worker and the employer on the country average wage and the corresponding total labour cost for the employer. This tax wedge measures the extent to which the tax system on labour income discourages employment.

**Definition** 

The taxes included in the measure are personal income taxes, employees' social security contributions and employers' social security contributions. For the few countries that have them, it also includes payroll taxes. The amount of these taxes paid in relation to the employment of one average worker is expressed as a percentage of their labour cost (gross wage plus employers' social security contributions and payroll tax).

An average worker is defined as somebody who earns the average income of full-time workers of the country concerned in Sectors B-N of the International Standard Industrial Classification (ISIC Rev. 4). The average worker is considered single without children, meaning that he or she does not receive any tax relief in respect of a spouse, unmarried partner or child.

#### **Comparability**

The types of taxes included in the measure are fully comparable across countries. They are based on common definitions agreed by all OECD countries.

While the income levels of workers in Sectors B-N differ across countries, they can be regarded as corresponding to comparable types of work in each country.

The information on the average worker's income level is supplied by the Ministries of Finance in all OECD countries and is based on national statistical surveys. The amount of taxes paid by the single worker is calculated by applying

#### Overview

In 2012, taxes on an average worker, on average, represented around 36% of their total labour costs across OECD countries. This tax wedge ranged between 7% in Chile to 56% in Belgium.

On average, taxes on an average worker for the OECD as a whole have decreased by around 1 percentage point since 2000. However, there are important differences between countries. Of the 34 OECD member countries, 8 countries experienced an overall increase in the taxes on an average worker since 2000. The countries with the largest increases were Iceland, Japan and Mexico. Of the 25 countries that have experienced an overall decline, the largest decreases were for Denmark, Finland, Hungary, Israel and Sweden.

the tax laws in each country. These tax wedge measures are therefore derived from a modelling exercise rather than from the direct observation of taxes actually paid by workers and their employers.

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#### TAXES ON THE AVERAGE WORKER

## Taxes on the average worker

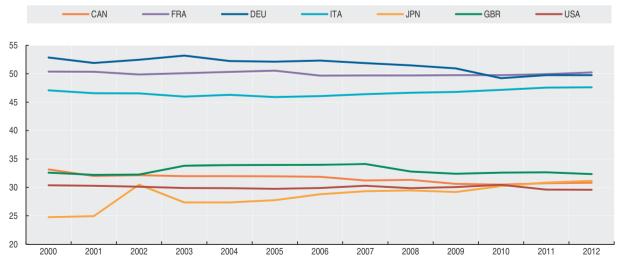
As a percentage of labour cost

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Australia	27.6	28.0	28.2	28.2	28.5	28.3	27.7	26.9	26.7	26.8	26.7	27.2
Austria	46.9	47.1	47.4	48.3	48.1	48.5	48.8	49.0	47.9	48.2	48.5	48.9
Belgium	56.7	56.3	55.7	55.4	55.5	55.5	55.6	55.9	55.7	55.9	56.1	56.0
Canada	32.0	32.1	32.0	32.0	31.9	31.9	31.2	31.3	30.6	30.5	30.7	30.8
Chile	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Czech Republic	42.6	43.0	43.2	43.5	43.7	42.5	42.9	43.4	42.0	42.1	42.6	42.4
Denmark	43.3	42.4	42.4	41.0	40.9	41.0	41.1	40.9	39.5	38.3	38.4	38.6
Estonia	41.0	42.1	42.3	41.5	39.9	39.0	39.0	38.4	39.2	40.1	40.3	40.4
Finland	46.4	45.9	45.0	44.5	44.6	44.0	43.9	43.8	42.5	42.3	42.3	42.5
France	50.3	49.9	50.1	50.3	50.6	49.7	49.7	49.7	49.8	49.8	49.9	50.2
Germany	51.9	52.5	53.2	52.2	52.1	52.3	51.9	51.5	50.9	49.2	49.8	49.8
Greece	38.2	39.3	39.9	41.4	41.2	42.3	41.8	41.0	40.7	39.2	42.4	41.9
Hungary	55.8	53.7	50.8	51.7	51.1	51.9	54.5	54.1	53.1	46.6	49.5	49.4
Iceland	29.3	30.9	31.5	31.9	32.1	31.8	30.5	30.9	30.5	33.4	34.1	34.5
Ireland	25.9	24.4	24.4	24.1	23.5	23.0	22.2	22.3	24.7	25.8	25.8	25.9
Israel	29.5	30.0	27.1	25.3	24.9	23.5	24.1	21.7	20.2	19.4	19.4	19.2
Italy	46.6	46.6	46.0	46.3	45.9	46.1	46.4	46.6	46.8	47.2	47.6	47.6
Japan	24.9	30.5	27.4	27.3	27.7	28.8	29.3	29.5	29.2	30.2	30.8	31.2
Korea	16.5	16.1	16.4	17.0	17.3	18.2	19.7	20.0	19.5	20.1	20.5	21.0
Luxembourg	35.7	32.9	33.5	33.9	34.7	35.3	36.3	34.7	33.9	34.3	36.2	35.8
Mexico	13.1	15.8	16.7	15.2	14.7	15.0	15.9	15.1	15.3	15.5	18.7	19.0
Netherlands	37.4	37.4	37.2	38.8	38.9	38.4	38.7	39.2	38.0	38.1	38.0	38.6
New Zealand	19.4	19.4	19.5	19.7	20.0	20.4	21.1	20.5	18.1	17.0	15.9	16.4
Norway	39.2	38.6	38.1	38.1	37.2	37.4	37.5	37.6	37.3	37.3	37.6	37.6
Poland	38.0	38.0	38.2	38.4	38.7	39.0	38.2	34.7	34.1	34.2	34.3	35.5
Portugal	36.4	37.6	37.4	37.4	36.8	37.5	37.3	36.9	36.5	37.1	38.0	36.7
Slovak Republic	42.5	42.1	42.5	42.2	38.0	38.3	38.4	38.8	37.7	37.9	38.8	39.6
Slovenia	46.2	46.1	46.2	46.3	45.6	45.3	43.3	42.9	42.2	42.5	42.6	42.3
Spain	38.9	39.1	38.6	38.8	39.0	39.1	39.0	38.0	38.3	39.7	40.0	41.4
Sweden	49.1	47.8	48.2	48.4	48.1	47.8	45.3	44.8	43.2	42.8	42.8	42.8
Switzerland	22.4	22.4	21.9	21.7	21.7	21.6	21.9	21.4	21.5	21.6	21.9	21.5
Turkey	43.6	42.5	42.2	42.8	42.8	42.7	42.7	39.9	37.4	37.9	38.2	38.2
United Kingdom	32.2	32.3	33.8	33.9	33.9	34.0	34.1	32.8	32.4	32.6	32.7	32.3
United States	30.3	30.1	29.9	29.8	29.8	29.9	30.3	29.8	30.1	30.5	29.6	29.6
EU 28												
OECD	36.4	36.5	36.3	36.3	36.1	36.1	36.1	35.6	35.1	35.0	35.5	35.6
Brazil												
China												
India												
Indonesia												
Russian Federation												
South Africa												

StatLink http://dx.doi.org/10.1787/888933028957

## Taxes on the average worker

As a percentage of labour cost



StatLink http://dx.doi.org/10.1787/888933026715

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Total tax revenue as a percentage of GDP indicates the share of a country's output that is collected by the government through taxes. It can be regarded as one measure of the degree to which the government controls the economy's resources.

#### **Definition**

Taxes are defined as compulsory, unrequited payments to general government. They are unrequited in the sense that benefits provided by government to taxpayers are not normally in proportion to their payments. The data on total tax revenue shown here refer to the revenues collected from taxes on income and profits, social security contributions, taxes levied on goods and services, payroll taxes, taxes on the ownership and transfer of property, and other taxes.

Taxes on incomes and profits cover taxes levied on the net income or profits (gross income minus allowable tax reliefs) of individuals and enterprises. They also cover taxes levied on the capital gains of individuals and enterprises, and gains from gambling.

Taxes on goods and services cover all taxes levied on the production, extraction, sale, transfer, leasing or delivery of

#### Overview

The tax burden continued to rise in OECD countries in 2012, increasing by 0.5 percentage points to an average 34.6% of GDP. The increase is calculated by applying the unweighted average percentage change for 2012 in the 30 countries providing data for that year to the overall average tax to GDP ratio in 2011. The rate of increase was higher than in 2011 and 2010 when the average tax burdens were 34.1% and 33.8%. Of those 30 countries, the total tax revenues as a percentage of GDP rose in 21 and fell in 9 compared with 2011. However in most cases, changes in the total tax to GDP ratio for countries were very small.

The slow upward trend in this ratio recorded in almost all OECD countries during the 1990s stopped in 2000. Since then, the total tax revenue as a percentage of GDP for all OECD countries has fallen but by less than 1 percentage point.

Revenue collected from taxes on income and profit accounted for 11.4% of GDP on average in 2011. This ratio showed an upward trend in the second half of the 1990s reaching a peak in 2000. After declining slightly in the following years, the average ratio in 2007 rose above the 2000 peak but has now fallen back again.

The OECD average for tax revenues on goods and services has declined by 0.3 percentage point since 2005 but at the same time has been remarkably stable since 1995 at a level of around 11% of GDP.

goods, and the rendering of services, or on the use of goods or permission to use goods or to perform activities. They consist mainly of value added and sales taxes.

Note that the sum of taxes on goods and services and taxes on income and profits is less than the figure for total tax revenues.

#### Comparability

The tax revenue data are collected in a way that makes them as internationally comparable as possible. Country representatives have agreed on the definitions of each type of tax and how they should be measured in all OECD countries, and they are then responsible for submitting data to the OECD that conform to these rules.

