Under Pressure: The Squeezed Middle Class

OECD

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BETTER POLICIES FOR BETTER LIVES

Please cite this publication as:
OECD (2019), *Under Pressure: The Squeezed Middle Class*, OECD Publishing, Paris.
https://doi.org/10.1787/689afed1-en

ISBN 978-92-64-54283-9 (print)
ISBN 978-92-64-15034-8 (pdf)

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Foreword

The OECD has been at the forefront of documenting the rising levels of income inequality, the lack of opportunities that many OECD countries have experienced over the past 30 years. Through its analyses and publications, the OECD has shown the extent to which middle-income households – the focus of this report *Under Pressure: The Squeezed Middle Class* – in many OECD countries have seen their standard of living stagnate or decline, while higher income groups have continued to accumulate income and wealth.

A strong and prosperous middle class is crucial for any successful economy and cohesive society. The middle class sustains consumption, it drives much of the investment in education, health and housing and it plays a key role in supporting social protection systems through its tax contributions. Societies with a strong middle class have lower crime rates, they enjoy higher levels of trust and life satisfaction, as well as greater political stability and good governance.

However, current findings reveal that the top 10% in the income distribution holds almost half of the total wealth, while the bottom 40% accounts for only 3%. The OECD has also documented that economic insecurity concerns a large group of the population: more than one in three people are economically vulnerable, meaning they lack the liquid financial assets needed to maintain a living standard at the poverty level for at least three months.

We have also found that children born to parents who did not complete secondary school have only a 15% chance of making it to university, compared to a 63% chance for children whose parents attended university. Health outcomes, and even life expectancy, are also heavily influenced by socio-economic background.

These findings have prompted governments to take action to redress a situation that has become economically and politically unsustainable as it undermines public trust in policy and institutions.

For its part, the OECD has called for a new growth narrative that puts people's wellbeing at the centre. Its New Approaches to Economic Challenges and Inclusive Growth initiatives aim to upgrade the OECD's analytical models and measurement tools, to better understand the functioning of our economies and promote policies that integrate considerations of equity *ex-ante*. The OECD has also developed a *Framework for Policy Action on Inclusive Growth*, which offers governments concrete guidance on how to design and implement policies that will give all people, firms and regions the opportunity to thrive – particularly those that are struggling or have been left behind.

The OECD has also placed the issue of inequalities and the need for inclusive growth at the heart of the international agenda, where it has helped inform the work of the G7 and G20.

Under Pressure – The Squeezed Middle Class is the fifth in a series of OECD flagship publications on the trends, causes and consequences of inequality and the remedies needed to address them. *Growing Unequal?* (2008) and *Divided we Stand* (2011) analysed the key features and causes of trends in rising income inequality in advanced and major emerging economies. *In It Together* (2015) looked at the consequences of inequality, including its effects on economic growth, the role fiscal consolidation and redistribution policies have played in shaping these trends, and the way in which structural changes in the labour market have impacted on household income inequality.

The OECD's most recent report in this series, *A Broken Social Elevator? How to Promote Social Mobility* (2018) highlighted the increasing lack of social mobility in our societies. For instance, in OECD countries, it would take between four and five generations (or up to 150 years), for a child born into a low-income family to reach the average level of income. In this respect, it is clear that socio-economic status still heavily influences income and employment prospects, job quality, health outcomes, education, and other opportunities.

Under Pressure – The Squeezed Middle Class provides an in-depth focus on the current situation of the middle class as an economic and social group. In doing so, it documents the pressures and growing risks building up on this group.

Indeed, over the past 30 years, middle-income households have experienced dismal income growth or even stagnation in some countries. This has fueled perceptions that the current socio-economic system is *unfair* and that the middle class has not benefited from economic growth in proportion to its contribution. Furthermore, the cost of living has become increasingly *expensive* for the middle class, as the cost of core services and goods such as housing have risen faster than income. Traditional middle-class opportunities for social mobility have also withered as labour market prospects become increasingly *uncertain*: one in six middle-income workers are in jobs that are at high risk of automation. Uncertain of their own prospects, the middle class are also concerned about those of their children; the current generation is one of the most educated, and yet has lower chances of achieving the same standard of living as its parents.

The report documents these trends in detail. It shows that every generation since the baby boom has seen the middle-income group shrink and its economic influence weaken. Three decades ago, the aggregate income of all middle-income households was four times larger than the aggregate income of upper income households; today, this ratio is less than three.

The chapters look at whether there is a declining middle class, why middle-class jobs are disappearing and the rising costs of the middle-class lifestyle. The final chapter presents policy measures and initiatives that will improve prospects and opportunities for the middle class: improving fairness in the taxation system, addressing the increasing cost of living both on housing and education markets, building the skills of middle-class households, reducing risks of over-indebtedness and improving access to business opportunities.

By shedding light on the situation of a group that has traditionally been the main driver of economic growth and a pillar of social stability, this report makes a key contribution to the OECD argument and vision for inclusive growth. We hope it will continue building a strong case for policy action, help countries develop policies that alleviate the pressures on middle-class households and create economies that fulfil the “middle class dream” once again.

Gabriela Ramos,
Chief of Staff and Sherpa,
In charge of the Inclusive Growth Initiative and of the New Approaches to Economic Challenges Initiative

Acknowledgements

This report is the outcome of a collective effort with contributions from a team of economists and policy analysts mainly from the OECD Jobs and Income Division of the Directorate for Employment, Labour and Social Affairs (ELS). Principal authors of the chapters were Horacio Levy (Jobs and Income Division): Chapters 2, 3 and 4; Andrea Salvatori (Skills and Employment Division): Chapter 3; and Richard Clarke and Sebastian Königs (Jobs and Income Division): Chapter 5. Luis Cecchi and Thomas Manfredi (Jobs and Income Division) contributed to all chapters and provided statistical and research assistance. Vanda Almeida, Alexandre Georgieff, Alix-Anne Paris and Céline Thévenot (Jobs and Income Division at the time of writing) provided contributions to Chapters 3 and 4.

Michael Förster (Jobs and Income Division) led the team and co-ordinated the project and the publication. Stéphane Carcillo, Head of the OECD Jobs and Income Division, supervised the preparation of this report and co-authored Chapter 1 with Michael Förster. Liv Gudmundson and Lucy Hulett together with Joanne Dundon and Anna Tarutina prepared the manuscript for publication. Ken Kincaid contributed to the editing of the report.

We are very grateful to Gabriela Ramos (OECD Chief of Staff and Sherpa to the G20), Stefano Scarpetta (Director of ELS), Mark Pearson (Deputy Director of ELS), Monika Queisser (Senior Counsellor in ELS) and Romina Boarini (Co-ordinator of the Inclusive Growth Initiative), for their guidance and extensive comments on various versions of the report. We gratefully acknowledge the many suggestions provided or channelled by members of the Working Party on Social Policy and the Employment, Labour and Social Affairs Committee of the OECD as well as by experts of the European Commission. We also thank colleagues from OECD Directorates for their comments and suggestions: the Economics Department, the Directorate for Education and Skills, the Directorate for Employment, Labour and Social Affairs, the Centre for Tax Policy and Administration, the Directorate for Public Governance and the Statistics Directorate. Finally, we are indebted to Pauline Grégoire-Marchand (France Stratégie), Robert Joyce (Institute for Fiscal Studies), Ive Marx (University of Antwerp), Jörg Neugschwender (LIS – Luxembourg Income Study Data Center), Ivaylo D. Petev (École Nationale de la Statistique et de l'Administration Économique - ENSAE), Tim van Rie (European Commission) and István Tóth (Hungarian Tárki Social Research Institute) for their comments and suggestions on the initial drafts of several chapters of this report.

The OECD work on the middle class was carried out with the financial assistance of the European Union, DG Employment, and the Chilean Ministry of Social Development, and the OECD would like to thank them for their support. The report also benefited from a close collaboration with Masato Shikata from the Keio University Institute for Economic Studies, for country specific analyses.

This document was produced with the financial assistance of the European Union. The views expressed herein can in no way be taken to reflect the official opinion of the OECD member countries or the European Union.

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ISO Codes

AUS	Australia
AUT	Austria
BEL	Belgium
BRA	Brazil
CAN	Canada
CHL	Chile
CHN	People's Republic of China
CZE	Czech Republic
DNK	Denmark
EST	Estonia
FIN	Finland
FRA	France
DEU	Germany
GRC	Greece
HUN	Hungary
ISL	Iceland
IND	India
IRL	Ireland
ISR	Israel
ITA	Italy
JPN	Japan
KOR	Korea
LVA	Latvia
LTU	Lithuania
LUX	Luxembourg
MEX	Mexico
NLD	Netherlands
NZL	New Zealand
NOR	Norway
POL	Poland
PRT	Portugal
RUS	Russian Federation
SVK	Slovak Republic
SVN	Slovenia
ZAF	South Africa
ESP	Spain

SWE	Sweden
CHE	Switzerland
TUR	Turkey
GBR	United Kingdom
USA	United States
ZAF	South Africa

Executive summary

Over the past decade, the OECD has documented the evolution of inequalities in income and opportunities in details in a series of flagship publications, from *Growing Unequal?* (2008), to *Divided we Stand* (2011), to *In it Together* (2015) and the latest release on *The Broken Social Elevator* that focused on social mobility and showed that opportunities for low- and middle-income families to move up the ladder became limited over the past decades. The present report zooms in on the *middle class* and sheds light on the multiple pressures this group faces.

Why focus on the middle class? The middle class used to be an aspiration. For many generations it meant the assurance of living in a comfortable house and affording a rewarding lifestyle, thanks to a stable job with career opportunities. It was also a basis from which families aspired to an even better future for their children. At the macro level, the presence of a strong and prosperous middle class supports healthy economies and societies. Through their consumption, investment in education, health, and housing, their support for good quality public services, their intolerance of corruption, and their trust in others and in democratic institutions they are the very foundations of inclusive growth. However, there are now signs that this bedrock of our democracies and economic growth is not as stable as in the past.

Are middle incomes being hollowed out? On average across OECD countries, the share of people in middle-income households, defined as households earning between 75% and 200% of the median national income, fell from 64% to 61% between the mid-1980s and mid-2010s. The economic influence of the middle class and its role as "centre of economic gravity" has also weakened. The aggregate income of all middle-income households was four times the aggregate income of high-income households three decades ago; today, this ratio is less than three. The middle-income group has grown smaller with each successive generation: 70% of the baby boomers were part of the middle class in their twenties, compared with 60% of the millennials. The baby boom generation enjoyed more stable jobs during their working life than younger generations.

Is the middle class under pressure? Middle incomes have indeed barely grown, in both relative and absolute terms in most OECD countries. Overall, over the past 30 years, median incomes increased a third less than the average income of the richest 10%. In parallel, the cost of essential parts of the middle-class lifestyle have increased faster than inflation; house prices have been growing three times faster than household median income over the last two decades. This happened in the context of rising job insecurity in fast transforming labour markets. One-in-six current middle-income jobs face high risk of automation. More than one-in-five middle-income households spend more than they earn. Over-indebtedness is higher for middle-income than for both low- and high-income households. As a result, today the middle class looks increasingly like a boat in rocky waters.

What can governments do about it? Among middle-class households, those at the lower end are more susceptible to suffer from these growingly unstable conditions. They feel that the current socio-economic system is unfair. This can be addressed by reviewing and adapting the tax and benefit system. The report also discusses reforms in housing and education systems to make the middle-class lifestyle more accessible. More fundamentally, policies should aim at tackling vulnerabilities at the root. For this reason, education and training systems should offer a wider range of learning opportunities at various ages to foster mobility.

Chapter 1. Overview

This introductory chapter gives an overview of the entire report drawing on the analyses carried out in the four subsequent chapters. The report looks at the multiple pressures on the middle class, in terms of their economic situation, their living expenses, and labour market insecurity. It documents that in many OECD countries, middle incomes have grown less than upper incomes and in some, they have not grown at all. The costs of some goods and services, such as housing, which are core for a middle class lifestyle, have risen faster than real median incomes. The report sheds light on the rising job insecurity for middle-income households in rapidly transforming labour markets, where middle-income jobs face high risk of automation. Finally, it discusses policy measures and initiatives to address the challenges with which middle-income households contend - boosting incomes, coping with increased costs of living, improving the fairness of taxation and building skills of middle-class households.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

1.1. The middle class dream is increasingly only a dream for many

Over the past decade, the OECD has reviewed the evolution of inequalities in income and opportunities in details and as part of its *Inclusive Growth Initiative* (OECD, 2019[1]; OECD, 2018[2]) (see Box 1.1 for an overview). The last flagship report of the inequality series focused on social mobility (OECD, 2018[3]). It showed that in many OECD countries, opportunities for low and middle-income families to move up the ladder became limited over the past decades. Moreover, many middle-class families faced a growing risk of falling down to a lower income or a lower status.

The present report zooms in onto the *middle class* as an economic and social group and sheds light on the multiple mounting pressures on this group. [1] In particular, the report analyses the main trends affecting "middle-income" households – their employment, consumption, wealth and debt, as well as perceptions and social attitudes. It finds that the middle class is being squeezed, both in the sense that the share of people in the middle income group has declined over time, especially among the new generations, and that the cost of a middle class lifestyle is rising faster than middle incomes. The report also discusses how policies should respond to these growing pressures for the middle class.

Why a focus on the middle class? The middle class used to be an aspiration. For many generations it meant the assurance of living in a comfortable house and affording a rewarding lifestyle, thanks to a stable job with career opportunities. It was also a basis from which families aspired to an even better future for their children. However, there are now signs that this bedrock of our democracies and economic growth is not as stable as in the past.

Is the middle-class under pressure? Middle incomes have barely grown, in both relative and absolute terms in many OECD countries; the cost of essential parts of the middle-class lifestyle has increased faster than income, notably housing and higher education; and job insecurity has risen in the context of fast transforming labour markets. Today, the middle class looks increasingly like a boat in rocky waters.

Is this insecurity temporary or here to stay? Fundamentally, rising uncertainty stems from fewer opportunities to climb up the ladder for middle-class people and their children than in the past, and higher risks to slide down. Social mobility at different stages of life is limited: education attainments, occupational status, earnings, and even health status are very persistent across generations. Two fifths of the earnings differences between fathers carry over to the next generation (OECD, 2018[4]). Many middle-income households face a considerable *risk of sliding down* into the lower-income class: one-in-seven households in the middle 60% of the income distribution and one-in-five of those living in the second-lowest income quintile slide into the bottom 20% over a four-year period. These risks have increased over the past two decades in many OECD countries. At the same time, more affluent middle-income households have somewhat lower risks today. This indicates a rising chance of fracturing among the middle-income class (OECD, 2018[4]).

What are the prospects for the middle-class? The labour market prospects of many middle-class workers looks uncertain. Already in the past two decades, rapid integration along global supply chains and, even more so, fast and transformative technological change and population ageing have resulted in a polarisation of jobs. This shift in employment towards high-skilled non-routine jobs and some low-skilled non-routine jobs has hollowed-out middle-skilled jobs. Those are often held by middle-class people (OECD, 2017[5]; Autor, 2015[6]). In the future, many new job opportunities will emerge with further penetration of new digital technologies – artificial intelligence, machine learning, internet of things etc. –

but many jobs are likely to be automated or profoundly overhauled (Nedelkoska and Quintini, 2018[7]).

These trends paint an uncertain picture for workers with middle incomes, in particular those with low-medium skills in routine jobs. This comes on top of the secular decline of productivity gains and the shrinking labour share observed in many countries, which have weighed on the purchasing power of most middle-income families.

Box 1.1. Recent OECD work on inequalities of opportunities and outcomes

A number of recent OECD reports have highlighted structural inequalities that persist in social and economic outcomes in various domains. The evidence suggests that income inequality has increased in three quarters of the OECD countries over the past three decades and remains even higher in most emerging economies, albeit declining in some (OECD, 2011[8]). High and persistent income inequalities have negative consequences not only for social cohesion in our societies but also for economic growth to the extent they undermine the opportunities to access quality education and health services as well as good jobs (OECD, 2015[9]). OECD PISA studies (e.g. (OECD, 2018[10]) and OECD work on educational opportunities (OECD, 2017[11]) have clearly shown that too many children, students and adults from socio-economically disadvantaged backgrounds fall behind. Gender inequalities persist in all areas of social and economic life (OECD, 2017[12]). Such disparities in education, in income and resources go together with disparities in life satisfaction (OECD, 2017[13]). Moreover, inequalities compound over the life course leading to a process of unequal ageing (OECD, 2017[14]).

The OECD's most recent inequality report *A Broken Social Elevator? How to Promote Social Mobility* drew attention on the increasing lack of social mobility in our societies. Socio-economic status heavily influences income and employment prospects, job quality, health outcomes, education, and other opportunities that matter to people's well-being (OECD, 2018[4]). The analyses found that in many OECD countries, opportunities for low and middle-income families to move up the ladder became limited as the steps became larger. At the same time, many families witness a growing risk to fall down to lower income or a lower status.

The report makes a key contribution to the OECD's Inclusive Growth initiative and its effort to develop a "people-centred inclusive growth model" in which well-being is the metric of success; where everyone has an equal opportunity to prosper; and where equity considerations are important in defining effective economic policies (OECD, 2018[2]).

1.2. The middle class is an engine for prosperity and economic growth

Why the middle class matters? The presence of a strong and prosperous middle class supports healthy economies and societies. Through their actions and activities, they improve not only their own position, but also that of others. The investment of the middle class in education, health, and housing, their support for good quality public services, their intolerance of corruption, and their trust in others and in democratic institutions, are the very foundations of inclusive growth.

In particular, middle classes generally invest heavily in their own education and that of their children, thus increasing current and future stock of human capital. (Brown and Hunter, 2004[15]; Pressman, 2007[16]; Bassanini and Scarpetta, 2002[17]). Human capital accumulation is therefore an important channel through which a strong middle class can support wellbeing and GDP per capita growth, as it boosts that share of population with secondary and tertiary education (Brueckner et al., 2017[18]; OECD, 2003[19]).

A strong middle class is also essential to support sustained productivity growth and to properly fund social protection and lift millions of families out of poverty. The middle class also contributes to economic growth and capital accumulation as a source of entrepreneurship and innovation. In countries with more middle-income households, entrepreneurship activities tends to have a positive impact on GDP growth (van Stel, et al., 2005[20]). In this sense, a strong middle class is considered an important element to foster small and medium-sized enterprises and to grow a robust entrepreneurial sector (OECD, 2010[21]). Overall, the evidence is clear: economic growth is stronger in countries where the middle class is strong (Easterly, 2001[18]; Brueckner et al., 2018[19])

1.3. Most people identify themselves as belonging to the middle class

Who is in the middle class? The majority of the people in OECD countries – on average around two-thirds of the population – think of themselves as part of the middle class. Such self-identification is highest in Nordic countries (except Finland), the Netherlands, Luxembourg and Switzerland, where four out of five people think they are part of the middle class. In contrast, just two out of five people or less identify with the middle class in Portugal, Brazil, Chile and the United Kingdom. In the United Kingdom, some studies suggest most people identify as working class.[2]

Many people self-identify with the middle class regardless of their own objective socio-economic circumstances. Such "*middle class bias*" (Evans, 2004[22]) seems particularly high in Italy, Mexico and India, and in countries where large shares of the population identify themselves as "middle class".[3] This phenomenon can be partly explained by the implicit income level that people consider as a minimum threshold for being middle class: this level tends to be substantially lower for poorer people and noticeably higher for richer people.[4]

The extent of such self-identification with the middle class is only *loosely related to the shares of middle-income households* across countries. Middle-income households defined as households earning between 75% and 200% of the median national income (see Box 1.2) make up, on average, 61% of the population in OECD countries. This share ranges from around 50% in Chile, Mexico, the United States and Israel to around 70% in Nordic and some Continental European countries. In emerging economies, the middle-income group is smaller and ranges from around one third of the population in South Africa to about half in Russia (Figure 1.1).

Box 1.2. Defining and measuring middle class

Social class refers to a group of people who share the same socio-economic status. How this status is defined differs according to different academic traditions and the use to which the concept is being put. As a consequence, indicators used to define and analyse the "middle class" vary significantly, within and across disciplines (Reeves, Guyot and Krause, 2018[23]; Gornick and Jäntii, 2013[24]). Many economic analyses use income as key indicator to define middle class status. In the rest of the social sciences, most measures and indicators are based on occupation and employment status (Goldthorpe, 2016[25]), although social, cultural and economic capital are also used (Savage et al., 2013[26]; Savage, 2016[27]). The middle class has also been defined using subjective measures such as social class identification (Bird and Newport, 2017[28]).

This report uses income as a benchmark to analyse the middle class and highlights this choice by mainly using the term "middle-income class", rather than "middle class". That said, the report goes beyond the pure income perspective by analysing in detail the importance of job polarisation (Chapter 3) and consumption (Chapter 4) for the middle class. In both these cases, however, the middle-income class remains the benchmark.

This report defines "middle-income class" as the population living in households with incomes ranging between 75% and 200% of the national median. For some of the analyses, the middle-income class is sub-divided into three groups: lower middle-incomes (75% to 100% of median), middle middle-income (100% to 150% of median) and upper middle-income (150% to 200% of median). The population in households with income below 75% of the median are the "lower-income class" and those with income above 200% of the median are the "upper-income class".

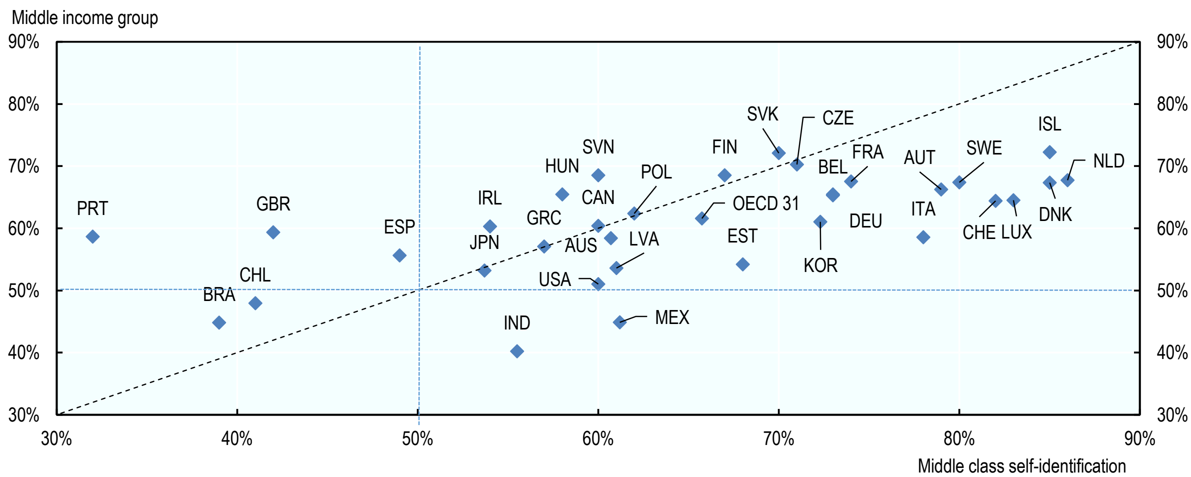
Middle class indicators based on median incomes produce fairly stable cross-country comparisons. Robustness checks indicate that country rankings show little variation when using different thresholds based on proportions of median income. Income shares tend to be more stable when using people-based thresholds (income deciles) than income-based thresholds (ranges around the median).

While middle class indicators based on income are linked to the level of income inequality and macroeconomic performance, these factors alone are not sufficient to explain the evolution of income at the middle in OECD countries in recent decades (Thewissen et al., 2018[29]).

Are middle incomes being hollowed out? On average across OECD countries, the share of people in middle-income households fell from 64% to 61% between the mid-1980s and mid-2010s. The decline was spread evenly across time, roughly 1 percentage point per decade and accompanied by corresponding expansions of the lower- and upper-income classes. Albeit generally modest, changes in the size of the middle-income class have been significant in a number of OECD countries, exceeding 4.5 percentage points in Israel, Germany, Luxembourg, Canada, the United States, Finland and Sweden.

Figure 1.1. Most people consider themselves as part of the middle class

Share of population in the middle-income group and considering themselves as "middle class", 2017 or most recent year



Note: The "middle-income" group is defined by population share with household disposable income between 75% and 200% of the national median. Incomes are disposable incomes, corrected for household size.
Source: Chapter 2.

StatLink https://doi.org/10.1787/888933954931

In real terms, middle-income thresholds (75%-200% of the median income) vary a lot across OECD countries. It takes an annual income of between USD 3 800 and USD 10 000 in Mexico and between USD 26 500 and USD 70 600 in Luxembourg to be part of the middle class for a single person (Table 1.1). Still most middle-income households from one OECD country would also be considered as middle income in another. With an income of USD 23 000, for instance, people would be in the middle-income class in 25 of the 35 OECD countries for which data are available.

Table 1.1. Middle-income thresholds vary a lot across OECD countries

Lower and upper middle-income thresholds in USD 2010 PPPs, 2016 or latest year available

	Lower threshold	Upper threshold
Luxembourg	26 482	70 620
United States	23 416	62 442
Denmark	19 735	52 626
France	18 173	48 462
United Kingdom	15 856	42 283
Italy	12 206	32 549
Hungary	8 707	23 219
Mexico	3 757	10 019

Note: Middle-incomes classes and median incomes defined based on equivalised household disposable income, corrected for household size. The middle-income class comprises individuals in households with income between 75% and 200% of the median. Values in USD, adjusted for international differences in 2010 purchasing power parities.
Source: Chapter 2.

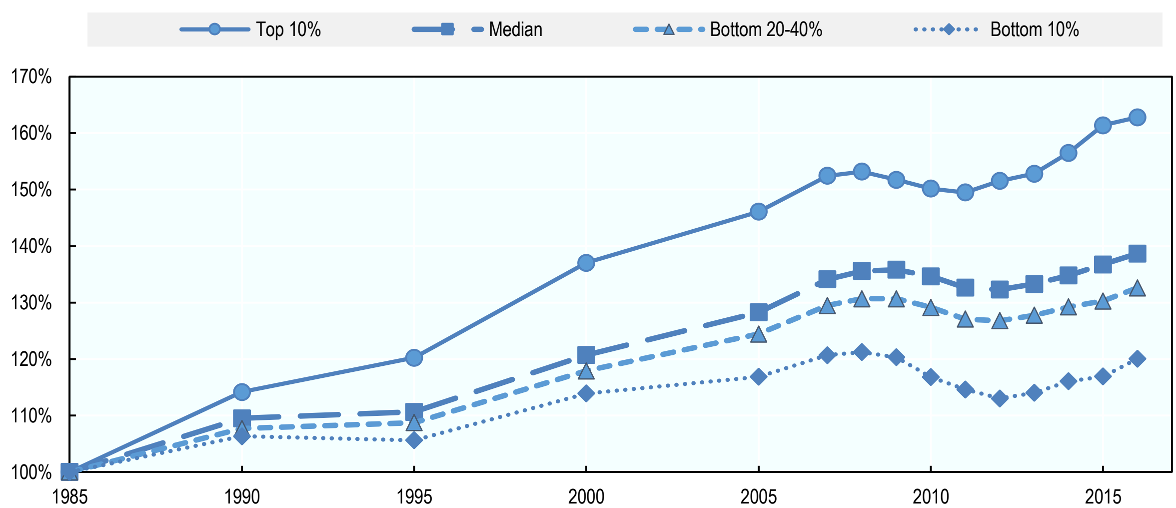
StatLink https://doi.org/10.1787/888933955102

1.4. The economic influence of the middle class is weakening

How has the middle class faired economically? Over the past three decades, the middle-income class has experienced dismal income growth or even stagnation in some countries. Since the mid-1980s, middle incomes have grown significantly less than higher incomes, and the global financial crisis exacerbated this trend further. Between 2007 and 2016, the annual growth rate of real median incomes was 0.3% on average across OECD countries, compared to 1% between the mid-1980s and mid-1990s, and 1.6% between the mid-1990s and mid-2000s – a period when income growth was strongest among all income groups. Households with 20 to 40% of the median income fared even worse, especially since the early 2000s (Figure 1.2). Across the OECD area, except for a few countries, middle incomes are barely higher today than they were ten years ago.

Figure 1.2. Median incomes grew more slowly than top incomes

Real disposable income growth by income position, average for 17 OECD countries, 1985-2016 (1985 = 100%)



Note: Unweighted average for 17 countries for which long-term data are available: Canada, Germany, Denmark, Finland, France, United Kingdom, Greece, Israel, Italy, Japan, Luxembourg, Mexico, Netherlands, Norway, New Zealand, Sweden and United States. Incomes are disposable incomes, corrected for household size.
Source: Chapter 2, OECD calculations from OECD Income Distribution Database (http://oe.cd/idd).

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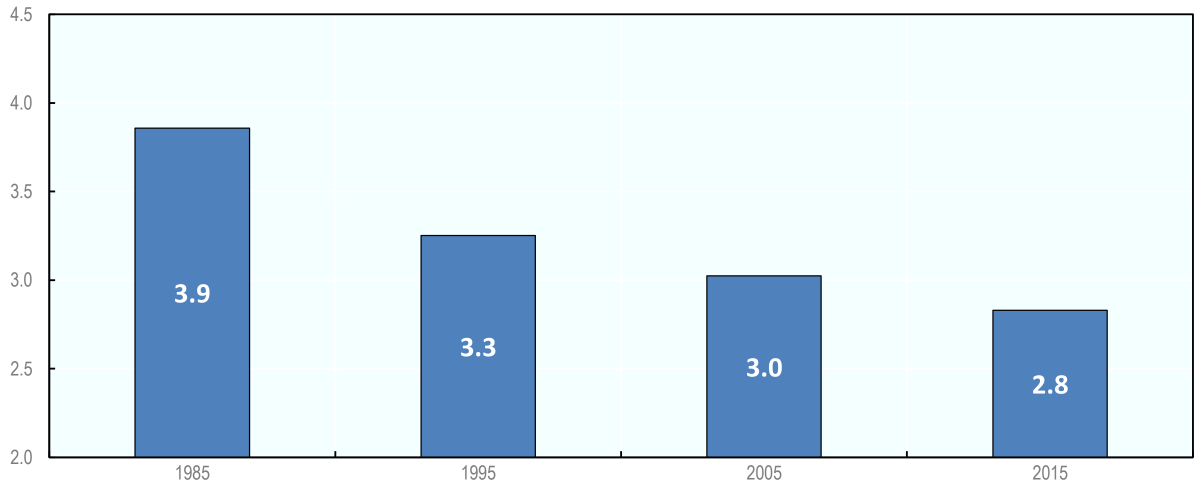
Overall, over the past 30 years, median incomes increased a third less than the average income of the richest 10%. Moreover, in some countries the share of incomes at the very top has surged; in the United States, for example, the share of top 1% on total income has almost doubled from about 11% to 20% over the past three decades and almost half of all income growth over this period accrued to this group (Förster et al., 2014[30]; Saez, 2018[31]). Therefore, the economic influence of the middle class and its role as "centre of economic gravity" has weakened. Three decades ago, the aggregate income of all middle-income households was four times the aggregate income of upper income households, i.e. those with incomes above two times the national median; today, this ratio is less than three (Figure 1.3).

Figure 1.3. Middle incomes are losing economic influence

Aggregate income share ratio between middle and upper income households, OECD average mid-1980s to mid-2010s



Note: Data refer to the aggregate income of all middle-income households as a ratio of the aggregate income of all upper-income households. "Middle income" households defined as households with income between 75% and two times the national median. "Upper income" households defined as households with income above two times the national median. OECD average comprises available data from Australia, Canada, Switzerland, Czech Republic, Denmark, Finland, France, Germany, United Kingdom, Hungary, Ireland, Italy, Luxembourg, Netherlands, Norway, Spain, Sweden, and United States. Incomes are disposable incomes, corrected for household size.
Source: OECD Secretariat calculations based on data from EU-SILC (Europe), SLID and CIS (Canada), CPS March Supplement (United States) and LIS Data Center.

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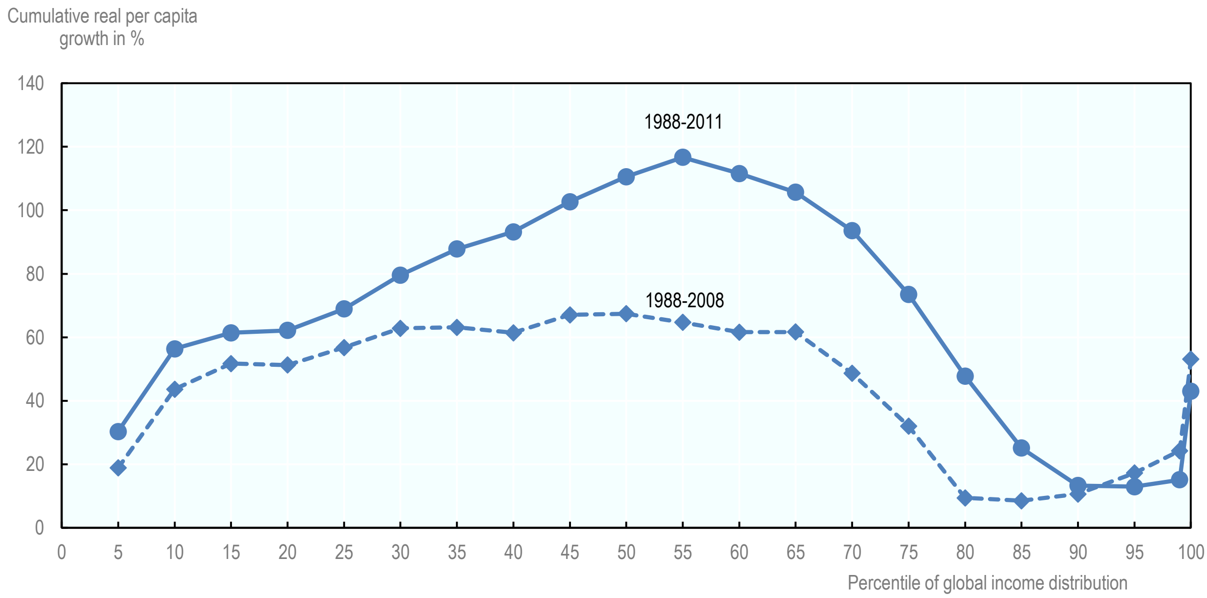
At the same time, the growth rate of middle incomes in OECD countries fell behind the income growth of the global middle-income group as well as that of the global top 1%. This is the pattern behind the so-called "Elephant curve" (Milanović, 2016[32]; Lakner and Milanovic, 2016[33]). Estimates of household income growth at the world scale between 1988 and 2011 show that income growth was strongest around the 40th to 60th percentile of the world distribution[5], while it was weakest around the 85th to 90th percentile, which includes many of the households in the middle-income groups in OECD countries (Figure 1.4). This pattern, which became even stronger with the global financial crisis, has been used to describe the contrast between the fortunes of the two middle classes, the global middle-income class, mainly in Asian countries, and the OECD middle-income class (Milanović, 2019[34])

Figure 1.4. Real income growth of OECD middle income groups fell behind that of global middle-incomes and the global top 1% incomes

Real income growth over 1988-2008 and 1988-2011 (based on 2011 PPPs)



Note: Y-axis displays the growth rate in average income of the fractile group (in 2011 PPP USD). Population-weighted. Growth incidence evaluated at ventile groups (e.g., bottom 5%); top ventile is split into top 1% and 4% between P95 and P99.
Source: (Milanović, 2019[34]), Figure 1.3.

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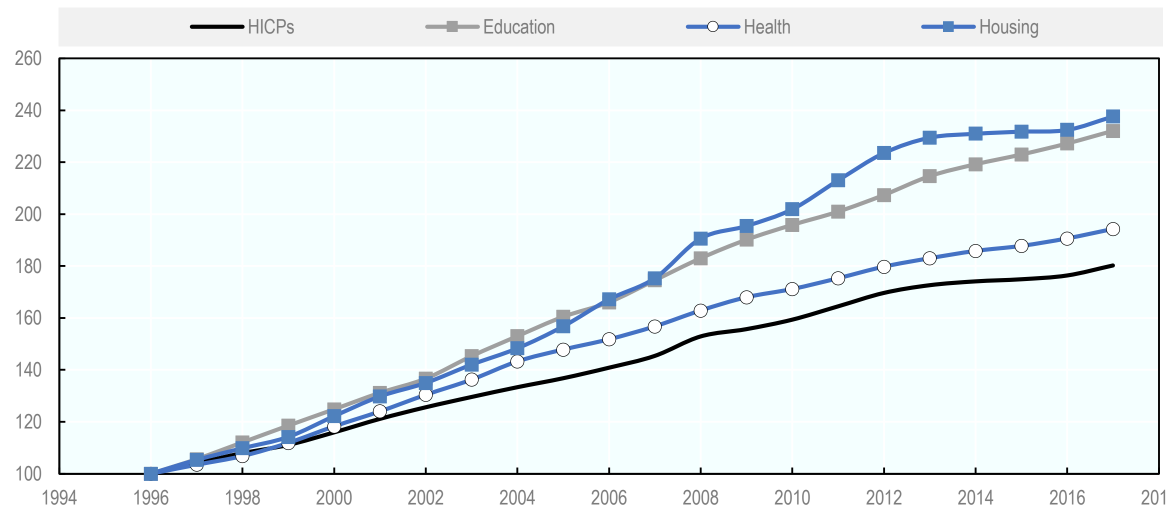
1.5. The cost of living has been rising

This sluggish income growth would already draw a bleak picture of the situation; but, in parallel, the cost of the middle class lifestyle has increased. Prior to the global financial crisis, consumption expenditure of middle-income households[6] increased faster than their income. In several countries, the fall in consumption in the aftermath of the crisis was severe and persistent. Similar to other recessions, the decline was stronger for durables, but actually it was a fall in non-durables (especially services) that stood out from previous recessions (De Nardi, French and Benson, 2012[35]; Crossley, Low and O'Dea, 2013[36]).

Why has consumption grown more than income for the middle class? Middle-class lifestyle is typically associated with certain goods and services and certain living conditions, such as decent housing, good education and good and accessible health services. However, the prices of core consumption goods and services such as health, education and housing have risen well above inflation (Figure 1.5), while middle incomes have been lagging behind. In particular, ageing and new medical technologies have driven up the cost of health services; the race for diplomas is pressing parents to invest more and more in education while, at the same time, education services became more costly in a number of countries; the geographical polarisation of jobs is pushing up housing prices in large urban areas, precisely where most rewarding jobs are available.

Figure 1.5. Prices of housing, education and health increased faster than overall inflation

Average evolution of nominal prices, OECD average



Notes: HICP: Harmonised Indexs of Consumer Prices. OECD average includes Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Luxembourg, Netherlands, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom.
Source: Data from OECD.stat, Harmonised Indices of Consumer Prices (HICPs) by COICOP divisions.

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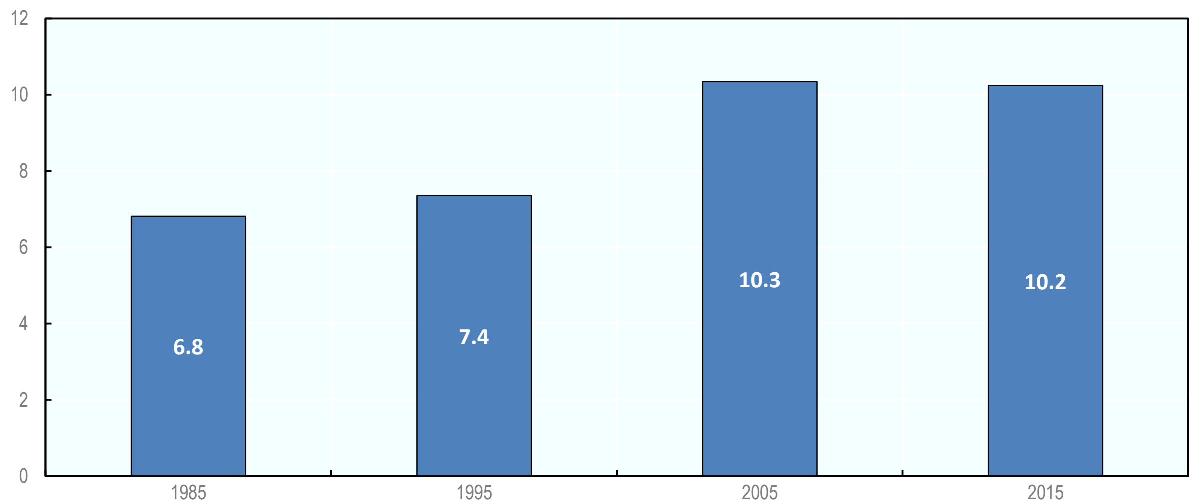
Achieving a middle class lifestyle has thus become more difficult than in the past because of the strong rise in the prices of housing and other large middle-class consumption items (Blank, 2010[37]). Housing, in particular, is key: at around one-third of disposable income, it constitutes the largest expenditure item for middle-income households – up from around a quarter in the 1990s. Despite large within-country variations, house prices have been growing three times faster than household median income over the last two decades. Housing is more than just a standard consumption good: in many countries, being middle class is traditionally associated with owning a home, so soaring house prices have touched on the very meaning of being part of the middle class. Rising house prices also hinder labour mobility towards the most dynamic urban areas and, more generally, upward social mobility as current and future generations are less able to purchase property than their parents (Figure 1.6).