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#### Total tax revenue

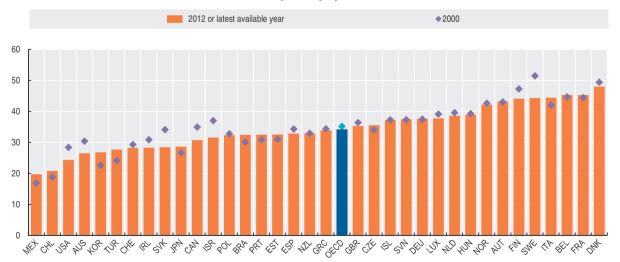
As a percentage of GDP

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Australia	30.4	28.9	29.8	30.0	30.3	30.0	29.6	29.7	27.1	25.8	25.6	26.5	
Austria	43.0	44.9	43.6	43.5	43.0	42.1	41.5	41.8	42.8	42.4	42.2	42.3	43.2
Belgium	44.7	44.6	44.7	44.3	44.4	44.5	44.1	43.6	44.0	43.1	43.5	44.1	45.3
Canada	34.9	34.3	32.8	32.7	32.5	32.3	32.6	32.3	31.6	31.4	30.6	30.4	30.7
Chile	18.8	19.0	19.0	18.7	19.1	20.7	22.0	22.8	21.4	17.2	19.5	21.2	20.8
Czech Republic	34.0	34.1	34.9	35.8	36.3	36.1	35.6	35.9	35.0	33.8	33.9	34.9	35.5
Denmark	49.4	48.5	47.9	48.0	49.0	50.8	49.6	48.9	47.8	47.8	47.4	47.7	48.0
Estonia	31.0	30.2	31.0	30.8	30.6	30.6	30.7	31.4	31.9	35.3	34.0	32.3	32.5
Finland	47.2	44.8	44.7	44.1	43.5	43.9	43.8	43.0	42.9	42.8	42.5	43.7	44.1
France	44.4	44.1	43.5	43.3	43.6	44.1	44.4	43.7	43.5	42.5	42.9	44.1	45.3
Germany	37.5	36.3	35.6	35.8	35.0	35.0	35.7	36.1	36.5	37.4	36.2	36.9	37.6
Greece	34.3	33.2	33.9	32.3	31.5	32.1	31.6	32.5	32.1	30.5	31.6	32.2	33.8
Hungary	39.3	38.4	38.0	37.9	37.7	37.3	37.3	40.3	40.1	39.9	38.0	37.1	38.9
Iceland	37.2	35.4	35.3	36.7	37.9	40.7	41.5	40.6	36.7	33.9	35.2	36.0	37.2
Ireland	30.9	28.8	27.7	28.1	29.6	30.1	31.6	31.1	29.2	27.6	27.4	27.9	28.3
Israel	37.0	37.0	36.3	35.5	35.5	35.7	36.0	36.4	33.8	31.3	32.4	32.6	31.6
Italy	42.0	41.7	41.1	41.5	40.8	40.6	42.1	43.2	43.0	43.4	43.0	43.0	44.4
Japan	26.6	26.8	25.8	25.3	26.1	27.3	28.1	28.5	28.5	27.0	27.6	28.6	
Korea	22.6	23.0	23.2	24.0	23.3	24.0	25.0	26.5	26.5	25.5	25.1	25.9	26.8
Luxembourg	39.1	39.8	39.3	38.1	37.3	37.6	35.9	35.6	37.3	39.0	37.3	37.0	37.8
Mexico	16.9	17.1	16.5	17.4	17.1	18.1	18.2	17.7	20.9	17.4	18.9	19.7	
Netherlands	39.6	38.1	37.4	36.9	37.2	38.4	39.1	38.7	39.2	38.2	38.9	38.6	
New Zealand	32.9	32.3	33.6	33.4	34.5	36.4	35.7	34.5	33.6	31.1	31.1	31.5	32.9
Norway	42.6	42.9	43.1	42.3	43.1	43.2	43.5	42.9	42.1	42.0	42.6	42.5	42.2
Poland	32.8	32.6	33.1	32.6	31.7	33.0	34.0	34.8	34.2	31.7	31.7	32.3	
Portugal	30.9	30.7	31.2	31.5	30.3	31.1	31.8	32.5	32.5	30.7	31.2	33.0	32.5
Slovak Republic	34.1	33.1	33.2	33.1	31.7	31.5	29.4	29.5	29.5	29.1	28.3	28.7	28.5
Slovenia	37.3	37.5	37.8	38.0	38.1	38.6	38.3	37.7	37.1	37.0	38.1	37.1	37.4
Spain	34.3	33.9	34.4	34.0	34.9	36.0	36.9	37.3	33.1	30.9	32.5	32.2	32.9
Sweden	51.4	49.4	47.5	47.8	48.1	48.9	48.3	47.4	46.4	46.6	45.4	44.2	44.3
Switzerland	29.3	28.5	28.9	28.2	27.8	28.1	27.9	27.7	28.1	28.7	28.1	28.6	28.2
Turkey	24.2	26.1	24.6	25.9	24.1	24.3	24.5	24.1	24.2	24.6	26.2	27.8	27.7
United Kingdom	36.4	36.2	34.8	34.4	34.9	35.4	36.3	35.7	35.8	34.2	34.9	35.7	35.2
United States	28.4	27.4	25.1	24.5	24.7	26.0	26.8	26.9	25.4	23.3	23.8	24.0	24.3
EU 28													
OECD	35.2	34.7	34.4	34.3	34.3	34.8	35.0	35.0	34.5	33.6	33.8	34.1	
Brazil	30.1	31.0	31.7	31.2	32.1	33.1	33.1	33.8	34.0	32.6	33.2	34.9	36.3
China													
India													
Indonesia													
Russian Federation													
South Africa													

StatLink http://dx.doi.org/10.1787/888933028976

#### Total tax revenue

As a percentage of GDP



StatLink as http://dx.doi.org/10.1787/888933026734

## Taxes on income and profits

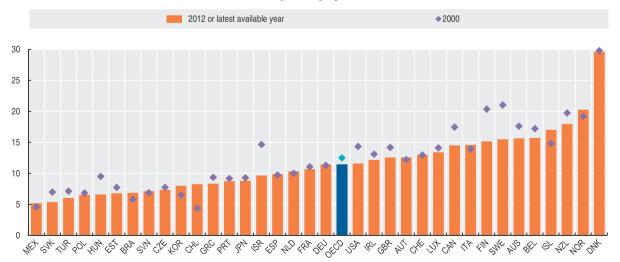
As a percentage of GDP

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Australia	17.6	16.3	16.7	16.9	17.7	17.7	17.5	17.7	16.0	14.4	14.6	15.7	
Austria	12.2	14.0	12.9	12.7	12.5	11.9	12.0	12.5	13.2	11.9	11.9	12.2	12.6
Belgium	17.2	17.4	17.2	16.8	16.8	16.3	15.9	15.6	15.8	14.6	15.0	15.4	15.7
Canada	17.5	16.4	14.8	14.7	15.0	15.2	15.8	15.8	15.5	14.9	14.3	14.3	14.5
Chile	4.4	4.5	4.6	4.7	5.7	7.5	10.0	10.4	8.0	5.4	7.5	8.5	8.3
Czech Republic	7.7	8.2	8.6	9.1	9.1	8.8	8.8	8.9	7.9	7.2	6.9	7.1	7.3
Denmark	29.8	28.8	28.6	28.8	29.6	31.2	29.9	29.3	28.9	29.2	29.0	29.1	29.6
Estonia	7.7	7.2	7.5	8.0	7.9	7.0	7.1	7.4	7.9	7.5	6.8	6.5	6.8
Finland	20.4	18.3	18.1	17.1	16.8	16.8	16.7	16.9	16.7	15.4	15.2	15.5	15.2
France	11.1	11.2	10.4	10.1	10.2	10.4	10.8	10.4	10.5	8.8	9.4	10.0	10.7
Germany	11.3	10.5	10.0	9.8	9.6	9.9	10.8	11.3	11.5	10.8	10.3	10.9	11.4
Greece	9.4	8.1	8.2	7.5	7.6	8.1	7.5	7.6	7.5	7.5	7.0	7.0	8.4
Hungary	9.5	9.8	10.0	9.4	8.9	8.8	9.2	10.2	10.4	9.8	7.8	6.1	6.6
Iceland	14.8	15.3	15.3	16.0	16.1	17.6	18.3	18.4	17.8	16.0	15.6	16.4	17.0
Ireland	13.1	12.1	11.0	11.2	11.8	11.6	12.5	12.2	11.0	10.1	10.0	11.4	12.1
Israel	14.7	14.6	12.8	12.0	11.7	12.1	13.3	13.3	11.2	9.4	9.5	9.8	9.7
Italy	13.9	14.2	13.3	12.9	12.8	12.8	13.9	14.6	14.8	14.2	14.1	13.9	14.6
Japan	9.3	9.0	7.9	7.7	8.3	9.2	9.9	10.4	9.6	8.0	8.3	8.6	8.8
Korea	6.5	6.1	5.9	6.7	6.5	7.0	7.4	8.4	8.2	7.3	7.1	7.8	8.0
Luxembourg	14.1	14.4	14.4	13.9	12.4	12.9	12.5	12.4	13.5	13.9	13.7	13.3	13.4
Mexico	4.6	4.8	4.8	4.6	4.2	4.4	4.6	4.9	5.2	5.0	5.2	5.4	5.2
Netherlands	10.0	10.1	10.2	9.4	9.2	10.7	10.6	10.9	10.7	10.7	10.8	10.3	
New Zealand	19.7	19.1	20.1	19.9	21.1	22.9	22.2	21.7	20.3	17.7	16.7	16.9	18.0
Norway	19.2	19.3	18.8	18.5	20.0	21.3	21.8	20.5	21.2	19.2	20.1	20.5	20.3
Poland	6.8	6.4	6.3	6.0	5.9	6.4	7.0	8.0	8.1	6.9	6.5	6.5	
Portugal	9.2	8.7	8.6	8.1	8.0	7.9	8.2	9.1	9.3	8.6	8.4	9.4	8.7
Slovak Republic	7.0	7.0	6.6	6.7	5.7	5.6	5.7	5.8	6.2	5.2	5.0	5.1	5.4
Slovenia	6.9	7.1	7.4	7.6	7.8	8.3	8.7	8.8	8.4	7.7	7.6	7.4	7.1
Spain	9.8	9.6	10.2	9.5	9.9	10.6	11.4	12.5	10.2	9.2	9.2	9.3	9.9
Sweden	21.0	18.7	17.0	17.6	18.3	19.1	19.1	18.4	16.8	16.4	16.2	15.5	15.5
Switzerland	13.0	12.2	12.6	12.3	12.2	12.6	12.8	12.8	13.3	13.5	12.9	13.2	13.0
Turkey	7.1	7.5	6.1	6.1	5.3	5.3	5.3	5.7	5.8	5.9	5.6	5.8	6.0
United Kingdom	14.2	14.3	13.3	12.6	12.8	13.6	14.4	14.1	14.3	13.2	13.1	13.2	12.6
United States	14.3	13.3	11.1	10.6	10.8	12.2	12.9	13.1	11.6	9.6	10.2	11.2	11.6
EU 28													
OECD	12.5	12.2	11.8	11.6	11.7	12.2	12.5	12.7	12.3	11.3	11.2	11.4	
Brazil	5.8	6.1	6.4	6.3	6.2	7.0	6.9	7.2	7.7	7.2	6.9	7.6	7.3
China													
India													
Indonesia													
Russian Federation													
South Africa					-								