Figure 1.6. The cost of buying a flat in large cities has increased considerably for middle-income families

Number of years of annual income needed to buy a 60 square meter flat in the country's capital city or financial centre, for a median income couple with two children



Note: Households composed of a couple and two children with disposable median income. OECD average includes Australia, Canada, Denmark, Finland, France, Germany, Greece, Hungary, Israel, Italy, Netherlands, Norway, Sweden, Switzerland, United Kingdom, United States.
Source: OECD Secretariat calculations based on data from EU-SILC (Europe), SLID and CIS (Canada), CPS March Supplement (United States) and LIS Data Center: Global Property Guide; OECD Residential Property Prices Indices (RPPIs).

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The rising expenditure on housing and other goods and services reduces the ability to save and squeezes the finances of middle-income households. Today, more than one-in-five middle-income households spend more than they earn which bears a risk of over-indebtedness for many of them. Over-indebtedness (defined as having a debt-to-asset ratio of over 75%) is higher for middle-income than for both low-income and high-income households and concerns around 11% of these households, on average across OECD countries (OECD, 2015[38]).

On average across the 24 European OECD countries with available data, one out of two middle-income households now report difficulties to make ends meet, though this ranges from one out of five or less in the Nordic countries and the Netherlands to two out of three or more in some Southern and Eastern European countries (Chapter 4). Furthermore, almost 40% of middle-income households are financially vulnerable: i.e. they are on arrears or would not be able to absorb unexpected expenses or a sudden income fall.

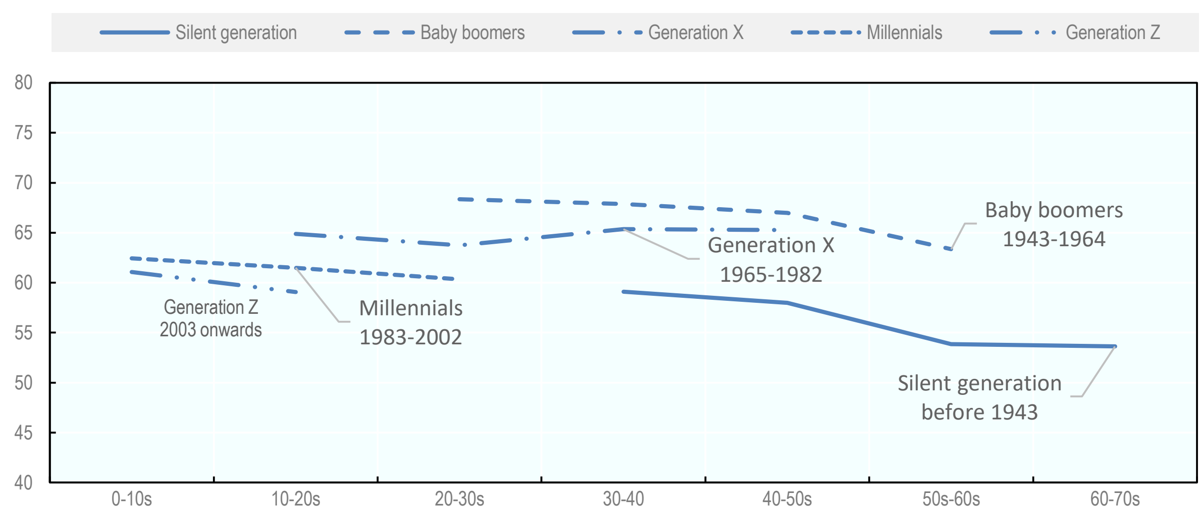
As a result, *many are less optimistic about being part of the middle class*. Concerns have grown even further following the global financial crisis. While the economic sentiment has bounced back with the economic recovery, in many OECD countries large groups of people remain pessimistic about the economic prospects of the next generation and nostalgic about the economic conditions in the past (Pew Research Center, 2018[39]). A growing number of people in OECD countries think that parents' fortune and advantages play a major factor for children's opportunities and success. 36% of people believe that having well-educated parents is essential or very important to get ahead – up from 31% in the 1990s (OECD, 2018[3]). In a recent OECD survey across 21 countries (OECD, 2018[40]; OECD, 2019[41]), 60% of parents list the risk that their children will not achieve the level of status and comfort that they have as one of the top-three greatest social and economic long-term risks. In several countries, including Austria, France, Greece, Italy, and Slovenia, this share rises as high as 70% or more.

1.6. Chances to reach the middle class have decreased for younger generations and those with lower and medium skills

It has become more difficult for younger generations to make it to the middle class. This is because older generations are often better protected from changes in the labour market and from low-income risks than the newer generations. Since the baby boomer generation, the middle-income group has grown smaller with each successive generation (Figure 1.7). The baby boom generation enjoyed more stable jobs during their working life than younger generations as well as well-developed pension systems.

Figure 1.7. Since the baby boomers generation, each new generation has seen its chances of belonging to the middle-income class fall

Share of population in middle-income households by generation and stage at the life cycle



Note: Silent generation: born before 1943, Baby boomers: born 1943-64, Generation X: born 1965-82, Millennials: born 1983-2002; Generation Z: born since 2003. The middle-income class comprises individuals in households with income between 75% and 200% of the median. OECD average based on data from OECD average comprises available data from Canada, Denmark, Finland, France, United Kingdom, Ireland, Italy, Luxembourg, Mexico, Netherlands, Norway, Spain, Sweden, and United States.
Source: OECD Secretariat calculations based on data from LIS Data Center, expect EU-SILC for France (2014), Ireland (2014), Iceland (2014) and Sweden (2015).

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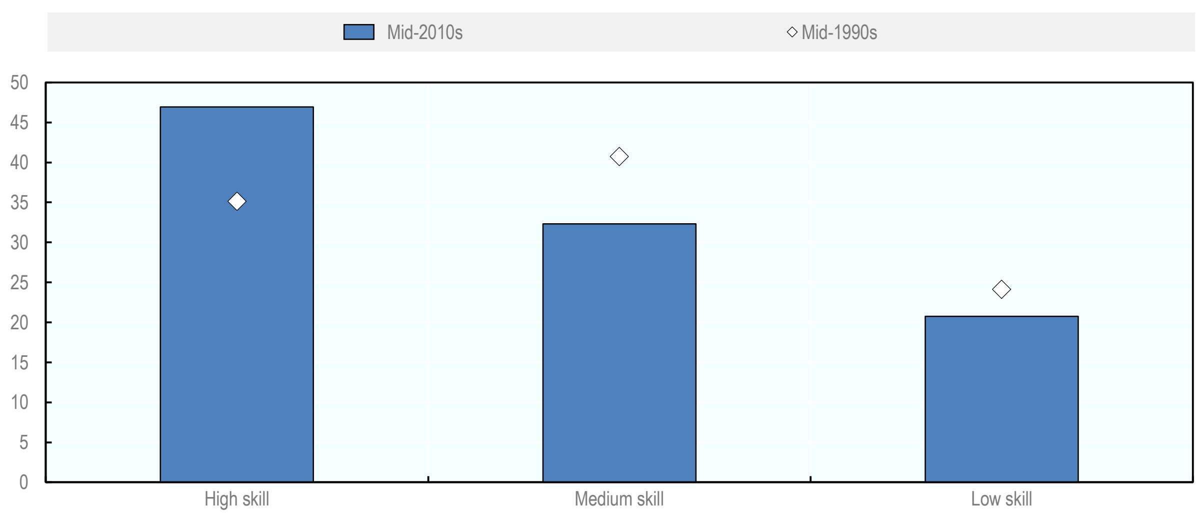
The skills profile needed to make it to the middle income group has risen. Having only middle skills is no longer sufficient to belong to the middle-income group, as it used to be in the past. While the skill bar has moved up more generally, it did so particularly for the middle-income class. Today, almost half of middle-income workers are in high-skill occupations, compared to one-third two decades ago (Figure 1.8).[7] At the same time, the share of middle-income workers in middle-skill jobs declined in all countries except Mexico and the Slovak Republic. Hence, some jobs are increasingly failing to deliver the same income status they gave in the past. This changing association between work skills and income status can help explaining some of the social frustration, which has been at the centre of the debate about “the squeezed middle”.

Nowadays a family households needs two earners to make it to the middle-income class, while in the past one earner with a high-skill job would often suffice. However, even the presence of two earners *per se* is becoming less effective in achieving middle-income status if not at least one of the partners is highly skilled.

Figure 1.8. The skills profile needed to reach the middle of the income distribution has increased

Shares of middle class workers who hold jobs in different skill groups, mid-1990s/mid-2000s



Note: OECD average comprises available data from Austria, Belgium, Canada, Czech Republic, Denmark, Finland, Germany, Iceland, Ireland, Israel, Italy, Korea, Luxembourg, Netherlands, Norway, Portugal, Slovak Republic, Sweden, and United States.
Source: OECD Secretariat calculations based on data from LIS Data Center and EU-SILC.

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1.7. A squeezed middle class raises economic, social and political risks

Among middle-class households, there is now a *growing discontent with economic conditions*. In this context, the stagnation of middle-class living standards in OECD countries has been accompanied in recent years by the emergence of new forms of nationalism, isolationism, populism and protectionism. Nationalistic and anti-globalization sentiments can arise because a shrinking middle class produces disillusionment and damages political engagement, or turns voters towards anti-establishment and protectionist policies (Bettiza, 2010[42]; Stiglitz, 2012[43]). Political instability is an important channel through which a squeezed middle class may upset economic investment and growth (Alesina and Perotti, 1996[44]).

A rising sense of vulnerability, uncertainty, and anxiety has translated into increasing distrust towards global integration and public institutions (OECD, 2017[45]). Trust is not only essential for a well-functioning society; is also an important element for economic growth. Higher social trust reduces transaction costs and increases innovation (Gould and Hijzen, 2016[46]; Madland, 2015[47]). Societies with a strong middle class experience higher levels of social trust but also better educational outcomes, lower crime incidence, better health outcomes and higher life satisfaction (Kelly, 2000[48]; Lynch and Kaplan, 1997[49]; Graves, 2017[50]; Thorson, 2014[51]).

The middle class champions political stability and good governance. It prevents political polarization and promotes greater compromise within government (Madland, 2015[47]). Middle classes also provide a solid basis to build a democratic state, not only by financing it through taxes but also demanding regulations, enforcement of contracts and the rule of law (Birdsall, 2016[52]).

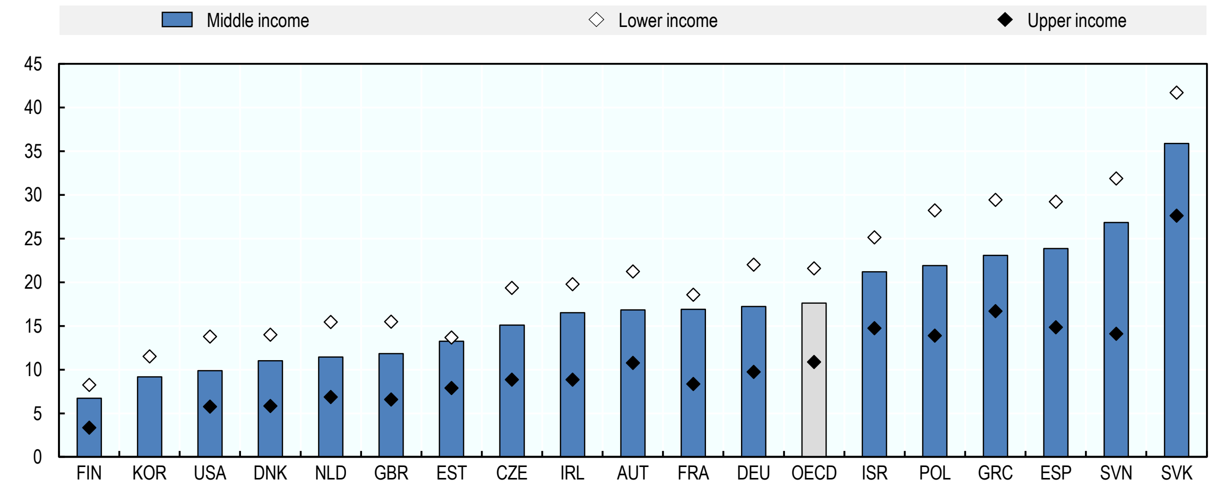
1.8. Policies need to be geared to the new challenges facing middle-class households

Overall, this anxiety and feeling of uncertainty among middle-class households is fuelled by three main challenges, which need to be addressed by policy makers:

1. *The middle class feels that the current socio-economic system is* ***unfair***: middle incomes have been growing much more slowly than higher incomes for more than three decades now.[8] More and more people, especially among the lower end of middle-income households, feel that they contribute much more to the welfare state with taxes than they receive in return in form of benefits and services.
2. *The middle-class lifestyle is increasingly* ***expensive***: the cost of a "typical" middle-class lifestyle has increased faster than income. As explained, this was driven in particular by prices for housing, health and education increasing faster than inflation; but also possibly by consumption patterns which tend to imitate behaviour of richer peers, leading to a cascade of unaffordable consumption [9]. Worryingly, these trends have also lead to an increasing debt burden on middle-class families, which is not sustainable in the longer-run.
3. *The middle class income prospects are increasingly* ***uncertain***: people in middle-class households are becoming anxious about the fact that the digital revolution may be destroying their jobs. As a matter of fact, one-in-six current middle-income workers are in jobs that are at high risk of automation, a risk closer to that of low-income (one-in-five) than that of high-income workers (one-in-ten) (Figure 1.9).

Figure 1.9. One-in-six current middle-income jobs face high risk of automation

Share of workers in occupations with high risk of automation by income class



Note: "Lower income" households defined as households with income below 75% the national median. "Middle income" households are households with income between 75% and two times the national median. "Upper income" households are households with income above two times the national median. The risk of automation is calculated as the average of the risks of automation by occupation, weighted by the share of each occupation in the income class.
Source: OECD secretariat calculations based on LIS and PIAAC.

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Lower middle-income households are more susceptible to suffer from these growingly unstable conditions. Therefore, policy options should concentrate on them in priority. Addressing rising concerns of the lower middle-class, while also addressing the challenges of the even poorer strata of the population through anti-poverty tools, are foundation elements of a policy strategy to promote inclusive growth, along the lines of the OECD Framework for Policy Action on Inclusive Growth (OECD, 2018[2]). Supporting the middle-class requires giving them access to the opportunities to succeed along their life.

1.8.1. Tackling unfairness

The main tool to foster fairness is the tax and benefit system. Public debate often focuses on taxes when referring to the rich and to benefits when referring to the poor. The middle class is in fact the key stakeholder of both instruments – contributing two thirds of direct tax revenues, and receiving 60% of public spending on cash benefits. The middle class is also more affected by tax progressivity than other groups: lower income groups are often exempted, while higher income groups have other sources of income and can exploit loopholes or exemptions. OECD countries have seen a general reduction in their top statutory personal income tax rates which fell from 66% in 1981 to 41% in 2008, and then slightly increased, being at 43% today (OECD, 2019[53]). Other taxes that mainly concern top earners were also lowered in past decades, notably corporate income tax rates (from 47% to 25%) or taxes on dividend income for distributions of domestic source profits (from 75% to 42%) (OECD, 2014[54]). Moreover, households at the top of the income and wealth distribution are significantly more likely to hide assets offshore than the middle classes (Alstadsaeter, Johannesen and Zucman, 2017[55]).

Therefore, policies should consider effectively lowering the net tax burden on middle-income households while maintaining the sustainability of public finances. In many countries, the income tax system could be made more progressive, in particular for top income earners, and fairer for the middle class. Eliminating the "bracket creep" – an inflation-induced increase in tax rates which affects middle-class tax payers in particular – could be considered. More generally, the tax burden should be shifted from labour to broader bases, including income from capital and capital gains, property and inheritance. Efforts to fight tax avoidance and tax exemptions generally benefitting wealthy individuals and corporations should be intensified.

A number of recent initiatives, such as the adoption of the automatic exchange of taxpayer financial account information (AEOI) to reduce tax evasion; and the OECD/G20 Base Erosion and Profit Shifting (BEPS) project to address the tax avoidance of multinational enterprises have provided governments with the tools necessary to broaden their tax bases and strengthen their tax systems against abuse. (OECD, 2019[56]) (OECD, 2019[57]). Additional revenues derived from these measures could be channelled to develop and support a stronger agenda for inclusive growth. Besides, measures that strengthen work incentives, such as lowering the effective tax rates for second earners, enhancing tax credits and developing in-work benefits, would contribute to improve fairness from the point of view of lower middle-class families.

Fairness concerns also exist with regard to social transfers, as 58% of middle-income households in OECD countries consider that they do not receive a fair share of public benefits given the taxes and social security contributions that they pay (OECD, 2018[3]; OECD, 2019[41]). When limiting the attention only to cash transfers and direct income taxes, it turns out that middle-income households are neither net contributors nor net recipients – they receive almost as much in social benefits as they pay in taxes. That said, working-age people with middle incomes tend to be net payers while elderly middle-income households are net beneficiaries. Redistribution is not only about cash transfers. Countries spend just as much on social transfers in kind such as publicly provided healthcare and education. Policy makers should therefore improve access to high-quality public social services and ensure better social protection coverage.

1.8.2. Tackling cost of living issues

Decent, affordable and accessible housing including home ownership is a key element of the middle-class status. Policies need to address shortages in the *supply* while helping households through *demand*-side support. On the supply side, measures are needed to encourage supply of affordable housing. A first set of solutions includes facilitating private construction to raise the responsiveness of the housing supply to market prices (i.e. to increase its price elasticity). Well-designed inclusionary zoning policies can also help tackle residential segregation and undesired urban sprawling. In many countries, public social housing that reach far beyond low-income households also serves as an efficient policy instrument to promote affordability and inclusiveness (OECD, 2016[58]). Many countries also attempt to influence housing costs directly through rent controls, or ceilings.

Demand-side policy measures first and foremost concern housing allowances or benefits. Additional measures can support lower-middle income households to purchase a home, e.g. through grants, financial assistance for loans or tax relief for home buyers. These policies need to be sufficiently targeted, and avoid measures that benefit high-income home owners more than others (e.g. mortgage tax relief). A number of European countries offer first-time buyers, specifically young people, support with the deposit needed to access a mortgage, for instance in the form of state guarantees, interest subsidies or grants and saving schemes. In countries with acute levels of housing-related debt, mortgage relief measures may be needed to help overburdened households get back on track.

Policies that contain the costs of education and health care can also have a strong impact on middle-income households. Publicly subsidised *child care* provision for those in need and price regulation are the most effective tools to limit the costs of child care for households with small children (Adema, W. et al., 2016[59]). Another option is to reimburse parents through a direct refund via cash benefits, or to offer tax credits or deductions. Policies to support students from middle-income families for *tertiary education* include tuition fee loans but also means-tested assistance for non-tuition costs such as housing, transport or books which are crucial for many children from lower middle-income families. Comprehensive school-to-work transition programmes are needed to prevent negative long-term consequences of early-life unemployment or inactivity (OECD, 2016[60]). In countries with universal *health* coverage, an expansion or deepening of healthcare cost coverage could provide substantial relief for low- and middle-income households. In those where health coverage is not universal, extending means-tested insurance coverage would help lower middle-income groups better manage their health costs.

1.8.3. Tackling labour market vulnerability

Policies should aim at tackling labour market vulnerability at the root. For this reason, *education and training systems should offer a wider range of learning opportunities at various ages*. However, equipping middle-income workers with the skills needed in a changing world of work is challenging and will require a thorough modernisation of these systems. In particular, developing vocational education and training (VET) systems, notably in the most dynamic sectors of the economy, is essential. Making VET attractive in the context of rising skill standards requires reforming training curricula, developing post-secondary pathways and engaging more with employers.

Ensuring access to adult learning is another major challenge. Currently, training participation amongst middle-income adults without tertiary education, and especially among older age groups is notably lower than for the younger and more educated. More and innovative adult learning programmes should be targeted at people employed in mid-skill jobs, or industries and regions particularly at risk from labour market changes.

Results from skills assessment and anticipation exercises should be used to identify individuals who lack the skills required by the labour market and to support them in retraining. To improve coverage, training opportunities should be de-coupled from job and employment status and individuals be given financial support for training investments, e.g. via personal training accounts that allow individuals to accumulate and transfer entitlement to training hours.

Beyond active labour market and skills policies, tackling labour market vulnerability entails many more measures, starting from labour market policies that combine flexibility and security, social protection as well as effective social dialogue to increase the leverage of labour. In light of the changing world of work, temporary or unstable jobs, often characterised by lower wages and weaker job security, will likely become more widespread as traditional standard middle-class jobs disappear. Therefore, efforts to extend social insurance as well as collective bargaining coverage to non-standard workers will also be of particular relevance in the future to secure middle-income households. One approach for improving social protection coverage is to link entitlements to *individuals* rather than to *jobs* (OECD, 2017[61]; OECD, 2019[62]). This would make entitlements to, for instance training or employment protection, “portable” as workers move from one job to another or combine different forms of employment.

1.9. Conclusion

A strong and prosperous middle class is important for the economy and society as a whole, and notably to sustain consumption and investment in education, health and housing. The taxes they pay are essential to properly fund social protection. Societies with a strong middle class also experience higher levels of social trust, lower crime incidence, and higher life satisfaction. The evidence shows that the middle class champions political stability and good governance.

Today, however, middle-class households became increasingly anxious about their economic situation. Firstly, many middle-class households consider our socio-economic systems as unfair, given that middle incomes have not benefitted from economic growth as much as upper incomes, or the top 10%. Secondly, the middle-class lifestyle is increasingly expensive, notably when it comes to housing, a good education and healthcare. Thirdly, the labour market prospects for many in the middle class are uncertain, with one in six middle-income workers being in jobs that are at high risk of automation.

A comprehensive action plan is needed to address the risks identified in this report and support the middle class, notably the more vulnerable. This plan should follow a holistic approach that involves different policy areas, paying attention to the prevention of risks and the promotion of opportunities over the lifecycle. Mitigating the impact of adverse situations when they arise is essential, but improving prospects in the labour market for middle-class workers and their children may be even more important.

Governments do have a large set of policy tools available to address these challenges of unfairness, unaffordable expenses and employment vulnerability. Targeted reforms are needed in the fields of labour market, education and training systems, as well as fiscal and social policies. A successful strategy will require a whole-of-government approach should involve all stakeholders including civil society and the social partners.

Notes

[1] See Box 1.2 for how this report defines and measures the middle class.

[2] Despite a decline in the number of workers in occupations associated with the working class, the proportion of British people feeling that they are middle class or working class has not changed much between 1983 and 2015 (Evans and Mellon, 2016[65]).

[3] An opposite phenomenon occurs only in Portugal, the United Kingdom, and a handful of other countries including Hungary and Slovenia. While not observed in other Eastern European countries, results for the latter may be related to a "lingering effect" of former state socialist legacy that makes people more likely than others to identify as belonging to a low social class (Curtis, 2013[67]).

[4] Evidence from survey data and the OECD "Compare your income web tool" (http://www.oecd.org/social/inequality-and-poverty.htm) confirm this pattern (Balestra and Cohen, forthcoming[108]). Part of this phenomenon has also been described as the "Me? I'm not rich!" issue, whereby the point where someone becomes "rich" tends to be at a higher income level than one's own (Reeves, 2017[66]).

[5] The rise of the middle of the world income distribution was driven mainly by very strong economic growth in large countries such as China, India and Indonesia. In Latin America, the rise of the global middle class has been associated with an increase in years of schooling, labour market formalisation, female labour participation and family and demographic dynamics (Ferreira et al., 2013[68]).

[6] With almost two thirds of total consumption, the middle-income households are by far the income group with the highest consumption share, ranging from 50% or below in the United States, Southern European and Latin American countries to 70% or above in Nordic countries and Slovakia.

[7] This also implies that individual skills-related characteristics such as the level of education, age or tenure cannot sufficiently explain trends in wages and wage distribution (ILO, 2016[71]).

[8] A vast majority of EU citizens believe that inequality levels are too high: 84% thought income differences were too great, and 81% agreed that national governments should take measures to reduce these differences (2018 Eurobarometer survey on perceptions of fairness in Europe). These views are confirmed by the 2018 OECD Risks That Matter survey which indicates that 70% of respondents believe that government should be doing more to ensure their economic and social security. Moreover, users of the OECD Compare your Income web-tool show a preference for lower inequalities: 70% of them would like to see a reduction in the share of income held by the top 10%. The call for a more equal income distribution is stronger in countries that have been severely hit by the crisis, such as Greece and Spain. See also (Bussolo et al., 2018[72]).

[9] An increase in expenditures by an income group may prompt a rise in the expectations of living standards (and subsequently the spending patterns) of immediately lower income groups. The drifting away of income among top earners in recent decades may have stimulated "a cascade of additional expenditure by those with lower earnings" (Frank, Levine and Dijk, 2014[69]).

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Chapter 2. A declining middle-income class?

This chapter gathers international evidence on whether, where, how, to what extent and why middle-income households have been squeezed in recent decades. It begins by drawing up a definition of the middle-income class applicable to all OECD countries, which it uses to measure the size of the middle-income class over time and make comparisons between countries. It examines the changes in the income, population size and economic influence of the middle-income class. It also focuses is on how the socio-economic and demographic make-up of middle-income households has evolved and for which groups it has become more difficult to make it to middle incomes. Finally, it assesses the effect of taxes and benefits on middle-income households.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Introduction and key findings

The decline of the middle class first became an issue in the United States in the 1980s. It then gathered momentum and spread to other OECD countries in the wake of the global financial crisis. Despite considerable public and political debate, however, there is still no clear evidence as to a general decline of the middle-income class.

This chapter seeks to gather international evidence on whether, where, how, to what extent and why middle-*income* households have been squeezed in recent decades. It begins by drawing up a definition of the middle class applicable to all OECD countries, which it uses to measure the size of the middle-income class over time and make comparisons between countries (Section 2.1). It goes on to examine the changes in the income, size and economic influence of the middle class in recent decades (Section 2.2). Section 2.3 focuses on how the socio-economic and demographic make-up of middle-income households has evolved in recent decades. Section 2.3 assesses the effect of taxes and benefits on middle-income households and Section 2.4 concludes.

From the analysis and evidence in this chapter the following findings emerge:

- A majority of people in OECD countries (61% on average) live in middle-income households, i.e. those whose incomes are between 75% and 200% of the national median household income. In emerging economies, the middle-income group is smaller, accounting for between one-third and a half of the population, and fewer people identify themselves as middle class (see Chapter 1).
- Median incomes have grown, in real terms, only slowly since the crisis. Between 2007 and 2016, they rose by an average of 0.3% per year. Between the mid-1980s and mid-1990s, they had grown at more than three times that rate (1%) and between the mid-1990s and mid-2000s, more than five times as fast (at 1.6%).
- The economic "centre of gravity" is tilting away from the middle. Income growth in the middle has been much weaker than at the top. In the mid-1980s, the combined income of all middle-income households was four times the aggregate income of all upper-income households. Currently, it is less than three.
- The chances of being middle-income have fallen among families with children and young adults. In contrast to 30 years ago, most single-parent families are today in the lower-income class and young adults are the least likely of all age groups to be in middle-income households. Since the generation of the baby boomers, each new generation has seen its chances of belonging to the middle-income class fall.
- Middle-income households contribute the most to income tax revenues and receive the bulk of social security monetary benefits. However, they pay slightly more in taxes than they receive in benefits. In the last decade, social benefits contributed as much as market incomes (labour and capital income) to the growth of middle incomes, despite accelerated market-income growth in recent years.

2.1. Who is considered middle-income?

In line with the remainder of the report, this chapter considers the "middle-income class" to be people living in households with incomes ranging between 75% and 200% of the national median. Households with incomes of below 75% are "lower income" and those whose incomes exceed 200% are "upper income". For some of the analyses, the middle-income class is divided into three income-related groups: lower-middle (75% to 100% of median income); mid-income (100% to 150%); and upper-middle (150% to 200%).

Similarly, among lower-income households, where income is less than 75% of the national equivalised median, those that bring in less than 50% are "poor".[1] As for people who earn less than 75% but above 50%, they are referred to as "non-poor lower-income".

Analysis here also considers the profiles of income classes by age, household structure, work and income source.

Box 2.1. What is middle income?

Definitions of the middle-class that use the income metric are particularly suitable for international comparison as income data are widely available, comparable and consistent over time and between countries. (For a detailed discussion of approaches to and methodologies for defining the middle class, see Box 1.1 in Chapter 1.) Furthermore, income usually correlates with other determinants of social class, such as occupation, education, self-identification and consumption.

Income-related definitions of the middle class use a variety of approaches to determine the "middle" (Atkinson and Brandolini, 2013[1]). One such approach takes absolute income thresholds, as illustrated by way in which the World Bank identifies the middle class in the emerging economies of Latin America and the Caribbean. It sets lower and upper thresholds of USD10 and USD50 per day, adjusted for international differences in purchasing power (Ferreira et al., 2012[2]). Indicators based on absolute amounts are intuitive and easily understandable by the public. However, they are more suitable for emerging economies, where analysis of absolute living standards are more widely used.

A second approach defines the middle class as a population group in the income distribution. The Brookings Institution, for example, takes the middle 60% of the income distribution – i.e. the second to fourth quintiles (Reeves and Guyot, 2018[3]). Although this approach makes it relatively easy to compute and interpret indicators, it works on the assumption that the share of households in the middle class is constant. It cannot therefore measure whether the middle class population is rising or falling or compare such changes from country to country. Instead, it captures the size of the middle class by its income share – i.e. the proportion of overall income that is held by the middle 60%.

A third approach uses an income threshold determined by a benchmark indicator. It is the approach used in this chapter and in several national and international studies (Thurow, 1984[4]; Pew Research Center, 2015[5]; Pew Research Center, 2017[6]). Two of its particularly attractive characteristics are consistency with the measurement of relative poverty[2] and the ability to measure whether the size of the middle class varies between countries and changes over time.

2.1.1. Most people are in the middle-income class

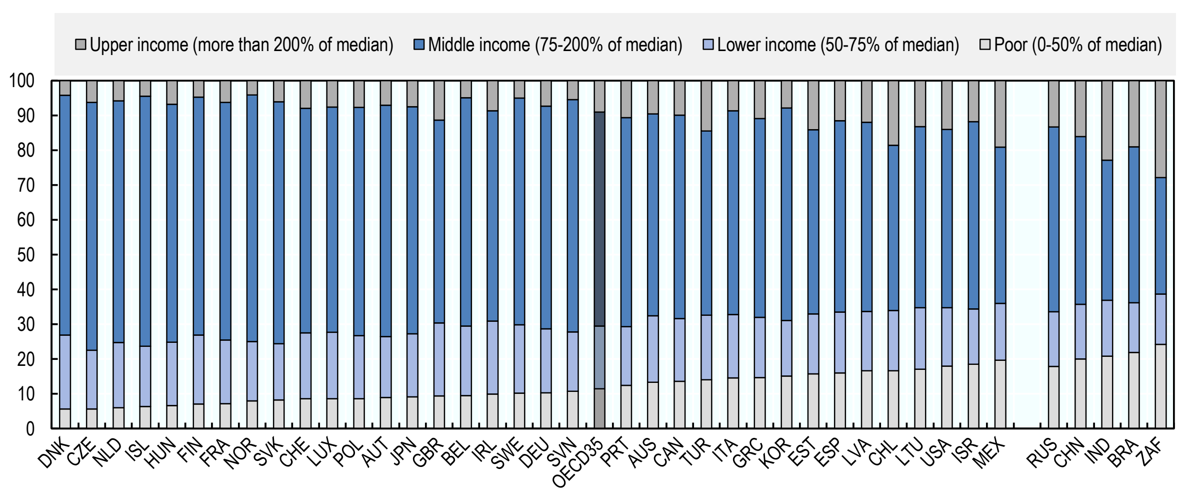
In all OECD countries but Mexico and Chile, most people live in middle-income households, earning between 75% and 200% of the median national income. The middle-income class thus accounts for 61% of the OECD-wide population, ranging from around one-half in Chile, Mexico and the United States to some 70% in Iceland, the Czech Republic, the Netherlands, Norway and Slovak Republic (Figure 2.1). In emerging economies, however, the middle-income class constitutes much smaller shares of populations – from roughly one-third in South Africa to about half in Russia and China.

One in ten people live in upper-income households – with incomes that are over double the national median. In Denmark and Norway, the upper-income group makes up just 4% of the population, while the figure in Chile and Mexico is almost 20%. Shares are also high in most emerging economies. In India and South Africa, for example, upper incomes account for about 25% of the population.

Three out of ten people OECD-wide are lower income. An average of 30% live in households with incomes of less than 75% of the national median. Of those, about one-third are poor (earning less than half the national median income). Only in a handful of countries (Israel, Mexico and the United States), as well as in all emerging economies, are most people with lower incomes poor.

Figure 2.1. The middle-income class forms the bulk of the population in almost all OECD countries

Share of population by income class, 2016 or latest available year



Note: Middle-income classes and median incomes are defined relative to equivalised household disposable income. The middle-income class comprises individuals in households with income between 75% and 200% of the median. The OECD average covers all OECD countries in the graph.
Results refer to the year 2013, with exceptions of Australia (2014), Chile (2015), Germany (2015), Hungary (2015), Israel (2016), Island (2010), Italy (2014), Japan (2009), Korea (2012), Mexico (2012), Poland (2016), Slovenia (2012), Turkey (2014), United States (2016), South Africa (2012), and India (2011).
Source: OECD calculations based on data from LIS Cross-National Data Center, except Japan (Tanaka and Shikata, 2019[7]) - based on data from the National Survey of Family Income and Expenditure (NSFIE); Belgium, France, Ireland, Iceland, Latvia, Lithuania, Portugal and Sweden – European Union Statistics on Income and Living Conditions (EU-SILC); and Turkey (SILC).

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2.1.2. Richer countries have larger middle-income classes

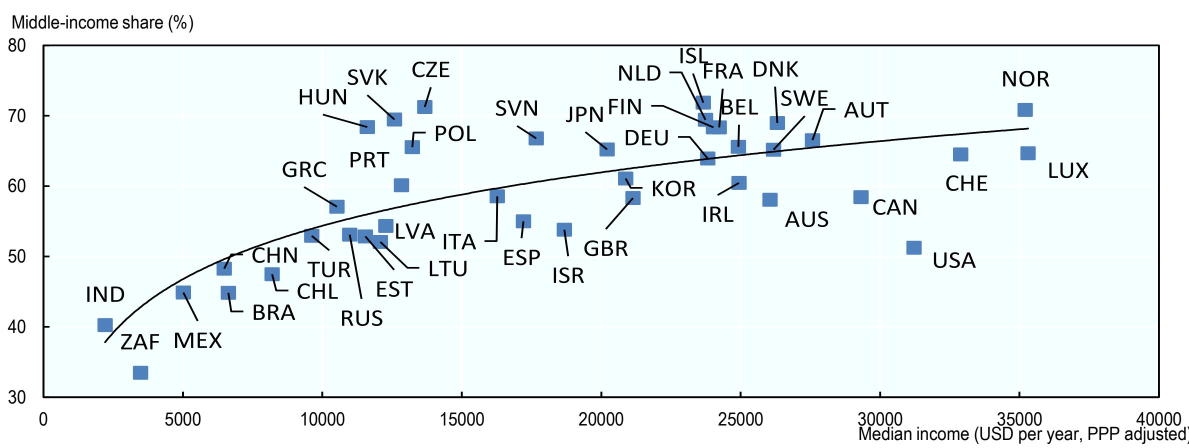
In countries with higher median incomes, larger shares of the population are in the middle-income class. There is a significant positive relationship between the level of household median income in purchasing power parities and the size of the middle-income class (Figure 2.2). It is particularly strong in countries whose median annual income is below USD 10 000 in purchasing power parity. It weakens, though still positive, in higher-income countries.

There are two striking exceptions to the positive relationship between absolute median income and the size of the middle-income class:

- The United States. Although it boasts the fourth-largest median income, it has only the 31st-largest middle-income class of all OECD countries. Related statistics are that its population has the third-largest share of people in poverty and the fourth-largest in the upper-income class (Figure 2.1).
- The Central European countries of the Czech Republic, the Slovak Republic, Hungary and, to a lesser extent, Poland and Slovenia. In these countries, the shares of the population in the middle-income class exceed what might be expected from their median income levels.[3]

Figure 2.2. Middle-income classes are larger in higher-income countries

Share of the population in middle-income households and annual median income, 2016 or most recent year



Note: Middle-income classes and median incomes are defined relative to equivalised household disposable income. The middle-income class comprises individuals in households with incomes that are between 75% and 200% of the median. The OECD average covers all OECD countries in the graph.
Results refer to the year 2013 except Australia (2014), Chile (2015), Germany (2015), Hungary (2015), Israel (2016), Island (2010), Italy (2014), Japan (2009), Korea (2012), Mexico (2012), Poland (2016), Slovenia (2012), Turkey (2014), United States (2016), South Africa (2012), and India (2011).
Source: OECD Secretariat calculations based on data from LIS Cross-National Data Center, except Japan (Tanaka and Shikata, 2019[7]) – based on (NSFIE), Belgium, France, Ireland, Iceland, Latvia, Lithuania, Portugal and Sweden (EU-SILC) and Turkey (SILC).

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2.1.3. How much income does a household need to be middle-income?

The income levels that take households into the middle-income class vary from country to country. Median disposable incomes (adjusted for one-person households and international differences in 2010 purchasing power)[4] range from USD 5 010 in Mexico to USD 35 310 in Luxembourg. To be middle income, therefore, a person living alone would need an annual income of between USD 3 757 and USD 10 019 in Mexico and between USD 26 482 and USD 70 620 in Luxembourg (Table 2.1).

Nevertheless, income thresholds that define middle-income groups in most OECD countries overlap each other. Thus, despite cross-national differences in income, many income levels would enable middle-income households from one country to qualify as middle income in another. With an income of USD 23 000, for instance, people would be in the middle-income class in 27 of the 35 OECD countries in Table 2.1. Only in Luxembourg, Norway, Switzerland and the United States would the amount be insufficient, while in Greece, Turkey, Chile and Mexico it would put people in the highest income class.

Table 2.1. Middle-income thresholds in OECD countries and selected emerging economies

2016 or latest available year, adjusted for one-person households and in US PPP for 2010

	Lower threshold	Upper threshold
Luxembourg	26 482	70 620
Norway	26 404	70 411
Switzerland	24 664	65 771
United States	23 416	62 442
Canada	21 990	58 639
Austria	20 682	55 153
Denmark	19 735	52 626
Sweden	19 634	52 357
Australia	19 537	52 097
Ireland	18 704	49 878
Belgium	18 686	49 829
France	18 173	48 462
Finland	18 021	48 057
Germany	17 861	47 628
Netherlands	17 806	47 483
Iceland	17 745	47 320
Japan	16 502	44 006
United Kingdom	15 856	42 283
Korea	15 653	41 741
Israel	14 008	37 356
Slovenia	13 249	35 331
Spain	12 911	34 428
Czech Republic	10 250	27 333
Poland	9 922	26 458
Portugal	9 854	26 278
Slovak Republic	9 439	25 172
Latvia	9 209	24 559
Lithuania	9 058	24 154
Hungary	8 707	23 219
Estonia	8 658	23 089
Greece	7 894	21 050
Turkey	7 215	19 241
Chile	6 145	16 387
Mexico	3 757	10 019
Russian Federation	8 232	21 953
Brazil	4 968	13 247
China	4 862	12 967
South Africa	2 605	6 947
India	1 656	4 417

Note: Middle-income classes and median incomes are defined relative to equivalised household disposable income. The middle-income class comprises individuals in households with incomes of between 75% and 200% of the median. The OECD average covers all OECD countries included in the chart.

Disposable incomes are adjusted for household size and economies of scale by dividing overall household disposable income by the square root of household size (OECD, 2018[21]). National incomes have been adjusted for cross-country differences in the prices of goods and services using prices and purchasing power parities for 2010, expressed in USD.

Results refer to year 2013 except Australia (2014), Chile (2015), Germany (2015), Hungary (2015), Israel (2016), Island (2010), Italy (2014), Japan (2009), Korea (2012), Mexico (2012), Poland (2016), Slovenia (2012), Turkey (2014), United States (2016), South Africa (2012), and India (2011).

Source: OECD calculations based on data from LIS Cross-National Data Center, except Japan (Tanaka and Shikata, 2019[7]) – based on (NSFIE), Belgium, France, Ireland, Iceland, Latvia, Lithuania, Portugal and Sweden (EU-SILC) and Turkey (SILC).