StatLink http://dx.doi.org/10.1787/888933028995

## Taxes on income and profits

As a percentage of GDP



StatLink http://dx.doi.org/10.1787/888933026753



## Taxes on goods and services

As a percentage of GDP

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Australia	8.7	8.8	9.1	8.9	8.7	8.4	8.1	8.0	7.5	7.6	7.4	7.2	
Austria	12.3	12.3	12.5	12.4	12.3	12.1	11.6	11.5	11.6	11.9	11.8	11.8	11.9
Belgium	11.1	10.7	10.8	10.7	11.0	11.1	11.1	10.8	10.7	10.8	11.0	10.9	11.3
Canada	8.5	8.5	8.6	8.6	8.4	8.1	7.9	7.7	7.4	7.5	7.5	7.4	7.5
Chile	12.0	11.8	11.7	11.3	10.8	10.7	9.5	10.0	10.8	9.6	10.0	10.5	10.6
Czech Republic	10.7	10.4	10.4	10.6	11.3	11.3	10.7	10.7	11.0	11.2	11.3	11.7	11.9
Denmark	15.9	15.9	16.0	15.8	16.0	16.3	16.4	16.3	15.5	15.3	15.1	15.2	15.2
Estonia	11.9	12.0	12.2	11.8	11.8	12.9	13.1	13.1	11.8	14.4	13.7	13.4	13.7
Finland	13.7	13.3	13.5	14.1	13.8	13.8	13.6	12.9	12.9	13.4	13.4	14.3	14.4
France	11.5	11.1	11.2	11.1	11.2	11.2	11.1	10.9	10.7	10.6	10.7	10.9	11.0
Germany	10.5	10.4	10.4	10.5	10.2	10.1	10.1	10.5	10.6	11.1	10.6	10.8	10.7
Greece	12.1	12.6	12.4	11.5	11.2	11.2	11.6	11.9	11.6	10.9	12.3	12.7	12.6
Hungary	15.9	14.9	14.3	14.9	15.4	14.8	14.3	15.2	14.9	15.9	16.2	15.9	17.5
Iceland	16.4	14.3	14.4	15.1	16.0	17.1	17.6	16.4	13.6	12.0	12.4	12.5	12.9
Ireland	11.6	10.4	10.7	10.6	11.1	11.3	11.3	11.2	10.8	10.0	9.9	9.6	9.9
Israel	12.3	12.2	13.0	12.9	13.0	12.8	12.4	12.8	12.7	12.4	13.0	12.9	12.4
Italy	11.7	11.2	11.1	10.7	10.8	10.7	11.0	10.9	10.6	10.6	11.1	11.2	11.3
Japan	5.1	5.2	5.2	5.1	5.2	5.3	5.2	5.1	5.1	5.1	5.2	5.3	5.2
Korea	8.7	9.1	9.0	8.9	8.4	8.2	8.1	8.3	8.4	8.2	8.5	8.1	8.4
Luxembourg	10.6	10.5	10.7	10.5	11.2	10.9	10.1	9.8	10.4	10.8	10.0	10.0	10.6
Mexico	8.9	8.8	8.1	9.1	9.5	10.2	10.3	9.4	12.4	8.7	9.9	10.7	10.6
Netherlands	11.5	11.8	11.6	11.7	11.9	12.2	12.1	12.0	11.9	11.7	12.0	11.6	
New Zealand	11.4	11.5	11.8	11.8	11.7	11.7	11.7	10.9	11.3	11.4	12.3	12.5	12.8
Norway	13.5	13.3	13.3	12.9	12.6	12.0	11.9	12.2	10.9	11.7	11.8	11.3	11.1
Poland	11.8	11.4	12.1	12.2	11.9	12.7	13.3	13.0	13.0	11.7	12.5	12.7	
Portugal	12.2	12.3	12.6	12.8	12.7	13.4	13.7	13.2	13.0	11.6	12.4	12.9	13.1
Slovak Republic	12.3	11.2	11.4	12.0	12.3	12.6	11.4	11.3	10.7	10.6	10.3	10.7	9.8
Slovenia	14.0	13.6	13.9	14.0	13.7	13.6	13.3	13.2	13.2	13.6	14.5	13.9	14.2
Spain	10.2	9.8	9.7	9.7	9.9	10.1	10.0	9.4	8.2	7.2	8.7	8.4	8.7
Sweden	12.7	12.6	12.7	12.7	12.6	12.8	12.6	12.6	12.9	13.5	13.4	12.9	12.8
Switzerland	6.6	6.5	6.4	6.4	6.5	6.5	6.4	6.2	6.3	6.3	6.4	6.4	6.1
Turkey	10.1	10.5	11.5	12.8	11.5	12.0	11.9	11.5	11.0	11.2	12.5	12.6	12.5
United Kingdom	11.6	11.3	11.3	11.3	11.2	10.7	10.5	10.4	10.3	9.9	10.7	11.5	11.6
United States	4.6	4.5	4.5	4.5	4.5	4.6	4.6	4.5	4.4	4.3	4.3	4.4	4.4
EU 28													
OECD	11.3	11.0	11.1	11.2	11.2	11.3	11.1	11.0	10.8	10.7	11.0	11.0	
Brazil	13.9	14.3	14.4	14.1	14.8	14.8	14.6	14.7	15.2	14.1	14.8	15.4	14.3
China													
India													
Indonesia													
Russian Federation													
South Africa													

StatLink http://dx.doi.org/10.1787/888933029014

## Taxes on goods and services

As a percentage of GDP



StatLink http://dx.doi.org/10.1787/888933026772





## **HEALTH STATUS**

LIFE EXPECTANCY
INFANT MORTALITY
SUICIDES

## **RISK FACTORS**

SMOKING ALCOHOL CONSUMPTION OVERWEIGHT AND OBESITY

## **RESOURCES**

DOCTORS
NURSES
HEALTH EXPENDITURE

#### LIFE EXPECTANCY

Life expectancy at birth is one of the most frequently used health status indicators. Gains in life expectancy at birth in OECD countries in recent decades can be attributed to a number of factors, including rising living standards, improved lifestyle and better education, as well as greater access to quality health services. Other factors, such as better nutrition, sanitation and housing also played a role, particularly in emerging economies.

Higher national income (as measured by GDP per capita) is generally associated with higher life expectancy at birth,

#### Overview

For the first time in history, life expectancy on average across OECD countries exceeded 80 years in 2011, a gain of 10 years since 1970. Switzerland, Japan and Italy lead a large group of over two-thirds of OECD countries in which life expectancy at birth now exceeds 80 years. A second group, including the United States, Chile and a number of central and eastern European countries, has a life expectancy between 75 and 80 years. Life expectancy among OECD countries was lowest in Mexico and Turkey. While life expectancy in Turkey has increased rapidly and steadily over the past four decades, the increase in Mexico has slowed down markedly since 2000. The slow progress in life expectancy in Mexico is due to harmful health-related behaviours including poor nutrition habits and very high obesity rates, increasing mortality rates from diabetes combined with no reduction in mortality from cardiovascular diseases, very high death rates from road traffic accidents and homicides, as well as persisting barriers to access to high-quality health care. Among emerging countries, Brazil, China, Indonesia and India have achieved large gains in longevity over the past decades, with life expectancy in these countries converging rapidly towards the OECD average. There has been much less progress in South Africa (due mainly to the epidemic of HIV/AIDS) and the Russian Federation (due mainly to the impact of the economic transition in the 1990s and the rise in risky behaviours among men).

The gender gap in life expectancy stood at 5.5 years on average across OECD countries in 2011, with life expectancy reaching 77.3 years among men and 82.8 years among women. While the gender gap in life expectancy increased substantially in many countries during the 1970s and early 1980s, it has narrowed during the past 25 years, reflecting higher gains in life expectancy among men than among women. This can be attributed at least partly to the narrowing of differences in risk-increasing behaviours between men and women, such as smoking, accompanied by sharp reductions in mortality rates from cardiovascular diseases among men.

although the relationship is less pronounced at higher levels of national income.