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2.2. Middle incomes have stagnated, hollowed out and lost influence

2.2.1. Middle incomes are falling behind

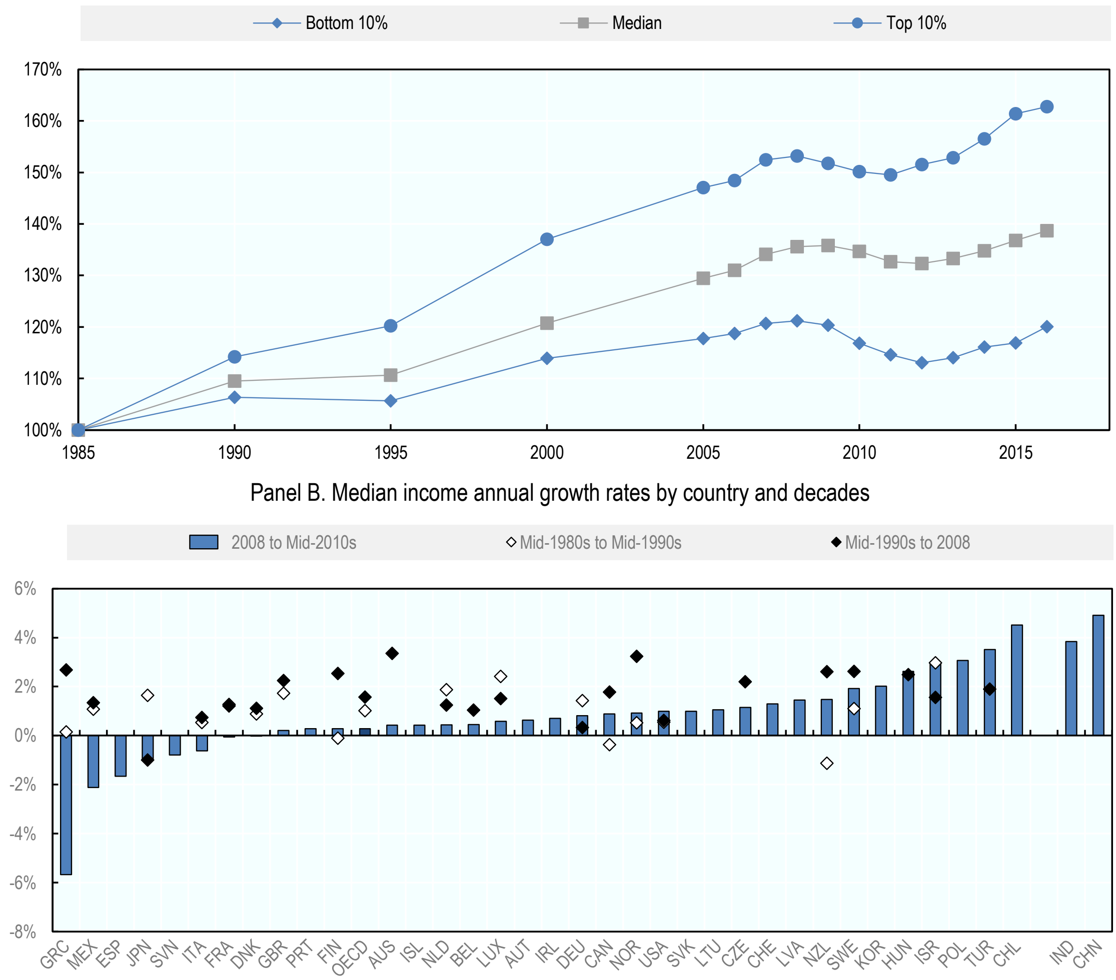
In the wake of the global financial crisis and the weak economic recovery, middle incomes have grown at a slower pace in the last decade than in previous ones. Between 2008 and 2016, real median incomes – an indicator close to middle incomes[5] – grew at an annual rate of 0.3%[6], compared to 1% between the mid-1980s and mid-1990s, and 1.6% between the mid-1990s and mid-2000s – when income growth was strongest among all income groups (Figure 2.3, Panel A). Middle incomes grew more slowly than those at the top in each of the last three decades. OECD-wide, median incomes grew by one-third less than those at the top 10%.

Among the 19 OECD countries with data available for two or more decades, only Israel and Turkey boasted growth in median incomes that was considerably higher over the last decade than in previous ones (Figure 2.3, Panel B). Elsewhere they either fell or stagnated: in 21 of the 36 OECD countries they dropped or grew by an annual average of less than 1% since 2008. In Greece, Italy, Japan, Mexico, Slovenia and Spain, median incomes in the mid-2010s were considerably lower than in 2008, after accounting for inflation. And in the case of Greece, the decline was equivalent to a fall of almost 6% per year. In only six OECD countries did median income growth exceed an average of 2% per year – Korea and Sweden (around 2%), Hungary, Israel and Poland (about 3%) %), and Chile and Turkey (roughly 4%). Median income also grew quickly in China, at 5% per year, and India, with 4%.

Figure 2.3. Median incomes grew more slowly than top incomes, 1985-2016

Panel A. Real disposable income growth by income position, average for 17 OECD countries, 1985-2015 (1985 = 100%)

Panel B. Median income annual growth rates by country and decades



Note: Panel A shows the unweighted average for 19 countries: Belgium, Canada, Germany, Denmark, Finland, France, United Kingdom, Greece, Israel, Italy, Japan, Luxembourg, Mexico, Netherlands, Norway, New Zealand, Sweden, Turkey and United States. In Panel B, "Mid 1980s" refers to 1983 for Sweden, 1984 for France, Italy, Mexico and United States and 1986 for Finland, Greece, Luxembourg and Norway. "2007" relates to 2008 for Australia, Germany, France, Israel, Mexico, New Zealand, Sweden and the United States, and to 2009 for Japan. "Mid 2010s" refers to 2016 for Finland, the United Kingdom, Israel, Latvia, the Netherlands, Sweden and the United States; 2014 for Australia, Hungary, Iceland, Mexico New Zealand; an 2015 for the remaining countries..
Source Calculations from OECD Income Distribution Database (http://oe.cd/idd).

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2.2.2. Are middle incomes being hollowed out?

Fewer people are in the middle-income class than three decades ago. The OECD-average share of people in middle-income households fell from 64% to 61% between the mid-1980s and mid-2010s (Figure 2.4, Panel A). The decline was spread evenly across time, roughly 1 percentage point per decade and accompanied by corresponding expansions of the lower-and upper-income classes. Worryingly, the rise at the bottom of the distribution was attributable chiefly to growing poverty.

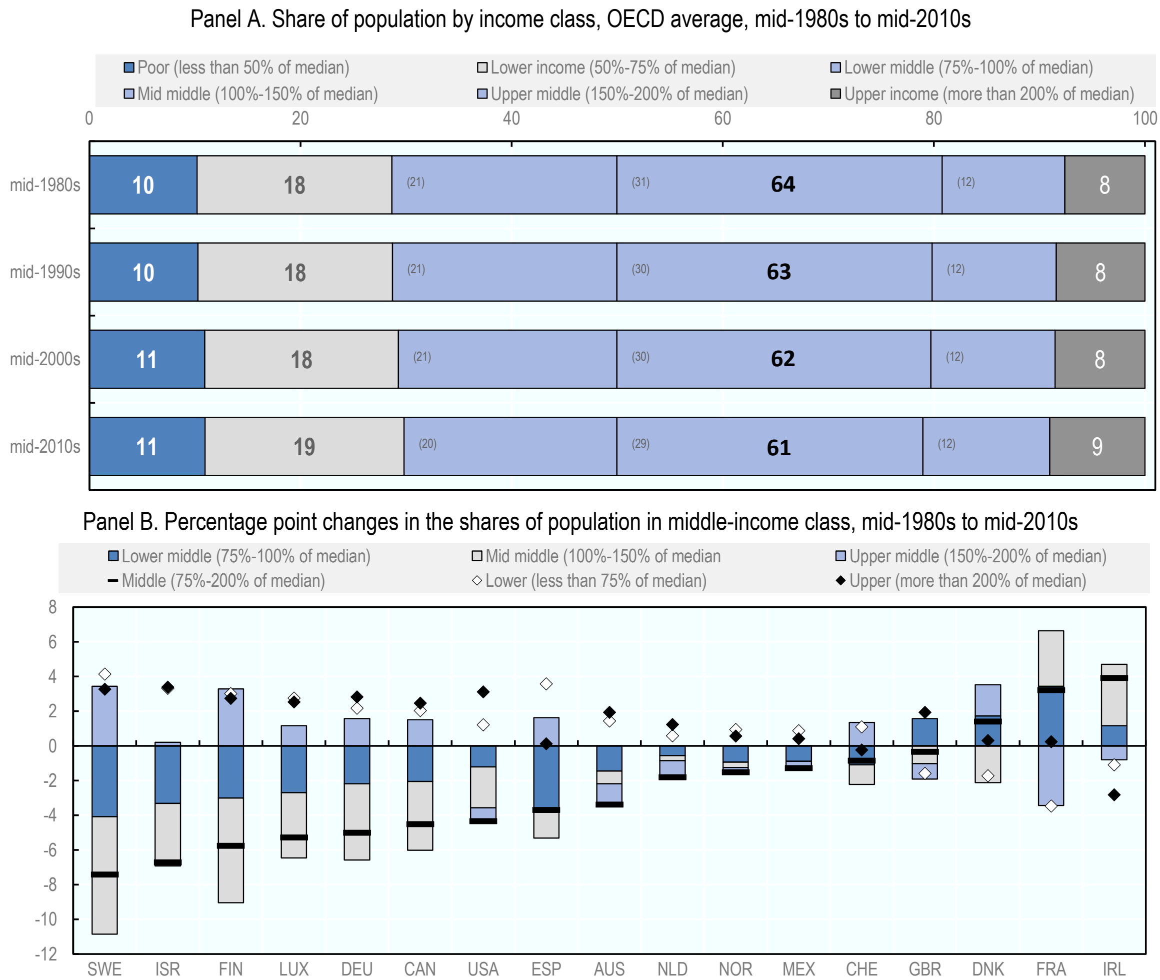
Albeit generally modest, changes in the size of the middle-income class have been significant in a number OECD countries. Between the mid-1980s and mid-2010s, there was a drop of three percentage points in 9 of the 17 countries with available data (Figure 2.4, Panel B). The fall was particularly steep in Sweden and Finland, where the middle-income classes were very large and are still bigger than the OECD average (Figure 2.1). In Israel, too, the decline was sharp, as it was in Canada, Germany, Luxembourg and the United States. Only in France and Ireland were there sizeable expansions.

Both lower- and upper-income classes expanded in most countries where the middle-income class shrank. Furthermore, they grew to similar degrees in several countries, e.g. Australia, Canada, Finland, Germany, Israel, Luxembourg and Norway. In only a few countries did declines in the middle-income group swell lower-income classes considerably more than the upper-middles (Spain and Sweden) or considerably less (Netherlands and the United States). In the United Kingdom, both the lower- and middle-income classes contracted as the upper-income group grew in size.

The upper-middle-income class expanded in size in many countries where the middle-income class fell. Out of 15 OECD countries where middle-income households are now scarcer than before the global financial crisis, the upper-middles have increased their share.

Only in Australia, the Netherlands, the United Kingdom and the United States have there been significant falls in the upper-middle and middle-income classes. Of the three countries where the middle-income group grew – Denmark, France and Ireland – the upper-middle-income class also grew in Denmark, but shrank in Ireland and, in particular, in France.

Figure 2.4. The hollowing-out of the middle-income class



Note: "Middle income" households are defined as those with income between 75% and 200% of the national median. The OECD average comprises available data from Australia, Canada, Denmark, Finland, France, United Kingdom, Ireland, Italy, Luxembourg, Mexico, Netherlands, Norway, Spain, Sweden, and United States.
Source: OECD calculations based on data from LIS Cross-National Data Center, except EU-SILC for France (2014), Ireland (2014), Iceland (2014) and Sweden (2015).

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2.2.3. Middle-income households are losing economic influence

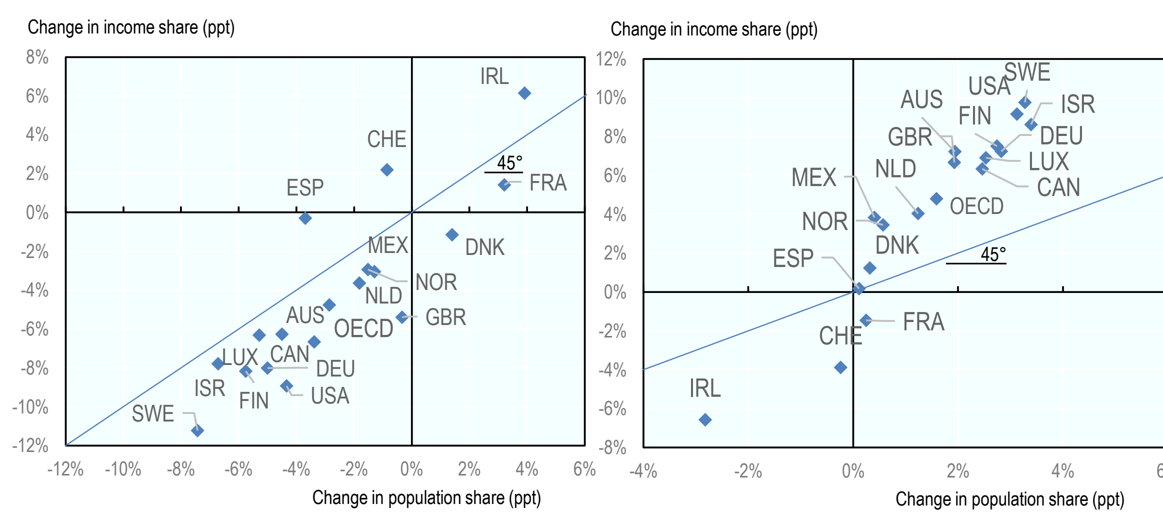
The middle-income class exerts strong influence on the economy as it accounts for the bulk of household income. However, that majority income share has fallen fast in recent decades – considerably faster than the middle-income class's share of the population. Indeed, between the mid-1980s and mid-2010s, its share of income declined by an average of 5 percentage points (from 69% to 64%), while it shrank as a share of population by 3 percentage points (Figure 2.5, Panel A). In all countries but Ireland, Spain and Switzerland did the middle-income group's share of income fell more steeply than its share of the population – as it did in the United Kingdom and the United States by about

5 percentage points. Changes in middle-income shares of income and the population went in opposite directions in Denmark (income down, population up) and Switzerland (income up, population down).

The upper-income class controls a considerably larger share of income than in the past. Between the mid-1980s and mid-2010s, its share of income increased by an average of 5 percentage points from 18% to 23%, while it grew 1.5 percentage points as a share of the population (Figure 2.5, Panel B). Save in Ireland, Switzerland and France, upper-income shares of total income climbed in all countries with available data, particularly in Israel, Sweden and the United States. And, in most countries, they outstripped its expansion as a share of the population. In the United States, for example, while the upper-income class's share of the population increased 3 percentage points from 11% to 14%, its share of all income climbed 9 percentage points – from 26% to 35%. This change in shares of income in the United States was described as a shift in the "center of gravity in the economy" (Rose, 2016[8]).

Figure 2.5. The middle-income class's share of income declined more steeply than its share of the population in most countries

Changes in shares of income and the population among middle- and upper-income households, mid-1980s to mid-2010s



Note: "Middle income" households are defined as those with incomes of between 75% and 200% of the national median. "Upper income" households are defined as those with incomes that are above twice the national median.
The OECD average comprises available data from Australia, Canada, Denmark, Finland, France, United Kingdom, Ireland, Italy, Luxembourg, Mexico, Netherlands, Norway, Spain, Sweden, and United States.
Source: OECD calculations based on data from EU-SILC for Europe, the Survey of Labour and Income Dynamics (SLID) and Canadian Income Survey (CIS) for Canada, the CPS March Supplement for the United States and LIS Cross-National Data Center.

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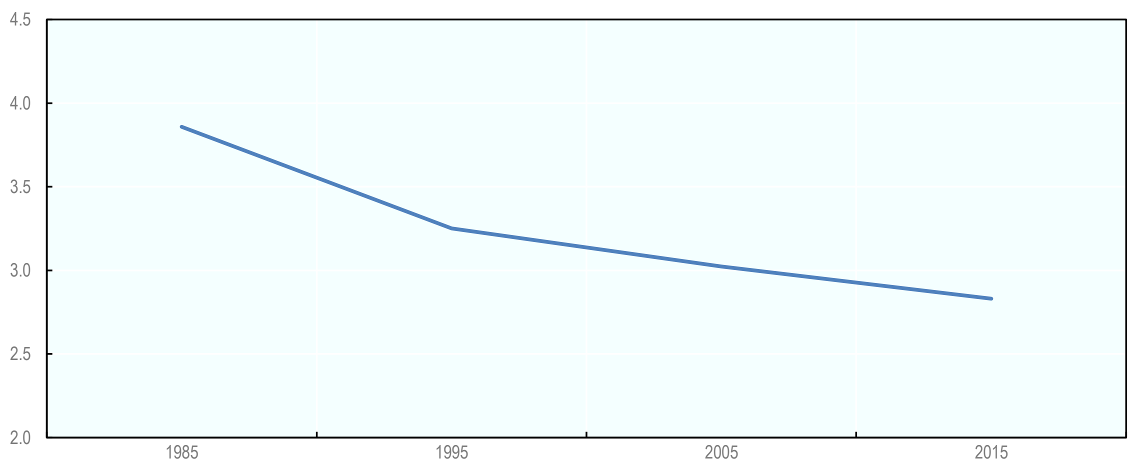
The relative economic influence of the middle-income class has declined considerably compared to that of the upper-income class. As a group, the middle-income class earned an OECD-wide average of four times more income in the mid-1980s than the upper-income class (Figure 2.6). That ratio fell sharply between mid-1980s and mid-1990s and has continued to fall, at a slower pace, since then. By the mid-2010s, middle incomes were making less than three times as much on aggregate as upper incomes.

The middle-income class's dwindling share of income may also translate into less political influence and voter turn-out. Studies in the United States suggest that the middle class's ability to influence public policy has diminished as policy makers become more responsive to the opinions of affluent constituents, whose preferences may differ considerably from those of the majority (Bartels, 2009[9]; Page, Bartels and Seawright, 2013[10]). Electoral surveys in European countries point not only to the fact that higher-income households participate more actively in politics, but also that they have increasingly done so in recent decades (Gallego, 2007[11]; Armingeon and Schädel, 2014[12]).

Figure 2.6. The middle-income class is losing economic influence

Ratio between middle- and upper-income households' shares of income, OECD average, mid-1980s to mid-2010s



Note: "Middle income" households are defined as those with incomes between 75% and 200% of the national median. "Upper income" households are defined as those with incomes above twice the national median.
The OECD average comprises available data from Australia, Canada, Switzerland, Czech Republic, Denmark, Finland, France, Germany, United Kingdom, Hungary, Ireland, Italy, Luxembourg, Netherlands, Norway, Spain, Sweden, and United States.
Source: OECD calculations based on data from EU-SILC (Europe), SLID and CIS (Canada), CPS March Supplement (United States) and LIS Cross-National Data Center.

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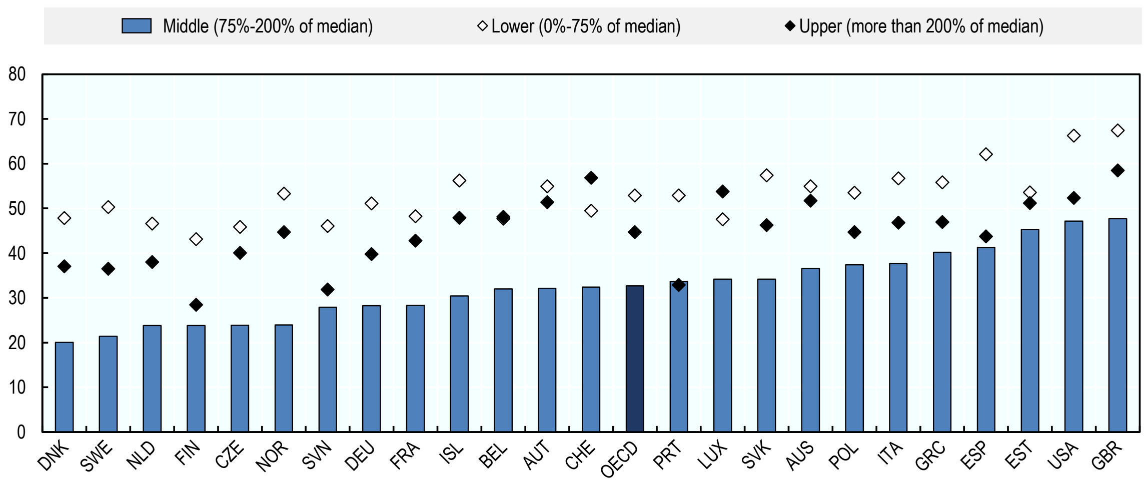
2.2.4. Middle incomes have been more stable than lower and upper incomes and more resilient to poverty since the crisis

During the crisis and subsequent recovery, incomes in middle-income households were less volatile than those in other income classes. Between 2007 and 2015, one-in-three middle-income individuals experienced income shocks – rises or falls of 20% or more over the previous year (Figure 2.7). In contrast, one in two individuals in lower- and upper-income households experienced such shocks. Nevertheless, income volatility among middle-income households was particularly acute in Estonia, the United Kingdom and the United States, where almost one in two were affected. Middle incomes were most stable in Denmark and Sweden, where only one in five households underwent income shocks.

Figure 2.7. Middle incomes were more stable during the crisis and recovery

Shares of individuals in households with disposable incomes that rose or fell 20% or more in the next year, average, 2007-15



Note: For the United States, data are available only for even years, i.e. 2006-2008, 2008-2010, 2010-2012 and 2012-2014.
Source: Secretariat calculations based on EU-SILC and Cross-National Equivalent File (CNEF).

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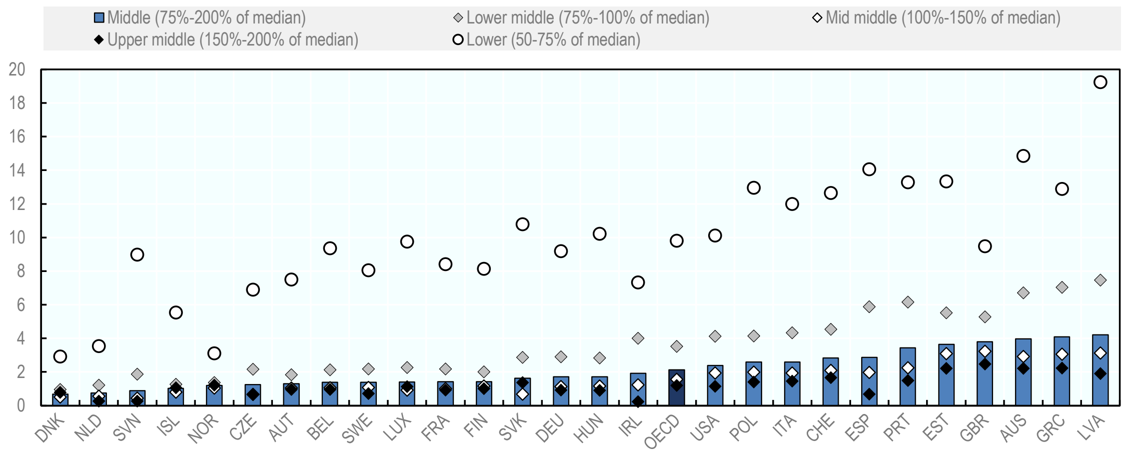
Middle-income households are almost as immune as upper-income households from falling into relative poverty, i.e. below 50% of the national median. Between 2007 and 2015, the share of middle-income households that did slip into poverty from one year to the next was 2.1% on average, ranging from less than 1% in Denmark, the Netherlands and Slovenia to 4% in Australia, Greece and Latvia (Figure 2.8, Panel A). Lower middle-income households are considerably more exposed to the risk of poverty (3.5% on average) than those in the middle- and upper-middle income classes, where levels of risk are similar to those experienced by upper incomes – around 1.5%.

The risks of middle-income households falling into relative poverty from one year to the next were not affected by the economic cycle. Comparison between the Great Recession and the recovery period points to little change OECD-wide in the likelihood of middle-income households finding themselves in poverty from one year to the next (Figure 2.8, Panel B). In Estonia, Greece, Latvia and Luxembourg, the risk of middle-income households becoming poor in the next year has increased about 1 percentage point during the recovery, while has fallen almost 2 percentage points in the United Kingdom.[7]

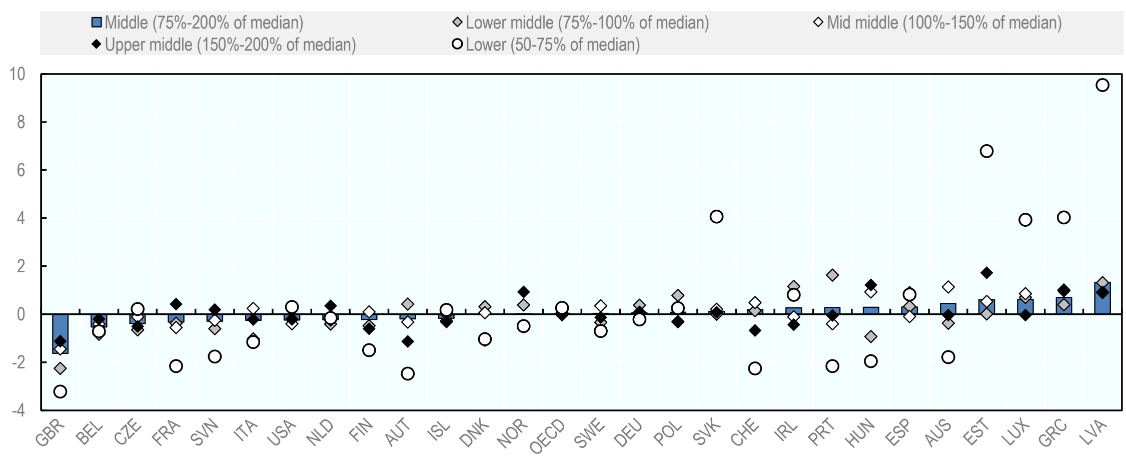
Changes were more significant among lower-income households. The poverty risk rose by at least 4 points in the Estonia, Greece, Latvia, Luxembourg and Slovak Republic, while fell by 2 points or more in Australia, Austria, France, Hungary, Switzerland, Portugal, Slovenia and the United Kingdom.

Figure 2.8. Middle-income households rarely fall into poverty

Panel A. Probability of individuals falling into poverty from one year to the next, average for the period 2007-2015



Panel B. Comparison of the probability of individuals falling into poverty from one year to the next in the periods 2011-2015 and 2007-2011, differences in percentage points



Note: Poverty defined as falling below 50% of median income.
Source: CNEF survey for Australia, Switzerland, Germany, United Kingdom and United States and EU-SILC for all other countries.

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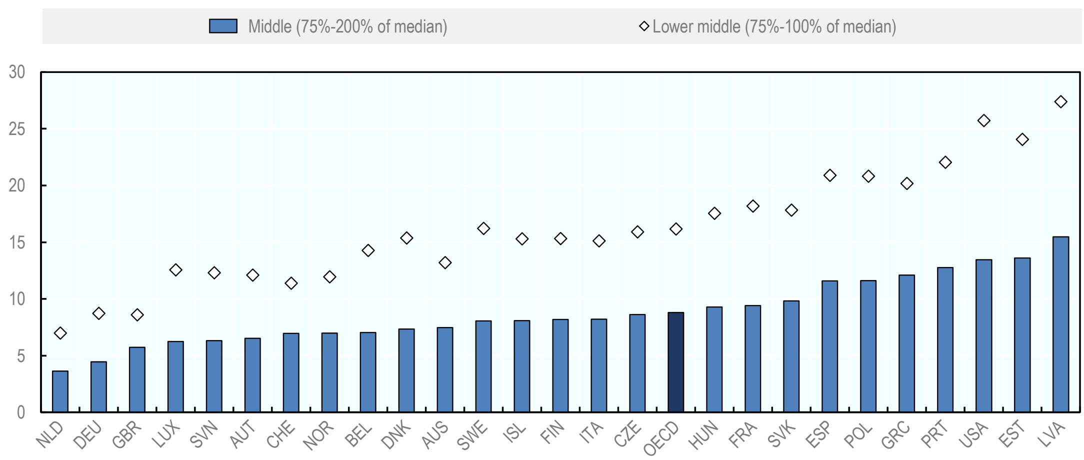
While they seldom fall into relative poverty after one year, middle-income households are still very much at risk of sliding into the low-income class over longer time spans. One-in-ten middle-income households and one in seven of the lower middle-income households slip into the low-income class (below 75% median) over a four-year period, on average between 2007 and 2015 (Figure 2.9). This risk is highest in Latvia, Estonia, the United States, Portugal, Spain and Greece where it concerned more than 20% of lower middle-income households and lowest in Germany, United Kingdom and the Netherlands (below 10%).

Recent OECD work has shown that such risk has risen in the past two decades, particularly among households which earn little more than low incomes and that lie in the bottom 40% of the income distribution. At the same time, the more affluent middle-income households now seem somewhat less prone to slide into the low-income class. These different patterns indicate a possible fracturing of the middle-income class (OECD, 2018[13]).

Figure 2.9. One out of ten middle-income households slide into low income after a period of four years

Probability of middle-income and lower middle-income individuals to fall into low income after a period of four years, average for the period 2007-15, %



Note: "Middle income" defined as incomes between 75% and 200% of the national median. "Lower middle income" defined as 75% to 100% of the median. "Low income" defined as below 75% of the median.
Source: Secretariat calculations based on EU-SILC and Cross-National Equivalent File (CNEF).

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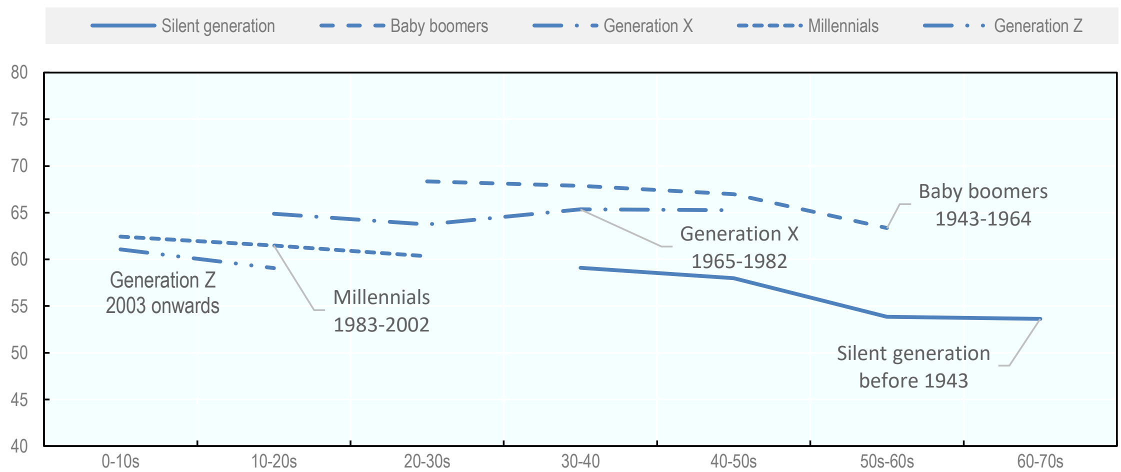
2.2.5. Middle-income households are no longer what they used to be

Over the past three decades, populations have changed considerably: they have aged, fewer households have children, and more working-age people are in work. The composition of middle-income households is therefore bound to change, too. However, it may not necessarily change in line with the shifting make-up of the population. For example, although the proportion of old people has grown, it is not clear whether the middle-income class has aged at the same pace as the overall population. Hence, this section seeks to analyse how likely certain population groups are to belong to the middle-income class in comparison to overall population trends.

Evidence below shows that making it to the middle class has become easier for the older generation and more difficult for younger generations. This is because older generations are often better protected from changes in the labour market and from low-income risks than the newer generations. More secure jobs, stable careers and generous pension systems (in most cases based on define benefits) provided higher chances of being middle-income to baby boomers than to previous and subsequent generations (Figure 2.10).

Figure 2.10. It has become more difficult for younger generations to belong to the middle-income class

Share of population in middle-income households by generation and stage at the life cycle



Note: Silent generation: born before 1943, Baby boomers: born 1943-64, Generation X: born 1965-82, Millennials: born 1983-2002; Generation Z: born since 2003.
The middle-income class comprises individuals in households with income between 75% and 200% of the median. OECD average based on data from OECD average comprises available data from Australia, Canada, Denmark, Finland, France, United Kingdom, Iceland, Ireland, Italy, Luxembourg, Mexico, Netherlands, Norway, Spain, Sweden, and United States.
Source: OECD calculations based on data from LIS Data Center, expect EU-SILC for France (2014), Ireland (2014), Iceland (2014) and Sweden (2015).

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2.2.6. Income classes converge across age groups

The middle-income class is ageing faster than the overall population, as the chances of belonging to it converge in all age groups. Between the mid-1980s and mid-2010s, the population has aged as the proportion of over-64s increased from 12% to 16%, while the under-30s fell from 44% to 38% (Figure 2.11, numbers in brackets). At the same time, the chance of being in the middle-income converged across age groups, as it increased for the elderly and decreased for younger age groups.

In the mid-1980s, generally speaking, those most likely to join the middle-income class were prime-age adults– between 30 and 64 years old – and those least likely were the elderly, children and young adults. While still broadly valid, in recent decades considerable changes in the likelihood of being middle income took place in all age groups leading to a convergence in the distribution of income classes across age groups (Figure 2.11).

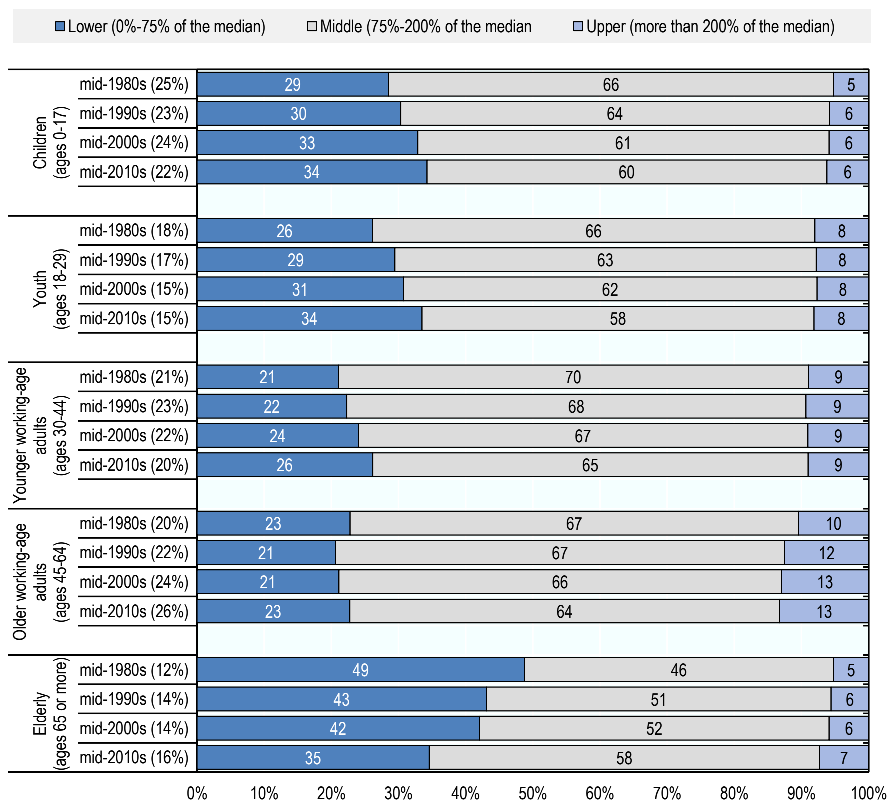
Starting from a relatively disadvantaged position, the proportion of the elderly achieving middle-income status rose considerably. In the mid-1980s, almost half were lower income. By the mid-2010s that share had fallen to almost one-third. At the same time, the likelihood of their being middle income rose by up to 12 percentage points to 58%. Despite such remarkable improvements, however, they still stood a greater chance of being lower income than other age groups. The greatest rises in the chances of elderly people being in the middle class came about in Denmark, France, the Netherlands, Norway and the United Kingdom (Table 2.2).

By the mid-2010s, the elderly were more likely not only to be middle-income, but upper-income, too, in all countries save Mexico. The improvement in their income standing reflect new retirees' better pension provisions and a growing number of people working past retirement age.

Fewer working-age adults and children are middle-income than three decades ago. The fall was sharpest among young people (18-to-29-year-olds) and children (the under-18s). It was also steep among young working-age adults, aged 30 to 44. It was, however, less marked among older working-age adults (the 45-64-year-olds), the only age group under 65 whose chances of climbing into the upper-income class has increased more than of dropping into the lower-income class.

Figure 2.11. Shares of income classes are converging across age groups

Shares of the population by age and income class, OECD average, mid-1980s to mid-2010s.



Note: "Middle income" households are defined as those with income between 75% and 200% of the national median. "Upper income" households are defined as those with income over twice the national median. Number in brackets refer to the shares of the specific group in total population. The OECD average comprises available data from Canada, Denmark, Finland, France, Germany, Israel, Luxembourg, Mexico, the Netherlands, Norway, Spain, Sweden, the United Kingdom and the United States.
Source: OECD calculations based on data from the LIS Cross-National Data Center and EU-SILC.

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Among children, the largest decline in those in the middle-income group took place in the Netherlands and Sweden, where levels in the mid-1980s were very high and remain higher than the OECD average. Falls were also considerable in Austria, Canada, Finland, Israel, Luxembourg and Spain. With the exceptions of Canada, Finland, Israel, the United

Kingdom and the United States, children became increasingly likely to be lower than higher income during the period under study.

Table 2.2. There is convergence of incomes between all age groups

Percentage-point changes in shares of the population by age and income group, OECD countries (mid-1980s to mid-2010s)

	Children (ages 0-17)			Youth (ages 18-29)			Younger working-age adults (ages 30-44)			Older working-age adults (ages 45-64)			Elderly (ages 65 or more)		
	Lower	Middle	Upper	Lower	Middle	Upper	Lower	Middle	Upper	Lower	Middle	Upper	Lower	Middle	Upper
CAN	4.9	-8.2	3.2	5.1	-7.8	2.7	6.4	-7.7	1.4	2	-2.7	0.8	-13.1	10.8	2.4
DEU	0.9	-1.8	0.9	8.6	-10.6	1.9	4.9	-6.2	1.3	0.8	-5.1	4.3	-7.6	6.3	1.3
DNK	2.7	-2	-0.7	15.8	-13.8	-2	3.5	-1.7	-1.8	-10.1	6.4	3.6	-26.2	24.5	1.7
ESP	7.3	-7	-0.3	12.4	-10.4	-2	6.1	-1.4	-4.6	2.5	-6.6	4.1	-7	5.4	1.5
FIN	4.1	-6.6	2.6	11.6	-12.5	0.8	3.3	-5.9	2.7	-1	-3.5	4.4	-14.6	13.1	1.5
FRA	2.0	-0.6	-1.4	3.5	-1.8	-1.7	1.1	3.1	-4.2	-12.7	13.9	-1.2	-22.6	20.5	2.1
GBR	1.9	-4.4	2.6	6.6	-3.8	-2.9	1.1	-3.3	2.2	0.5	-3.9	3.4	-20.7	18.3	2.5
ISR	9.6	-12.0	2.4	3.9	-6.4	2.5	5.4	-7.6	2.1	2.9	-6.0	3.3	-6.1	3.4	2.7
LUX	8.2	-9.1	0.9	7.8	-8.8	1.0	7.6	-8.0	0.4	4.1	-8.6	4.5	-21.0	14.6	6.4
MEX	3.7	-1.8	-1.9	3.2	-2.2	-1.1	2.9	-0.7	-2.2	-3.0	0.7	2.3	0.9	0.6	-1.5
NLD	15.2	-14.8	-0.5	2.7	-3.4	0.7	4.9	-5.7	0.8	1.5	-1.8	0.3	-20.7	19.7	1.0
NOR	3.2	-3.5	0.3	16.0	-15.0	-1.1	7.6	-7.1	-0.5	1.8	-3.8	1.8	-25.5	24.3	1.1
SWE	18.3	-20.2	1.9	0.1	-2.8	2.7	11.7	-13.0	1.3	6.2	-12.5	6.3	-10.2	7.7	2.5
USA	-2.2	-2.4	4.5	5.7	-6.1	0.3	5.0	-6.3	1.5	3.8	-5.5	1.6	-4.1	0.0	4.1

Note: "Middle income" households are defined as those with income between 75% and 200% of the national median. "Upper income" households are defined as those with income over twice the national median. The OECD average comprises available data from Canada, Denmark, Finland, France, Germany, Israel, Luxembourg, Mexico, the Netherlands, Norway, Spain, Sweden, the United Kingdom and the United States.
Source: OECD calculations based on data from the LIS Cross-National Data Center and EU-SILC.

StatLink https://doi.org/10.1787/888933955482

2.2.7. Fewer families with children are middle income

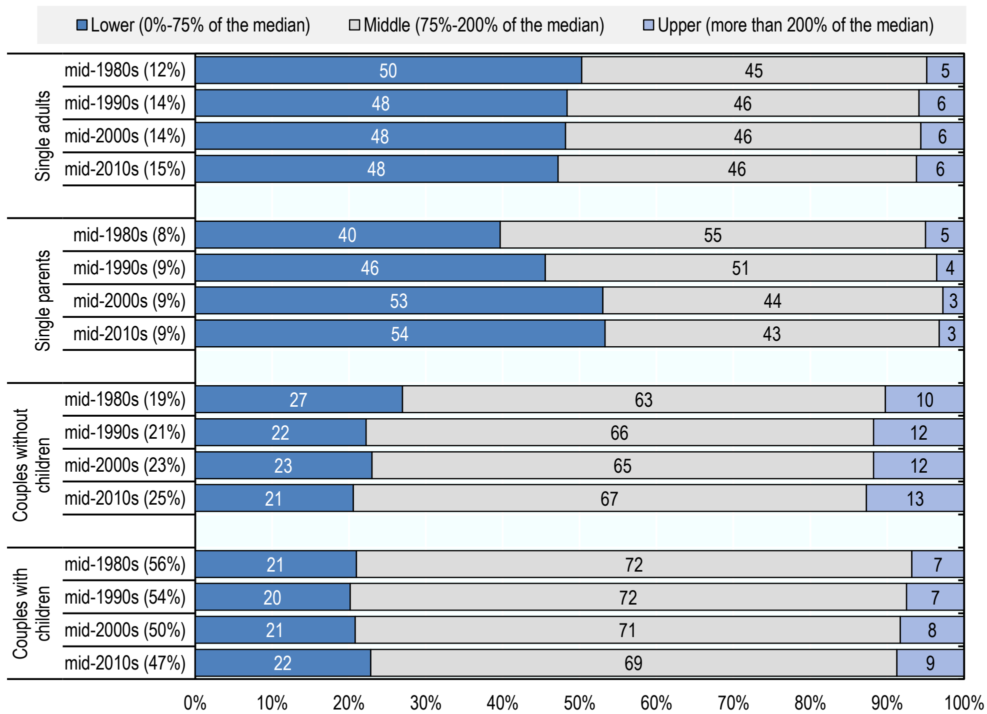
The vast majority of households with children are middle income, although their share has fallen in recent decades. Like working-age adults and children, the share of households with children in the middle-income class has also fallen – from 72% to 68% for couples with children, and from 55% to 44% among single parents (Figure 2.12).

When it comes to couples with children, the largest drops were in Canada, Luxembourg and Sweden (Table 2.3). Only in France have their chances of being middle income increased. The fall translates into similar expansions of the lower- and upper-income classes – though chiefly the latter in a few countries, particularly Canada and the United States and, to some extent, Finland, Germany and the United Kingdom.

Between the mid-1980s and mid-2010s, single-parent households increasingly dropped out of the middle-income group and, by the end of the period, a majority were on lower incomes (Figure 2.12). Their income status worsened in all countries, as the share of those in the lower-income class rose from 40% to 53%. In some countries, the trend also translated into considerable falls in the single-parent household likely to be upper income. Falls were particularly stark in France, Luxembourg and Sweden and, to a lesser extent, Finland and Norway.

Figure 2.12. Fewer families with children are middle income

Shares of the population by family type and income group, OECD average, mid-1980s to mid-2010s



Note: "Middle income" households are defined as those with income between 75% and 200% of the national median. "Upper income" households are defined as those with income over twice the national median. Number in brackets refer to the shares of the specific group in total population. The OECD average comprises available data from Canada, Denmark, Finland, France, Germany, Luxembourg, Mexico, Norway, Sweden, the United Kingdom and the United States.
Source: OECD calculations based on LIS and EU-SILC.

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Table 2.3. Fewer families with children are middle income

Percentage-point changes in shares of the population by family type and income group, OECD countries (mid-1980s to mid-2010s)

	Single adults			Single parents			Couples without children			Couples with children		
	Lower	Middle	Upper	Lower	Middle	Upper	Lower	Middle	Upper	Lower	Middle	Upper
CAN	0.6	-1.4	0.8	7.1	-5.6	-1.5	-3.1	2.2	0.9	2.6	-7.2	4.6
DEU	-1.2	-0.2	1.4	10.7	-8.3	-2.4	-1.4	-2.4	3.9	-2.0	-1.0	3.0
DNK	-1.9	3.6	-1.7	9.6	-3.5	-6.1	-10.8	8.0	2.7	-1.3	0.3	1.0
FIN	-1.1	0.7	0.4	15.4	-15.2	-0.2	-5.7	1.6	4.1	1.2	-4.3	3.1
FRA	-2.6	3.1	-0.4	25.4	-23.3	-2.1	-15.2	16.6	-1.5	-2.0	4.9	-2.9
GBR	-12.0	11.0	1.0	3.6	0.3	-3.9	-10.7	6.9	3.8	2.0	-4.8	2.8
LUX	-7.1	2.7	4.4	23.0	-22.4	-0.6	-9.3	3.4	5.9	4.8	-6.6	1.8
MEX	-16.9	9.1	7.8	3.3	2.0	-5.4	-0.9	4.6	-3.7	1.5	-2.1	0.5
NOR	-1.4	1.9	-0.4	16.9	-16.5	-0.4	-14.2	10.9	3.3	0.3	-0.8	0.4
SWE	6.8	-7.3	0.5	36.8	-36.2	-0.6	0.5	-5.5	5.1	13.0	-15.7	2.6
USA	3.2	-4.0	0.8	0.0	-0.8	0.8	0.2	-2.9	2.8	0.3	-5.0	4.7

Note: "Middle income" households are defined as those with incomes between 75% and 200% the national median. "Upper income" households are defined as those with income over twice the national median.
Source: OECD Secretariat calculations based on LIS and EU-SILC.

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2.2.8. Fewer working-age households are middle income, whether in work or not

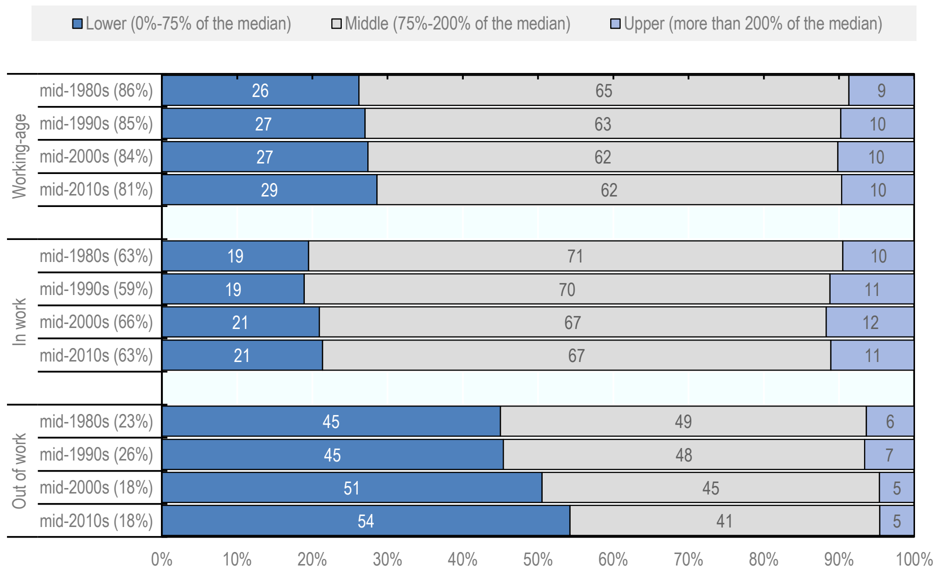
Working households are less likely to be on middle incomes than three decades ago. On average across OECD countries, two-thirds of working households were middle income in the mid-2010s – 3 percentage points less than in the mid-1980s (Figure 2.13). The decline was observed in 16 of the 19 countries for which long-term data are available (Table 2.4). Only in Chile, Italy and Mexico was there an increase, but in Chile alone was it sizeable. Everywhere else there was a significant fall in the share of working households in the middle, with particularly steep declines – of 7 to 8 percentage points – in Canada, Israel and the United Kingdom.

In most countries, the trend was accompanied by a rise in the share of in-work households in both the lower- and upper-income classes. Exceptions were Hungary, Switzerland and the United Kingdom – where working-age households chiefly swelled the ranks of the lower-income class – and the Czech Republic, Denmark, Israel and the United States, where they mostly entered the upper-income class.

Fewer non-working households are on middle incomes and more on lower incomes. Twenty years ago, half of the households headed by out-of-work working-age people ("non-working households") enjoyed middle-income status. Today, most are on lower incomes (Figure 2.13). The fall has been particularly steep (more than 15 percentage points) in Finland, Israel, Italy, Luxembourg, the Netherlands, Norway and Spain (Table 2.4). Only in France, Switzerland and the United States have the shares of non-working households in the middle-income class increased.

Figure 2.13. Fewer working-age households are on middle incomes

Percentage of the working-age population by employment status of head of household and income class, OECD average (mid-1980s to mid-2010s)



Note: The employment status of the head of household is based on the current labour force status of the person responsible for the household, according to ILO definitions. Number in brackets refer to the shares of the specific group in total population.
Source: OECD calculations based on LIS and EU-SILC.

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Table 2.4. Fewer working-age households are middle-income

Percentage-point changes in shares of the population by working status of the head of household and income group, mid-1980s to mid-2010s

	Working age			In work			Out of work		
	Lower	Middle	Upper	Lower	Middle	Upper	Lower	Middle	Upper
CAN	3.1	-5.7	2.6	4.7	-7.8	3.1	17.6	-14.8	-2.8
CHE	3.1	-2.5	-0.6	2.2	-2.0	-0.2	-20.6	20.2	0.4
CHL	-3.8	4.6	-0.8	-6.4	6.1	0.3	8.1	-2.3	-5.8
CZE	1.9	-4.6	2.7	-0.1	-4.2	4.4	19.9	-14.3	-5.6
DEU	2.9	-5.8	2.8	0.5	-3.9	3.4	11.2	-12.1	0.9
DNK	1.9	-2.0	0.1	-0.9	-0.7	1.7	7.1	-2.4	-4.7
ESP	7.6	-9.4	1.8	2.8	-6.0	3.1	17.3	-16.4	-1.0
FIN	4.2	-7.2	3.0	1.2	-4.9	3.7	14.9	-15.1	0.2
FRA	-2.4	4.2	-1.8	6.7	-3.6	-3.1	-9.8	10.2	-0.3
GBR	1.5	-2.5	1.0	6.5	-7.2	0.6	5.2	-3.9	-1.3
HUN	5.6	-4.8	-0.8	4.9	-4.5	-0.4	5.9	-4.5	-1.4
ISR	4.4	-7.9	3.5	1.9	-6.9	5.0	17.8	-15.1	-2.7
ITA	5.8	-3.9	-1.9	-2.2	1.1	1.1	24.4	-16.7	-7.7
LUX	5.5	-7.7	2.2	3.1	-5.4	2.3	15.2	-16.2	1.0
MEX	0.5	1.3	-1.8	1.4	1.1	-2.5	-0.6	-0.6	1.2
NLD	3.6	-5.0	1.4	3.5	-4.9	1.4	15.6	-16.0	0.4
NOR	6.3	-6.7	0.4	2.8	-4.4	1.6	25.6	-20.3	-5.3
POL	3.1	-3.4	0.3	2.9	-4.0	1.2	6.0	-4.0	-2.0
USA	1.5	-4.3	2.8	0.5	-3.9	3.5	-5.3	2.6	2.7

Note: The employment status of the head of household is based on the current labour force status of the person responsible for the household, according to ILO definitions.
Source: OECD calculations based on LIS and EU-SILC.

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2.3. Taxes, benefits and middle incomes

Taxes and benefits play an important role in redistributing income and reducing inequality in OECD countries (OECD, 2011[14]; Causa and Hermansen, 2017[15]). While the tax and benefit debate sometimes focuses on the rich when it addresses taxes and on the poor when it considers benefits, the middle class is in fact the main stakeholder of both. This section analyses the contribution of middle incomes to tax revenues and their receipt of social spending, the net outcome of taxes paid and benefits received, and how these have changed in the last decade in OECD countries and selected emerging economies.

Analysis focuses exclusively on personal direct taxes[8] and cash social benefits[9]. Due the unavailability of data, it does not consider other sources of public revenue and spending (e.g. indirect taxes and such public services as health and education). This lack of data limits the scope of analysis and may distort it if total amounts of taxes and benefits are considerably different. On average across OECD countries, taxes received and benefits paid-out are similar, respectively accounting for 29% and 27% of disposable household income.[10] In some countries, however, amounts of public expenditure and revenues not accounted for do differ substantially. In such cases, comparability is hindered, particularly when it comes to assessing whether middle incomes are net payers or net beneficiaries of the tax-benefit system.

2.3.1. Middle incomes pay most taxes, but at times less than their income share

Middle-income households contribute the bulk of income tax revenues – an average of almost two-thirds of revenues from personal direct taxes, a proportion similar to their share of income (Figure 2.14). In all OECD countries with data available, middle incomes contribute at least half of tax revenue and at least three-quarters in Belgium, Iceland, Norway and the Slovak Republic. Only in Israel and the United States do they contribute less than half, with the United States also being the sole OECD country where middle incomes contribute less than upper incomes.[11].

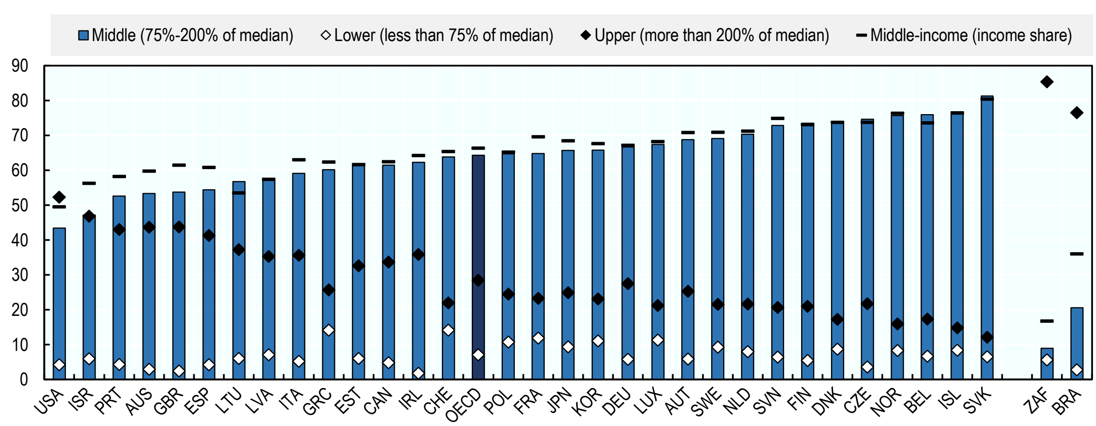
In some countries, middle incomes' share of taxes paid is lower than their share of income earned. Australia, Israel, Portugal, Spain, the United Kingdom and the United States are all cases in point. In the United States, for example, middle incomes earn 50% of the country's income, but contribute only 43% of its tax revenue. Part of the reason is the highly progressive nature of income tax systems in those countries, whereby upper incomes account for high shares of taxes (Figure 2.14).[12]

Upper incomes pay disproportionally more than their income share – on average, 29% of personal direct tax revenue for a 22% share of income. The United States is the only country where upper incomes pay more than half of tax revenue. In Israel, the upper-income class pays 47% of all taxes while accounting for 31% of income.

As for lower-income households, they pay a small share of taxes. On average, that share is 7% of personal direct taxes, ranging from 2% in Ireland and the United Kingdom to 14% in Greece and Switzerland.

Figure 2.14. Middle incomes pay the bulk of taxes, but in some countries proportionately less than their share of income

Shares of taxes paid by income class and relative to the middle-income share of income, mid-2010s (in %)



Note: Mid-2010 refers to 2012 for Korea and South Africa; to 2013 for Brazil, Canada and Switzerland; to 2014 for Australia, Iceland, Ireland, Italy, Luxembourg, Norway, Poland and Slovenia; to 2009 for Japan; to 2016 for Israel and the United States; to 2015 for the remaining countries.
Source: OECD Secretariat calculations based on LIS and EU-SILC except for Japan (Tanaka and Shikata, 2019[7]) – based on National Survey of Family Income and Expenditure (NSFIE).

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In Brazil and South Africa, the two emerging economies with tax data available, the contribution of middle incomes to tax revenue is limited and well below their share of income.

Out of all personal direct taxes collected in the country, upper incomes account for more than 75% in Brazil and over 80% in South Africa.

2.3.2. The middle-income class receives more benefits than the other income classes, though not proportionately to its share of the population

As with taxes, the middle-income class receives the bulk of social benefits because of its sheer size – 60% on average across OECD countries[13] (Figure 2.15, Panel A), which is equivalent to 7.2% of GDP.[14] Pensions (old age and invalidity) make up two-thirds of cash benefits (OECD, 2019[16]). Accordingly, most benefits paid out to the middle-class target the elderly. People aged 65 or over receive more than half of social security cash benefits paid to the middle-income class, despite making up less than one-fifth of the middle-income population. Across OECD countries, the share of cash benefits received by the middle-income group ranges from less than one-third in Mexico, to slightly less than half in Australia, Chile, Estonia, Latvia and the United States, and around three-quarters in Luxembourg, Norway and the Slovak Republic.

The average share of cash benefits that the middle-income class receives is slightly less than its share of the population, though there is considerable variation from country to country. OECD-wide, the middle-income class accounts for 61% of the population and 60% of benefits. The gap is much wider, however, in Australia, Denmark, Korea, Mexico and Portugal, where middle-income households receive a small share of benefits in comparison to their share of the population. In Mexico, for example, they comprise 45% of population and 29% of benefits. Their relatively low share of benefits in some of the countries, such as Australia and Denmark, is attributable to the fact their benefit systems chiefly target people on lower incomes.

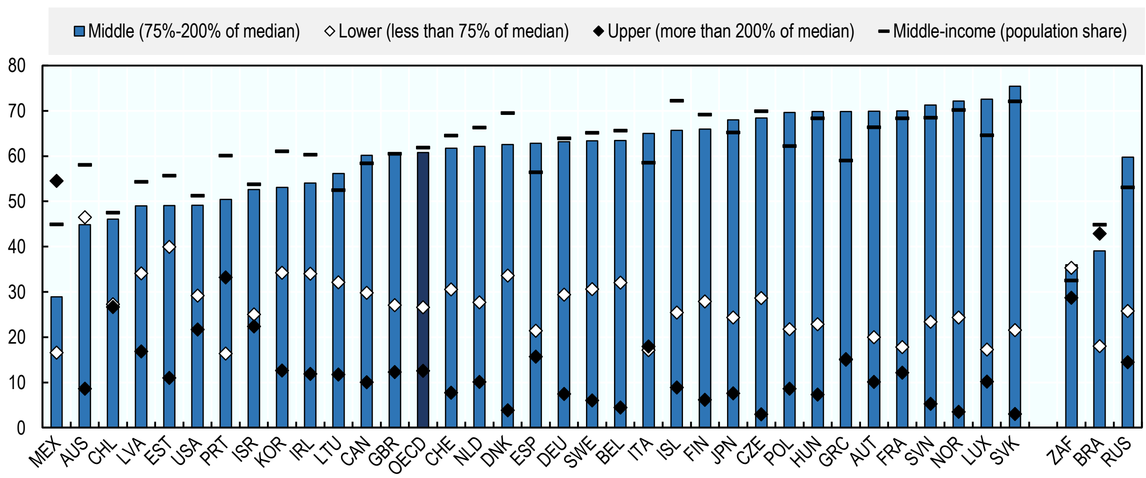
In other countries, by contrast, like Mexico and Portugal, upper incomes are the disproportionate recipients. And, in a handful of countries – particularly Greece, Luxembourg and Poland – whose social security systems do not seek to assist lower-income households, the middle-income class receives a share of benefits that is proportionately much larger than its share of the population. In Greece, for example, middle-income households account for 59% of the population and 70% of benefits, while those on lower incomes account for 32% of the population and 15% of benefits.

Upper-income households receive, proportionally, more cash benefits than any other income class. In contrast to lower and middle incomes, the share of benefits enjoyed by the upper-income class is greater than its share of the population – 1.5 times greater on average, with 9% of the population receiving 13% of benefits. The chief driver is the uneven distribution of pensions in some countries. In Mexico and Portugal and, to a lesser extent, Chile, Israel and the United States, elderly upper-income households get a share of benefits that far outstrips their share of the population. In Mexico, for example, they account for 18% of the old-age population and 54% of old-age benefits. Significantly, benefits to lower-income households are disproportionately low in those countries, as in Greece, Italy, Luxembourg and Spain.

When it comes to the Emerging economies, the share of benefits received by middle-income households in Brazil and South Africa is much lower than the OECD average – partly because their middle-income classes account for smaller shares of their populations. Moreover, in the case of Brazil, benefits received by low- and middle-income households are disproportionately low. It is the other way round for upper-income households, who account for 19% of the population and 43% of social benefits. As for Russia, middle-income households receive proportionally more benefits than their share of the population.

Figure 2.15. Middle-income households are the largest recipients of social security cash benefits

Percentage shares of social security cash transfers received, by income class and relative to the middle-income share of the population, 2016 or latest available



Note: Mid-2010 refers to 2012 for Korea and South Africa; to 2013 for Brazil, Canada and Switzerland; to 2014 for Australia, Iceland, Ireland, Italy, Luxembourg, Norway, Poland and Slovenia; to 2009 for Japan; to 2016 for Israel and the United States; to 2015 for the remaining countries.
Source: OECD Secretariat calculations based on LIS and EU-SILC except for Japan (Tanaka and Shikata, 2019[7]) – based on National Survey of Family Income and Expenditure (NSFIE).

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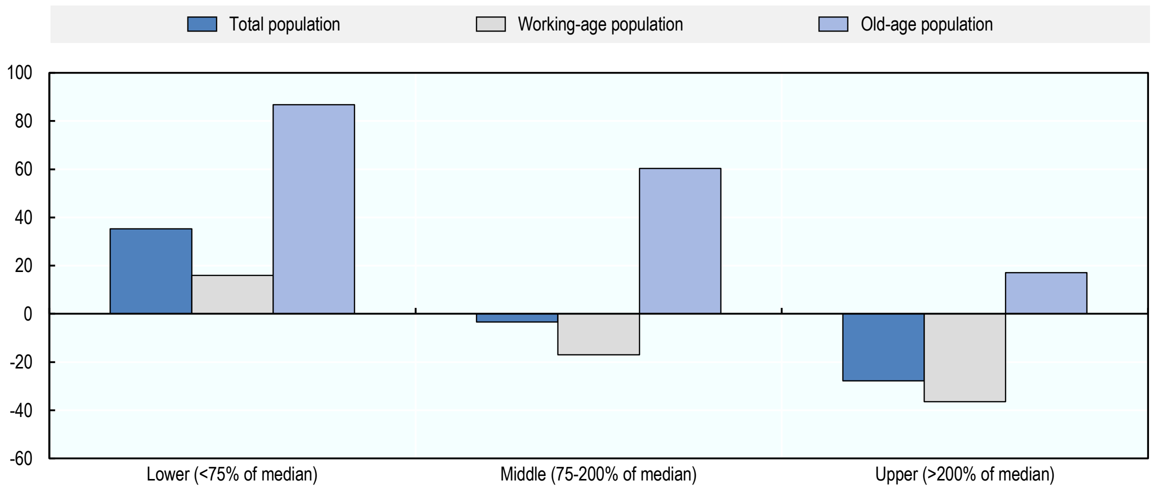
2.3.3. Are middle incomes net contributors or net beneficiaries of tax-benefit systems?

How the tax-benefit system affects the middle-income class depends on age.[15] The net effect of taxes and benefits on the population as a whole is broadly neutral. Their effect on the middle-income class, however, differs greatly between households headed by people of working age and those headed by the elderly. OECD-wide, the former pay 17% more in taxes than they receive in benefits, while the latter receive a substantial 60% more in benefits than they pay in taxes – an indication of the importance of social security transfers (particularly pensions) in redistributing income across generations. Elderly households are also net recipients in both the lower and upper-income classes. Working-age households are net payers in both middle and upper-income classes, only those in the lower-income class are net recipients (Figure 2.16).

Figure 2.16. The net effect of taxes and benefits depends on the age of heads of household

Mean net effect of taxes and benefits as a share of household disposable income by age and income class



Source: OECD Secretariat calculations based on data from LIS and EU-SILC.

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Middle-income households generally pay less tax but receive less in benefits than OECD population averages. They pay the equivalent of 28% of their disposable income in personal direct taxes, while receiving 25% in social security cash benefits (Figure 2.17, Panel A). Indeed, in most countries they seem to be net contributors, paying more in income tax than they receive in cash benefits. However, that perception may be biased by incomplete tax and benefit data (as stated at the beginning of Section 2.3).

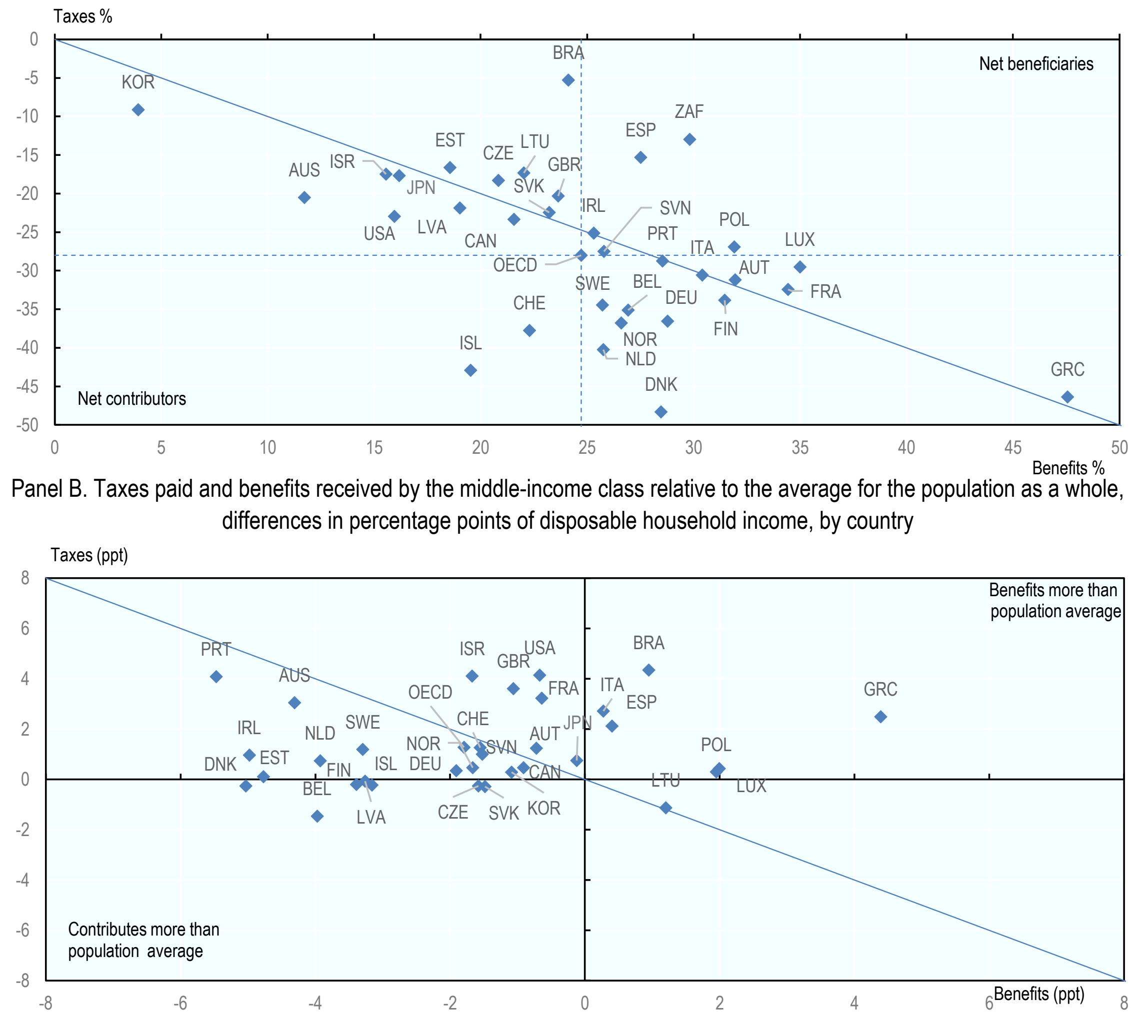
A more accurate measure is yielded by considering the amount of taxes and benefits of the middle-income class in comparison to the overall population average (Figure 2.17, Panel B). In most countries, middle-income households generally contribute slightly more than the overall population, as they pay less tax but also receive less in benefits. In Portugal, for example, they pay 4 percentage points less in tax but receive 5 points less in benefits. In comparison to the nationwide average, the contribution of middle-income households is particular high in Belgium, Denmark, Estonia and Ireland, where benefits target low-income households. Middle-income households gain considerably more than the average from the system in Greece, where lower-income households pay a high share of taxes (Figure 2.14) and many insurance benefits are not targeted (Figure 2.15).

In the emerging economies of Brazil and South Africa, middle incomes receive more in benefits than they pay in taxes. In Brazil, even upper incomes are net recipients of the tax-benefit system, as personal direct taxes account for a small share of tax revenue (OECD et al., 2018[17]) and most social benefit spending is aimed at insurance pensions with limited redistributive effect (OECD, 2015[18]).

Figure 2.17. The net effect of taxes and benefits on middle incomes across OECD countries

Panel A. Middle-income taxes, benefits and their net effect as a percentage of household disposable income by country

Panel B. Taxes paid and benefits received by the middle-income class relative to the average for the population as a whole, differences in percentage points of disposable household income, by country



Note: The OECD average comprises available data from Austria, Belgium, Canada, Czech Republic, Denmark, Finland, Germany, Iceland, Ireland, Israel, Italy, Korea, Japan, Luxembourg, Netherlands, Norway, Portugal, Slovak Republic, Sweden, and United States.
Source: OECD Secretariat calculations based on LIS and EU-SILC except for Japan (Tanaka and Shikata, 2019[7]) – based on National Survey of Family Income and Expenditure (NSFIE).

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2.3.4. More taxes and more benefits for middle incomes since the crisis

Middle-income households have paid more income taxes and received more social security cash benefits since the global financial crisis, but levels and effects differ across age groups. Between 2007 and 2015, both taxes and benefits increased in real terms and contributed to the rise of disposable household income as benefits grew faster than taxes. Both grew faster among households headed by the elderly rather than by working-age people, enjoying particularly large increases in benefits – an average of 1.3% per year.

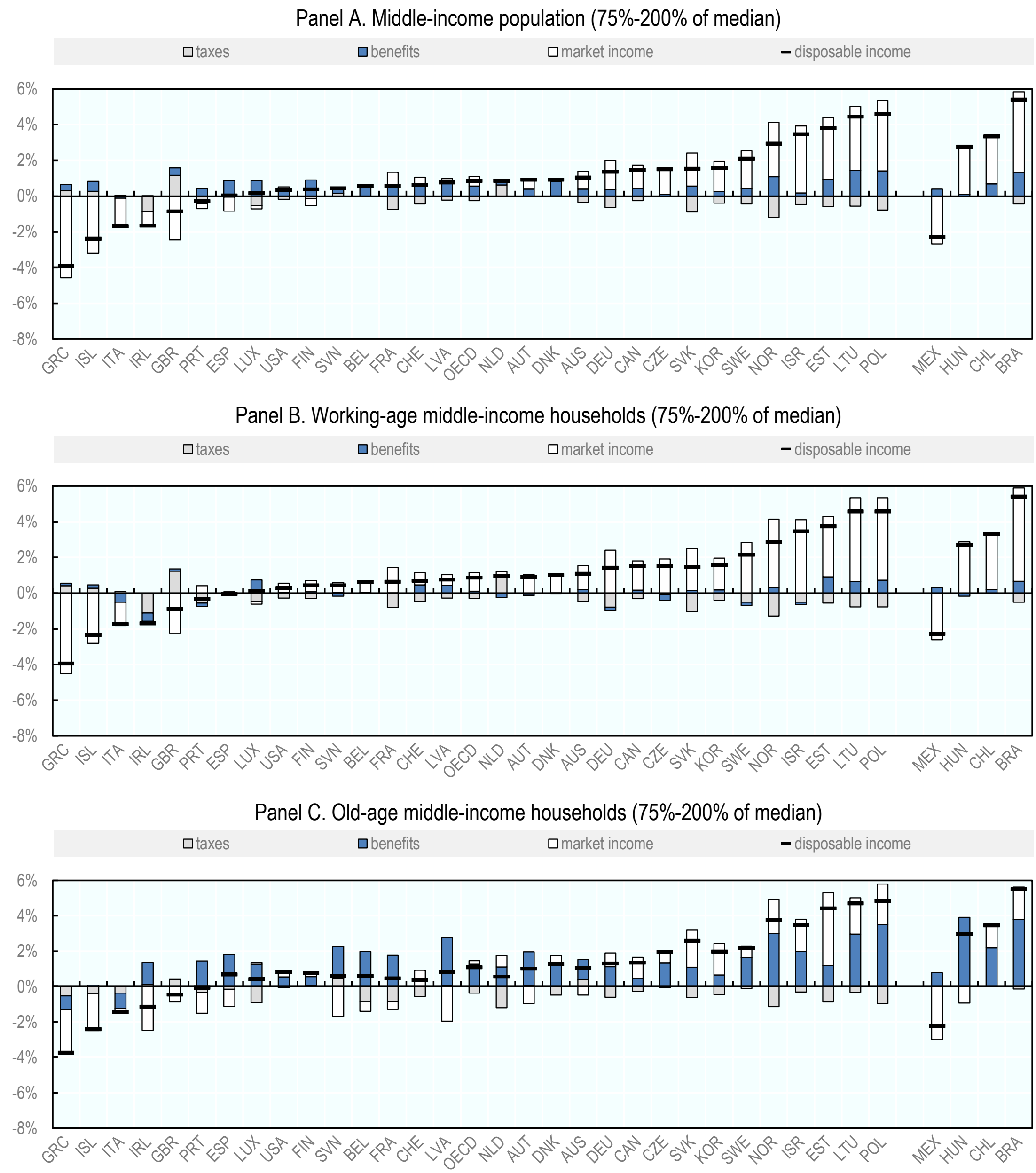
Over the last decade, benefits contributed as much as earnings to lifting the incomes of middle-income households. Between 2007 and 2015, their mean disposable incomes grew by an annual average of 0.9% (Figure 2.18, Panel A). Market incomes (mainly from earnings and capital) and benefits contributed 0.6 percentage points each, while higher taxes reduced disposable income by 0.3 points. Old-age pensions – rather than benefits intended to alleviate the impact of recession, like social assistance payments and unemployment allowance – seem to have driven the rise in benefits of which old-age households were the chief recipients (Figure 2.18, Panel C). Even in countries where market incomes were still below pre-crisis levels (e.g. Ireland, Portugal and Spain), the impact of rising benefits on disposable income was greater among the elderly middle-income population than their working-age peers (Figure 2.18, Panel B). Benefits also increased in countries that experienced considerable growth in market incomes, such as Chile, Estonia, Korea, Norway and Poland.

Although income taxes paid by middle-income households increased in most OECD countries between 2007 and 2015, their impact on disposable income has been limited. They noticeably reduced it in some countries that enjoyed considerable economic growth, such as Norway, Poland and Slovak Republic, as well as in France, where growth was slower. In some countries, taxes increased despite lower market income, due either to significant rises in benefits (e.g. Luxembourg) or to tax reforms implemented as part of fiscal consolidation programmes (e.g. Ireland and Portugal). In Greece, Iceland, the Netherlands and the United Kingdom, lower taxes cushioned much of the fall in market incomes. The fall in taxes was considerable in Greece, where market incomes collapsed, and in the United Kingdom, where a series of reforms raised the tax-free personal allowance.[16]

After economic growth started to recover, around 2011, disposable income climbed at a faster rate, driven mainly by market income growth and, to some extent, by social benefits. Overall, the tax-benefit system has had a negative impact on disposable income since the recovery, as income taxes have increased faster than benefits (data not shown).

Figure 2.18. Benefits to old-age households have boosted middle incomes in the last decade

Annualised percentage point changes in the disposable income of middle-income households due to changes in taxes, benefits and market income, changes between 2007 and 2015 by household type



Note: 2007 refers to 2005 for Israel; to 2006 for Brazil, Germany and Korea, to 2008 for Australia, Estonia and Italy 2015 refers to 2012 for Korea and South Africa; to 2013 for Brazil, Canada and Switzerland; to 2014 for Australia, Iceland, Ireland, Italy, Luxembourg, Norway, Poland and Slovenia; to 2016 for Israel and the United States.

Source: OECD calculations based on data from LIS and EU-SILC.

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2.4. Conclusion

This chapter has sought to analyse the changing trends that affect the middle-income class in OECD countries and selected emerging economies. To that end, it has used a definition of middle incomes that is consistently applicable to all countries – namely, 75% to 200% of the median household disposable income. Thus defined, middle-income households make up the majority of the population in OECD countries: 61% on average, and 70% or more in Norway, the Czech Republic and Iceland. Only in Chile and Mexico are less than half the population on middle incomes.

Countries that are richer in terms of absolute household income tend to have larger middle classes. However, there are exceptions. In the United States, the middle-income group is small given the fourth-highest absolute median income level across countries, while in most Central European countries it is larger than income levels would suggest.

Middle incomes have barely grown in real terms over the last 10 years and, importantly, have grown more slowly than upper and top incomes for three decades. On average across OECD countries, real median incomes have risen by one-third less than those in the top 10%. As a result, the middle class's share of income has shrunk in comparison to the upper class: while aggregate middle income was four times greater than that of the upper-income group in the 1980s, they were less than three times the size by the mid-2010s. The middle-income group's dwindling share of income may also result in weaker economic and political influence.

The middle-income class is smaller than three decades ago. Every 10 years an average of 1% of the population ceases to be middle income. One-third of the households that moved out of the middle-income class moved into the upper-income class. However, the remaining two-thirds became lower income. Those chiefly affected were households in the mid- and low-lying echelons of the middle-income group. Indeed, the upper-middle-income class even grew in most of the countries where the middle-income class as a whole declined. The inference is of an increasing divide within the middle class.

The make-up of the middle-income class has undergone profound change. It has, in particular, aged faster than the population as a whole over the past three decades. Thus, while the share of elderly people in the middle-income class rose, shares of those from all other age groups fell, especially among young people and families with children. As a consequence, chances to make it to middle incomes fell for each subsequent generation since the baby boom generation. The fall of middle-income shares among working-age households affected those headed by people both in and out of work, although it was more pronounced among the jobless.

Middle-income households are neither net contributors of personal direct taxes nor net recipients of cash benefits. They tend to receive almost as much in social benefits as they pay in taxes. That said, people on lower-middle incomes tend to be net beneficiaries and those on higher-middle incomes net payers. After 2007, growth in the incomes of the middle-income class was attributable primarily to benefits– focused chiefly on elderly households – rather than to labour and capital incomes.

Notes

[1] This poverty definition is the same as that used by the OECD to measure relative poverty in the Income Distribution Database (Förster, 1994[22]; OECD, 2017[23]).

[2] The OECD's headline poverty indicator defines as "poor" people in households whose income is below 50% of median income. The European Commission considers that people are at risk of poverty if their household income is below 60% of the median income.

[3] The Czech Republic and Slovak Republic are at the bottom of the OECD income inequality league (OECD, 2018[20]). Inequality in Hungary and Poland is higher and variable, and increased particularly steeply in the wake of the economic transition (Förster and Tóth, 2001[19]). More recently it has eased.

[4] Disposable incomes are adjusted for household size and economies of scale by dividing overall household disposable income by the square root of household size (OECD, 2018[21]). National incomes have been adjusted for cross-country differences in the prices of goods and services using prices and purchasing power parities for 2010, expressed in USD.

[5] Similarly, trends in the upper-income class can be approximated with the top 10%.

[6] This refers to the average for 19 OECD countries for which long-term data series are available. The average annual growth rate of all 36 OECD countries during the latest period since 2007 was somewhat higher, at 0.6%.

[7] The rise of the poverty risk during the economic recovery could be partly driven by a statistical artifice of relative poverty measures, but evidence based on absolute poverty measures corroborate this result. During recoveries, median incomes increase and, thus, push the poverty line up hence increasing the poverty risk of households whose incomes increased at a lower rate than the median. Similarly, the same artifice may reduce the poverty risk of households during recessions (Jenkins et al., 2012[29]). Recent evidence for the European Union using an absolute poverty measure points out to a rise of the poverty risk for middle class in the 2011--14 period (Bussolo et al., 2018[31])

[8] Personal direct taxes refer to personal income tax, social insurance contributions paid by workers and property tax. Other taxes (e.g. corporate income tax, employer social insurance contributions and consumption taxes) are not included.

[9] Cash social benefits include social security benefits from social insurance, social assistance payments and income support.

[10] In Iceland, Denmark, the Netherlands, Switzerland and the United States the total amount of taxes exceeds the total amount of benefits by at least 10% of disposable household income. In Spain, benefits exceed taxes by 10% of disposable household income and in Brazil by 14%.

[11] While tax data are not available, it is possible that the middle-income classes in Chile and Mexico also contribute less than upper incomes, as evidence shows that they do in the United States and Brazil (Figure 2.14).

[12] A recent OECD study found that the personal income taxes and social security contributions in those countries – particularly Ireland, Israel and Spain – are among the most progressive in the OECD (Causa and Hermansen, 2017[15]).