#### Definition

Life expectancy at birth measures how long on average a new-born can expect to live, if current death rates do not change. However, the actual age-specific death rate of any particular birth cohort cannot be known in advance. If rates are falling (as has been the case over the past decades in OECD countries), actual life spans will be higher than life expectancy calculated using current death rates.

#### Comparability

The methodology used to calculate life expectancy can vary slightly between countries. These differences can affect the comparability of reported life expectancy estimates, as different methods can change a country's estimates by a fraction of a year. Life expectancy at birth for the total population is calculated by the OECD Secretariat for all countries, using the un-weighted average of life expectancy of men and women.

#### Sources

• OECD (2013), OECD Health Statistics (Database).

## Further information

#### Analytical publications

- OECD (2013), How's Life?, OECD Publishing.
- OECD (2010), Health Care Systems: Efficiency and Policy Settings, OECD Publishing.

#### Statistical publications

- OECD (2013), Health at a Glance 2103: OECD Indicators, OECD Publishing.
- OECD (2012), Health at a Glance: Asia/Pacific 2012, OECD Publishing.
- OECD (2012), Health at a Glance: Europe 2012, OECD Publishing.

#### Online databases

• OECD Health Statistics.

#### Websites

- OECD Health Data (supplementary material), www.oecd.org/health/healthdata.
- Health at a Glance (supplementary material), www.oecd.org/health/healthataglance.



#### LIFE EXPECTANCY

## Life expectancy at birth

Number of years

		Wo	men			M	en			To	tal	
	1970 or first available year	1990	2000	2011 or latest available year	1970 or first available year	1990	2000	2011 or latest available year	1970 or first available year	1990	2000	2011 or latest available year
Australia	74.2	80.1	82.0	84.2	67.4	73.9	76.6	79.7	70.8	77.0	79.3	82.0
Austria	73.5	79.0	81.2	83.9	66.5	72.3	75.2	78.3	70.0	75.6	78.2	81.1
Belgium	74.3	79.5	81.0	83.2	67.9	72.7	74.6	77.8	71.1	76.1	77.8	80.5
Canada	76.4	80.8	81.7	83.3	69.3	74.4	76.3	78.7	72.9	77.6	79.0	81.0
Chile	65.4	76.5	80.0	81.0	59.1	69.4	73.7	75.7	62.1	72.9	76.8	78.3
Czech Republic	73.1	75.5	78.5	81.1	66.1	67.6	71.7	74.8	69.6	71.5	75.1	78.0
Denmark	75.9	77.8	79.2	81.9	70.7	72.0	74.5	77.8	73.3	74.9	76.9	79.9
Estonia	74.0	74.9	76.2	81.3	65.4	64.7	65.2	71.2	69.7	69.8	70.7	76.3
Finland	75.0	79.0	81.2	83.8	66.5	71.0	74.2	77.3	70.8	75.0	77.7	80.6
France	75.9	80.9	83.0	85.7	68.4	72.8	75.3	78.7	72.2	76.9	79.2	82.2
Germany	73.6	78.5	81.2	83.2	67.5	72.0	75.1	78.4	70.6	75.3	78.2	80.8
Greece	76.1	79.5	80.6	83.1	71.6	74.7	75.5	78.5	73.8	77.1	78.1	80.8
Hungary	72.2	73.8	76.2	78.7	66.3	65.2	67.5	71.2	69.2	69.5	71.9	75.0
Iceland	77.3	80.7	81.6	84.1	70.7	75.5	77.8	80.7	74.0	78.1	79.7	82.4
Ireland	73.5	77.7	79.2	82.8	68.8	72.1	74.0	78.3	71.2	74.9	76.6	80.6
Israel	73.4	78.4	80.9	83.6	70.1	74.9	76.7	79.9	71.8	76.7	78.8	81.8
Italy	74.9	80.3	82.8	85.3	69.0	73.8	76.9	80.1	72.0	77.1	79.9	82.7
Japan	74.7	81.9	84.6	85.9	69.3	75.9	77.7	79.4	72.0	78.9	81.2	82.7
Korea	65.6	75.5	79.6	84.5	58.7	67.3	72.3	77.7	62.1	71.4	75.9	81.1
Luxembourg	73.0	78.7	81.3	83.6	66.2	72.4	74.6	78.5	69.7	75.5	78.0	81.1
Mexico	63.2	74.0	76.1	77.2	58.5	67.0	70.5	71.2	60.9	70.5	73.3	74.2
Netherlands	76.5	80.3	80.7	83.1	70.8	73.8	75.6	79.4	73.7	77.0	78.2	81.3
New Zealand	74.5	78.4	80.8	83.0	68.4	72.5	75.9	79.4	71.5	75.5	78.4	81.2
Norway	77.5	79.9	81.5	83.6	71.2	73.5	76.0	79.1	74.4	76.7	78.8	81.4
Poland	73.3	75.3	78.0	81.1	66.6	66.3	69.6	72.6	70.0	70.8	73.8	76.9
Portugal	69.7	77.5	80.2	84.0	63.7	70.6	73.2	77.6	66.7	74.1	76.7	80.8
Slovak Republic	73.1	75.7	77.5	79.8	66.8	66.7	69.2	72.3	69.9	71.2	73.4	76.1
Slovenia	72.4	77.8	79.9	83.3	65.0	69.8	72.2	76.8	68.6	73.8	76.1	80.1
Spain	74.8	80.6	82.9	85.4	69.2	73.4	75.8	79.4	72.0	77.0	79.4	82.4
Sweden	77.3	80.6	82.0	83.8	72.3	74.8	77.4	79.9	74.8	77.7	79.7	81.9
Switzerland	76.2	80.9	82.8	85.0	70.0	74.0	77.0	80.5	73.1	77.5	79.9	82.8
Turkey	56.3	69.5	73.1	77.1	52.0	65.4	69.0	72.0	54.2	67.5	71.1	74.6
United Kingdom	75.0	78.5	80.3	83.1	68.7	72.9	75.5	79.1	71.9	75.7	77.9	81.1
United States	74.7	78.8	79.3	81.1	67.1	71.8	74.1	76.3	70.9	75.3	76.7	78.7
EU 28												
OECD	73.1	78.1	80.2	82.8	66.9	71.4	74.0	77.3	70.0	74.8	77.1	80.1
Brazil	60.7	70.2	74.1	77.0	56.5	62.7	66.4	70.1	58.6	66.5	70.3	73.4
China	63.6	71.1	72.9	75.3	62.2	67.9	69.6	71.8	62.9	69.5	71.3	73.5
India	48.5	58.7	62.6	67.1	49.8	58.1	60.6	63.9	49.2	58.4	61.6	65.5
Indonesia	53.5	63.8	67.3	71.1	50.3	60.5	64.1	67.7	51.9	62.1	65.6	69.3
Russian Federation	73.4	74.3	72.0	75.1	63.1	63.8	59.0	63.2	68.1	68.9	65.3	69.0
South Africa	55.6	65.3	57.3	53.2	50.3	57.9	52.3	52.0	53.0	61.6	54.8	52.6

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## Life expectancy at birth

Number of years



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#### **INFANT MORTALITY**

Infant mortality reflects the effect of economic and social conditions of mothers and newborns, the social environment, individual lifestyles as well as the characteristics of health systems. Many studies, particularly in lower-income countries where infant mortality remains high, use this indicator to examine the effect of a variety of medical and non-medical determinants of health on mortality among young children.

#### Overview

In most OECD countries, infant mortality is low and there is little difference in rates. In 2011, the average in OECD countries was just over four deaths per 1 000 live births, with rates being the lowest in Nordic countries (Iceland, Sweden, Finland and Norway), Japan and Estonia. A small group of OECD countries still have relatively high rates of infant mortality (Mexico, Turkey and Chile), although in these three countries infant mortality rates have come down rapidly over the past few decades.

In some large non-member countries (India, South Africa and Indonesia), infant mortality rates remain above 20 deaths per 1 000 live births. In India, nearly one-in-twenty children die before their first birthday, although the rates have fallen sharply over the past few decades. Infant mortality has also been reduced greatly in Indonesia.

In OECD countries, around two-thirds of the deaths that occur during the first year of life are neonatal deaths (i.e. during the first four weeks). Birth defects, prematurity and other conditions arising during pregnancy are the main factors contributing to neonatal mortality in developed countries. With an increasing number of women deferring childbearing and a rise in multiple births linked with fertility treatments, the number of pre-term births has tended to increase. In a number of higher-income countries, this has contributed to a levelling-off of the downward trend in infant mortality rates over the past few years. For deaths beyond a month (post-neonatal mortality), there tends to be a greater range of causes - the most common being SIDS (Sudden Infant Death Syndrome), birth defects, infections and accidents.

All OECD countries have achieved remarkable progress in reducing infant mortality rates from the levels of 1970, when the average was approaching 30 deaths per 1 000 live births, to the current average of just over four. Besides Mexico, Chile and Turkey where the rates have converged rapidly towards the OECD average, Portugal and Korea have also achieved large reductions in infant mortality. The reduction has been slower in the United States.

#### **Definition**

The infant mortality rate is the number of deaths of children under one year of age, expressed per 1 000 live births. Neonatal mortality refers to the death of children during the first four weeks of life. Post neonatal mortality refers to deaths occurring between the second and the twelfth months of life.

#### Comparability

Some of the international variation in infant and neonatal mortality rates may be due to variations among countries in registering practices for premature infants. The United States and Canada, for example, are two countries which register a much higher proportion of babies weighing less than 500g, with low odds of survival, resulting in higher reported infant mortality. In Europe, several countries apply a minimum gestational age of 22 weeks (or a birth weight threshold of 500g) for babies to be registered as live births.

#### Sources

• OECD (2013), OECD Health Statistics (Database).