[13] Monetary social benefits refer to social transfers paid in cash such as pensions, unemployment benefits, family benefits, tax credits and assistance benefits. Quasi-cash transfers such as the US Supplemental Nutrition Assistance Program (SNAP), also known as "food stamps" are also included. Public services and in-kind benefits such as publicly provided health care and education

are not included. Previous OECD work has assessed the incidence and distributive effect of in-kind benefits (OECD, 2011[30]; OECD, 2008[28]).

14 According to the OECD's Social Expenditure Database (SOCX), public spending on cash social benefits amount to an OECD average of 12% of GDP (OECD, 2019[16])

15 In order to control for the important role of taxes and benefits in redistributing income across the life cycle, this section assess their net effect at the overall population level and across age groups. When interpreting the results, it should be kept in mind that analysis does not cover social transfers in kind. In general, countries spend as much on these in-kind transfers as on cash benefits and the former tend to be proportionally distributed, hence to the advantage of middle-income households (OECD, 2011[14]).

16 Several studies have analysed the effect on disposable household income of tax-benefit reforms as part of fiscal consolidation programmes, (De Agostini, Hills and Sutherland, 2018[24]; Callan et al., 2011[25]; Matsaganis and Leventi, 2014[26]; Paulus, Figari and Sutherland, 2017[27]).

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Chapter 3. Where have the middle class jobs gone?

This chapter discusses past, recent and prospective labour market trends for middle-class workers and their families. The chapter begins by analysing the job occupations of middle-class workers and its evolution in recent decades. It then examines how labour market polarisation and non-standard forms of work have affected the middle-income class in terms of jobs and wages. It also analyses the impact of labour market and demographic changes on the chances of households being middle-income. Finally, it assesses the risks of automation and employment prospects for the current occupations of middle-income workers.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Introduction and key findings

Labour markets have been polarising, new technologies have replaced many middle-skilled[1] routine jobs with new high- and low-skilled jobs. The fall in the relative number of middle-skilled jobs is often deemed to have contributed to the decline of the middle class in OECD countries. Nevertheless, changes in the distribution of skill groups across income classes may challenge the assumption a certain kind of job yields access to a certain income class. Such thwarted expectation may prompt social tensions.

The make-up and employment profiles of middle-income households have changed. In keeping with the overriding demographic trend, they are increasingly made up of single individuals. Although dual-earner couples remain the backbone of the middle-income class, they increasingly rely on at least one member working in a highly skilled job to maintain their income status.

At the same time as low- and high-skill relative to middle-skill jobs as shares of the labour market have increased, top wages rose faster than those in middle and at the low end of the scale, where the gap between middle and low wages has either widened or stayed unchanged. Unlike jobs, therefore, wages have not polarised (i.e. risen faster at the top and bottom), only become more unequal (i.e. grown faster solely at the top).

Rapid innovation in automation and digitalisation is fuelling fears that technology will generate massive unemployment in the future. Evidence suggests that people are increasingly anxious about the impact of technology on employment. This chapter also assesses the risk of automation and employment prospects of the current occupations of middle-income workers.

From the analysis and evidence in this chapter the following findings emerge:

- Fewer working-age households are in the middle-income class than three decades ago. The probability of being middle-income fell both in households headed by workers (“working households”) and those headed by the out-of-work (“non-working households”). Among working households, the squeeze was moderate and led to rises both at lower and upper income classes. The squeeze on non-working middle-income households, however, was tighter forcing many of them into the lower-income class.

- There is no archetypal middle-income job. While just a few occupations account for the jobs of most lower- and upper-income households, middle-income class earners work in a wide range of occupations. In the last two decades, the professionals have replaced crafts as the largest middle-income occupational group. Only in a few countries are middle-skill workers still the largest group in the middle-income class.

- Job polarisation has had little overall effect on the size of the middle-income class because the decline in the number of middle-skill jobs has generally been offset by the increase in the number of highly skilled jobs.

- The relationship between skill levels and income classes has changed. Skill levels are no longer passports to the income class once traditionally associated with them. Middle-skill workers are now more likely to be in the lower-income class and less likely to be middle income. Highly skilled workers are also less likely to make it to the higher-income class, while their low-skilled peers are increasingly concentrated in the lower-income class.

- Households increasingly need not only two earners but require one or both of them to be highly skilled if they are to enter the middle-income class. Changes in the probability that a dual-earner household is in in the middle-income class vary depending on their skill levels. Working couples where one or both earners are highly skilled are now more likely to be middle-income and more unlikely to be upper-income. As for dual-earner couples who are not highly skilled, their chances of still being in the middle-income class are the same, while they have grown in the lower- and fallen in the upper-income class.
- One-in-six middle-income workers are in occupations that are at high risk of automation. The risk is a little higher in occupations where lower-income workers are currently employed – one-in-five – but lower in jobs held by their upper-income peers – one-in-nine.

3.1 The labour status of middle-income households

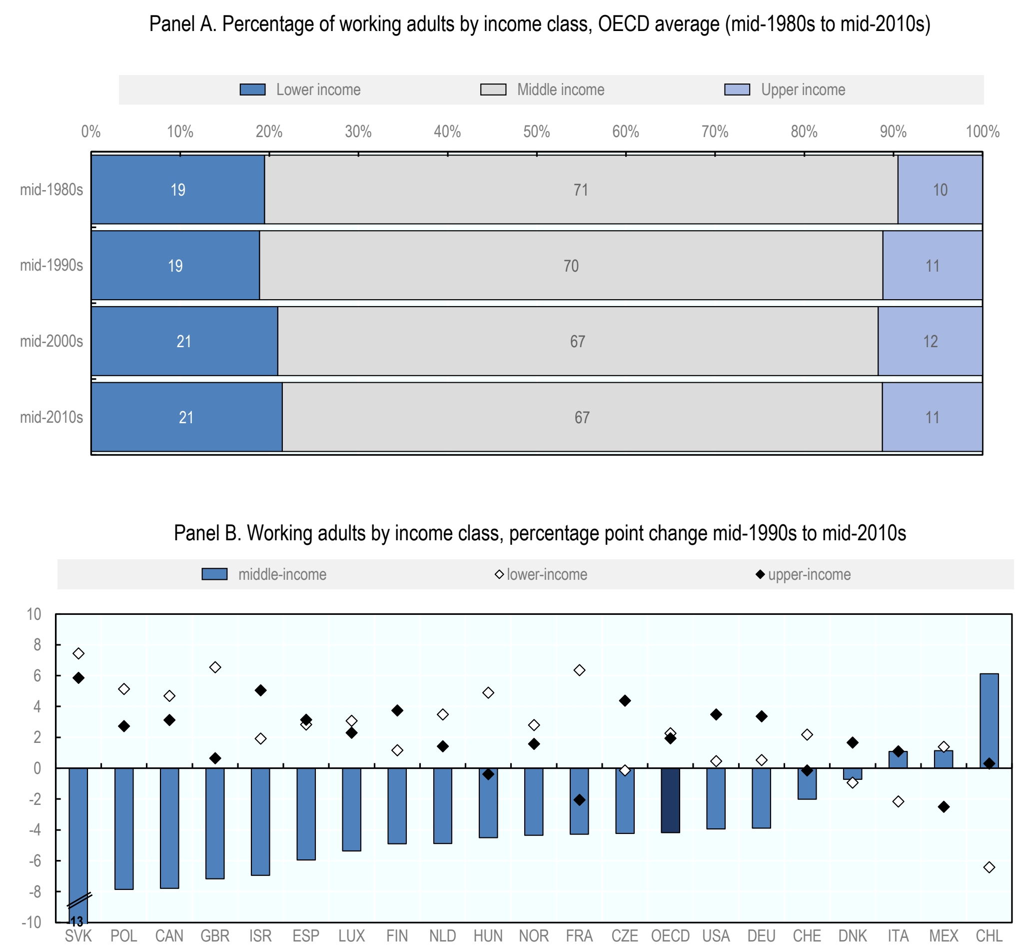
This section shows income-class profiles and trends over recent decades in households headed by people at work – henceforth referred to as "working households".

3.1.1 Most working households remain middle income despite lower shares

Most working households are middle income, though to a lesser extent than three decades ago (Figure 3.1, Panel A). OECD-wide, two-thirds of working households were middle income in the mid-2010s, slightly less than in the 1980s. Over the same period, by contrast, the chances of working households being in the lower and upper income classes increased. The result is a slight income polarisation among working households today.

There are fewer middle-income working households in 16 of the 20 OECD countries for which data are available (Figure 3.1, Panel B). In the 20 years between the mid-1990s and 2010s the share of working households in the middle-income class grew in Chile, Italy and Mexico, though only in Chile was the rise considerable. In all other countries, it fell noticeably, particularly in Canada, Israel, Poland, the Slovak Republic and the United Kingdom. And in most countries, the growing share of working households in the lower and upper income classes went together with a falling share in the middle-income class. Exceptions were France, Hungary, Switzerland and the United Kingdom – where the rise of the working family came in the lower-income class – and the Czech Republic, Israel, Germany and the United States, where it was confined chiefly to the upper-income end of the scale.

Figure 3.1. Fewer working households are middle-income



Note: Working households are defined as households headed by people in employment. People are defined as employed based on the ILO definition.

Source: OECD calculations based on LIS and EU-SILC (see Box 3.1 for details).

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3.1.2 What are the jobs of middle-income workers?

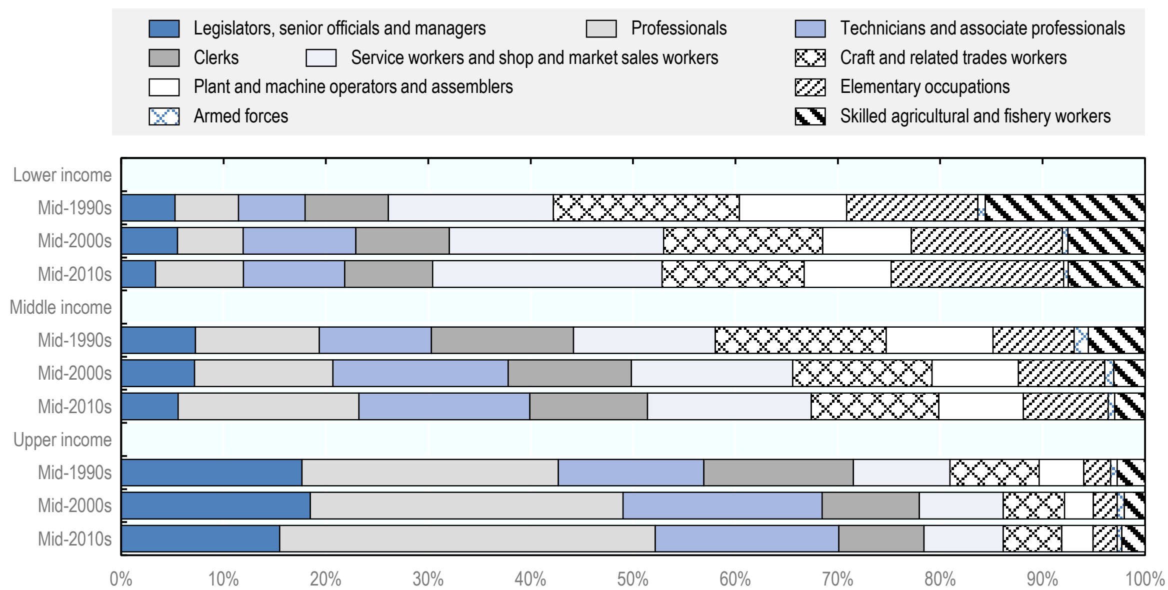
There is no archetypal middle-income job. While lower- and upper-income heads of household fall into only a few occupational groups, the spread is wider in the middle-income class. Professionals, technicians, clerks, service workers, sales people and craft workers account for at least 10% of middle-income heads of household OECD-wide (Figure 3.2). When it comes to the lower-income class, heads of household work chiefly in services and sales, elementary occupations and crafts, while their upper-income peers are mostly professionals, technicians and managers.

Professionals have replaced craft workers as the largest middle-income occupational group. In the two decades to the mid-2010s, the share of professionals grew in all income groups, as did that of technicians. Crafts were actually the biggest occupational group in both the lower- and middle-income classes in the 1990s. By the mid-2010s, however, professionals had taken over that mantle among lower-middle-income workers, and service workers in the lower-income class. Professionals were also the largest occupational group in the upper-income class in the mid-2010s, where they accounted for more than one-third of workers, compared to a quarter 20 years previously.

Figure 3.2. No job is archetypically middle income, but more and more middle-income workers are professionals

The occupational groups that account for the jobs of heads of household in the different income classes

OECD averages, mid-1990s, mid-2000s and mid-2010s



Note: Occupations are based on the ISCO-88 version of the International Standard Classification of Occupations (ISCO).
Source: OECD calculations based on LIS and EU-SILC (see Box 3.1).

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3.2 Labour market polarisation

This section investigates the impact of job polarisation and changes in the labour status of household members on the middle-income class. Job polarisation (the relative decline in the number of middle-skill in comparison to low- and high-skilled jobs) is often deemed to have contributed to the decline of the middle class in OECD countries. The analysis below examines whether and how that perception is true.[2]

3.2.1 Polarisation has resulted in a net shift towards high-skill occupations

Labour markets across the OECD polarised in recent decades. While new technologies replaced workers in many middle-skill routine occupations between the 1990s and 2010s, they created new jobs at both the high and low ends of the skills spectrum (OECD, 2017[1]; Autor, 2015[2]). Recent work by the OECD confirms that in most countries the share of jobs in middle-skill occupations has declined relative to high-skill and low-skill occupations since the mid-1990s (OECD, 2017[1]). The OECD also finds that occupational polarisation is closely associated with changes in the distribution of occupations within sectors, although de-industrialisation (the shift of employment from manufacturing to the services) also plays an important role. Furthermore, polarisation and de-industrialisation both appear strongly related to technological change. Evidence of an association between polarisation and globalisation[3] is weaker, however.

Job polarisation has resulted in a net shift of employment to high skill occupations in most OECD countries. On average across the 21 OECD countries for which data were available (see Box 3.1), middle-skill occupations have lost 8 percentage points in employment shares, while low skill occupations have lost about 2 percentage points and the high skill occupations have gained 10 percentage points (Figure 3.3). Indeed, there was a shift towards highly skilled employment in most countries, with the aggregate share of middle-skill jobs declining in 19 countries, rising only in Mexico and the Slovak Republic. The increase in high-skill jobs offset the decline – except in Greece, Hungary and the United States. In those countries, the greatest climbs came in low-skill occupations, which nevertheless lost labour market shares in a number of other countries, though only in Belgium did they fare worse than middle-skill occupations. Overall, the most common pattern is one of a decline in middle-skill jobs relative to both high and low skill occupations, with most gains made by high-skill jobs.

Box 3.1. Measuring the impact of job polarisation and household working characteristics on the middle-income class

Middle-income class

A household is in the middle-income class when its disposable income is between 75% and 200% of the median household income in a given year and country (see Chapter 2.1.2).

Occupations

The skill content of a job held is defined in accordance with the third version of the International Standard Classification of Occupations – ISCO-88. All countries have over time recoded their occupational classification systems, giving them 2-digit codes that are consistent with ISCO.

- Low-skill workers are those with jobs in sales and services and elementary occupations (ISCO 5 and 9).
- Middle-skill workers hold jobs as clerks, craft workers, plant and machine operators and assemblers (ISCO 4, 7 and 8).
- High-skill workers are those who have jobs in managerial, professional, technical and associated professional occupations (ISCO 1, 2 and 3).

Post-2010 European employment data were mapped from ISCO-08 to ISCO-88 using the following methodology. In order to reconcile the ISCO-2008 classification with ISCO-88, information was collected from the two consecutive waves of the European Union Labour Force surveys between which classification changed. Using fuzzy logic to match individuals, this methodology allows to map the new occupation coding to the old one using a many-to-many mapping technique. Employment data for Canada and the United States were transposed from the respective occupational classifications (SOC 2000) into corresponding ISCO-88 classifications.

Working adults

Working adults are consistently defined as individuals aged 16 to 64 years old who normally work as employees or are self-employed during the income reference period – the year to which the income data refer.

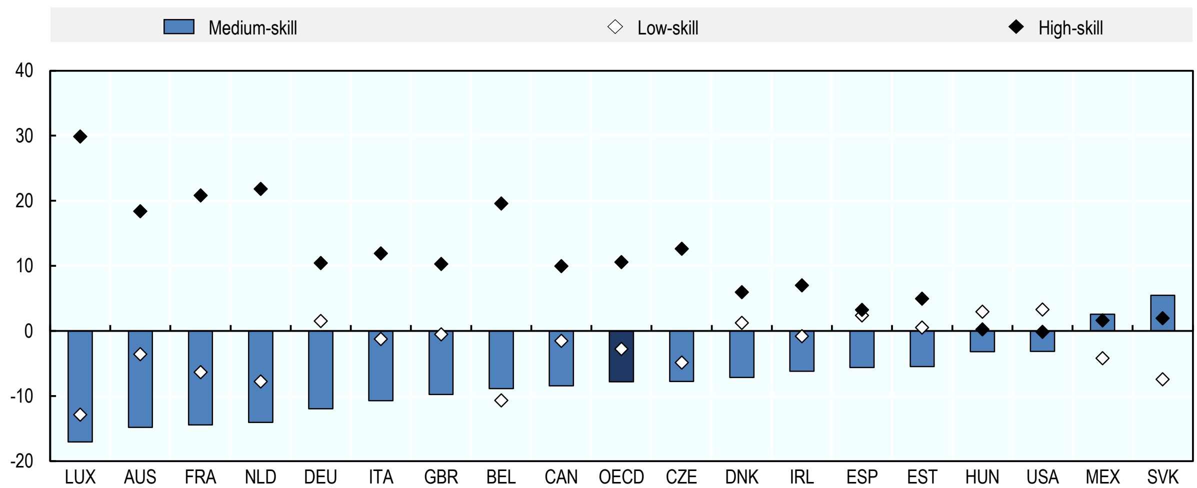
Working households

Working households are those that include at least one working adult and no retired person.

Sources: Estimates are based on data from the Luxembourg Income Study (LIS, www.lisdatacenter.org) for Australia (1995, 2010), Canada (1994, 2010), Czech Republic (1996, 2013), Germany (1994, 2013), Estonia (2000, 2013), Hungary (1994, 2012), Mexico (1994, 2012), Slovak Republic (1996, 2013), United Kingdom (1994, 2013) and the United States (1994, 2013). They are based on data from the European Community Household Panel (ECHP) and the EU Survey of Income and Living Conditions (EU-SILC) for Austria, Belgium, Denmark, Finland, France, Greece, Ireland, Italy, Luxembourg, the Netherlands and Spain. Data for these countries refers to the weighted averages of the 1995-2000 ECHP samples for the mid-1990s, and the 2009-14 EU-SILC samples for the mid-2010s.

Figure 3.3. Jobs polarised in OECD countries between the mid-1990s and mid-2010s

Percentage-point changes in shares of working adults in each skill group



Note: Results at individual level for working adults (Box 3.1).
Source: OECD calculations based on LIS, ECHP and EU-SILC (Box 3.1).

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The net shift in employment to highly skilled jobs is why job polarisation has not led to a generalised decline in the share of workers in the middle-income class. In fact, while the decline in the share of middle-skill jobs has tended to reduce the number of workers in middle-income households, the increase in the share of high-skill jobs in the labour market has had the opposite effect. As a result, the main driver of both rises and falls in the overall share of workers in the middle-income class is not changes in the size of different occupations (i.e. job polarisation), but the fact that the distribution of these occupations across the income classes has changed – even holding their size constant (Manfredi and Salvatori, forthcoming[3]). The generally modest variations in the size of the middle-income class thus mask two very significant developments for policy:

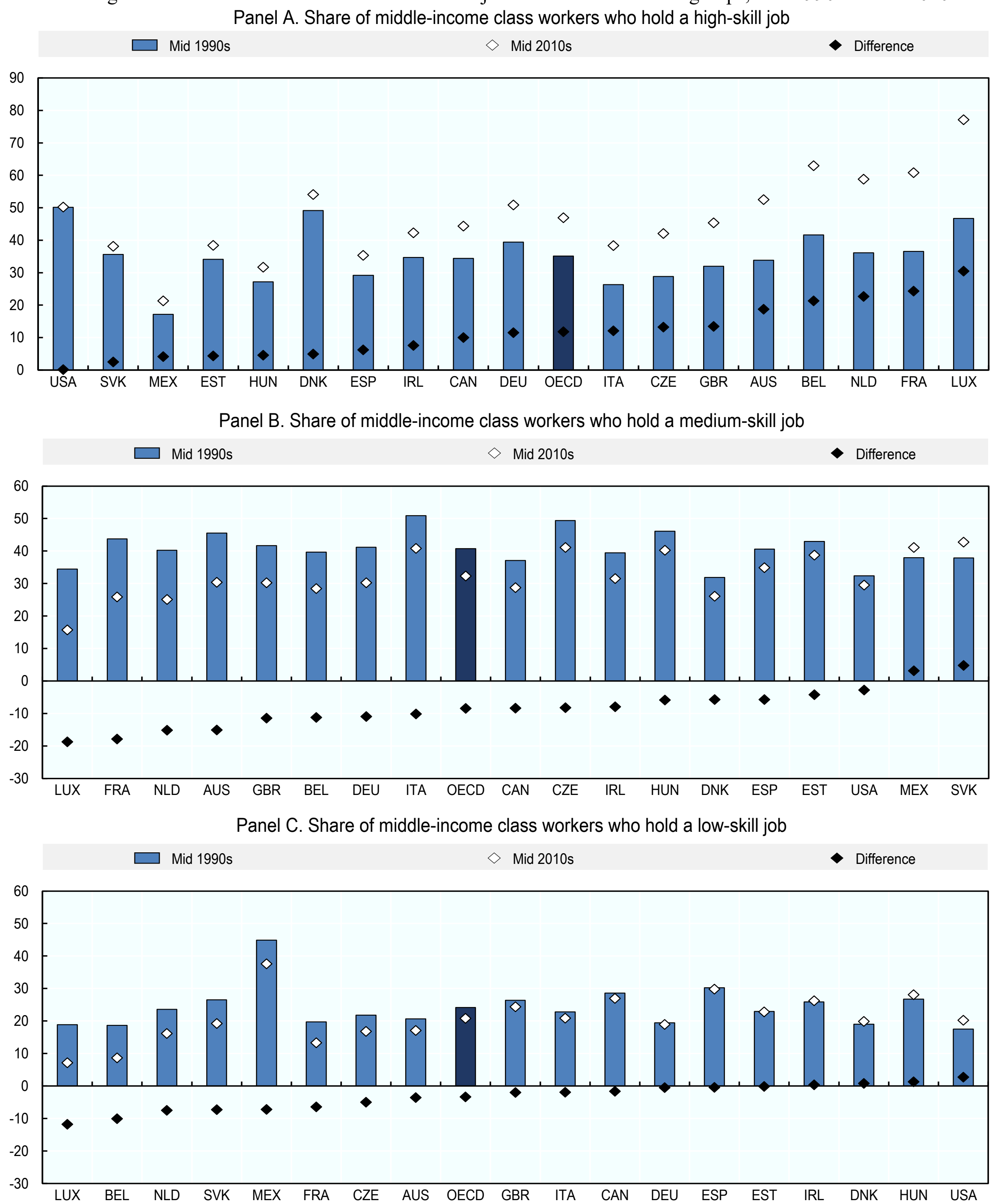
1. The occupational make-up of the middle-income class has changed substantially.
2. The probability that different skill groups are in the middle class has changed over the past two decades.

The skills composition of middle-income workers

High-skilled workers now outnumber the middle-skilled in the middle-income class. Indeed, their share increased in every single country between the mid-1990s and mid-2010s from an OECD average of 35% to 47% (Figure 3.4). And although the rise was part of an across-the-board increase in shares of highly skilled workers, it was particularly pronounced in the middle-income class. One reason was that middle-skill workers struggled increasingly to secure their place in the middle-income class and their highly skilled peers to break into the upper income class. In fact, the share of middle-skilled workers in the middle-income class declined from 41% to 32%. Only in Mexico and the Slovak Republic was there no fall (Figure 3.5).

Figure 3.4. The middle-income class is increasingly highly skilled and less middle-skilled

Changes in shares of middle-income workers with jobs in the different skill groups, mid-1990s to mid-2010s



Note: Results at individual level for working adults (see Box 3.1 for details). Results for lower- and upper-income classes are available in Manfredi and Salvatori (forthcoming[3]).
Source: OECD calculations based on LIS, ECHP and EU-SILC (see Box 3.1 for details).

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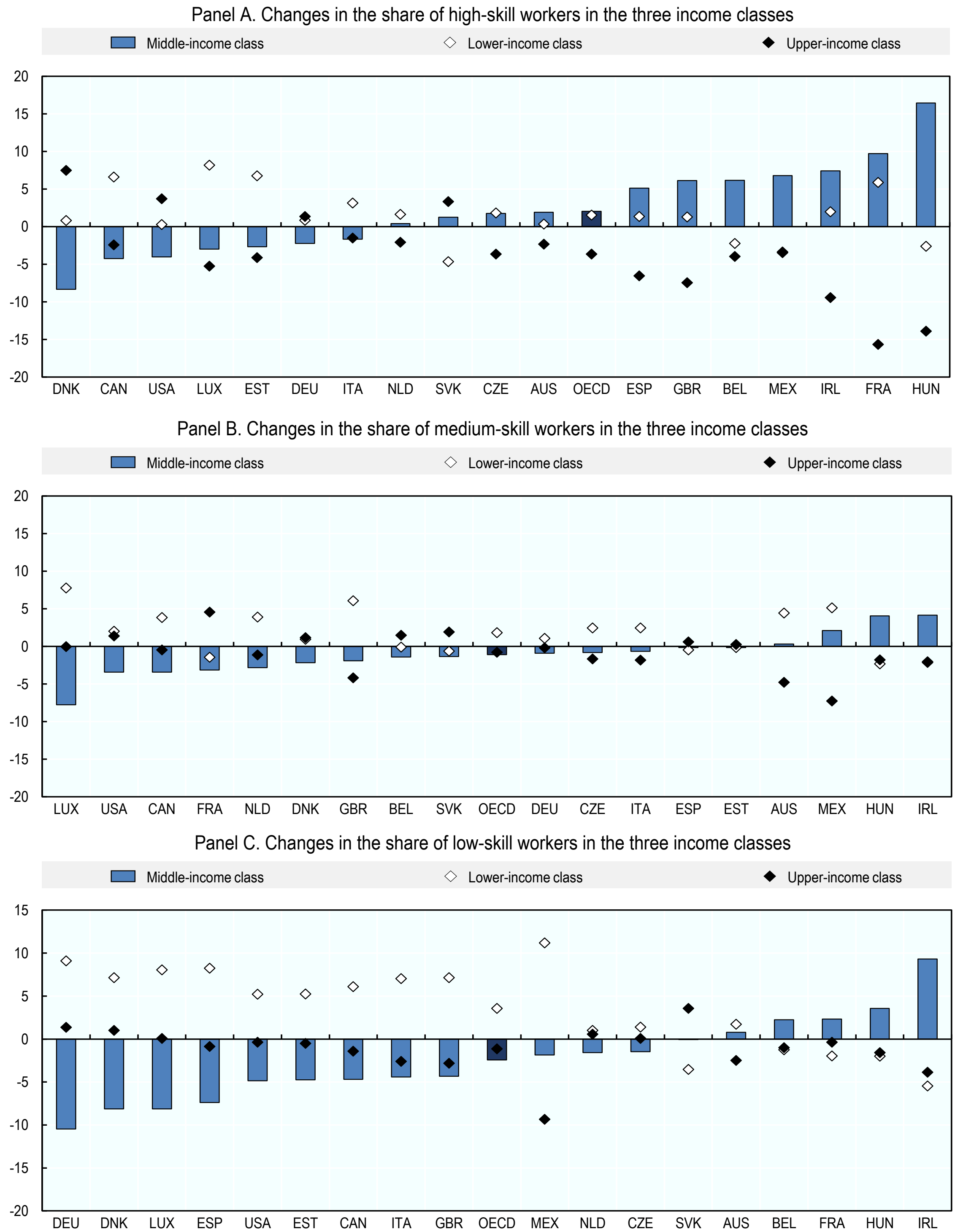
Link between skill levels and income classes are weakening

Skill levels are increasingly failing to yield entry into the income class with which they are traditionally associated. Highly skilled workers, for example, are less and less likely to belong to the upper income class in most countries (Figure 3.5). From one-quarter in the mid-1990s, they accounted for only one-fifth of workers in the class 20 years later. Similarly, although most middle-skill workers live in middle-income households, the likelihood that they are in the lower-income class has increased in 14 countries. In 12 of them, there is a trend of both low- and middle-skill workers slipping into the lower-income class.[4]

Changes in the fortunes of the different skill groups may explain some of the social frustration that has been at the centre of the political debate in recent years. Jobs increasingly fail to yield the income status traditionally associated with their skill levels. In most countries, there are fewer prospects of high-skill workers being in the upper-income class, and of middle and low-skill workers in the middle-income class.

Figure 3.5. Changes in the probability that a skill group belongs to a given income class

Percentage point changes between the 1990s and 2010s



Note: Results at individual level for working adults (see Box 3.1 for details).
Source: OECD calculations based on LIS, ECHP and EU-SILC (see Box 3.1 for details).

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3.2.2 Changing patterns in working households

Labour-market and demographic changes have significantly modified the occupational make-up and employment status of middle-income households.

More single adults and fewer single-earner couples in the middle-income class

Middle-income working households increasingly comprise single adults, while the share of couples with two earners remains much the same and that of single-earner couples has fallen. Those trends largely reflect changes in the composition of households in all income classes. Single-adult households make up a growing proportion of the middle-income class in most countries, with the average proportion rising from 30% to 37% between mid-1990s and mid-2010s (Figure 3.6).

The share of single-earner couples in the middle-income class has dwindled. From almost one-quarter it has dropped to less than one-fifth, with particularly steep declines in Luxembourg, Mexico and Spain. In fact, only in five countries do single-earner households account for more than one-fifth.

The share of dual-earner couples in the middle-income class has, on average, remained stable, though trends vary from country to country. In Denmark, the Czech Republic and Belgium, it fell considerably, but rose sharply in Austria, Mexico and Spain.

Skills and income levels in dual-earner households

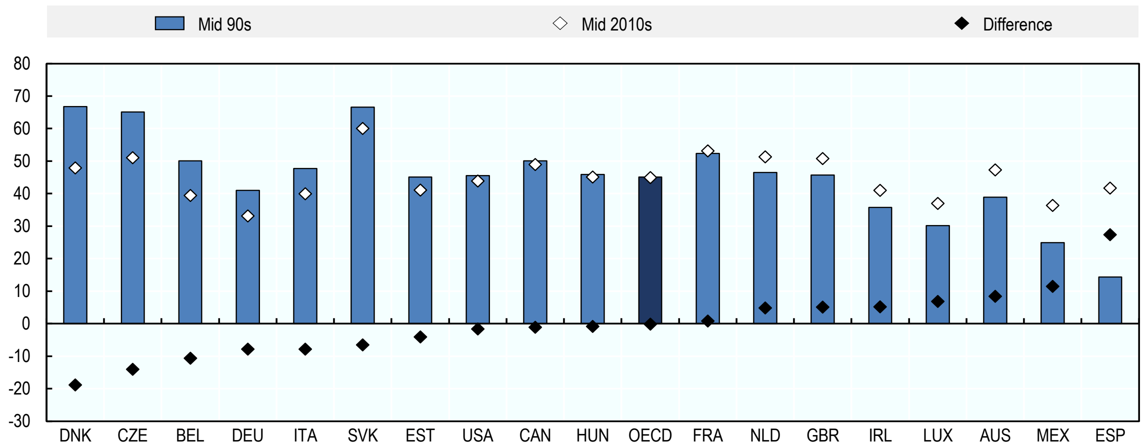
Dual-earner households where one or both workers are highly skilled are more likely than two decades ago to be middle income – chiefly because they are increasingly less likely to be in the upper-income class. The probability of dual-earner households being in the middle-income class depends on skill level, but varies from country to country and over time. OECD-wide, those where one or both members are highly skilled have a greater chance of being middle income and less of belonging to the upper-income class than in the mid-1990s (Figure 3.7, Panel A). However, some countries buck that trend. In Denmark and the United States, dual-earner couples where one or both workers is highly skilled are now more likely to be upper than low income. As for Canada and Estonia, the probability of their being middle income has fallen, as they stand a greater chance of being in the lower-income class.

On average across OECD countries, couples without high-skilled workers are as likely as being middle-income as two decades ago, they more likely being lower income and less likely being upper income (Figure 3.7, Panel B). In five countries, they are more likely to be middle income, though in all five (save Italy) it is because fewer are in the upper-income class. Only in Austria and Belgium is there a higher probability than in the past that dual-earner couples who are not highly skilled belong to the upper-income class.

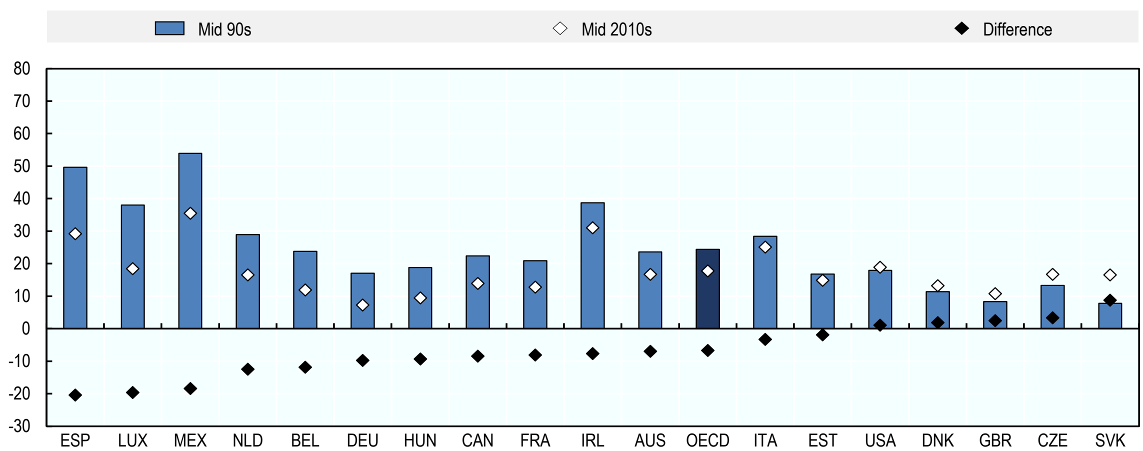
Figure 3.6. There are more single-adults and fewer single-earner couples in the middle-income class

Shares of working household types in the middle income class, mid-1990s to mid-2010s

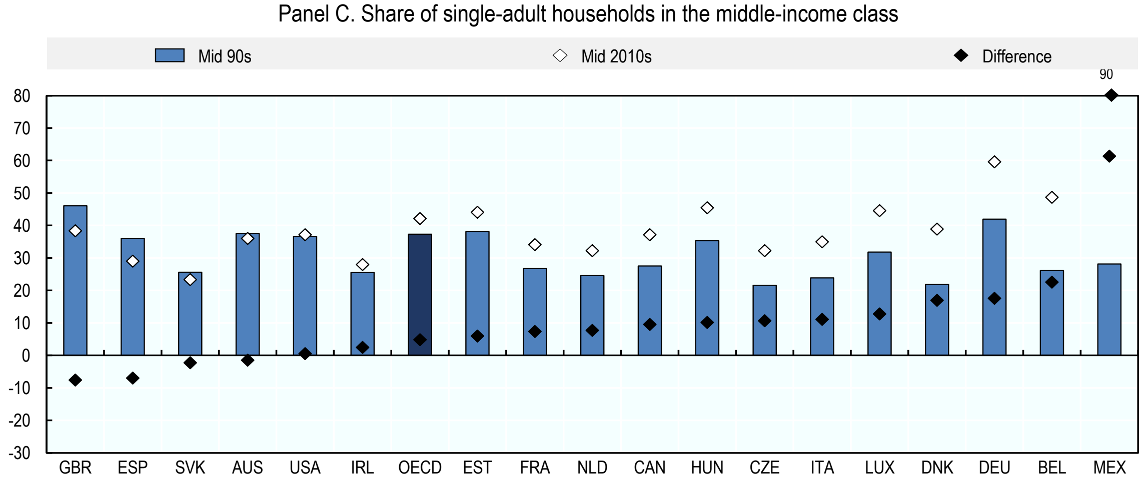
Panel A. Share of dual-earner couples in the middle-income class



Panel B. Share of single-earner couples in the middle-income class



Panel C. Share of single-adult households in the middle-income class



Note: Results at household level for working households (see Box 3.1 for details). Results for lower- and upper-income classes are available in Manfredi and Salvatori (forthcoming[3]).

Source: OECD calculations based on LIS, ECHP and EU-SILC (see Box 3.1 for details).

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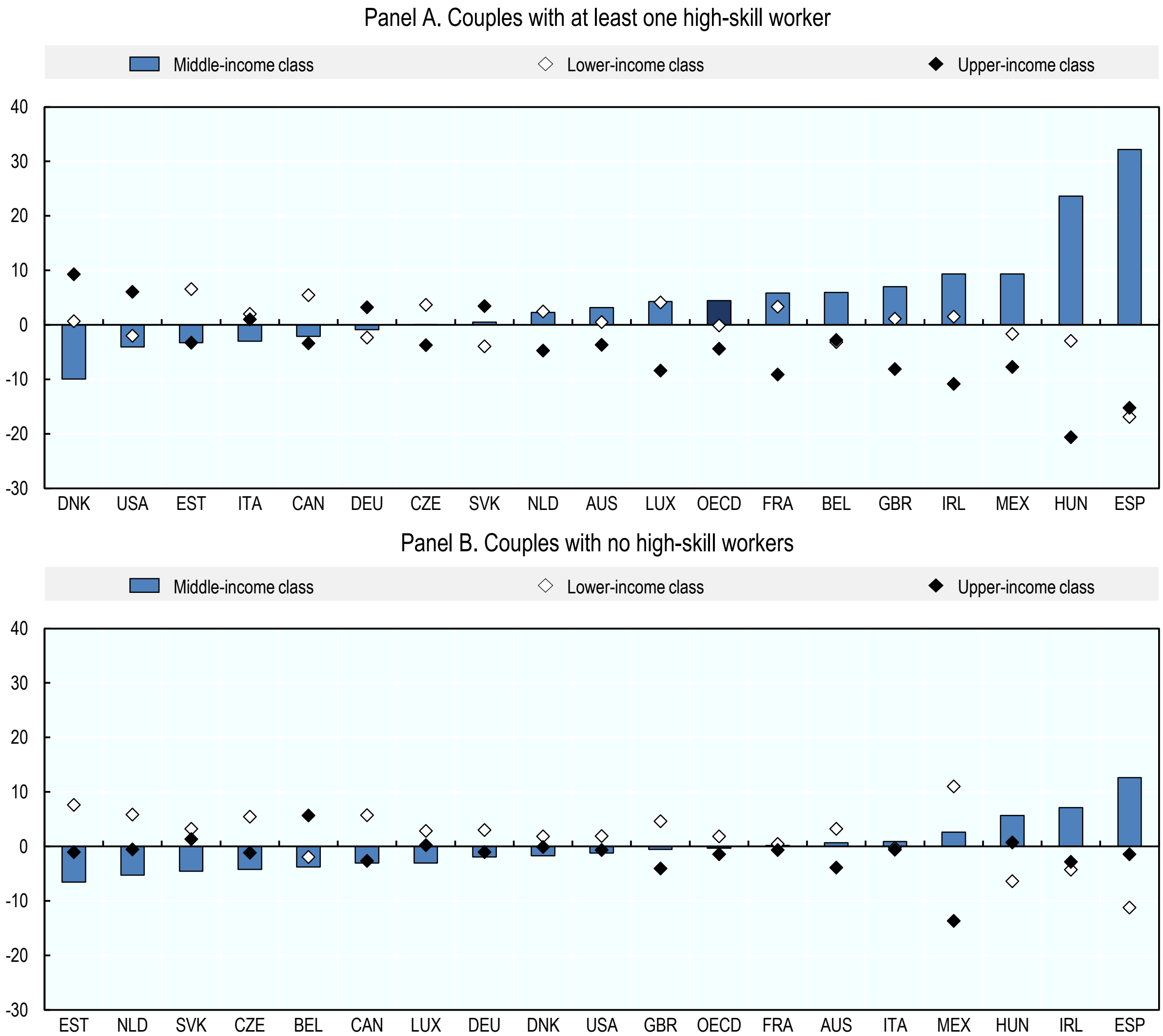
Figure 3.7. Dual-earner couples where one or both workers are highly skilled have fared better than those with lower skill levels

Percentage point changes between the 1990s and the 2010s



Note: Results at household level for working households (see Box 3.1 for details).
Source: OECD staff calculations based on LIS, ECHP and EU-SILC (see Box 3.1 for details).

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3.3 Wage distribution

This section considers how job polarisation has affected the distribution of wages. It looks into changes in the wage distribution, particularly how wages in the middle have evolved compared to those at the bottom and top of the distribution.