## **Further information**

#### Analytical publications

- OECD (2011), Doing Better for Families, OECD Publishing.
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- OECD (2012), Health at a Glance: Asia/Pacific 2012, OECD Publishing.
- OECD (2012), Health at a Glance: Europe 2012, OECD Publishing.

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• OECD Health Statistics.

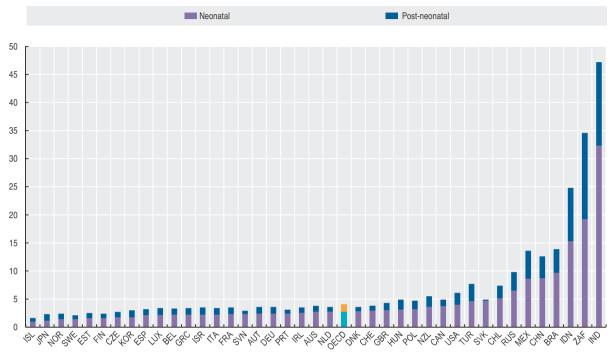
#### Websites

• OECD Health Data (supplementary material), www.oecd.org/health/healthdata.

INFANT MORTALITY

## Infant mortality rates

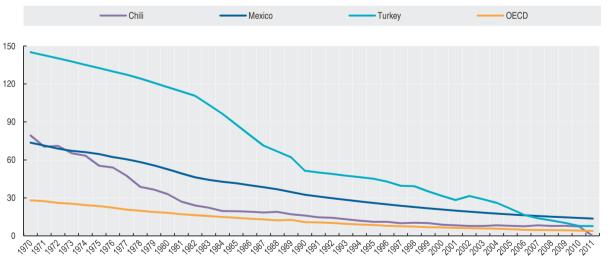
Deaths per 1 000 live births, 2011 or latest available year



#### StatLink http://dx.doi.org/10.1787/888933026810

## Infant mortality in selected OECD countries

Deaths per 1 000 live births



StatLink http://dx.doi.org/10.1787/888933026829

#### **SUICIDES**

Suicide is a significant cause of death in many OECD countries, and accounted for over 150 000 deaths in 2011. A complex set of reasons may explain why some people choose to attempt or commit suicide. A large percentage of people who have attempted or committed suicide have been diagnosed with psychiatric disorders such as severe depression, bipolar disorder and schizophrenia. The social context in which people live is also important. Low income, alcohol and drug abuse, unemployment and isolation are all associated with higher rates of suicide.

#### Overview

Suicide rates among OECD countries in 2011 were lowest in Greece, Turkey, Mexico and Italy, at six or fewer deaths per 100 000 population. It was also low in Brazil. In Korea, Hungary, the Russian Federation and Japan, on the other hand, suicide was responsible for more than 20 deaths per 100 000 population. There is a ten-fold difference between Korea and Greece, the two countries with the highest and lowest suicide rates.

Death rates from suicide are four times greater for men than for women across OECD countries. In Greece and Poland, men are at least seven times more likely to commit suicide than women. The gender gap in these two countries has widened in recent years. In Luxembourg and the Netherlands, the gender gap is much smaller, but male suicide rates are still twice those of females. Suicide is also related to age, with young people and elderly people especially at risk.

Since 1990, suicide rates have decreased by over 20% across OECD countries, with pronounced declines of over 40% in some countries such as Hungary and Estonia. However, death rates from suicides have increased in countries such as Korea and Japan. In Japan, there was a sharp rise in the mid-to-late 1990s, coinciding with the Asian Financial Crisis, but rates have remained stable since then. Suicide rates also rose sharply at this time in Korea and, unlike in Japan, have continued to increase. It is now the fourth leading cause of death in Korea. Mental health services in Korea lag behind those of other countries with fragmented and insufficient support for people in need of such services. Further efforts are also needed to remove the stigma associated with seeking care.

In a number of countries, suicide rates rose slightly at the start of the economic crisis in 2008, but more recent data suggest that this trend did not persist. Still, there is a need for countries to continue monitoring developments closely in order to be able to respond quickly, in particular monitoring high-risk populations such as the unemployed and those with psychiatric disorders.

#### **Definition**

The World Health Organization defines suicide as an act deliberately initiated and performed by a person in the full knowledge or expectation of its fatal outcome. Data on suicide rates are based on official registers of causes of death

Mortality rates are based on numbers of deaths registered in a country in a year divided by the size of the corresponding population. The rates have been agestandardised to the 2010 OECD population to remove variations arising from differences in age structures across countries and over time. The source is the WHO Mortality Database.

#### Comparability

Comparability of data between countries is affected by a number of reporting criteria, including how a person's intention of killing themselves is ascertained, who is responsible for completing the death certificate, whether a forensic investigation is carried out, and the provisions for confidentiality of the cause of death. The number of suicides in certain countries may be under-estimated because of the stigma that is associated with the act, or because of data issues associated with reporting criteria. Caution is required therefore in interpreting variations across countries.

#### Sources

• OECD (2013), OECD Health Statistics (Database).

## **Further information**

#### **Analytical publications**

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#### Statistical publications

- OECD (2013), Health at a Glance, OECD Publishing.
- OECD (2012), Health at a Glance: Europe 2012, OECD Publishing.

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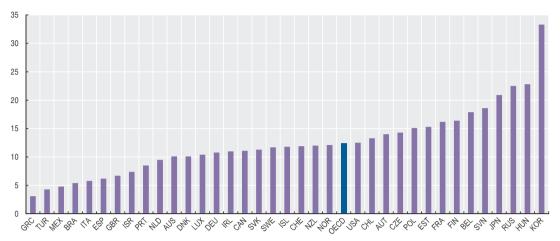
#### Websites

- Health at a Glance, www.oecd.org/health/healthataglance.
- OECD Health Data (Supplementary material), www.oecd.org/health/healthdata.
- The OECD Mental Health and Work Project, www.oecd.org/els/disability.

**SUICIDES** 

#### Suicide rates

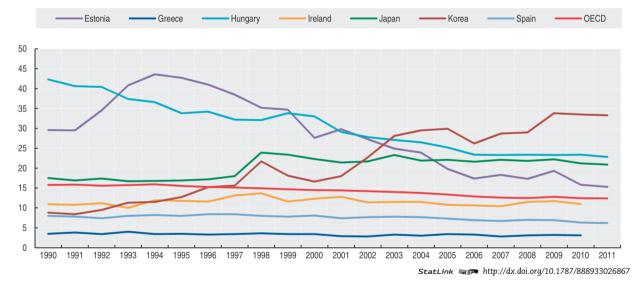
Age-standardised rates per 100 000 population, 2011 or latest available year



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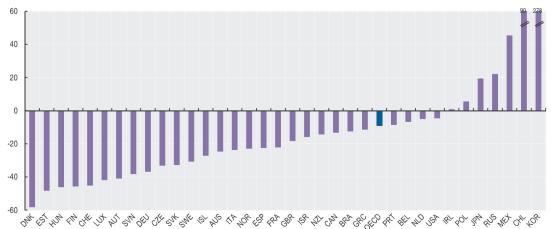
#### Trends in suicide rates

Age-standardised rates per 100 000 population



#### Change in suicide rates

Percentage, 1990-2011 or latest available period



StatLink http://dx.doi.org/10.1787/888933026886

#### **SMOKING**

Tobacco kills nearly 6 million people each year, of whom more than 5 million are from direct tobacco use and more than 600 000 are non-smokers exposed to second-hand smoke. It is a major risk factor for at least two of the leading causes of premature mortality – circulatory disease and cancer, increasing the risk of heart attack, stroke, lung cancer, and cancers of the larynx and mouth. In addition, smoking is an important contributory factor for respiratory diseases. It remains the largest avoidable risk to health in OECD countries.

#### Queruieui

Fifteen of the 34 OECD countries had less than 20% of the adult population smoking daily in 2011. Rates were lowest in Sweden, Iceland and the United States (less than 15%). Rates were also less than 15% in India, South Africa and Brazil. Although large disparities remain, smoking rates across most OECD countries have shown a marked decline. On average, smoking rates have decreased by about one-fifth over the past ten years, with a steeper decline in men than in women. Large reductions occurred since 2000 in Norway, Denmark and the Netherlands. Greece maintains the highest level of smoking among OECD countries, along with Chile and Ireland, with around 30% (although the latest figure for Ireland dates from 2007). Smoking rates were even higher in the Russian Federation.

In the post-war period, most OECD countries tended to follow a general pattern marked by very high smoking rates among men (50% or more) through to the 1960s and 1970s, while the 1980s and the 1990s were characterised by a marked downturn in tobacco consumption. Much of this decline can be attributed to policies aimed at reducing tobacco consumption through public awareness campaigns, advertising bans and increased taxation, in response to rising rates of tobacco-related diseases. In addition to government policies, actions by anti-smoking interest groups were very effective in reducing smoking rates by changing beliefs about the health effects of smoking, particularly in North America.

Smoking prevalence is higher among men compared to women in all OECD countries except Norway, although male and female rates are similar in Denmark, Iceland and the United Kingdom. Female smoking rates continue to decline in most OECD countries. However, in three countries, female smoking rates have been increasing over the last ten years (the Czech Republic, Portugal and Korea), but even in these countries women are still less likely to smoke than men. In 2011, the gender gap in smoking rates was particularly large in Korea, Japan, Mexico and Turkey, as well as in the Russian Federation, India, Indonesia and China.

#### **Definition**

The proportion of daily smokers is defined as the percentage of the population aged 15 years and over reporting smoking every day.

#### Comparability

International comparability is limited due to the lack of standardisation in the measurement of smoking habits in health interview surveys across OECD countries. Variations remain in the age groups surveyed, the wording of questions, response categories and survey methodologies. For example, in some countries, respondents are asked if they smoke regularly, rather than daily.