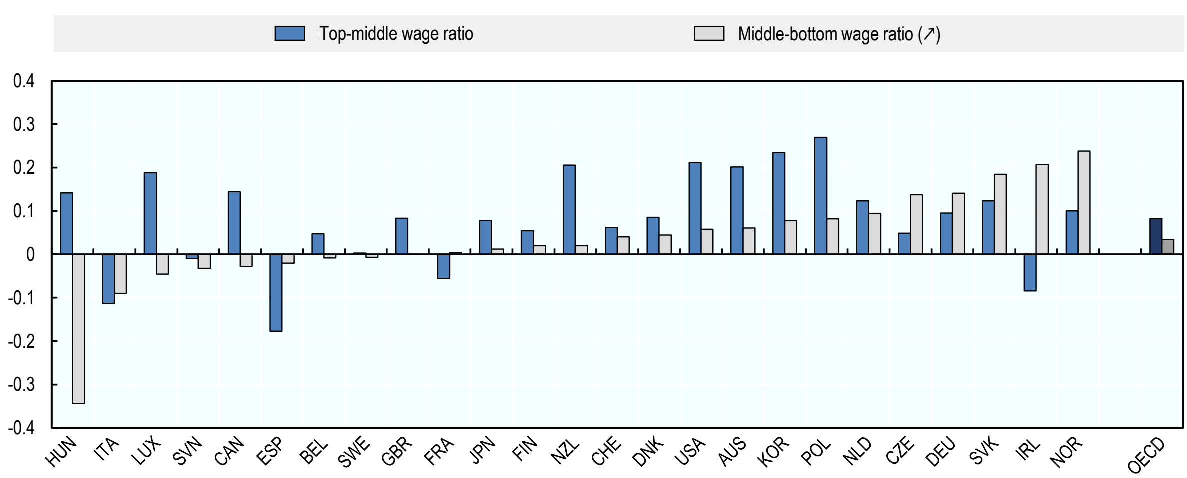
Job polarisation has led to wage inequality rather than wage polarisation. In most labour markets where polarisation has taken place, wages have increased fast at the top but not at the bottom of the distribution. In the majority of OECD countries, the gap between mid-scale and low wages has either remained unchanged or widened (Figure 3.8). Wages, therefore, have not polarised – i.e. grown less in the middle than at the bottom and top of the scale. Instead, they have become more unequal – i.e. risen faster at top pay levels.[5]

In the United States, top pay levels have been increasing faster than at the middle since the 1980s, making the wage distribution more unequal (Spletzer and Handwerker, 2014[4]; Verdugo, 2014[5]). Only in the 1990s did wages polarise. In comparison to those in the middle of the distribution, wages at the bottom fell in the 1980s and remained flat in the 2000s (Acemoglu and Autor, 2011[6]; Autor, 2015[2]). Low productivity growth and very elastic labour supply could be one reason why, compared to middle-skill occupations, the number but not the wages of lower-skilled occupations has grown (Autor, 2015[2]). Evidence from OECD countries has also found more widespread and substantial rises in upper- than in lower-tail inequality (Atkinson, 2008[7]).

Recent evidence from European countries suggests that "occupational dynamics did not drive developments in wage inequality in the last decade". Despite substantial changes in the occupational structure of employment in the wake of the global financial crisis, most changes in wage inequality between 2005 and 2014 stemmed from changes in the distribution of wages within rather than between occupations (Eurofound, 2017[8]).

Figure 3.8. Wages have become more dispersed than polarised

Absolute difference in top-to-middle (upper tail) and middle-to-bottom (lower tail) wage ratios, between 2000 and 2014



Note: "Top-middle wage ratio" is the ratio between upper wage in the ninth decile and the median wage. "Middle-bottom wage ratio" is the ratio between the median wage and the upper wage in the first decile.
Source: OECD Earnings Database.

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3.4 Non-standard work and middle-class security

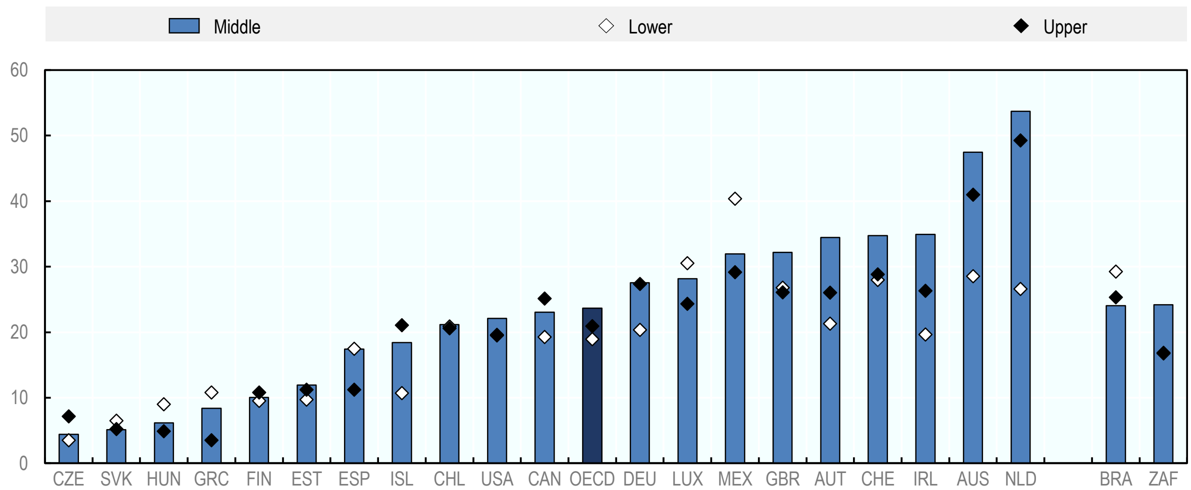
The spread of non-standard forms of work in the labour market may increase the sense of insecurity and anxiety in the middle-income class. Non-standard work includes temporary, part-time and self-employment. Although it affords greater flexibility in working arrangements, it provide less employment protection, fewer social rights, less training opportunities and lower earnings predictability – all associated with the preferences of the middle class. This section looks into how trends in part-time work and self-employment have affected the middle-income class.[6]

Part-time workers are seldom the heads of middle-income households. Of 17 OECD countries with available data, only 8% of middle-income working households are headed by part-time workers (Figure 3.9). The share is greater in the poor and low-income classes and smaller among upper-income households. Part-time workers head a large share of middle-income households in the Netherlands, Ireland, Austria, Switzerland, Germany and Israel. And in the Netherlands, the share of households headed by part-time workers is greater in the upper-income class than in any other. In emerging economies, the incidence of poor households headed by part-time workers is particularly high – more than one in five in Russia and South Africa and one in three in Brazil.

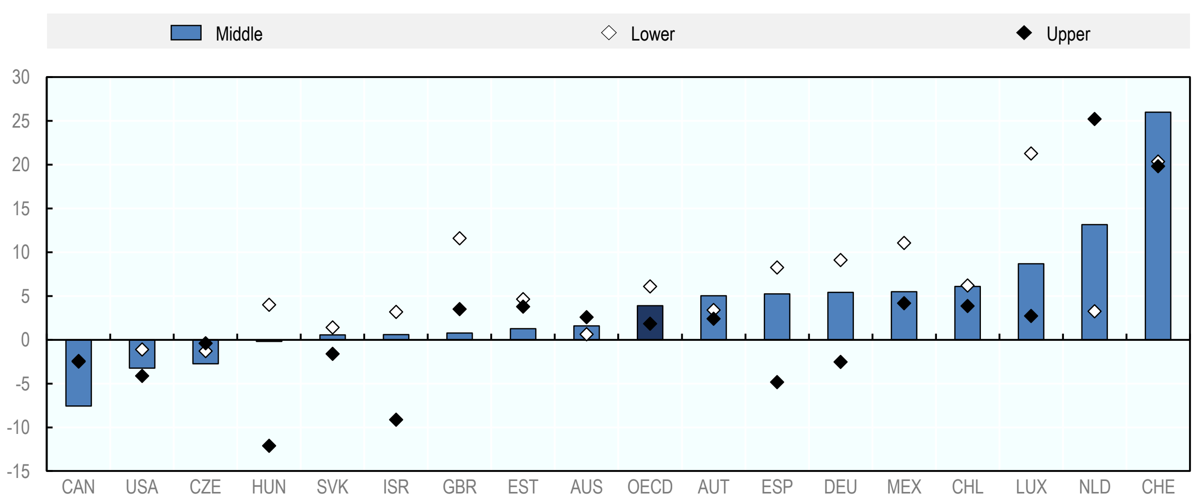
Part-time workers head more middle-income households than three decades ago. The share of people living in middle-income households where the main earner is a part-time worker has more than doubled in the last three decades. In the 15 OECD countries with available data, the average share rose from 3% to 7.5% between the mid-1980s and mid-2010s. In the Netherlands, Switzerland and Ireland, the likelihood of part-time workers heading middle-income households climbed by 10 percentage points or more. By contrast, it barely changed in Canada, Czech Republic, Hungary, Mexico and the Slovak Republic.

Figure 3.9. The share of part-time workers in middle-income households has increased

Panel A. Probability that a household is headed by part-time workers, by income class and country (mid 2010s).



Panel B. Changes in the probability of households being headed by part-time workers, by income class and country, between mid 1980s and mid 2010s.



Note: Poor: below 50% median income. Lower: between 50% and 75%. Middle: between 75% and 200%. Upper: above 200%.
Source: OECD calculations based on LIS, ECHP and EU-SILC (see Box 3.1 for details).

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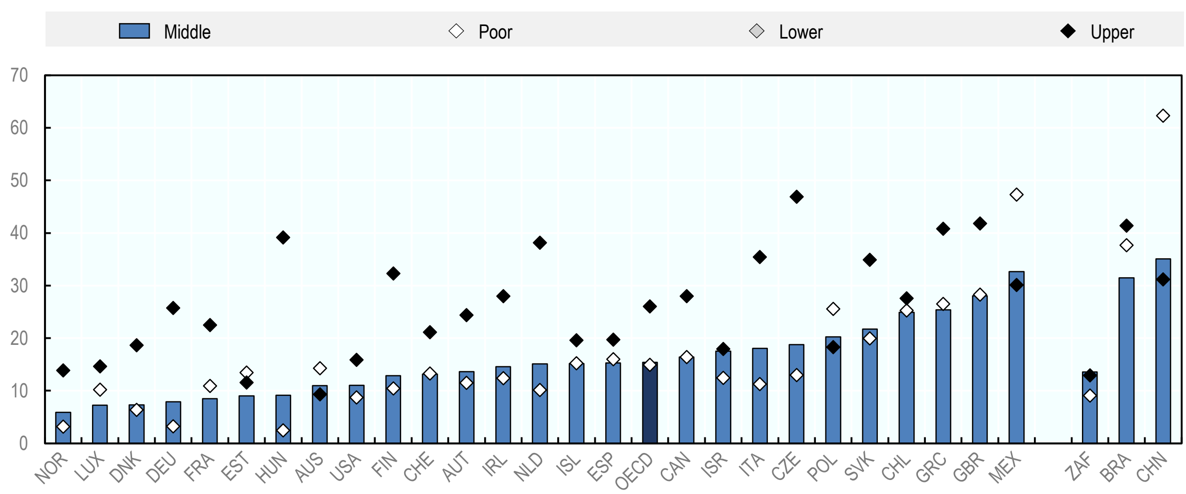
The self-employed account for a sizeable share of working middle-income households, though shares are greater in poor and upper-income households. In the 21 OECD countries with available data, the self-employed head 9% of middle-income households (Figure 3.10), ranging from less than 4% in Estonia to almost 20% in Mexico. The share is higher in poor households at 12% and a particularly high at 21% in the upper-income class. As for lower-income households, 7% are headed by self-employed workers.

In some emerging economies, a considerable share of middle-income households are headed by the self-employed. In Brazil and China, for example, shares exceed least 20%, though they are lower in Russia and South Africa.

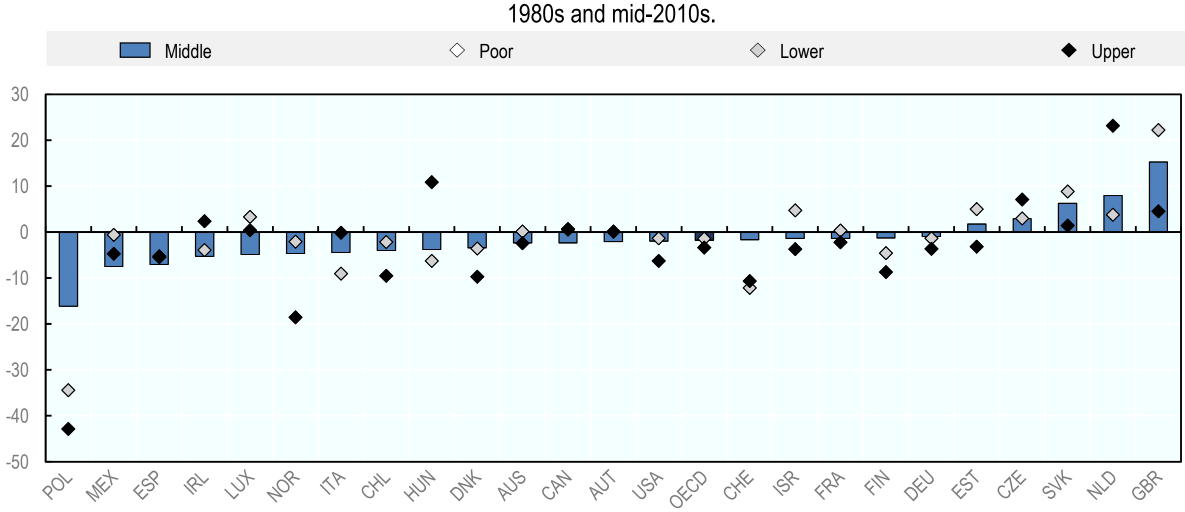
In most countries, fewer self-employed workers head middle-income households than three decades ago. In the 20 OECD countries with available data, the average share of middle-income households headed by self-employed workers fell by 2 percentage points between the mid-1980s and mid-2010s. The fall was particularly steep in Ireland, Italy, Mexico, Norway and Spain. Only in Austria did the share increase considerably.

Figure 3.10. Shares of the self-employed among heads of middle-income households have fallen

Panel A.Probability that heads of households are self-employed, by income class and country (mid 2010s).



Panel B. Changes in the probability of households headed by self-employed workers, by income class and country, between mid-1980s and mid-2010s.



Note: Poor: below 50% of the median income. Lower: between 50% and 75% of the median income. Middle: between 75% and 200% of the median income. Upper: over 200% of the median income.
Source: OECD calculations based on LIS, ECHP and EU-SILC (see Box 3.1 for details).

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3.4 The future of middle-class jobs

Rapid innovation in automation and digitalisation is fuelling fears that technology will generate massive unemployment in the future. This section assesses the risks of automation and employment prospects for the current occupations of middle-income workers. While not forecasts,[7] the assessment does seek to illustrate and provide pointers as to the potential level of labour market change in future decades among current middle-income workers.

3.4.1 Risk of automation for current middle-income jobs

People are increasingly anxious over the impact of technology on employment (Mokyr, Vickers and Ziebarth, 2015[9]). According to a national survey by the Pew Research Center (2016[10]), two-thirds of middle-income American families expect that, within 50 years, robots and computers will "definitely" or "probably" do much of the work currently performed by humans. In Europe, more than two-thirds of the population think that robots and artificial intelligence will destroy more jobs than they create (European Commission, 2017[10]).

Technological innovation has contributed to employment growth both historically and in recent times. One reason is that recent technological change has created new jobs, such as webmasters and software designers. A United States study found that, in the last three decades, employment growth has been greater in occupations with more new job titles (Acemoglu and Restrepo, 2016[11]). More importantly, and depending on the precise features of the labour and product markets affected, technological change tends to improve productivity, which spells higher incomes and lower prices (Bessen, 2018[12]; Acemoglu and Restrepo, 2018[13]). They, in turn, increase demand for products and services in the economy, ultimately generating greater labour demand even in sectors not directly affected by innovation (Autor and Salomons, 2018[14]).

The changes in the nature and organisation of work brought about by technology may, however, worsen inequalities. This happens if technology reduces the demand for skills that are abundant in the labour force and increases the demand for scarcer ones. Until the mismatch between the demand and supply of skills is solved, new jobs may widen the wage gap and squeeze middle-income workers (Zia, 2017[15]).

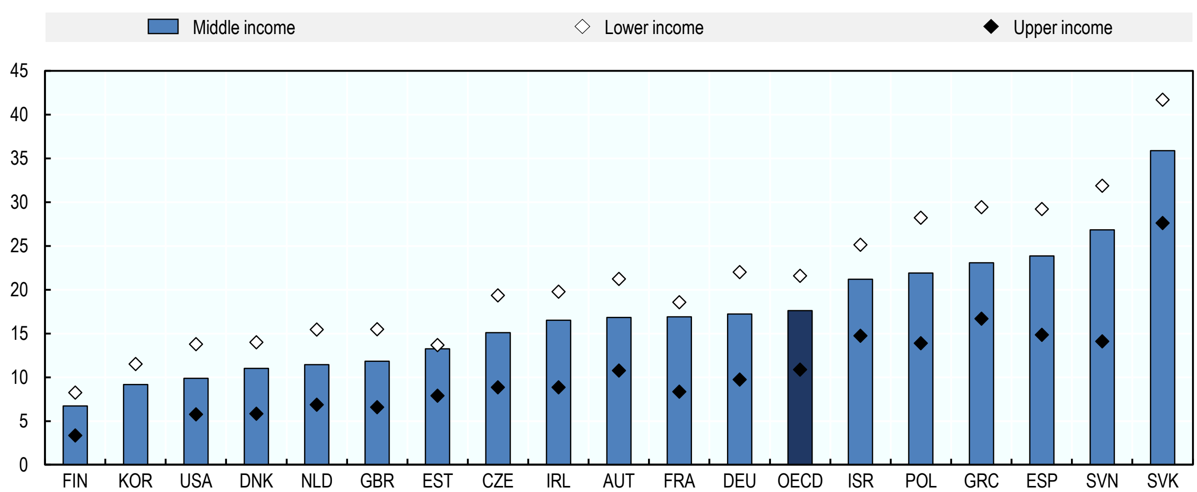
It is, therefore, important to understand the extent to which the jobs held by workers in the middle-income class are prone to shifts in demand stemming from future technological advancements. To assess the number and nature of jobs likely to be affected in coming decades, a number of country-specific studies have built on experts' predictions as to what occupations could most easily be automated in the future (e.g. (Brzeski, Carsten; Fechner, 2018[16]; Frey and Osborne, 2017[17]) Of course, whether they actually will be automated will depend on a set of factors that go beyond technology alone, including some that are shaped by policy, such as the availability of skills and wage dynamics. Nevertheless, such studies do provide valuable insights into the extent to which future technological developments are likely to put pressure on the middle-income class.

Recent OECD estimates suggest that, OECD-wide, a typical job has a 47% chance of being automated (Nedelkoska and Quintini, 2018[18]). For 14% of jobs, the risk is high – over 70% – while for the other 33% it ranges between 50% and 70%.[8] Those most prone to automation are routine jobs with low skill requirements and wages. The workers who are most at risk are the low-skilled and young, while those least at risk cover a broad spectrum – from professionals to social workers. As for countries, the share of jobs at high risk of automation ranges from 33% in Slovakia to around 6% in Norway. Generally speaking, jobs are less automatable in the Netherlands and English-speaking and Nordic countries than in Eastern and Southern Europe, Germany, Chile and Japan (Nedelkoska and Quintini, 2018[18]).

In the 18 OECD countries with available data, an average of 18% of workers currently in the middle-income class work in occupations at high risk of automation. That figure is somewhat less but rather close to the 22% in the low-income class but much higher than the 11% of upper-income earners (Figure 3.11). As for countries, Greece, Israel, Poland, the Slovak Republic, Slovenia and Spain have at least one in five middle-income workers in occupations at high risk of automation. In Finland, Korea and the United States, however, the ratio is lower than one in ten.

Figure 3.11. One in six current middle-income jobs are at high risk of automation

Share of workers in occupations at high risk of automation, by income class



Note: The risk of automation is calculated as the average risk of automation by occupation, weighted by the share of each occupation in the income class.
Source: OECD calculations based on LIS and PIAAC.

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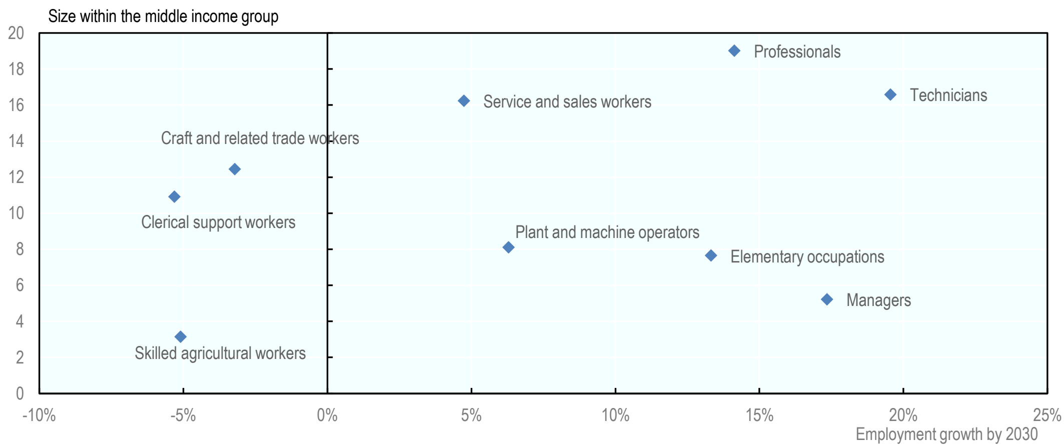
3.4.2 Middle-income employment prospects

To complement of the risk of automation addressed above, this section describes employment growth prospects for the *current* occupations of middle-income workers. Projections by income group (measured using the current occupational structure) show that employment is likely to improve in some sectors, but fall or slow down in others.

Projections for European countries suggest that employment growth will differ considerably from occupation to occupation in the years to 2030.[9] Employment will grow considerably in the more highly skilled occupations and fall in those where skill requirements are lower. About half of middle-income workers – technicians, managers and elementary workers – are in occupations likely to undergo strong employment growth (Figure 3.12). By contrast, a quarter of middle-income workers – such as plant and machine operators and service and sales workers – may look forward to limited growth only. Another quarter, who work in craft and related trades and clerical support, are in occupations that can expect large employment losses.

Figure 3.12. Middle-income workers look forward to different employment prospects

Employment prospects by occupation and occupation's share of middle-income class employment



Source: OECD calculations based on LIS and Cedefop Employment Forecasts to 2030 (http://www.cedefop.europa.eu/en/publications-and-resources/data-visualisations/skills-forecast)

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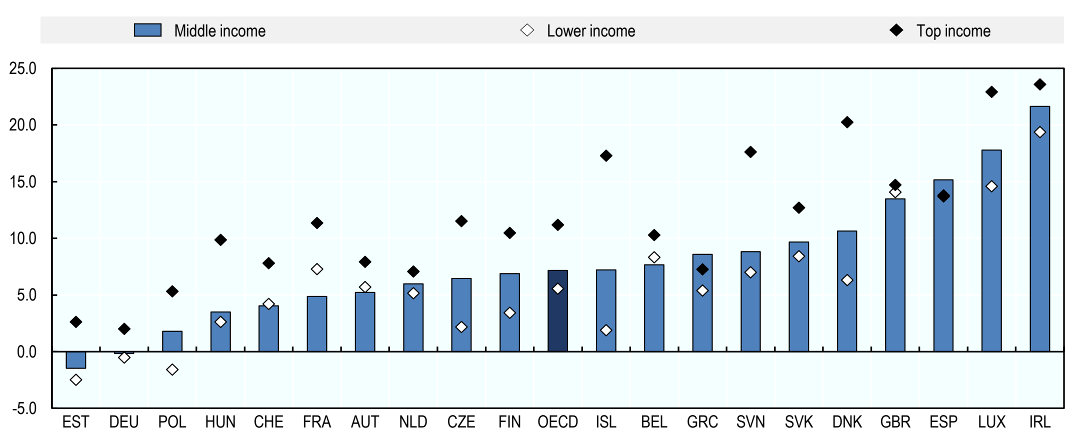
Overall, the current occupations of middle-income workers enjoy positive employment prospects. Projections point to their growing by an average of 7% in the years to 2030 (Figure 3.13). In Denmark, Ireland, Luxembourg, Spain and the United Kingdom, employment in the current occupations of middle-income workers could grow by 10% or more. Only in Estonia and Germany does it have negative prospects.

Figure 3.13. Employment prospects for the current occupations of middle-income workers are positive

Employment growth weighted average by current occupation of each income class



Note: The employment prospects are calculated as the average employment prospect by occupation, weighted by the share of each occupation in the income class.
Source: OECD calculations based on LIS and Cedefop Employment Forecasts by 2030 (http://www.cedefop.europa.eu/en/publications-and-resources/data-visualisations/skills-forecast)

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Upper-income occupations have even better employment prospects. Average projected growth is 11% and is particularly high in Denmark, Iceland, Slovenia and the Czech Republic. Employment prospects in the current occupations of low-income workers are also positive, although projections point to a lower OECD average growth rate of 6%. In Estonia, Germany and Poland, they actually suggest a fall in employment. The employment prospects for the current occupations of low-income workers are far dimmer than those of their middle-income peers in most countries. Only in France do low-income workers' current occupations enjoy considerably brighter prospects than middle-income workers.

3.5 Conclusion

The relation between income class and work status has changed considerably in the last three decades. Fewer workers head households in the middle-income class, as more workers are either lower or upper income than before. Not working worsens income-class prospects far more than 30 years ago among people of working age. Considerably fewer working-age people who are out of work can now provide their households with middle-income living standards.

There is no archetypal middle-income occupation. While lower-income workers are employed chiefly in a few lower-skilled occupations and their upper-income peers in highly skilled ones, middle-income earners are spread across several occupations.

All income classes have experienced up-skilling, as job polarisation has resulted in a net increase in shares of high-skilled jobs in most countries. However, the share of high-skilled workers has grown more in the middle-income than in the other classes because middle-skill workers have become less likely to enter the middle-income class and highly skilled workers less likely to make it into the high-income class. Some jobs are increasingly failing to yield the income status with which they have traditionally been associated. In spite of such changing trends, however, workers in highly skilled jobs are still much more likely to enjoy higher incomes and standards of living.

Moreover, a dual-earner household is no longer in itself an effective way of bringing households into the middle-income class, as couples who are only low- and/or middle-skill workers are increasingly finding themselves in the low-income class.

When it comes job polarisation, most countries therefore grapple not so much with a "middle class" problem as with a "middle skill" problem, as workers with that skill level are now less likely to be in the middle class. Such a shift may help explain some of the social frustration at the centre of political debate – even in countries where the size of the middle class has remained stable.

Encouraging and supporting skills acquisition is still a policy that is fundamental to raising workers' standards of living. Active labour market policies can play a crucial role to that effect, while ensuring young people are more fully equipped with the skills needed by employers and better able to learn new skills as their careers unfold. Redistribution policies, too, have a part to play in preventing further rises in the proportion of workers excluded from the ranks of the middle class.

Skills acquisition is also essential if workers are to be prepared for the upcoming changes and challenges in the labour market. Employment projections for the next years and estimates of the risks of automation in coming decades suggest that highly skilled occupations will do considerably better than those that require middle and low skills.

Fiscal policies need to adjust to the changing relationship between occupations and household income status. There is a particular need to adapt the design of taxes and social transfers, including in-work benefits, to give middle- and low-skilled workers incentive to upskill and avert the growing risk of slipping into the low- and very-low-income classes.

Notes

[1] See Box 3.1 for the definition of skill groups (low, middle and high).

[2] This section focuses on the implications of changes in the demand for different types of jobs (i.e. job polarisation) for the middle-income class. See OECD (2019[35]), instead, for an analysis of how the chances of different workers (by gender, age and education) to access jobs of different pay levels have been changing as labour markets continue to polarise. The main conclusion in OECD (2019[35]) is that the young with less than tertiary education emerge as a group that has seen a considerable deterioration in their labour market outcomes in recent years (2006-16). In particular, across the OECD, they have seen an increase in the probability of being neither employment nor in education as well as an increase in the probability of low-paid employment.

[3] The OECD study measures globalisation against the yardsticks of involvement in global value chains and penetration of Chinese imports (OECD, 2017[1]).

[4] Further analysis zooming into the years of the recession and its immediate aftermath (2007-13) shows that the shift of high-skill workers away from the upper-income class was not particularly pronounced. By contrast, middle-skill workers saw a more rapid decline in the probability of being in the middle-class. Finally, the recession also accelerated the shift of low-skill workers into the lower-income class (Manfredi and Salvatori, forthcoming[3]).

[5] While wages have not polarised, job polarisation has seen middle-wage workers increasingly transitions into non-employment and low-skilled employment (Lordan and Neumark, 2018[32]; Cortes, Jaimovich and Siu, 2017[33]).

[6] Due to lack of data, temporary contracts are not analysed.

[7] Projections for current middle-income occupations are not forecasts of the future employment prospects of middle-income workers, as they do not account, among other things, for two important dimensions. First, middle-income workers may change their current jobs and, in doing so, switch occupations. Second, workers profiles change with differences in the skill levels and occupations of those entering and leaving the labour market.

[8] These figures are computed following an approach based on characteristics of occupations (Frey and Osborne, 2017[17]), which takes into account the heterogeneity of tasks within occupations. For each occupation, a score that measures the likelihood of automation is computed from a set of required skills. For instance, the inclusion of dexterity increases the automation score. The ability to advise others or plan the work of others reduces the automation score. Studies that take a similar approach have estimated automation scores for Germany (Brzeski and Burk, 2015[26]), European countries (Bowles, 2014[27]) and developing countries (World Bank, 2016[28]).

[9] For European projections, see www.cedefop.europa.eu/en/publications-and-resources/data-visualisations/skills-forecast.

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Chapter 4. The rising cost of the middle-class lifestyle

This chapter examines how the living standards of the middle class have evolved over recent decades. It also assesses the contribution of middle-income households to aggregate consumption in the economy, in comparison to its shares of total population and income and those of the lower- and upper- income classes. The chapter then examines to which items middle-income households allocate their budgets. It goes on to consider how middle-income household spending has increased relative to income, what consumption categories have driven that increase, and to what extent prices have been an influencing factor. Finally, it considers the ability of middle-income households to afford their standard of living, their exposure to financial vulnerability and their over-indebtedness.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Introduction and key findings

A middle-class lifestyle is typically associated with certain goods, services and living conditions, such as decent housing, good education, and sound health and a wholesome environment (Box 4.1). However, the prices of some of those goods and services have risen much faster than general inflation. In the last two decades, higher education and house prices in particular have outpaced CPI inflation and household median income.

This chapter gathers cross-country evidence on the extent to which the living standards of middle-income households[1] have been squeezed in recent decades. Section 4.1 assesses the contribution of middle-income households to aggregate consumption in the economy, relative to its share of total population and income, and in comparison to the lower- and upper-income classes. Section 4.2 examines how middle-income households allocate their budget across categories of consumption. Section 4.3 considers how middle-income households' spending has increased relative to their incomes, what consumption categories have driven that increase and to what extent prices have been a factor. Section 4.4 considers the ability of middle-income households to afford their standard of living, their exposure to financial vulnerability and over-indebtedness. The final section presents concluding remarks.

From the analysis and evidence in this chapter, the following findings emerge:

- Middle-income households contribute more than any other income group to aggregate consumption in the economy. With almost two-thirds of total consumption, middle-income households are by far the income group that accounts for the highest share of consumption. Shares range from 50% or below in the United States, Southern European and Latin American countries to 70% or above in the Nordic countries and Slovakia. Middle incomes are the only class whose share of expenditure is larger than both its shares of income and its share of population.
- Middle-income households' expenditure increased faster than their incomes prior to the global financial crisis, plummeted between 2007 and 2010, and has remained stagnant since then. Like other recessions, the Great Recession saw a steep decline in the middle-income spend on durables. Unlike previous recessions, however, there was also a fall in middle-income spending on non-durables, especially services.
- Core goods and services make up the bulk of middle-class spending. Middle-income households spend more than half of their budget on core items such as housing, food, clothing, health and education. Leisure spending (including recreation, culture, hotels, restaurants and alcohol) accounts, on average, for 12% of middle-class budget.
- Almost one-third of the budget of the average middle-income household goes to housing, on average across OECD countries. Imputed rents on owned homes are their single largest expenditure, as most middle-income households are homeowners. Food and clothing account for slightly less than one-quarter of the budget of the average middle-income household in OECD countries.
- Housing has been the main driver of rising middle-class expenditure. Its share of middle-income budgets increased OECD-wide from one-quarter to almost one-

third between 1995 and 2015. Furthermore, house prices have grown twice as fast as inflation and one-and-a-half times faster than the household median income.

- Middle-class households assign an increasing share of their budget to private health-related expenses as they spend more on out-of-pocket and private health insurance.
- In some countries, the rising costs of higher education threaten the ability of the middle-income class to send their children to university, as they have increased faster than inflation and median incomes.
- In addition to rising prices, changes in consumption preferences can explain some of the shifts in middle-income budget expenditures. In fact, some middle-income households seek to match the spending patterns of high-income households. So, as the rich get richer, the middle classes spend more and more.
- As living costs have increased and expenses grown faster than incomes, many middle-income households find themselves struggling to make ends meet, grappling with financial vulnerability, and even dissaving (i.e. spending more than they earn). Furthermore, a considerable share of middle-income households have excessive debt – one in eight hold debt that is greater than three-quarters of their assets.

Box 4.1. The standard-of-living approach

Most studies into the middle class use income-related indicators. This is in line with the so-called "resource-based" concept of economic well-being, according to which income is a fundamental determinant of a household's economic situation. An alternative concept is "standard-of-living". It is based on consumption-related indicators, which claims that a household's use of resources is more representative of its ability to satisfy its needs than the resources themselves.

At the core of the distinction between these two approaches are two important notions of economic theory – the permanent income hypothesis (Friedman, 1957), and the life-cycle hypothesis (Modigliani and Brumberg, 1954). According to the permanent income hypothesis, individuals attempt to keep consumption relatively smooth over their lifetime, basing their consumption decisions on what they consider their permanent long-term income will be rather than on their current income. In the same vein, the life-cycle hypothesis suggests that individuals plan their consumption and savings over their life cycle, smoothing out fluctuations in income in each phase of the cycle. According to these hypotheses, any income changes perceived as temporary will not induce significant consumption changes. Measures based on current income thus yield an assessment of transitory changes to economic well-being, while measures based on consumption will be more representative of long-term economic well-being.

Despite the strong conceptual case for a joint analysis of income and consumption, there are very few examples in the literature of an analysis of this type. This is related largely to data and methodological issues regarding the definitions and uses of consumption measures (Aguiar and Bils, 2015; Attanasio and Pistaferri, 2016) and to the fact that detailed information on both income and consumption is seldom available in the same data source. Income data are easily accessible and comparable over time. Moreover, international standards for the definition and measurement of income variables have long been established, making it reasonably easy to perform comparisons across countries. This is less the case for consumption data. Nevertheless, considerable efforts have been made recently to improve the availability of consumption data particularly through the introduction of common international guidelines for consumption surveys (OECD, 2013[1]) and the use of new data sources and methods (Browning, Crossley and Winter, 2014).

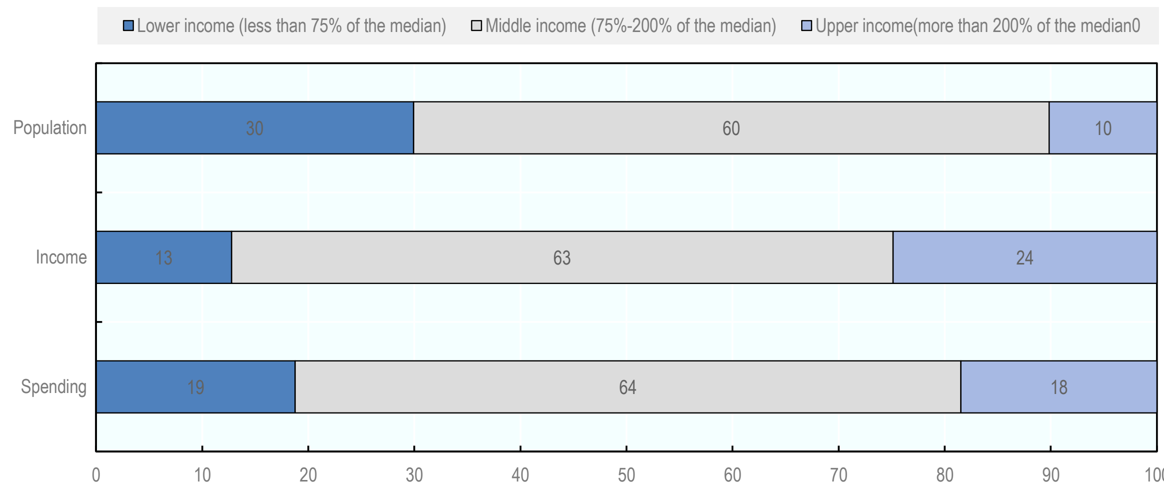
In accordance with the recommendations by the 2009 Stiglitz-Sen-Fitoussi Commission (Stiglitz, Sen and Fitoussi, 2009[2])and the Vienna Memorandum signed by the Directors Generals of National Statistical Institutes, in 2017, the OECD and Eurostat launched a joint Expert Group (EG ICW) to develop experimental distributional measures of income, consumption and wealth at the micro-level. These data may help describe people's economic well-being more thoroughly and improved understanding of the dynamics of inequalities (OECD, 2018[3]).

4.1. Middle-income households contribute the most to consumption

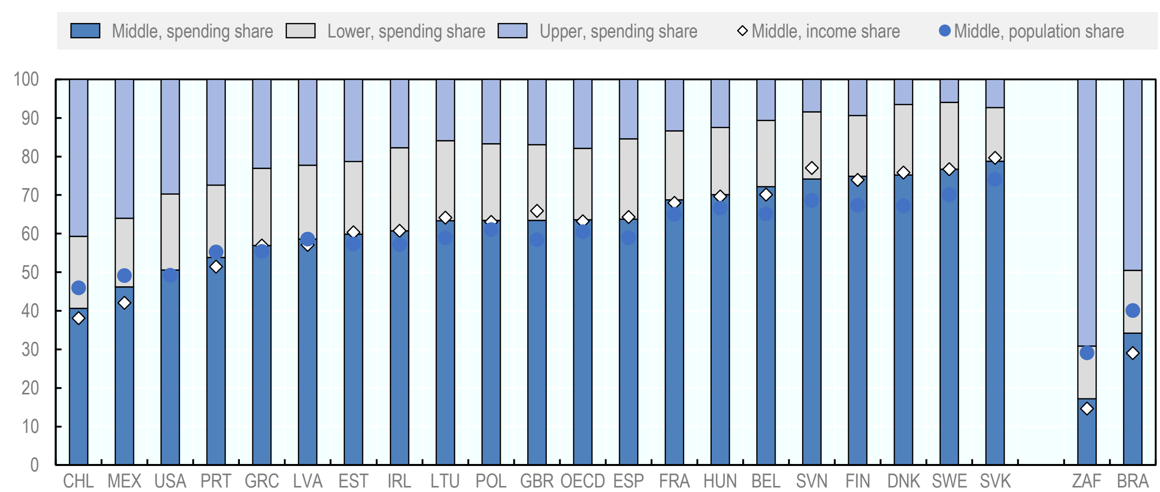
Middle-income households contribute the most to the aggregate consumption in the economy. With almost two-thirds of total consumption, middle-income households are the income group that accounts for by far the highest share of consumption, ranging from 50% or below in the United States, Southern European and Latin American countries to 70% or above in Nordic countries and Slovakia. Besides its sheer size, the middle-income class has, in comparison to other income classes, both the resources and the propensity to consume. Middle incomes are the only income class whose share of spending is greater than both its share of income and its share of the population (Figure 4.1, Panel A). Lower-income households spend proportionally more than their share of total income, but less than their share of the population. Higher-income households spend proportionally more than their share of the population but less than their share of total income. In Chile and Mexico, as well as Brazil and South Africa, middle-income households account for less than half of overall consumption expenditure and spend proportionately less than their shares of the population. In Brazil and South Africa, upper-income households contribute more than middle incomes to overall consumption spending (Figure 4.1, Panel B).

Figure 4.1. Middle-income households account for the largest share of overall consumption expenditure

Panel A. Distribution of population, household income and consumption expenditure, by income class, OECD average, 2015 or latest year available



Panel B. Middle-income population, income and expenditure share by country, 2015 or latest year available



Note: Income and population shares in this figure may slightly differ from those in Chapter 2 due to different data sources. Chapter 2 relies on data from income surveys, whereas this chapter, including this figure, draws on household budget surveys. Household budget surveys are not designed, in many countries, to collect detailed information on income and so are not the official sources for reporting income data. Results may therefore be affected and not as reliable or detailed as in official sources. Overall, however, the distributions of income and population are similar in the two sources: correlation between the country population shares in the two sources is 94%. See Box 4.2 for details on the household consumption expenditure data used in this chapter.