The proportion of daily smokers among the adult population varies greatly, even between neighbouring countries. There is strong evidence of socio-economic differences in smoking and mortality. People in less affluent social groups have a greater prevalence and intensity of smoking, and higher smoking-related mortality rates.

#### Sources

• OECD (2013), OECD Health Statistics (Database).

## Further information

#### Analytical publications

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- OECD (2010), Health Care Systems: Efficiency and Policy Settings, OECD Publishing.

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- OECD (2012), Health at a Glance: Asia/Pacific 2012, OECD Publishing.
- OECD (2012), Health at a Glance: Europe 2012, OECD Publishing.

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• OECD Health Statistics.

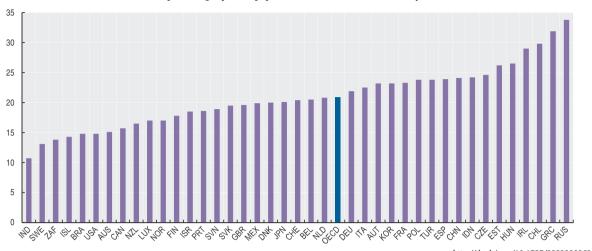
#### Wehsites

- OECD Health Data (supplementary material), www.oecd.org/health/healthdata.
- Health at a Glance, www.oecd.org/health/healthataglance.

**SMOKING** 

#### Adult population smoking daily

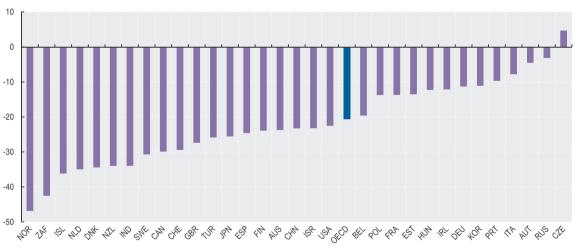
As a percentage of adult population, 2011 or latest available year



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#### Change in smoking rates

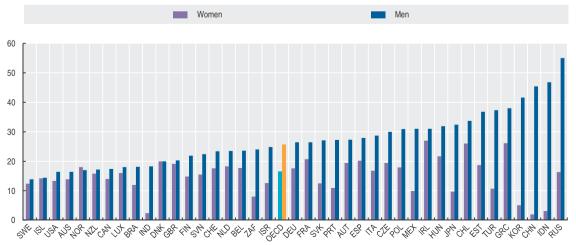
Percentage change over the period 2000-11 or latest available period



#### StatLink http://dx.doi.org/10.1787/888933026924

#### Adult population smoking daily by gender

Percentage of population aged 15 years and over, 2011 or latest available year



StatLink http://dx.doi.org/10.1787/888933026943

#### **ALCOHOL CONSUMPTION**

The health burden related to excessive alcohol consumption, both in terms of morbidity and mortality, is considerable. Alcohol use is associated with numerous harmful health and social consequences, including an increased risk of a range of cancers, stroke and liver cirrhosis. Alcohol also contributes to death and disability through accidents and injuries, assault, violence, homicide and suicide. WHO estimated that it causes more than 2.5 million deaths worldwide per year.

#### **Definition**

Alcohol consumption is defined as annual sales of pure alcohol in litres per person aged 15 years and over.

#### Overview

Alcohol consumption, as measured by annual sales, stands at 9.4 litres per adult on average across OECD countries, based on the most recent data available. Leaving aside Luxembourg where national sales overestimate consumption, France, Austria and Estonia reported the highest consumption of alcohol, with 12 litres or more per adult per year in 2011. Low alcohol consumption was recorded in Turkey and Israel, as well as in Indonesia and India, where religious and cultural traditions restrict the use of alcohol in some population groups.

Although average alcohol consumption has gradually fallen in many OECD countries over the past two decades, it has risen in several Northern European countries (Iceland, Sweden, Norway and Finland) as well as in Poland and Israel. There has been a degree of convergence in drinking habits across the OECD, with wine consumption increasing in many traditional beerdrinking countries and vice versa. The traditional wine-producing countries of Italy, Greece, Spain, Portugal and France, as well as the Slovak Republic, Switzerland and Hungary have seen per capita consumption fall by one fifth or more since 1990. Alcohol consumption in the Russian Federation, as well as in Brazil, India and China has risen substantially, although in the latter two countries per capita consumption is still low.

Variations in alcohol consumption across countries and over time reflect not only changing drinking habits but also the policy responses to control alcohol use. Curbs on advertising, sales restrictions and taxation have all proven to be effective measures to reduce alcohol consumption.

In 2010, the World Health Organization endorsed a global strategy to combat the harmful use of alcohol, through direct measures such as medical services for alcohol-related health problems, and indirect measures such as the dissemination of information on alcohol-related harm.

#### Comparability

The methodology to convert alcoholic drinks to pure alcohol may differ across countries. Official statistics do not include unrecorded alcohol consumption, such as home production. In some countries, for example Luxembourg, national sales do not accurately reflect actual consumption by residents, since purchases by non-residents may create a significant gap between national sales and consumption.

#### Sources

• OECD (2013), OECD Health Statistics (Database).

## Further information

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- WHO (2011), Global Status Report on Alcohol and Health, World Health Organization, Geneva.

#### Statistical publications

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#### Online databases

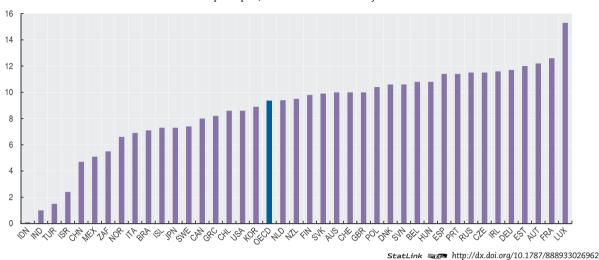
• OECD Health Statistics.

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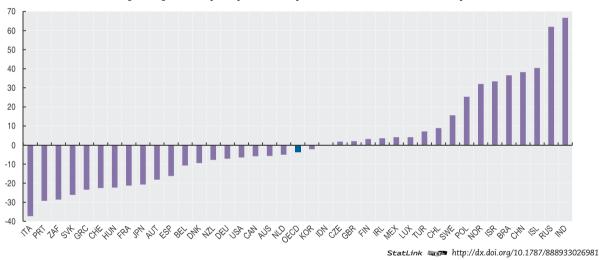
#### Alcohol consumption among population aged 15 and over

Litres per capita, 2011 or latest available year



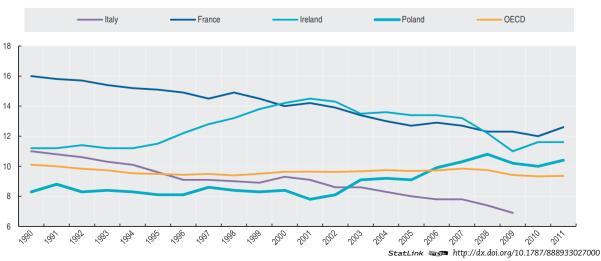
## Change in alcohol consumption in litres per capita among population aged 15 and over

Percentage change in litres per capita over the period 1990-2011 or latest available period



#### Trends in alcohol consumption among population aged 15 and over

Litres per capita



#### **OVERWEIGHT AND OBESITY**

The rise in overweight and obesity is a major public health concern. Obesity is a known risk factor for numerous health problems, including hypertension, high cholesterol, diabetes, cardiovascular diseases, respiratory problems (asthma), musculoskeletal diseases (arthritis) and some forms of cancer. Because obesity is associated with higher risks of chronic illnesses, it is linked to significant additional health care costs. There is a time lag between the onset of obesity and related health problems, suggesting that the rise in obesity over the past two decades will mean higher health care costs in the future. Mortality also increases sharply once the overweight threshold is crossed.

#### Overview

Based on latest available surveys, more than half (53%) of the adult population in the OECD report that they are overweight or obese. In countries where height and weight were measured (as opposed to self-reported), the proportion was even greater, at 56%. The prevalence of overweight and obesity among adults exceeds 50% in no less than 20 of the 34 OECD countries. In contrast, overweight and obesity rates are much lower in Japan and Korea and in some European countries (France and Switzerland), although even in these countries rates have been increasing.

The prevalence of obesity, which presents even greater health risks than overweight, varies nearly tenfold in OECD countries, from a low of 4% in Japan and Korea, to over 32% in Mexico and the United States. On average across OECD countries, 18% of the adult population are obese. Average obesity rates among men and women are similar in most countries. However, in South Africa, the Russian Federation, Turkey, Chile and Mexico, a greater proportion of women are obese, while the reverse is true in Iceland and Norway.

The prevalence of obesity has increased over the past decade in all OECD countries. In 2011, at least one in five adults was obese in ten OECD countries, compared to five a decade ago. Since 2000, obesity rates have increased by a third or more in 16 countries. The rapid rise occurred regardless of where levels stood a decade ago.

The rise in obesity has affected all population groups, regardless of sex, age, race, income or education level, but to varying degrees. Evidence from Australia, Austria, Canada, France, Italy, Korea, Spain and the United States shows that obesity tends to be more common in disadvantaged socio-economic groups, especially in women. There is also a relationship between the number of years of education and obesity, with the more educated displaying lower rates.

#### Definition

Overweight and obesity are defined as excessive weight presenting health risks because of the high proportion of body fat. The most frequently used measure is based on the body mass index (BMI), which is a single number that evaluates an individual's weight in relation to height (weight/height<sup>2</sup>, with weight in kilograms and height in metres). Based on the WHO classification, adults with a BMI between 25 and 30 are defined as overweight, and those with a BMI over 30 as obese.

#### Comparability

The BMI classification may not be suitable for all ethnic groups, who may have equivalent levels of risk at lower or higher BMI. The thresholds for adults are also not suitable to measure overweight and obesity among children.