Source: Estimates based on microdata from the Eurostat Household Budget Surveys (EU-HBS) 2010 and tabulations from EU-HBS 2015 for European countries, except for France (Enquête Budget de Famille 2011), Spain (Encuesta de Presupuestos Familiares 2015) and the United Kingdom (Food and Living Conditions Survey 2014). Estimates drawn on Pesquisa de Orçamentos Familiares 2009 for Brazil; VIII Encuesta de Presupuestos Familiares 2017 for Chile, Encuesta Nacional de Ingresos y Gastos de los Hogares 2016 for Mexico, Income and Expenditure Survey 2011 for South Africa, and Consumer Expenditure Surveys 2016 for the United States.

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Box 4.2. Household consumption expenditure: measurement and data

The analysis in this chapter draws on micro-data relating to household consumption expenditures. The data are sourced from household budget surveys. The expenditure categories available in national surveys have been harmonised by the OECD in accordance with the Classification of Individual Consumption according to Purpose (COICOP) (United Nations, 2018[4]). This classification, developed by the United Nations Statistics Division, divides consumption into categories, with twelve main categories for the household sector – Annex Table 4.A.1 describes the COICOP main categories and subcategories used. Data used follows the COICOP classification, with the exception of "insurance related to health", classified as part of "health" consumption instead of "miscellaneous goods and services".

For simplicity, some categories are referred to together with others. So, the sum of "Recreation and culture", "restaurants and hotels" and "alcoholic beverages, tobacco and narcotics" are referred to as "leisure". The sum of "food and non-alcoholic beverages" and "clothing and footwear" are referred to as "food and clothing". The sum of "furnishings, household equipment and routine household maintenance" and "Miscellaneous goods and services" (excluding "insurance related to health") are referred to as "other".

Data were collected for 28 OECD countries (data are not available for Australia, Canada, Iceland, Israel, Japan, Korea, New Zealand and Switzerland), and two emerging economies (Brazil and South Africa) – see Annex Table 4.A.2 for an overview of data sources. Data for EU countries, South Africa, Chile and Brazil were already compatible with COICOP. Data for the United States and Mexico were reclassified in accordance with COICOP. Data for EU countries for 1998, 2005 and 2015 were imputed with growth rates by quintile of disposable income based on data published by Eurostat (except for France, the United Kingdom and Spain between 2006-2015). Incomes have been adjusted for non-reporting using experimental statistics on income published by Eurostat (Eurostat, 2019[5]).

An important issue to factor into analysis of consumption patterns is the distinction between actual consumption and consumption expenditure. The latter is typically a subset of the former, and yields only consumption data that have been obtained through the purchase of goods and services in markets. There are several aspects to the difference between actual consumption and consumption expenditure.

- Home production of services for own use may account for a non-negligible part of a household's consumption. It is reflected in consumption expenditure only through the value of the purchase of inputs used for home production, which is less than the market value of the services.
- The provision of free or subsidised goods and services provided to households by governments and non-profit institutions is not registered as consumption expenditure in household budget surveys. For example, in the event of the free provision of public education or medical care services, household expenditure on education and health is lower than the actual consumption thereof.
- Spending on consumer durables leads to differences between consumption and consumption expenditure: while expenditure on durables is sporadic, consumption thereof is spread over multiple periods. This difference is typically accounted for by converting expenditure into the rental value of these types of goods over time. In COICOP, this approach is applied to the purchase of a home. Instead of the amount of the purchase or mortgage repayment, COICOP measures the consumption of an owned house by imputing a rent (United Nations, 2018[4]). The imputed rents of owned houses are available for all countries and years, except for Estonia and the United Kingdom in 2010 and 2015.

4.2. The middle class spends most of its budget on core goods and services

Middle-income households spend more than half of their budget on core items such as housing, food, clothing, health and education. Housing is the largest middle-class spending item in most OECD countries, followed by food and clothing, transport, leisure, others, health, communication and education (Figure 4.2, Panel A). As expected, lower-income households devote a higher proportion of their expenditure to core needs, while upper-income households are able to devote a higher share to other items such as transport and leisure.

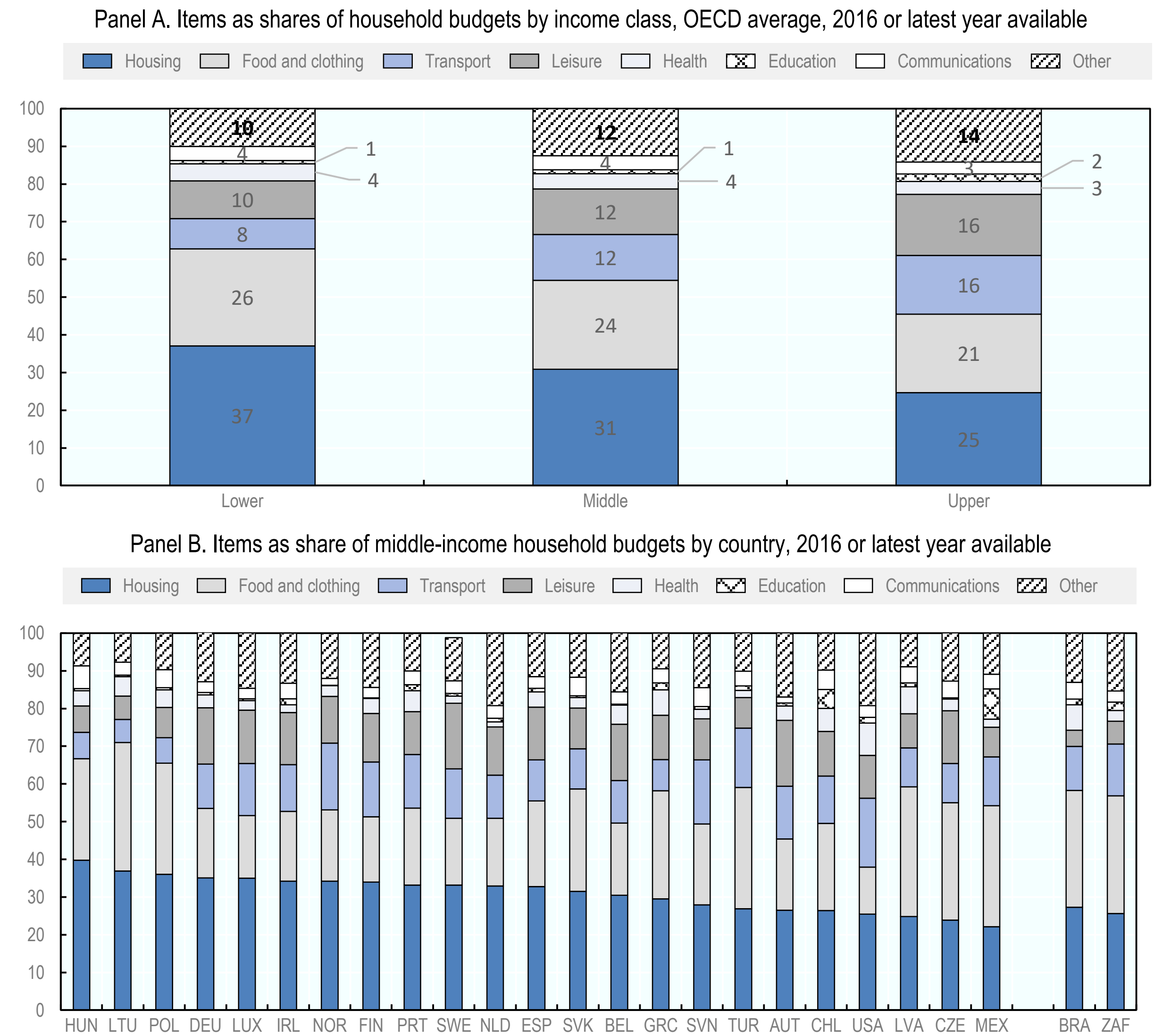
An average of almost one-third of the budget of middle-income households goes on housing in OECD countries. In Hungary, the share is almost 40%, while in Latvia and Mexico it is less than 25% (Figure 4.2, Panel B). The imputed rents from owned homes are the largest single item of housing spending, as most middle-income people are homeowners.[2]

Payments on mortgages (interests plus principal repayment) account, on average, for almost 20% of the disposable income of middle-income households with mortgages. From country to country, mortgage-to-income ratios of middle-income households range from less than 10% in the Czech Republic and Sweden to almost 30% in France (OECD, 2019[6]). Such differences reflect variations in outright home ownership, access to mortgages, mortgage conditions, loan-to-value and loan-to-income ratios (André, 2016[7]; Whitehead and Williams, 2017[8]).

Similarly, actual rents comprise, on average, almost 20% of the disposable income of middle-income tenant households renting in the private sector (OECD, 2019[6]). This burden ranges from 4% in Latvia[3] to more than one-quarter in Chile, the Czech Republic and Greece. On average, tenants in the private sector make up about 20% of middle-income households, ranging from less than 10% in Estonia, Hungary, Latvia, Lithuania, Norway, Poland, Slovak Republic, Slovenia and Spain to more than 40% in Denmark, Germany, Korea and Switzerland.

Food and clothing account for slightly less than one-quarter of the budget of middle-income households, on average across OECD countries. In the Czech Republic, Latvia, Lithuania, Mexico and Turkey, as well as in Brazil and South Africa, food and clothing make up almost one-third of the budget of middle-income households. Leisure accounts, on average, for 12% of household spending. However, the share is particularly high in Austria and Sweden, where leisure spending is almost as high as food and clothing. It is modest, by contrast, in Hungary, Lithuania, Mexico, Poland and Turkey, as well as in Brazil and South Africa. Transport accounts for almost one-fifth of middle-class spending in Norway, Slovenia and the United States. Only in Greece, Hungary, Lithuania and Poland, middle-income households spend less than a tenth of their budget on transport. Since health care and education are publicly provided in most countries, household spending on these items tends to be limited. However, in the United States health accounts for 9%, while in Mexico education accounts for 8% of the average middle-income household budget.

Figure 4.2. Core items account for the bulk of middle-class budgets



Note: See Box 4.2 for details on the household consumption expenditure data used in this chapter.

Source: Estimates based on microdata from the Eurostat Household Budget Surveys (EU-HBS) 2010 and tabulations from the EU-HBS 2015 for European countries, except France (Enquête Budget de Famille 2011), Spain (Encuesta de Presupuestos Familiares 2015) and the United Kingdom (Food and Living Conditions Survey 2014).. Estimates draw on Pesquisa de Orçamentos Familiares 2009 for Brazil, VIII Encuesta de Presupuestos Familiares 2017 for Chile, Encuesta Nacional de Ingresos y Gastos de los Hogares 2016 for Mexico, Income and Expenditure Survey 2011 for South Africa, and Consumer Expenditure Surveys 2016 for the United States.

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4.3. As the cost of core goods and services has risen, so has middle class spending

4.3.1. Middle-income spending has risen faster than income

Prior to the global financial crisis, the consumption expenditure of middle-income households increased faster than their incomes (Figure 4.3, Panel A). Middle-income expenditures plummeted between 2007 and 2010 and remained stagnant since. As in other recessions, the fall was steeper in spending on durables. Unlike previous recessions, however, middle-income spending on non-durables (especially services) also declined (De Nardi, French and Benson, 2012[9]; Crossley, Low and O'Dea, 2013[10]). The fall in asset prices and consumer confidence may explain a considerable part of the steep decline (Petev, Pistaferri and Eksten, 2011[11]).

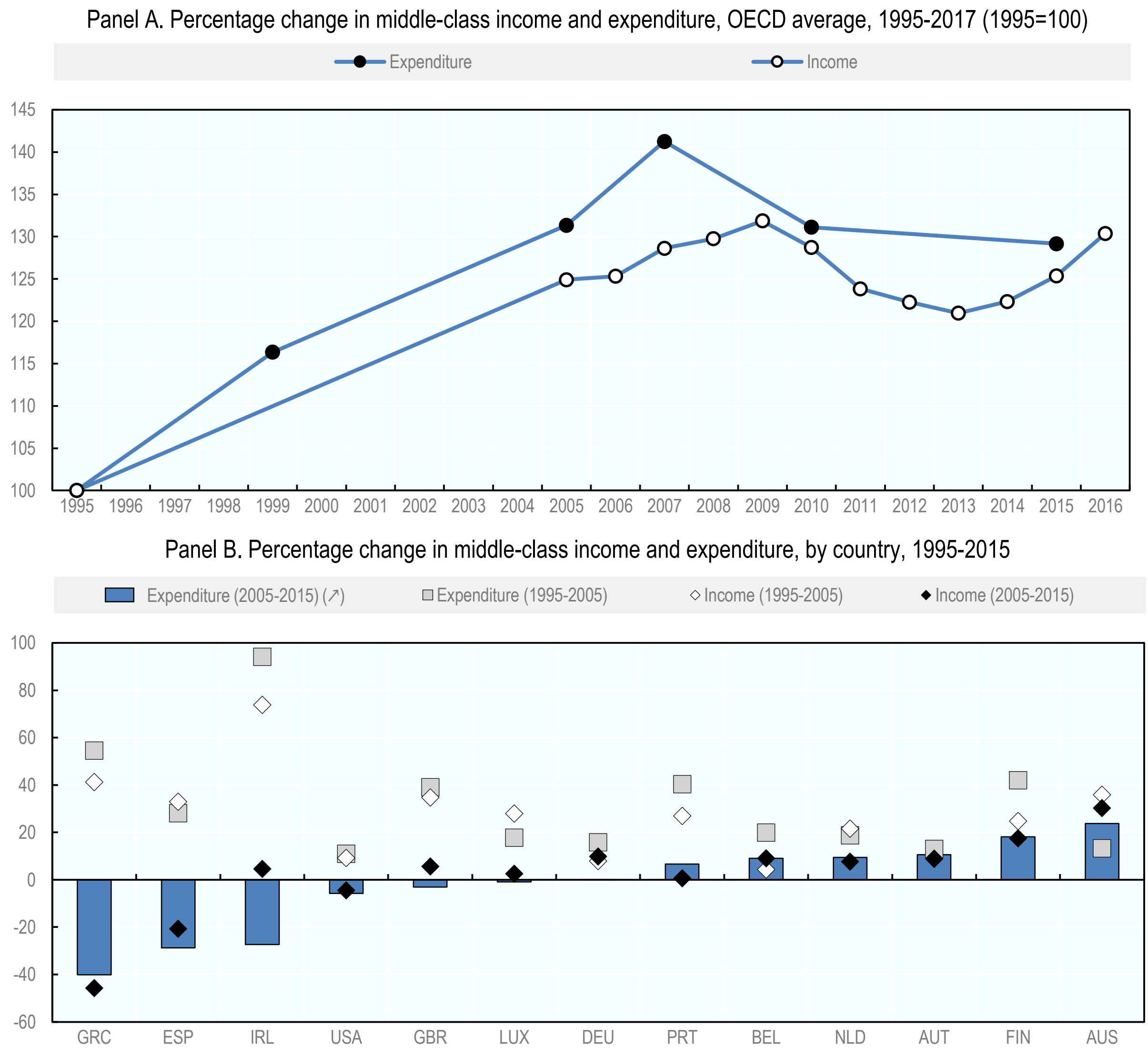
In Greece, Ireland and Spain, where the crisis was particularly harsh, expenditure increased strongly between 1995 and 2005 and fell sharply between 2005 and 2015 (Figure 4.3, Panel B). In Australia, Belgium and the Netherlands, by contrast, middle-class income and spending grew in both periods. In Austria and Portugal, it also grew in both periods, despite a considerable fall between 2010 and 2015.

In the United States, median expenditure grew faster than median incomes during the pre-crisis period. Between 2008 and 2010, median spending decreased in line with the fall in median incomes. From 2011, as the economic recovery began, median expenditure quickly returned to pre-crisis levels, while incomes lagged behind. In 2004, households in the middle fifth of the income distribution spent 90% of their income. By 2016, the share had climbed to nearly 100%, which suggests that American middle-income households are no longer saving (PEW, 2016[12]).

In Australia, household spending increased much faster than inflation in the last 30 years. Between 1984 and 2015-16 average weekly household expenditure on goods and services almost tripled, while the consumer price index (CPI) almost doubled (ABS, 2017[13]).

In the United Kingdom, expenditure declined more among young than old people and more among mortgage holders than tenants. Policies implemented during the period to stimulate consumption, such as the temporary reduction of VAT and a subsidy to purchase new cars, seem to have brought forward spending that would have happened later. In fact, a sharp increase in the consumption of durable goods was observed during the period these measures were in place (Crossley, Low and O'Dea, 2013[10]). In Spain, between 2007 and 2015, consumption fell more steeply among households with high than low consumption. A possible explanation could be that worse-off households made better use of economies of scale than the better-off: while the size of the average household fell in both groups, it fell considerably more among the better-off (Cardoso and Montañez, 2017[14]).

Figure 4.3. Middle-income class spending has increased faster than income



Note: Eurostat time series of expenditure and income for Spain and United Kingdom were adjusted in 1998 and 2005 respectively, using INE and ONS statistics based on the Encuesta de Presupuestos Familiares and Food and Living Conditions Survey, respectively. For the United States, time series income data based on the Consumer Expenditure Surveys have been adjusted for a break since 2004, using the series from the OECD Income Distribution Database.
Source: Estimates based on microdata from the Eurostat Household Budget Surveys (EU-HBS) 2010 and tabulations from the EU-HBS 2015, 2005 and 1999 and 1994 for European countries, except for Spain (Encuesta de Presupuestos Familiares 2015) and the United Kingdom (Food and Living Conditions Survey 2014). Tabulations are from the Survey of Income and Housing for Australia, Pesquisa de Orçamentos Familiares 2009 for Brazil, VIII Encuesta de Presupuestos Familiares 2017 for Chile, and Consumer Expenditure Surveys 2016 for the United States.

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4.3.2. The middle-class is spending more on core goods and services

The rise in middle-income spending was driven mainly by core goods and services. Housing and, to a lesser extent, health were the main items to increase their share on the budget of middle-income households in the last two decades (Figure 4.4). The budget shares of transport, communications and education remained fairly stable, while those of food, clothing, leisure and other items fell considerably.

Figure 4.4. Middle-income class spending on housing and health has increased

Percentage point changes in shares by item of household budgets, OECD average, 1995-2015 and 2005-15

Note: OECD 23 unweighted average refers to the following countries: Austria, Belgium, Chile, Czech Republic, Germany, Finland, Greece, Hungary, Ireland, Lithuania, Luxembourg, Latvia, Mexico, the Netherlands, Norway, Poland, Portugal, the Slovak Republic, Slovenia, Spain, Turkey, the United Kingdom and the United States. OECD 12 unweighted average refers to the following countries: Austria, Belgium, Chile, Finland, Germany, Greece, Ireland, Luxembourg, the Netherlands, Portugal, Spain and the United States. Data for Chile in 2005 refer to 2010. See Box 4.2 for details on the household consumption expenditure data used in this chapter.

Source: Estimates based on microdata from the Eurostat Household Budget Surveys (EU-HBS) 2010 and tabulations from the EU-HBS 2015, 2005 and 1999 and 1994 for European countries except Spain (Encuesta de Presupuestos Familiares 2015) and the United Kingdom (Food and Living Conditions Survey 2014). Estimates draw on Pesquisa de Orçamentos Familiares for Brazil, Encuesta de Presupuestos Familiares for Chile, Encuesta Nacional de Ingresos y Gastos de los Hogares for Mexico, Income and Expenditure Survey for South Africa, and Consumer Expenditure Surveys for United States.

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Housing makes up an increasing share of middle-class budgets

Besides being the largest spending category (Section 4.2), housing has been the main driver of rising middle-class expenditure in recent decades. Across OECD countries, the share of spending that middle-income households devote to housing increased from a quarter in 1995 to almost one-third in 2015 (Figure 4.5, Panel A).

Propelled by a strong rise in house prices (See section 4.3.3), owned homes contributed the most to the rise in housing spending, particularly in the period 1995-2000 and 2010-2015.

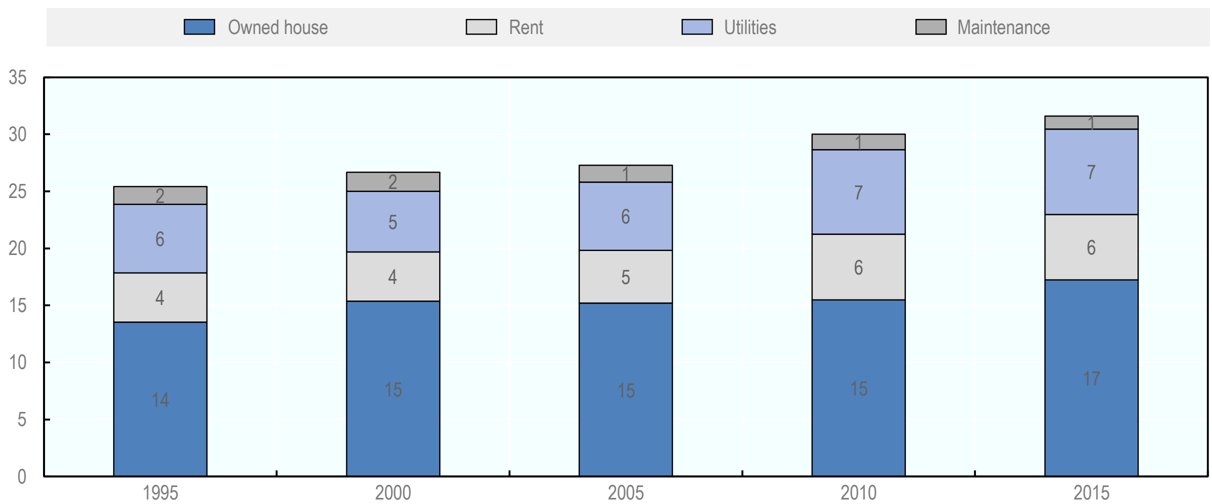
Consumption on owned homes rose particularly steeply in Ireland, Portugal and Spain, while housing expenditures has fallen in Belgium, Chile and Finland (Figure 4.5, Panel B).

Although to a less extent than owned homes, spending on rents and utilities also contributed to housing's higher share of middle-income budgets, particularly between 2005 and 2015. In 2015, spending on rents accounted for an average of 6% of middle-income household expenses, 2 percentage points more than in 1995. The share of rents in household budgets was particularly high in Finland, Germany and Ireland, while it fell in Greece and the Netherlands (in comparison to two decades earlier).

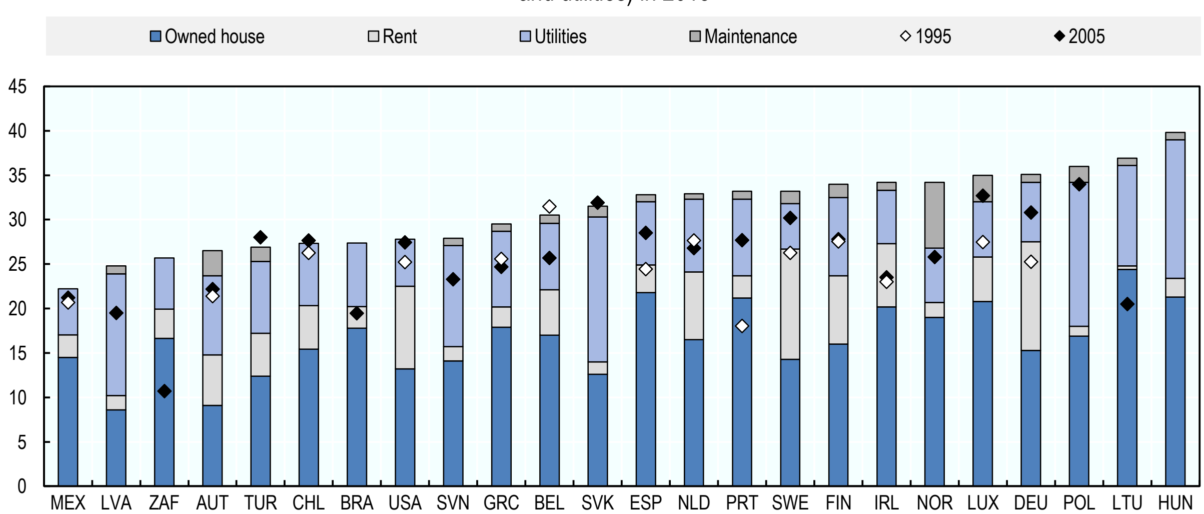
Utility services have also contributed to higher middle-class housing expenditure. On average, utilities such as water, fuel and electricity accounted for 7% of middle-income household budgets in 2015, 1.5 percentage points more than in 1995. Utilities make up particularly large shares of middle-class spending in Eastern European countries. The large stock of energy-inefficient buildings may explain why they are so large in comparison to countries with similar climates such as Finland and Sweden (OECD, 2019[15]; 2018[16]; 2011[17]).

Figure 4.5. Housing has increased as a share of middle-income class budgets

Panel A. Shares of middle-income household budgets spent on items in the housing category (owned house, rent, utilities and maintenance), 1995 to 2015, OECD average



Panel B. Shares of middle-income household budgets spent on housing in 1995 and 2005, and on items (owned houses, rent and utilities) in 2015



Note: For Brazil 2015 data refer to 2009 and 2005 data refer to 2002; for Chile 2005 data refer to 2010; for South Africa 2015 data refer to 2010 and 2005 data refer to 2000. Data for maintenance are missing for Brazil, Chile, Latvia, Mexico and the United States. See Box 4.2 for details on the household consumption expenditure data used in this chapter.

Source: Estimates based on microdata from the Eurostat Household Budget Surveys (EU-HBS) 2010 and tabulations from the EUHBS 2015, 2005 and 1999 and 1994 for European countries except for Spain (Encuesta de Presupuestos Familiares). Estimates draw on Pesquisa de Orçamentos Familiares for Brazil, Encuesta de Presupuestos Familiares for Chile, Encuesta Nacional de Ingresos y Gastos de los Hogares for Mexico, Income and Expenditure Survey for South Africa, and Consumer Expenditure Surveys for the United States.

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Private health spending accounts for a growing share of middle-class budgets

Middle-class households devote increasingly greater shares of their budgets to health-related expenses – i.e. private health insurance and out-of-pocket expenditure on health products and services. In 20 OECD countries, middle-income households have increased their health-related spend by an average 0.5 percentage points since 2005, and by 2.5 percentage points since 1995 in 11 countries (Figure 4.4).

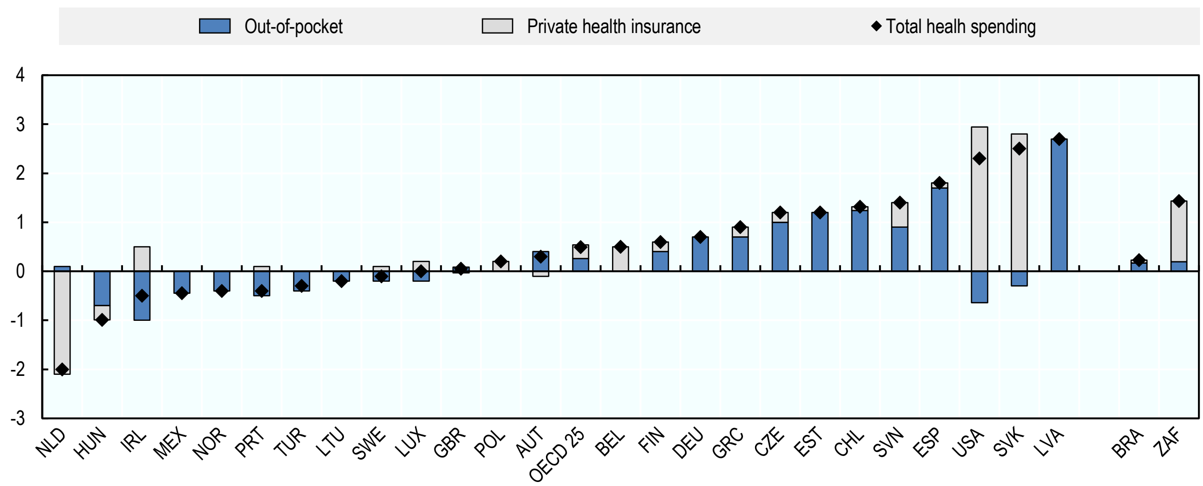
Between 2005 and 2015, the rise was particularly high (2 percentage points) in Chile, Germany, Latvia, the Slovak Republic, Spain and the United States. In the mid-1980s, health-related spending comprised a small fraction of the budget of middle-income households in the United States. By 2014 it had increased by 60%, in real terms, and is smaller only than housing, food and transport (Schanzenbach et al., 2016[18]). In Spain, more people (1 million between 2012 and 2017, a 10% rise) have enrolled in private health insurance following the cuts in the public health system introduced as part of fiscal consolidation measures (Alfageme, 2019[19]). In contrast, the share of middle-income household budgets devoted to health-related expenses fell 2 percentage points in the Netherlands and 1 point in Hungary.

Middle-class households are spending more on private health insurance than a decade ago. In the 18 OECD countries with available data, middle-income budget shares spent on health insurance has increased in all but four countries. In many countries, however, the level and rise of private health insurance spending are limited. Only in the Netherlands[4] and the United States does private health insurance account for more than a 5% share of middle-income household budgets. Only in the Slovak Republic and the United States has that share increased by more than 1 percentage point. The population covered by private health insurance has increased in some OECD countries over the past decade, particularly in Denmark, Korea, Slovenia and Belgium, and has fallen in others, notably Greece, Ireland, New Zealand and the United States (OECD, 2017[20]).

The share of middle-class household budgets devoted to out-of-pocket health spending has increased in the last decade, on average across OECD countries. On a country level, it has fallen in around as many countries as it has risen, although rises tend to be stronger than falls. In Chile, the Czech Republic, Estonia, Latvia and Spain it increased by at least 1 percentage point between 2005 and 2015.

Figure 4.6. Middle-income households are spending more of their budgets on private health insurance and out-of-pocket health items and services

Percentage point difference in the shares of their budgets that middle-income households devote to total private health expenses (out-of-pocket health items and services and private health insurance), 2005-15



Note: For Brazil 2015 data refer to 2009 and 2005 data refer to 2002; for Chile 2005 data refer to 2010; for South Africa 2015 data refer to 2010 and 2005 data refer to 2000. See Box 4.2 for details on the household consumption expenditure data used in this chapter.
Source: Estimates based on microdata from the Eurostat Household Budget Surveys (EU-HBS) 2010 and tabulations from the EU-HBS 2015, 2005 for European countries except for Spain (Encuesta de Presupuestos Familiares) and the United Kingdom (Food and Living Conditions Survey). Estimates draw on Pesquisa de Orçamentos Familiares for Brazil, Encuesta de Presupuestos Familiares for Chile, Encuesta Nacional de Ingresos y Gastos de los Hogares for Mexico, Income and Expenditure Survey for South Africa, and Consumer Expenditure Surveys for United States.

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4.3.3. Prices of basic needs have soared

Achieving a middle class lifestyle has become more difficult than in the past because of the steep rise in house prices and other large items of middle-class consumption (Blank, 2010[21]). Together with changes in the amount and quality of goods consumed, the higher prices of such items drive spending shifts.

House prices outstrip inflation and median incomes

On average, in the last two decades, house prices have grown twice as fast as inflation and 50% more than the household median income, in OECD countries with available data (Figure 4.7, Panel A). After rapid growth in the early 2000s, the gap between house prices and both CPI inflation and household incomes narrowed during the global financial crisis but has widened again in recent years.[5] By 2016, the latest year for which data are available, the differences between the growth rate of house prices and those of CPI inflation and household median income were the largest since records began.

In most countries, average house prices grew considerably faster than median incomes. In Denmark, France, New Zealand, Norway, Sweden and the United Kingdom, they increased at least 60% more than median incomes. In all those countries, house prices increased sharply between 1995 and 2007, plummeted during the global financial crisis and then recovered. The one exception was France, where house prices have remained somewhat stable since 2010, despite recently booming in Paris and other large French cities (Les Echos, 2018[22]). In Australia, Belgium, Canada, Israel, Norway, New Zealand and Sweden, real house prices in 2017 were higher than before the crisis.

Only in Germany, Ireland, Italy and Japan rises in house prices since 1995 not exceeded those of median incomes. In Germany, real house prices remained stable throughout the 2000s and are currently not much different from three decades ago, despite an acceleration in more recent years (Wijburg and Aalbers, 2017[23]). In Ireland and Italy real house prices experienced strong downward corrections in the wake of the global financial crisis. In Japan, after steep increases up to around 1990, house prices fell strongly between 1995 and 2010, since when they have slightly recovered (Engsted, Hviid and Pedersen, 2016[24]).

While real estate prices have been a major factor in the rise in spending on housing, changes in consumption patterns have also contributed. The increasing concentration of economic opportunities and better-paid jobs attract more people to large urban areas (Glaeser, 2010[25]; Combes and Gobillon, 2015[26]). Demand for good public services and gentrification have also nudged middle-class households into more expensive segments of the housing market (Chapple, 2016[27]; Hamilton, 2014[28])

Healthcare costs grow faster than inflation

Healthcare costs have, on average, increased faster than general inflation but less than median incomes in OECD countries. Between 1995 and 2005, they grew strongly at a similar pace to median income. After a slight decline during the global financial crisis, they have remained fairly stable. At the country level, though, there are variations. They increased considerably in real terms in the Czech Republic and Sweden, where real median incomes grew even faster. Taking into account differences in income growth between countries, rises in real healthcare costs were most significant in the Czech Republic, Japan and the United States. In contrast, they fell in France and Luxembourg, and increased less than median incomes in Australia, Israel and Norway.

Higher education costs increase student debt as university attendance grows

In some countries, rising costs prices for higher education are pushing more young people into debt. Between 1995 and 2015, the average cost of education-related goods and services has increased faster than CPI inflation and median incomes OECD-wide. The rise was driven primarily by higher education, as private spending in primary and secondary education is very low in most countries. Alongside the decline of middle-skilled jobs and the rise in numbers of highly skilled occupations, an increasing share of young people enter higher education, which spells substantial tuition fees in some countries.

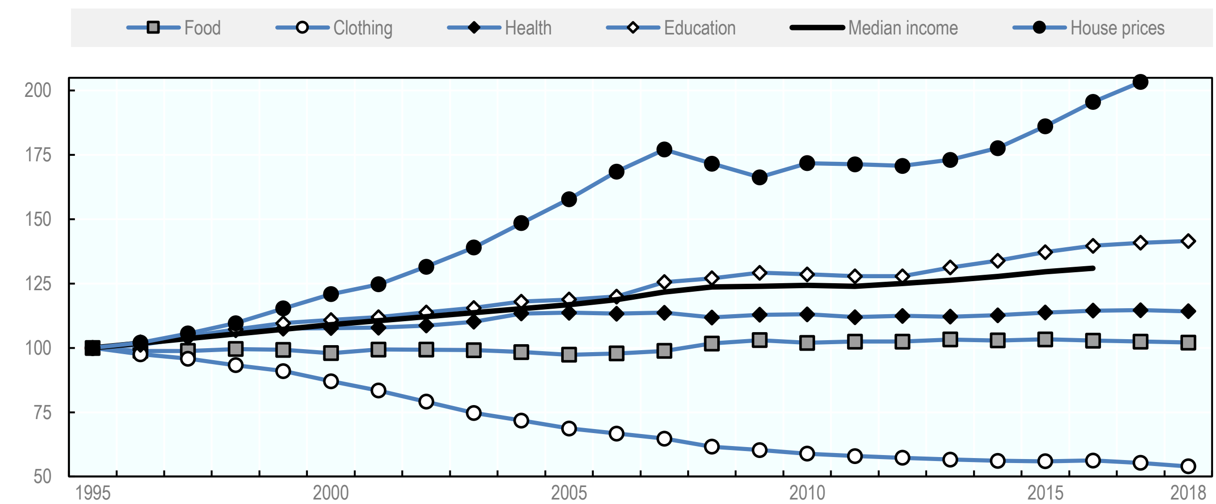
Education costs increased most steeply in the United Kingdom where reforms in recent decades led to higher university tuition fees, as government funding for higher education shifted from up-front grants to universities to student loans (Dearden et al., 2017[29]). In the United States, the cost of education has also increased considerably faster than overall inflation and median incomes. By contrast, in the Czech Republic and Israel, the cost of education rose only very slightly more than inflation and less than the median income.

Other budgets items vary as spending patterns and preferences evolve

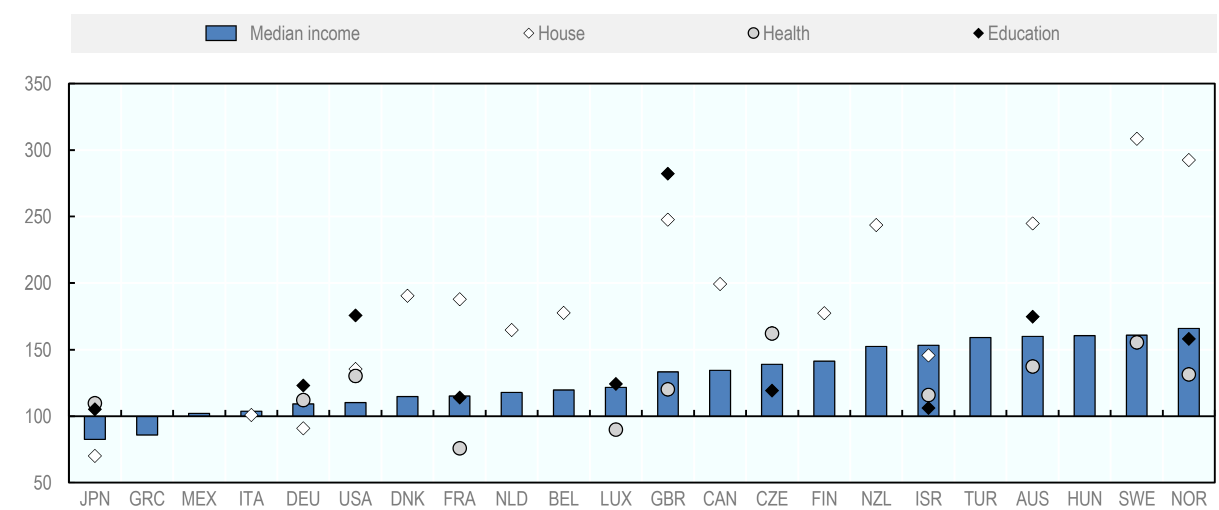
Trends in prices and spending have evolved differently across other categories. The decline in clothing's share of budgets (Figure 4.4) may be associated with the fall in its relative price (Figure 4.7). By contrast, the fall in the share of the household budget devoted to food reflects lower real expenditures, while the relative prices of food have hardly changed.

Figure 4.7. House prices have increased much faster than inflation and median incomes

Panel A. Percentage changes in median incomes and the price of certain household budget item, OECD average, 1995-2015 (1995=100)



Panel B. Percentage changes in median incomes and housing, health and education prices, 1995-2015 (1995=100)



Note: The OECD unweighted average refers to the following countries: Australia, France, Germany, Israel, Japan, Norway, the United Kingdom and the United States.
Source: For house prices: OECD, Residential Property Price Indices (RPPIs) Database https://stats.oecd.org/Index.aspx?DataSetCode=HOUSE_PRICES; for income: OECD, OECD Income Distribution Database (IDD) http://www.oecd.org/social/income-distribution-database.htm; for prices other than houses: OECD, Consumer price indices (CPIs) Database https://stats.oecd.org/Index.aspx?DataSetCode=RPPI_TARGET.

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Changes in consumption preferences can explain some of the shifts in the composition of middle class budgets. In fact, recent studies have found that middle class spending patterns may be affected by changes in the income and expenditure of high-income households (see Box 4.3).

Box 4.3. Trickle-down consumption

Income inequality may increase middle-class spending

Wide income inequality may harm middle-class living standards by distorting consumption patterns (Frank, 2013[30]). Recent studies suggest that an increase in expenditure by an income group may prompt a rise in the expectations of higher living standards (and subsequently the spending patterns) among the income groups below. A study for the United States concluded that "rapid growth of income among top earners in recent decades has stimulated a cascade of additional expenditure by those with lower earnings" (Frank, Levine and Dijk, 2014[31]). Another study found evidence of "trickle-down consumption", by which non-rich households increase their expenses on status-maintaining goods and services as top income levels rise. The study estimates that non-rich households would have saved up to 3% more annually if top incomes had grown at the same pace as the median (Bertrand and Morse, 2016[32]).

However, the consumption patterns of middle- and top-income households may be shifting apart. While the middle class increases spending on "conspicuous consumption" (e.g. apparel, watches, jewellery, cars and other socially visible goods), a new elite has moved its expenditure pattern towards "inconspicuous cultural markers"[6] that convey the acquisition of knowledge rather than material goods (Currid-Halkett, 2017[33]). In the United States, between 1996 and 2014, the top 1% increased the share of income spent on education from 2% to 6%. Meanwhile, middle-income households still spend about 1% of their income on education, much the same as two decades ago (Currid-Halkett, 2017[33]).