For most countries, overweight and obesity rates are selfreported through estimates of height and weight from population-based health interview surveys. However, around one-third of OECD countries derive their estimates from health examinations. These differences limit data comparability. Estimates from health examinations are generally higher and more reliable than estimates from health interviews.

The following countries use measured data: Australia, Canada, Chile, the Czech Republic, Ireland, Japan, Korea, Luxembourg, Mexico, New Zealand, the Slovak Republic, the United Kingdom and the United States.

#### Sources

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## Further information

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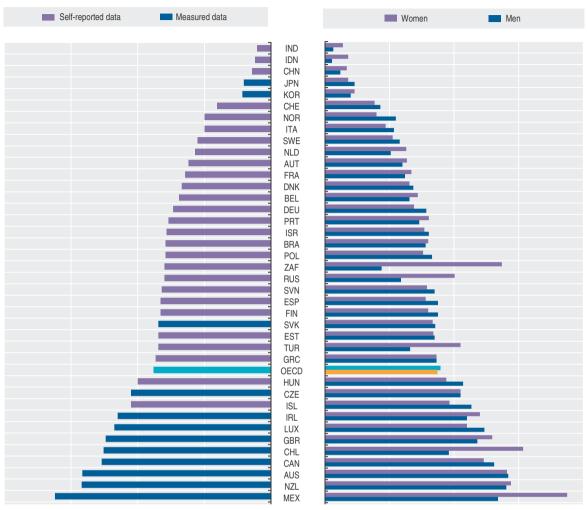
#### Websites

- OECD Health Data (supplementary material), www.oecd.org/health/healthdata.
- The economics of prevention, www.oecd.org/health/ prevention.

#### OVERWEIGHT AND OBESITY

#### Obesity rates among the adult population

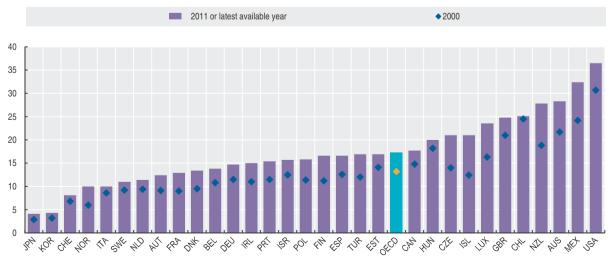
Percentage of population aged 15 and over, 2011 or latest available year



#### StatLink http://dx.doi.org/10.1787/888933027019

## Increasing obesity rates among the adult population

Percentage of population aged 15 and over



StatLink http://dx.doi.org/10.1787/888933027038

#### **DOCTORS**

Doctors play a central role in health systems. There are concerns in many OECD countries about current or future shortages of doctors, in particular of general practitioners and doctors practising in rural regions or deprived urban areas.

Projecting the future supply and demand of doctors is difficult because of high levels of uncertainties regarding their working hours and retirement patterns on the supply side, and changing health needs of ageing populations and health spending growth on the demand side.

#### **Definition**

Practising physicians are defined as the number of doctors providing direct care to patients. Generalists include doctors assuming responsibility for the provision of continuing care to individuals and families, as well as other generalist/non-specialist practitioners. Specialists include

#### Overview

Between 2000 and 2011, the number of physicians has grown in most OECD countries, both in absolute number and on a per capita basis. The growth rate was particularly rapid in countries which started with lower levels in 2000 (Turkey, Korea and Mexico) as well as in Australia, the United Kingdom and Greece. In Australia and the United Kingdom, the increasing number of doctors has been driven mainly by a strong rise in graduation rates from domestic medical education programmes. In Greece, the number of doctors increased strongly between 2000 and 2008, but has stabilised since then. On the other hand, there was almost no growth in the number of physicians per capita in Estonia and France between 2000 and 2011, and there was a decline in Israel.

In nearly all countries, the balance between generalist and specialist doctors has changed over the past few decades, with the number of specialists increasing much more rapidly. As a result, there were more than two specialists for every generalist in 2011, on average across OECD countries. In many countries, specialists earn more and have seen their earnings grow faster than generalists. This creates a financial incentive for doctors to specialise, although other factors such as working conditions and professional prestige also influence choices.

Nearly all OECD countries exercise some control over medical school intakes, often by limiting the number of training places, for example in the form of a *numerus* clausus. Austria, Denmark and Ireland had the highest number of medical graduates per 100 000 population in 2011. Graduation rates were the lowest in Israel, Japan and France. In most OECD countries, the number of new medical graduates has gone up since 2000.

paediatricians, obstetricians/gynaecologists, psychiatrists, medical specialists and surgical specialists. Medical doctors not further defined include interns/residents if they are not reported in the field in which they are training, and doctors not elsewhere classified. The numbers are based on head counts.

### Comparability

In several countries (Canada, Finland, France, Greece, Iceland, the Netherlands, the Slovak Republic and Turkey), the data include not only physicians providing direct care to patients, but also those working in the health sector as managers, educators, researchers, etc. This can add another 5-10% of doctors. Data for Portugal refer to all physicians licensed to practice (resulting in a large overestimation). Data for Spain include dentists up to 2010, while data for Belgium include stomatologists. Data for India are likely over-estimated as they are based on medical registers that are not regularly updated to account for migration, death, retirement, and people registered in multiple states.

Not all countries are able to report all their physicians in the two broad categories of specialists and generalists because of missing information.

#### Sources

• OECD (2013), OECD Health Statistics (Database).

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**DOCTORS** 

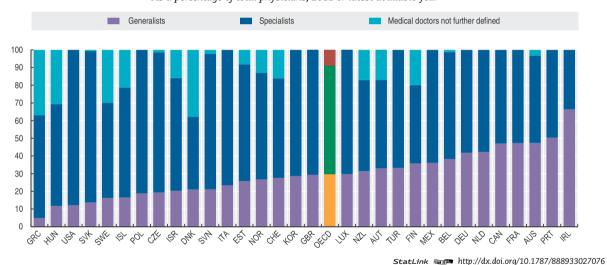
#### **Practising physicians**

Per 1 000 inhabitants



#### Categories of physicians

As a percentage of total physicians, 2011 or latest available year



## **Medical graduates**

Per 100 000 inhabitants



StatLink http://dx.doi.org/10.1787/888933027095

#### **NURSES**

Nurses are usually the most numerous health profession, outnumbering physicians on average across OECD countries by almost three to one. However, there are concerns in many countries about shortages of nurses, and these concerns may well intensify in the future as the demand for nurses continues to increase and the ageing of the "baby-boom" generation precipitates a wave of retirements among nurses. These concerns have prompted actions in many countries to increase the training of new nurses combined with efforts to increase the retention of nurses in the profession.

#### Overview

On average across OECD countries, there were 8.8 nurses per 1 000 population in 2011. The number of nurses per capita was highest in Switzerland, Denmark and Belgium, with more than 15 nurses per 1 000 population (although the number in Belgium is overestimated because it refers to all nurses licensed to practice). The number of nurses per capita in OECD countries was lowest in Turkey, Mexico and Greece. The number of nurses per capita was also low compared with the OECD average in key emerging countries, such as Indonesia, India, South Africa, Brazil and China where there were fewer than two nurses per 1 000 population in 2011, although numbers have been growing quite rapidly in some of these countries in recent years.

The number of nurses per capita increased in almost all OECD countries over the past decade, with the exception of Israel and the Slovak Republic. The increase was particularly rapid in Portugal, Korea, Turkey and Spain, although the number of nurses per capita in these four countries remained well below the OECD average in 2011.

In 2011, the nurse-to-doctor ratio ranged from 4.5 nurses per doctor in Japan to half a nurse per doctor in Greece and one nurse per doctor in Turkey. The number of nurses per doctor was also relatively low in Mexico, Spain, Israel and Portugal, with 1.5 nurses per doctor or less. The average across OECD countries was just below three nurses per doctor, with most countries reporting between two to four nurses per doctor.

There were 43 newly graduated nurses per 100 000 population on average across OECD countries in 2011. The number was highest in Korea, Slovenia, Denmark and Switzerland, and lowest in Mexico, Israel, the Czech Republic, Turkey, Italy and Luxembourg, with less than half the OECD average. Nurse graduation rates have traditionally been low in Mexico, Turkey and Israel, three countries which report a relatively low number of nurses per capita. In Luxembourg, nurse graduation rates are also low, but many nurses are foreign-trained.

#### **Definition**

The number of nurses includes all those employed in public and private settings providing services to patients ("practising"), including the self-employed. In those countries where there are different levels of nurses, the data include both "professional nurses" who have a higher level of education and perform higher level tasks and "associate professional nurses" who have a lower level of education but are nonetheless recognised and registered as nurses. Midwives and nursing aids who are not recognised as nurses are normally excluded.

#### Comparability

In several countries (France, Greece, Iceland, Ireland, Italy, the Netherlands, Portugal, the Slovak Republic, Turkey and the United States), the data include not only nurses providing direct care to patients, but also those working in the health sector as managers, educators, researchers, etc. Data for Belgium refer to all nurses who are licensed to practice (resulting in a large overestimation).

Austria reports only nurses employed in hospitals, resulting in an under-estimation. Data for Germany do not include about 277 500 nurses (representing an additional 30% of nurses) who have three years of education and are providing services for the elderly.

#### Sources

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NURSES

## **Practising nurses**

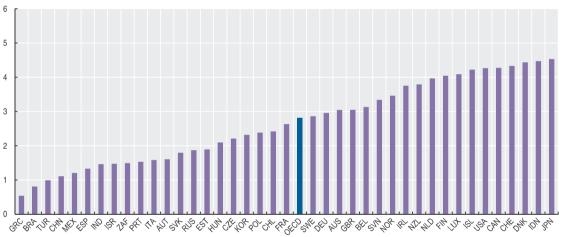
Per 1 000 inhabitants



StatLink as http://dx.doi.org/10.1787/888933027114

## Ratio of nurses to physicians

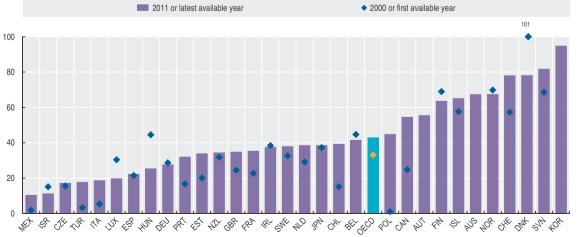
2011 or latest available year



## StatLink http://dx.doi.org/10.1787/888933027133

#### **Nursing graduates**

Per 100 000 inhabitants



StatLink http://dx.doi.org/10.1787/888933027152

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#### **HEALTH EXPENDITURE**

In most OECD countries, spending on health is a large and growing share of both public and private expenditure. Health spending as a share of GDP had been rising over recent decades but has stagnated or fallen in many countries in the last couple of years as a consequence of the global economic downturn. The financial resources devoted to health care vary widely across countries, reflecting the relative priority assigned to health as well as the diverse financing and organisational structures of the health system in each country.

#### **Definition**

Total expenditure on health measures the final consumption of health care goods and services plus capital investment in health care infrastructure. It includes spending by both public and private sources (including households) on curative, rehabilitative and long-term care as well as medical goods

#### Overview

Trends in the health spending to GDP ratio are the result of the combined effect of changes in GDP and health expenditure. In most OECD countries, health spending grew more quickly than GDP between 2000 and 2009. As a result, the average share of GDP allocated to health across OECD countries climbed to 9.6% up from 7.8% in 2000. This ratio dropped to 9.4% of GDP in 2010 and fell again to 9.3% in 2011. These decreases were mainly driven by slower or negative growth in public spending in the wake of the 2008 financial and economic crises when many countries such as Greece, Ireland and Portugal implemented a range of measures to reduce government health spending as part of broader efforts to reduce large budgetary deficits and public debt.

There remain large variations in how much OECD countries spend on health as a share of GDP. In 2011, the share of GDP allocated to health was the largest by far in the United States (17.7%), followed by the Netherlands (11.9%) and France (11.6%). Estonia, Mexico and Turkey spent around 6% of their GDP on health.

China and India spent 5.2% and 3.9% of their GDP on health respectively in 2011, while South Africa and Brazil allocated 8.5% and 8.9% of GDP to health, close to the OECD average (9.3%).

The share of public expenditure on health to GDP also varies among OECD countries from around 4% or below in Mexico, Chile and Korea to more than 9% in Denmark and the Netherlands.

In 2011, public spending was the main source of financing of health expenditure in all OECD countries with the exception of Chile, Mexico and the United States. Private health spending was also the dominant financing source in India, Brazil, Indonesia and South Africa.

such as pharmaceuticals, public health and prevention programmes, and on administration. Medical services can be provided in inpatient and outpatient settings or in some cases in day care facilities or at the home of the patient.

For a more comprehensive assessment of health spending, the health spending to GDP ratio should be considered together with per capita health spending. Countries having a relatively high health spending to GDP ratio might have relatively low health expenditure per capita, while the converse also holds.

#### Comparability

OECD countries are at varying stages of reporting health expenditure data according to the definitions proposed in the 2011 manual A System of Health Accounts (SHA). While the comparability of health expenditure data has improved recently, some limitations do remain, in particular on the measurement of long-term care expenditure and administrative services.

In the Netherlands, it is not possible to clearly distinguish the public and private share for the part of health expenditure related to investments. In Belgium and New Zealand, total expenditure excludes investments. Estonia, Greece, Israel and Poland report expenditure financed from the rest of the world or other financing schemes which are reported under private financing. In Luxembourg, health expenditure is for the insured population rather than the resident population.

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#### HEALTH EXPENDITURE

## Public and private expenditure on health

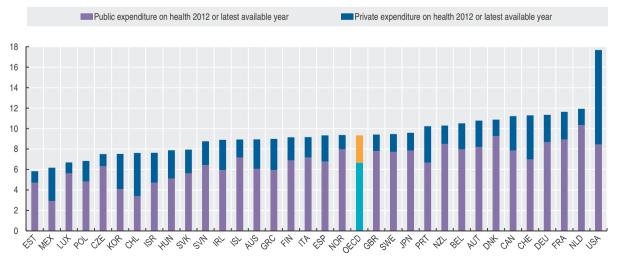
As a percentage of GDP

		Public ex	penditure			Private ex	penditure			To	ital	
_	1980	1990	2000	2011 or latest available year	1980	1990	2000	2011 or latest available year	1980	1990	2000	2011 or latest available year
Australia	3.9	4.5	5.4	6.1	2.3	2.3	2.7	2.9	6.1	6.8	8.1	8.9
Austria	5.1	6.1	7.6	8.2	2.3	2.3	2.4	2.6	7.5	8.4	10.0	10.8
Belgium			6.1	8.0	0.0	0.0	2.1	2.5	6.3	7.2	8.1	10.5
Canada	5.3	6.6	6.2	7.9	1.7	2.3	2.6	3.3	7.0	8.9	8.8	11.2
Chile			3.4	3.5	0.0	0.0	3.1	4.0			6.4	7.5
Czech Republic		4.3	5.7	6.3	0.0	0.1	0.6	1.2		4.4	6.3	7.5
Denmark	7.9	6.9	7.3	9.3	1.1	1.4	1.4	1.6	8.9	8.3	8.7	10.9
Estonia			4.1	4.7	0.0	0.0	1.2	1.2			5.3	5.9
Finland	5.0	6.3	5.1	6.8	1.3	1.5	2.1	2.2	6.3	7.7	7.2	9.0
France	5.6	6.4	8.0	8.9	1.4	2.0	2.1	2.7	7.0	8.4	10.1	11.6
Germany	6.6	6.3	8.3	8.7	1.8	2.0	2.1	2.7	8.4	8.3	10.4	11.3
Greece	3.3	3.6	4.8	5.9	2.6	3.1	3.2	3.2	5.9	6.7	8.0	9.1
Hungary			5.1	5.1	0.0	0.0	2.1	2.8			7.2	7.9
Iceland	5.5	6.8	7.7	7.3	0.7	1.0	1.8	1.8	6.3	7.8	9.5	9.0
Ireland	6.7	4.3	4.6	6.0	1.5	1.7	1.5	2.9	8.1	6.0	6.1	8.9
Israel			4.7	4.7	0.0	0.0	2.8	3.0	7.7	7.1	7.5	7.7
Italy		6.1	5.8	7.2	0.0	1.6	2.0	2.0		7.7	7.9	9.2
Japan	4.5	4.5	6.1	7.9	1.8	1.3	1.5	1.7	6.4	5.8	7.6	9.6
Korea	0.8	1.5	2.2	4.1	2.8	2.3	2.1	3.3	3.6	3.9	4.3	7.4
Luxembourg	4.8	5.0	6.4	5.6	0.4	0.4	1.1	1.1	5.2	5.4	7.5	6.6
Mexico		1.8	2.4	2.9	0.0	2.6	2.7	3.3		4.4	5.1	6.2
Netherlands	5.1	5.4	5.0		2.3	2.6	2.9		7.4	8.0	8.0	11.9
New Zealand	5.1	5.6	5.9	8.5	0.7	1.2	1.7	1.8	5.8	6.8	7.6	10.3
Norway	5.9	6.3	6.9	7.9	1.0	1.3	1.5	1.4	7.0	7.6	8.4	9.3
Poland		4.4	3.9	4.8	0.0	0.4	1.7	2.0		4.8	5.5	6.9
Portugal	3.3	3.7	6.2	6.7	1.8	2.0	3.1	3.6	5.1	5.7	9.3	10.2
Slovak Republic			4.9	5.6	0.0	0.0	0.6	2.3			5.5	7.9
Slovenia			6.1	6.5	0.0	0.0	2.1	2.3			8.3	8.9
Spain	4.2	5.1	5.2	6.8	1.1	1.4	2.0	2.5	5.3	6.5	7.2	9.3
Sweden	8.2	7.4	6.9	7.7	0.7	0.8	1.2	1.7	8.9	8.2	8.2	9.5
Switzerland		4.2	5.5	7.1	0.0	3.8	4.4	3.9	7.2	8.0	9.9	11.0
Turkey	0.7	1.6	3.1		1.8	1.1	1.8	1.6	2.4	2.7	4.9	
United Kingdom	5.0	4.9	5.6	7.8	0.6	1.0	1.5	1.6	5.6	5.8	7.0	9.4
United States	3.7	4.9	5.9	8.5	5.3	7.5	7.8	9.2	9.0	12.4	13.7	17.7
EU 28				6.4				2.2				8.6
OECD	4.8	5.0	5.5	6.7	1.1	1.5	2.2	2.6	6.6	6.9	7.8	9.4
Brazil			2.9	3.1			4.3	5.8			7.2	8.9
China			1.8	1.6			2.9	3.5			4.6	5.2
India			1.1	1.1			3.2	2.8			4.3	3.9
Indonesia			0.7	1.0			1.2	1.8			2.0	2.7
Russian Federation			3.2	3.3			2.2	2.9			5.4	6.2
South Africa			3.4	3.5			4.9	5.1			8.3	8.5

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## Public and private expenditure on health

As a percentage of GDP, 2011 or latest available year



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# ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

The OECD is a unique forum where governments work together to address the economic, social and environmental challenges of globalisation. The OECD is also at the forefront of efforts to understand and to help governments respond to new developments and concerns, such as corporate governance, the information economy and the challenges of an ageing population. The Organisation provides a setting where governments can compare policy experiences, seek answers to common problems, identify good practice and work to co-ordinate domestic and international policies.

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