Empirical evidence on middle class conspicuous consumption is, however, still far from conclusive. Analysis using data from France and the United States since the mid-1970s finds no evidence of a disassociation between social class and lifestyles. Instead, it suggests strong and persistent differences in spending patterns by social classes. Overspending would result from the necessity of meeting basic needs driven by increasing income inequality rather than from spending for positional and cultural distinction (Petev, 2013[34]).

4.4. Middle class increasingly financially vulnerable and at times over-indebted

As living costs rise and expenses increase faster than incomes, many middle-class households find themselves financially vulnerable and some with excessive levels of debt.

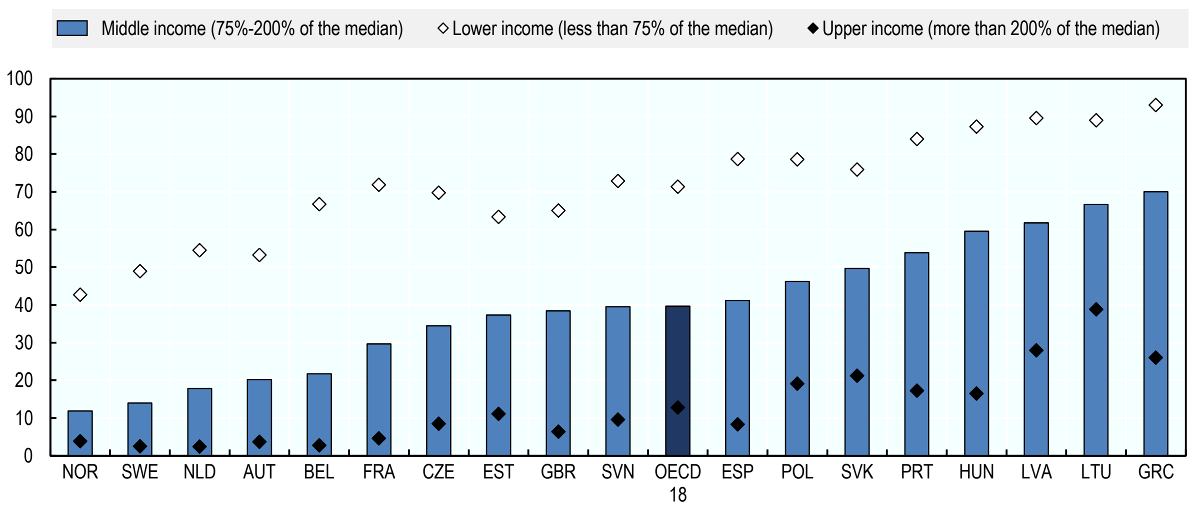
4.4.1. Many middle-income households are financially vulnerable or struggle to make ends meet…

Four in ten are financially vulnerable and half struggle to make ends meet

Almost 40% of middle-income households in 18 European OECD countries are financially vulnerable – i.e. they are in arrears or unable to cope with unexpected expenses or sudden falls in income. Shares vary widely from country to country, ranging from 12% in Norway to 70% in Greece (Figure 4.8). On average, the risk of middle-income households being financially vulnerable is closer to the risk run by the upper- than the lower-income class. However, in Greece and Hungary, the shares of middle-income households in financial vulnerability are much closer to shares among lower-income households.

Figure 4.8. Financial vulnerability affects four in ten middle-income households

Shares of households that are financially vulnerable, 2016 or latest available year



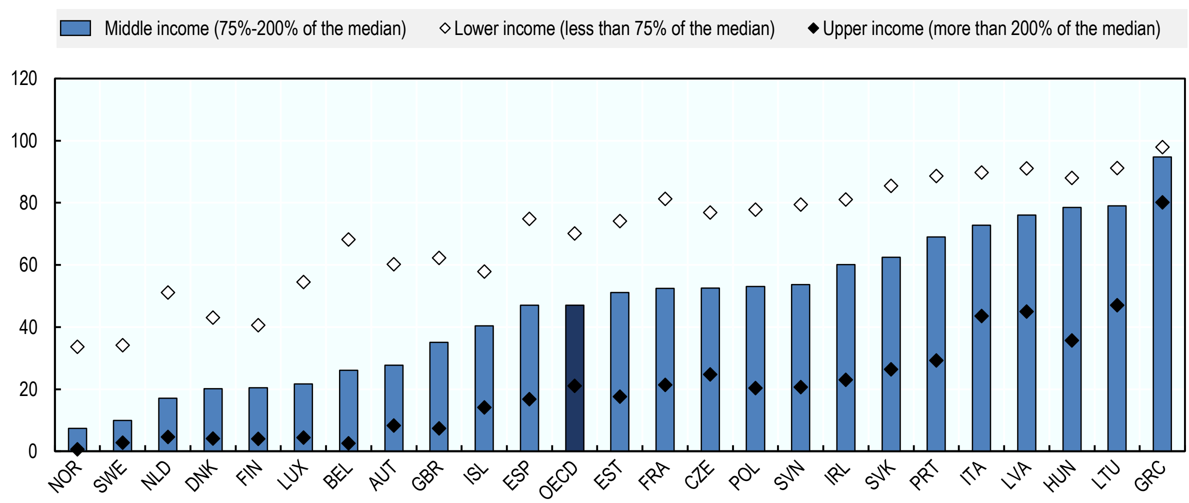
Note: Households are financially vulnerable if they are in arrears on mortgages, rent, or utility bills, or cannot afford to heat their homes adequately, to spend one week of annual holiday away from home or to bear unexpected financial expenses.
Source: EU-SILC 2016 for Norway and the United Kingdom; EU-SILC 2017 for all the other countries.

StatLink https://doi.org/10.1787/888933955938

In the 24 European OECD countries with available data, an average of 47% of middle-income households reported difficulty in making ends meet in 2016 (Figure 4.9). The figure was less than at the peak of the economic crisis (54% in 2012), but slightly higher than the pre-crisis period (46% in 2006). There is wide variation between countries, ranging from around 10% in Norway and Sweden to more than 70% in Hungary, Italy, Latvia and Lithuania, and 95% in Greece. While cross-country differences may reflect in part national traits and culture, it is significant that the incidence of middle-income households reporting trouble in making ends meet is closer to the incidence among the lower- than the upper-income class. This is particularly true of countries where large shares of middle-income households say they struggle. In Hungary, for example, the share is 78% among middle-income, 88% among lower-income and 36% among upper-income households. The incidence of struggling middle-income households is also closer, or relatively close, to the incidence of struggling lower-income groups in some countries where relatively low shares of middle-income households report difficulties. Examples are Denmark, Finland and Iceland, where shares have increased in comparison to ten years ago.

Figure 4.9. Half of middle-income households struggle to make ends meet

Shares of households reporting difficulties in making the ends meet, by income class, 2016



Note: Difficulty in making ends meet is determined by the response to the following question: "Thinking of your household's total income, is your household able to make ends meet, namely, to pay for its usual necessary expenses?"

Source: EU-SILC 2016 for Ireland, Norway and the United Kingdom; EU-SILC 2014 for Iceland; EU-SILC 2017 for all the other countries.

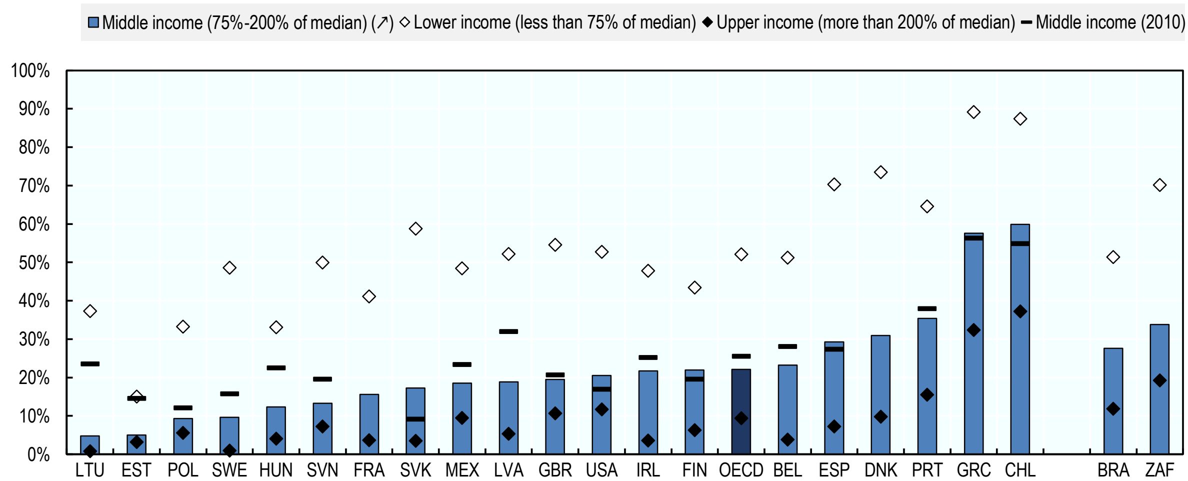
StatLink https://doi.org/10.1787/888933955957

4.4.2. …and some have trouble maintaining their living standards

More than one in five middle-income households dissave, i.e. spend more than they earn, which carries the risk of over-indebtedness. In OECD countries, the share of middle-income dissaving households ranges from less than 10% in Estonia, Lithuania and Poland to more than half in Chile and Greece (Figure 4.10). However, the situation is not as bad as for the low-income class: in all OECD countries, the shares of middle-income people spending more than they earn is closer to those in the upper-income class. For example, in Sweden, 10% of middle-income and 1% of upper-income households dissave, in comparison to almost half of lower-income households. The share of middle-income dissavers has fallen since 2010, particularly in Eastern Europe. Some exceptions are Chile, the Slovak Republic and the United States, where shares have increased since the crisis despite the economic recovery.

Figure 4.10. More than one in five middle-income households spend more than they earn

Share of households that spend more than they earn, by income class, 2016 or latest year available



Note: Households that overspend are defined as those whose total expenditures are higher than total household disposable income. See Box 4.2 for details on the household consumption expenditure data used in this chapter.
Source: Estimates based on microdata from the Eurostat Household Budget Surveys (EU-HBS) 2010 and tabulations from the EU-HBS 2015 for European countries except for France (Enquête Budget de Famille 2011), Spain (Encuesta de Presupuestos Familiares 2015) and the United Kingdom (Food and Living Conditions Survey 2014). Estimates are drawn from Pesquisa de Orçamentos Familiares for Brazil, Encuesta de Presupuestos Familiares for Chile, Enquête Budget de Famille for France, Encuesta Nacional de Ingresos y Gastos de los Hogares for Mexico, Income and Expenditure Survey for South Africa, and Consumer Expenditure Surveys for United States.

StatLink https://doi.org/10.1787/888933955976

4.4.3. Middle-income class more over-indebted than the total population

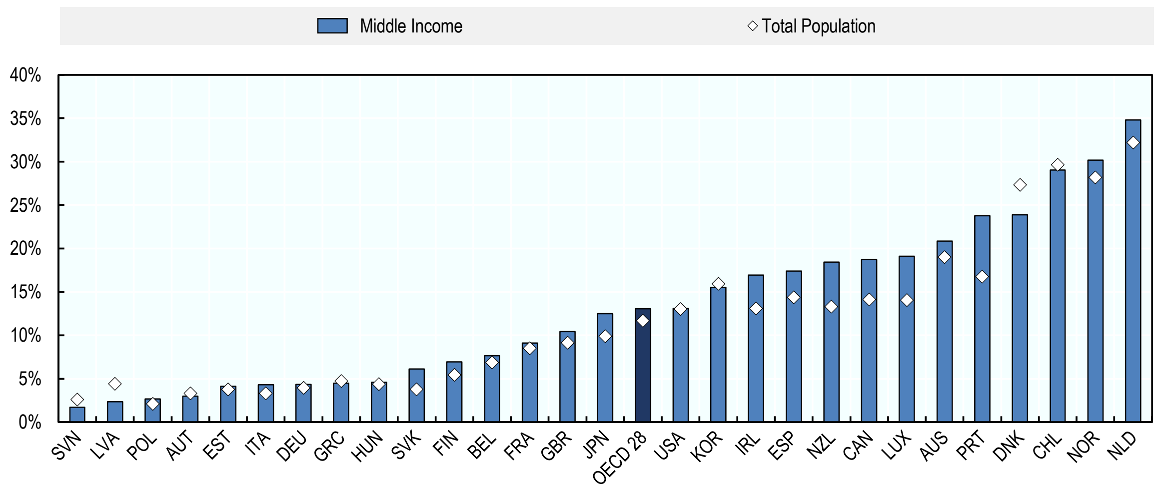
In many OECD countries, it appears that middle-class households used debt to finance consumption during the pre-crisis period. In the United States, for instance, debt levels in middle income quintiles increased dramatically relative to their net worth and income in the two decades before 2007. During the crisis, the middle class was also hit harder by the fall in house prices and higher mortgage debt relative to the value of homes. Following the crisis, middle-income households have drained their assets in order to repay debts and maintain consumption (Wolff, 2014[35]).

According to a previous OECD report, the largest share of over-indebted households is observed among the "middle class" (OECD, 2015[36]).[7] Recent data shows that, on average, one in eight households in the middle[8] of the income distribution is over-indebted[9]. Over-indebtedness is particularly prevalent in Chile, the Netherlands and Norway, where it affects at least one in four households. In contrast, the figure is lower than 5% in Austria, Estonia, Germany, Greece, Italy, Latvia, Poland and Slovenia (Figure 4.11).

In most OECD countries, over-indebtedness is more widespread among middle-income households than in the overall population. In Canada, Luxembourg, New Zealand and Portugal, it is at least 5 percentage points higher.

Figure 4.11. One in eight households in the middle of the income distribution is over-indebted

Shares of over-indebted households, 2015 or latest available year



Note: a. Middle of the income distribution refers to the middle quintile (i.e. the middle 20% of the population). b. Over-indebtedness is measured as debt-to-income ratio greater than 3.
Source: OECD Wealth Distribution Database, https://oe.cd/wealth.

StatLink https://doi.org/10.1787/888933955995

4.5. Conclusions

This chapter has sought to gather evidence on the standard of living of middle-income households in OECD countries and selected emerging economies (Brazil and South Africa) over recent decades. To that end, it has assessed how middle-income households contribute to overall household consumption and allocate spending across consumption categories. It has also examined how the spending of middle-income households has increased relative to income, what consumption categories have driven that increase, and to what extent rising prices and changing preferences have been influencing factors. Finally, it assessed the ability of middle-income households to afford their standard of living, and considered their exposure to financial vulnerability and over-indebtedness.

Middle-income households account for two-thirds of total household consumption expenditure OECD-wide. Except for a few countries, the contribution of middle-income households to overall expenditure is proportionately larger than their shares of income and population. In contrast to OECD countries, in Brazil and South Africa the middle-income class contributes less than upper-income households to overall household consumption.

The ability to save of middle-income households has fallen in the last two decades as expenditure has outstripped incomes, particularly prior to the global financial crisis. It then plummeted between 2007 and 2010 and remained somewhat stagnant between 2010 and 2015.

Housing accounts for an increasing share of middle-income household budgets. Between 1995 and 2015, it increased from a quarter to almost one-third. Expenditure on owned homes made up most of the rise, although spending on rent and utilities also expanded considerably. Rising house prices have been a key factor. In the last two decades, they have grown at twice the rate of inflation and more than one-third faster than median incomes.

Private healthcare spending is further squeezing the budgets of middle-income households, with strong growth in spending on out-of-pocket and private health insurance. In a few countries, the rising costs of higher education also threaten the ability of middle-income families to send their children to university, as prices of education-related goods and services have increased faster than inflation and median incomes.

In addition to rising prices, changes in consumption preferences can explain some of the shifts in middle-income spending. Growing demand for good public services and the gentrification of urban areas have also nudged middle-class households into more expensive segments of the housing market. Similarly, middle-income spending patterns may have been affected by changes in income inequality and how high-income households spend their budgets.

With the rise in the cost of living and expenses growing faster than incomes, many middle-income households find themselves struggling to make ends meet. Some have become financially vulnerable and others spend more than they earn. Moreover, over-indebtedness among middle-income households has become a growing phenomenon in a number of countries.

Notes

[1] In line with the standard economic approach and other chapters in the report, this chapter considers the "middle-income class" to be people living in households with equivalised disposable incomes ranging between 75% and 200% of the national median. Households with incomes of below 75% are "lower income" and those whose incomes exceed 200% are "upper income" (see Box 2.1 in Chapter 2).

[2] On average across OECD countries, homeowners make up about 70% of middle-income households – outright owners are about 40% and owners with mortgage almost 30% (OECD, 2019[6]). Outright home ownership is widespread in Mexico and the countries of Central, Eastern and Southern Europe. In Central and Eastern Europe, after the fall of the communist regimes, tenants could buy the dwellings in which they lived at a low price (Hegedus, Lux and Teller, 2013[41]; Tsenkova, 2009[37]). In Mexico and Southern European countries, mortgage markets started developing only recently and families have traditionally a strong role in facilitating home ownership through inheritance or financial support (Allen et al., 2008[40]).

[3] In most Central and Eastern European countries, the share of tenant households is generally very low. In Latvia, 13% of households are tenants and one-third of them have subsidised rents.

[4] People who live or work in the Netherlands are legally obliged to take out standard private health insurance. Insurers must accept all applicants and are expected to contract providers on the strength of quality and price (OECD/European Observatory on Health Systems and Policies, 2017[39]).

[5] Over the long term, housing prices can be fairly well tracked by fundamentals. In the short term, however, housing prices may overshoot due to extrapolative expectations, in some case creating huge bubbles (André, 2016[7]).

[6.] Inconspicuous consumption reveals class position while not intending to be socially or culturally visible. It includes goods and services such as gardeners, childcare, car services or education and retirement plans (Currid-Halkett, 2017[33]).

[7] The term "middle class" was used in the report to refer to the three middle quintiles of the income distribution (i.e. the middle 60% the population).

[8] The term "middle of the income distribution" refers to the middle quintile (i.e. the 20% of the population in the middle of the income distribution). This definition differs from the "middle-income" used throughout the chapter. It was necessary because the OECD Wealth Distribution Database collects data by income quintiles. While covering a narrower group of people, the middle quintile only includes households that are also part of the "middle-income", in contrast to other definitions such as "the middle 60%".

[9] Over-indebtedness is defined as having a debt-to-income ratio of over 3 (Balestra and Tonkin, 2018[38]).

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Annex 4.A. Data sources

Annex Table 4.A.1. Categories of Classification of Individual Consumption according to Purpose (COICOP)

Code	Description
01	Food and non-alcoholic beverages
02	Alcoholic beverages, tobacco and narcotics
03	Clothing and footwear
04	Housing, water, electricity, gas and other fuels
041	Actual rentals for housing
042	Imputed rentals for housing
043	Maintenance and repair of the dwelling
044	Water supply and miscellaneous services relating to the dwelling
045	Electricity, gas and other fuels
05	Furnishings, household equipment and routine household maintenance
06	Health *
07	Transport
08	Communication
09	Recreation and culture
10	Education
11	Restaurants and hotels
12	Miscellaneous goods and services
1253	Insurance related to health *

Note: * Data used in the analysis for this report includes insurance related to health (COICOP code 1253) as part of health consumption expenditure.
Source: United Nations, Department of Economic and Social Affairs (United Nations, 2018[4]).

Annex Table 4.A.2. Data sources

	Source	Organisation undertaking the survey	Frequency of collection	Years used in the analysis	Imputed years	Sample size (number of households)
Belgium	Household Budget Surveys[a]	Eurostat	Every 5 years	2010	1998, 2005, 2015[b]	~ 7 200
Brazil	Pesquisa de Orçamentos Familiares	Instituto Brasileiro de Geografia e Estatística	Every 5 years	2002, 2009	-	~ 50 000
Chile	Encuesta de Presupuestos Familiares	Instituto Nacional de Estadisticas	Every 5 years	1996, 2010, 2016	-	~ 15 100
Denmark	Household Budget Surveys[a]	Eurostat	Every 5 years	2010	1998, 2005, 2015[b]	~ 2 500
Estonia	Household Budget Surveys[a]	Eurostat	Every 5 years	2010	1998, 2005, 2015[b]	~ 3 600
Finland	Household Budget Surveys[a]	Eurostat	Every 5 years	2010	1998, 2005, 2015[b]	~ 3 600
France	Household Budget Surveys[a]	Institut national de la statistique et des études économiques	Every 5 years	2006, 2011	-	~ 15 600
Greece	Household Budget Surveys[a]	Eurostat	Every 5 years	2010	1998, 2005, 2015[b]	~ 3 500
Hungary	Household Budget Surveys[a]	Eurostat	Every 5 years	2010	1998, 2005, 2015[b]	~ 9 900
Ireland	Household Budget Surveys[a]	Eurostat	Every 5 years	2010	1998, 2005, 2015[b]	~ 5 800
Lithuania	Household Budget Surveys[a]	Eurostat	Every 5 years	2010	1998, 2005, 2015[b]	~ 6 100
Latvia	Household Budget Surveys[a]	Eurostat	Every 5 years	2010	1998, 2005, 2015[b]	~ 3 700
Mexico	Encuesta Nacional de Ingresos y Gastos de los Hogares	Instituto Nacional de Estadística y Geografía	Every 2 years	2000-2016	-	~ 70 300
Poland	Household Budget Surveys[a]	Eurostat	Every 5 years	2010	1998, 2005, 2015[b]	~ 37 000
Portugal	Household Budget Surveys[a]	Eurostat	Every 5 years	2010	1998, 2005, 2015[b]	~ 9 500
Slovak Republic	Household Budget Surveys[a]	Eurostat	Every 5 years	2010	1998, 2005, 2015[b]	~ 6 100
Slovenia	Household Budget Surveys[a]	Eurostat	Every 5 years	2010	1998, 2005, 2015[b]	~ 3 900
Spain	Encuesta de Presupuestos Familiares[a]	Instituto Nacional de Estadisticas	Annually	2006-2015	-	~ 22 000
	Household Budget Surveys[a]	Eurostat	Every 5 years		1998, 2005[b]	~ 22 000
South Africa	Income and Expenditure Survey	Statistics South Africa	Every 5 years	2000-2010	-	~ 24 600
Sweden	Household Budget Surveys[a]	Eurostat	Every 5 years	2010	1998, 2005, 2015[b]	~ 2 000
United Kingdom	Food and Living Conditions Survey	Office for National Statistics	Annually	2002-2014	-	~ 5 100
United States	Consumer Expenditure Survey	Bureau of Labour Statistics	Annually	2005-2016	-	~31 000

Note: a) Incomes have been adjusted for non-reporting using experimental statistics on income published by Eurostat (https://ec.europa.eu/eurostat/web/experimental-statistics/income-consumption-and-wealth). b) Data for these years have been imputed using tabulations published by Eurostat and micro-data from 2010. Expenditure has been imputed taking into account the growth rates in expenditure by quintile of disposable income.

Chapter 5. Policies for a prosperous middle class

This chapter presents policies that could address the main challenges with which middle-income households contend. Because middle-income households are so diverse, the proposed policy solutions often focus on certain subgroups, such as families who struggle to make ends meet, parents who are concerned about how to pay for their children's education, and middle-aged workers exposed to globalisation and technological change. Section 5.2 looks at policies for boosting middle-class disposable incomes and supporting wealth accumulation. Section 5.3 discusses policies that could help middle-income households cope with the rising costs of housing, education and health and long-term care. Section 5.4 proposes ways to help equip middle-class workers with the skills they need to succeed in a changing workplace, with special emphasis on vocational education and training and adult learning.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

5.1. Introduction

The previous chapters in this report sought to give a comprehensive account of the growing pressure on households in the middle-class across much of the OECD. The middle-income group has lost some of its economic strength as its relative size has declined from one generation to the next (Chapter 2). The archetypal middle-class family – the middle-skilled, single-breadwinner couple with children – often no longer makes it into the middle-income group as levels of educational attainment and female labour force participation have risen in both the group itself and society at large. Many traditional middle-class jobs – notably in manufacturing – are disappearing, to be replaced by lower-quality service sector jobs or highly skilled positions. Projected transformations in the labour market – particularly the rise of automation – will affect many middle-class occupations, and such transformations are already causing growing anxiety (Chapter 3). Meanwhile, many middle-income households struggle to cope with the rising costs of housing, education and health care and have little capacity to save. Some are even running up debt in order to maintain their standard of living (Chapter 4). These trends call for targeted measures to secure middle-class living standards and promote future prosperity, as a healthy middle class is important for economic growth, political stability and social cohesion (Chapter 1).

This chapter presents policies that address the main challenges facing middle-class households. As the middle class is diverse, not all middle-class household face the same challenges or have the same interests. For example, lower and upper middle-income households have seen their earnings and disposable incomes develop in very different ways, homeowners and tenants are unlikely to have the same idea of what successful housing policy is, and a senior manufacturing worker and a young entrepreneur may not necessarily share the same views when it comes to the opportunities and risks of digitalisation. This chapter focuses particularly on lower middle-income households – those who are the most economically insecure. It proposes policies to ensure that younger generations still have the prospect of becoming part of the middle class, and it looks at ways of supporting increasingly vulnerable lower middle-class households to prevent them from slipping out of the middle class.

However, a policy dilemma is evident throughout this chapter when considering ways to support the middle class. Because they represent such a large share of the population (around 60% OECD-wide, see Figure 2.1), the middle class also account for almost two-thirds of direct tax revenue (see Figure 2.14). Therefore, any policy that seeks to reduce the middle-income group's tax burden or to extend benefits to them may require a trade-off. More precisely, substantially reducing the tax burden on middle-income households would likely undermine the funding of some public services that they heavily rely on, or it would require more precise targeting of public expenditures to lower-income groups to reduce overall spending. Similarly, extending targeted support to lower middle-income households would require an increase in the tax burden borne by other middle-class households to generate the additional public revenue required. If greater support for the lower middle should not come at the expense of the most vulnerable in society, it will require greater contributions from the better-off.

The structure of this chapter mirrors that of the report's analytical chapters, 2 to 4. Section 5.2 looks at ways of boosting middle-class disposable incomes and supporting wealth accumulation. Section 5.3 discusses policies that help middle-income households cope with rising costs, particularly for housing, education and health and long-term care. Section 5.4 proposes policies that help equip middle-class workers with the skills needed to succeed in a changing world of work, focusing on vocational education and training and adult learning. In all sections, the proposed solutions cut across policy domains, covering labour market and employment, education and skills, taxes and benefits and social policies.

5.2. Boosting middle-class incomes and wealth

Weak income growth over the past decade has been a key factor in the growing pressure on middle-class living standards. Between 2007 and 2016, median household disposable incomes rose, on average, by a meagre 0.3% per year in 19 OECD countries – less than one-fifth of the rate in the previous decade (see Figure 2.3), and much lower than the 0.8% increase for the top-10% income households. Such income stagnation cannot necessarily be attributed to losses incurred during the Great Recession, which were comparable to those experienced by top-income households and much milder than among those at the bottom. It is rather that income gains during the post-2010 recovery have been lower for households in the middle than for those at the top of the distribution.

Slow wage growth is the prime reason for stagnant middle-class incomes. The last two decades have seen a gradual decoupling of wages from productivity, with real median wages growing at a much slower pace than labour productivity. This trend has occurred together with growing wage inequality since the early 2000s, with a notable widening in the gap between the lower half and top 10% of the distribution (OECD, 2018[1]; 2018[2]). The global financial crisis significantly slowed wage growth, which has remained sluggish during the recovery chiefly because of weak productivity growth and low inflation expectations (OECD, 2018[3]). Since earnings from work are by far the largest income source of middle-income households – at 97% of market income – low wage growth has translated directly into lower income growth.

The disappointing growth in earnings and incomes is of greater concern given that many feel that middle-income households pay too much of their gross income in taxes, such is the sentiment in around half of the population in 24 OECD countries.[1] Analysis in Chapter 2 calls for a somewhat more nuanced view, however. Working-age middle-income households indeed contribute more in income taxes than they get out of the redistributive system in benefits. However, the imbalance is largely offset by the high net receipt of benefits among elderly middle-income households, primarily in the form of pensions.[2] In other words, the overall net tax burden of middle-income households is close to zero, but there are substantial intergenerational transfers within the middle-income group, from working-age to elderly households. Notably, these calculations consider only cash benefits and direct taxes, while not accounting for in-kind benefits received by middle-income households in the form of education, health care and other public services.

Recent labour market trends have also produced a growing sense of vulnerability among middle-income households. The manufacturing sector, which long provided stable, well-paid employment, has been shrinking in many OECD countries, a trend that intensified during the global economic crisis. And job growth since then has been primarily in lower-quality service-sector occupations (OECD, 2016[4]). In the years leading up to the crisis and during the recovery, a number of countries carried out reforms to their social protection systems, tightening eligibility criteria, shortening the maximum duration of unemployment benefits, and stepping up the means-testing of minimum-income benefits. These measures have heightened the sense of insecurity among middle-income workers: those who may have contributed to the social security system for decades suddenly face a real risk of quickly losing a significant proportion of their income and assets if they lose their job. Indeed, the risk of downward mobility among lower middle-income households has increased over the past two decades (OECD, 2018[5]) and this trend is likely to persist.

Projections suggest rapid technological change will reduce job quality and earnings stability for middle-income workers, albeit to a lesser extent than among those in low-skilled, low-wage employment (see Chapter 3).

Another consequence of slow income growth is that middle-class households – in particular those with modest incomes – find it very difficult to accumulate wealth. Many therefore do not have the benefits of wealth as a means of insurance against income shocks in times of job insecurity and earnings volatility, but also as a source of future capital income. A majority of (lower) middle-income households find themselves in the lower half of the wealth distribution, which in most OECD countries accounts for only a small share of total net household wealth (Balestra and Tonkin, 2018[6]). Furthermore, middle-class wealth is largely made up of housing assets, which are insufficiently liquid to help smooth consumption effectively in the event of income shocks.[3]

This section discusses the best policies for securing and boosting the resources of middle-income households. Such policies include ensuring fair wages, increasing female labour force participation, reducing the net tax burden on middle-income households, effectively protecting vulnerable middle-income households from negative income shocks, and enabling and encouraging the accumulation of wealth.

5.2.1. Ensuring fair wages for low and medium earners

The decoupling of labour productivity from wages, and the resulting slow wage growth in the bottom and middle the distribution, demonstrates that productivity growth alone is not enough to secure middle-income households better living standards. In addition to raising the earnings potential of middle-income workers through education and skills policies (see Section 5.4), governments need to design labour market institutions that ensure that productivity gains are shared widely and translate into higher wages and better working conditions (OECD, 2018[2]).

Collective bargaining and social dialogue can play a central role in ensuring good wages and working conditions. Indeed, in the public debate, the weakening of trade unions over the last decades has been presented as a contributory factor behind the sluggish wage growth of middle-income households. Strengthening collective bargaining has therefore been suggested as one way to support middle-class incomes (Atkinson, 2015[7]).

However, empirical evidence of the link between the shrinking collective-bargaining coverage of middle-income workers and low wage growth is surprisingly scarce.[4] What is clear is that union membership OECD-wide has almost halved since the mid-1980s. In most countries, collective bargaining agreements now cover less than half of the workforce and, in some, much less than half (OECD, 2017[8]; Marcadent, 2018[9]). In several OECD countries, the overall drop in union membership broadly coincided with the decline in the population share of middle-income households. Moreover, unionisation rates were traditionally highest in sectors, such as resource extraction and manufacturing, that long provided "typical" middle-class jobs and are now suffering from structural decline. For the United States, a recent study has suggested that higher levels of union membership had a positive effect on the incomes of middle-income households, and that the long-run decline in membership contributed to rising income inequality (Farber et al., 2018[10]). Generally speaking, in countries with wider collective bargaining coverage there is less wage dispersion and workers covered by collective agreements benefit from wage premiums (OECD, 2018[3]).[5]

Since collective bargaining systems differ widely from country to country in their institutional structure and coverage (OECD, 2017[8]), policies to strengthen them depend on national contexts.[6] As the world of work changes, efforts to extend collective bargaining coverage to workers in non-standard jobs are of particular relevance for middle-income households. Non-standard jobs are widely characterised by lower wages and job security, and are likely to become more widespread as standard middle-class occupations disappear (OECD, 2018[11]). Unions can and do reach out to workers in such jobs, and social dialogue has a role to play in helping regulate new forms of work (OECD, forthcoming[12]). One example is the Danish trade union 3F, which recently signed a collective bargaining agreement with a company that operates an online platform for domestic work in private homes. The agreement introduces a new category of domestic workers in the platform company, giving them employee status. At the same time, it maintains existing freelance arrangements (De Stefano, 2018[13]).[7] Antitrust regulations may bar certain types of non-salaried workers from collective bargaining (OECD, forthcoming[12]). In such cases, existing regulations may need to be adjusted to allow for exemptions for some forms of self-employment and certain sectors or occupations. Such exemptions often already exist for self-employed actors and freelance artists. Alternative forms of worker organisation can complement these efforts, such as non-profit worker centres in the United States or the SMart co-operative that supports the self-employed in Belgium and eight other European countries (OECD, 2018[14]; forthcoming[12]).

In countries or sectors with no collective agreements or low coverage, statutory minimum wages can help ensure fair pay and raise wages higher up the distribution. There is a relatively broad consensus that minimum wages are not very effective at reducing poverty, because poor households frequently have no-one in work, while many minimum-wage earners live in non-poor households (OECD, 2018[2]). However, this also implies that middle-income households, particularly those on lower middle-incomes, directly benefit from minimum-wage increases.[8] In some countries, moreover, the minimum wage has been shown to have a so-called “ripple” or “knock-on” effect, with companies raising wages further up in the distribution to maintain wage differences between lower- and higher-paid workers (OECD, 2015[15]; 2015[16]).[9]

Levels of gross minimum wage vary substantially from country to country in the OECD.[10] Scope for increases depend on a range of country-specific factors, like the initial relative level of the minimum wage, the behavioural response of employers, the degree of competition in product and labour markets, and how the minimum wage interacts with other policies, in particular taxes and benefits (OECD, 2018[2]). In Australia, industry- or occupation-wide regulations, so-called Modern Awards, set industry-specific wage floors that vary by skill level. And while some 36% of employees are covered by collective agreements, another 23% are covered by Awards only. Awards are set by the Fair Work Commission, whose members are chosen by the government and selected among employer bodies, unions, lawyers and public officials (OECD, 2018[3]).

In some countries, businesses pay so-called “living wages”. They are higher than the minimum wage and calculated to cover the cost of living either for a full-time worker or relative to the poverty line. Companies may pay a living wage as part of a voluntary commitment (in Canada, Ireland, New Zealand and the United Kingdom[11], for example) or in order to qualify for public contracts, as in some cities and counties in the United States (Eurofound, 2018[17]).

5.2.2. Increasing female labour force participation and earnings

As a result of rising female employment – and the associated increase in disposable incomes across the distribution – many couples who perpetuate the once traditional single-breadwinner model fall short of the middle of the income distribution (Figure 3.7). One-and-a-half earner couples, by contrast, make up a growing share of (lower) middle-income households, with the female partner often combining paid part-time work with unpaid household tasks and/or care. As for couples with two full earners, they account for a disproportionate share of upper-middle-income and high-income households. Clearly, there is potential for boosting middle-class incomes by further increasing women's labour force participation, hours worked and earnings.

Measures to lower effective tax rates for second earners deserve particular attention as second earners are highly responsive to work incentives (OECD, 2011[18]; 2012[19]).[12] In 24 of the 34 OECD countries, second earners pay a higher average tax rate than single earners at the same earnings level, and the number of countries rises to 32 if there are children in the household (Thomas and O'Reilly, 2016[20]). The gap in average tax rates between primary and secondary earners is often particularly wide in countries that operate family-based systems of labour income taxation, such as France, Germany, Luxembourg and Switzerland.[13] In individual-based systems, effective tax rates for second earners who start work or increase hours worked (so-called "marginal" tax rates) may be high if tax allowances and credits are withdrawn based on family income as in Italy, there are dependent-spouse allowances for primary earners, as in Slovenia and the Slovak Republic, or if basic credits can be transferred between a non-working and working spouse, as in Canada and the Netherlands). In recent years, a number of countries have attempted to narrow the gap between before- and after-tax pay for second earners – the so-called "tax wedge". Examples are Australia, which abolished the Dependent Spouse Tax Offset, and the Netherlands, which reformed its tax credit system (OECD, 2016[21]).

Besides tax policy, policies that help middle-income families strike a better work-life balance, including by sharing responsibility for household tasks between men and women more fairly, have an important role to play.[14]

Well-designed paid-leave provisions can raise female labour force participation, as well as exerting positive effects on maternal health and well-being and even child health and development outcomes (Adema, Clarke and Frey, 2015[22]). They reward women who work and build up leave entitlements prior to giving birth, giving them job security and easing them back into work post-birth. And, if fathers take up a significant share of their leave entitlements, paid leave also helps parents share caring responsibilities more equally (OECD, 2017[23]). As well as paid-leave *duration*, *payment rates* are an important determinant of the attractiveness of paid leave to middle-income families and of their income situation after childbirth.[15] Household net incomes typically fall by an OECD-wide average of 19% for a couple on average earnings when parents take maternity and paternity leave (OECD, 2017[24]). However, replacement rates for medium- and high-earners tend to be much lower when benefits are paid at a flat rate, as in many English-speaking countries.[16] Moreover, payments often decline much more substantially over the following months as parents take parental leave.[17] In Belgium, for example, the net equivalised household income of a family with two middle-earners drops from 88% in the first month after childbirth to only 60% in the sixth month. Raising replacement rates in countries where they are low – either generally or specifically for medium and high earners – would increase women's incentive to work before having children and boost family incomes, both before and after childbirth.

To encourage men to spend more time at home caring for their children, a growing number of countries have introduced "fathers-only" paid leave, e.g. paternity leave and individual parental-leave entitlements available on a "use-it-or-lose-it" basis only. Most common are mother and father quotas, where specific portions of an overall parental leave period are reserved for each parent, as in the Nordic countries. Other options include "bonus periods" – where a couple may qualify for extra weeks of paid leave if both parents use a certain amount of shareable leave, as in Germany – or the provision of paid parental leave as an individual entitlement for each parent (OECD, 2017[23]; 2017[25]). Japan and Korea grant both mothers and fathers around one year of non-transferable paid parental leave each, though take-up among fathers tends to be very low. In Korea, only 8.5% of people who took paid parental leave in 2016 were men (OECD, 2019[26]). Once again, higher payment rates could help improve matters and encourage couples to share leave more evenly. Currently it may make economic sense for a couple to agree that the mother take more paid parental leave, as the father is usually the higher earner. If leave benefits were to replace the bulk of earnings, then couples may well be more willing to share parental leave.

If mothers are to successfully resume work after leave, access to affordable good-quality childcare is important. Indeed, the expansion of publicly provided or subsidised childcare has been one driver of rising female labour force participation (Thévenon, 2013[27]). Comparatively large shares of children from middle-income families are, in fact, in early childhood education and care (ECEC). There is scope, though, for improved attendance among the under-3s: on average about 37% from the middle tertile of the income distribution were in ECEC OECD-wide in 2016, compared to 27% in the lower tertile and 44% in the upper tertile (OECD, 2018[28]). Two countries that have made significant progress in this respect are Korea and Germany, both of which have heavily increased public expenditure on ECEC. Korea increased subsidies for childcare, while Germany introduced a legal childcare entitlement for all children older than one.[18]

The quality of childcare is of as much concern as its cost (see Section 5.3) for middle-income families. If formal childcare is to be attractive, it must be as good as alternative informal solutions, such as family-provided education and care. Trained and qualified teachers who enjoy proper working conditions and low child-to-staff ratios are essential requirements in high-standard childcare (OECD, 2011[29]; 2018[30]). While good-quality ECEC has repeatedly been shown to deliver beneficial cognitive and non-cognitive outcomes for low-income children, the fast growth in childcare provision more broadly yields mixed results. In Quebec, for example, the overly rapid expansion of compulsory early childhood education increased female labour force participation, but seems to have had lasting negative effects on non-cognitive child development outcomes (Baker, Gruber and Milligan, 2008[31]; 2015[32]).

5.2.3. Reducing the tax burden on middle-income households

Reducing taxes or expanding benefits immediately boosts middle-class disposable incomes and can help alleviate the sentiment among middle-income households that they pay too much tax, especially relative to the benefits they receive.

After years of rising labour taxes in the wake of the economic crisis, a number of OECD countries have lowered the personal income tax (PIT) rates for low- and middle-income earners. Examples include the elimination of the second PIT bracket in Belgium, the introduction of two new tax brackets in Portugal, a reduction in the lower rates of the Universal Social Charge in Ireland, and tax rate cuts for middle-income earners in Canada, Luxembourg and Slovenia. Several countries, including Belgium, Germany, the

Netherlands, Norway, Slovenia and the United Kingdom, increased basic allowances and general tax credits (OECD, 2017[33]; 2018[34]).[19] Both reductions in PIT rates in the lower parts of the tax schedule and more generous basic PIT provisions primarily benefit (lower) middle-income households, as those on very low incomes often do not earn enough to pay PIT.

Reducing social security contributions can also be an effective means of raising the take-home income of middle-income households. Indeed, in the vast majority of OECD countries, social security contributions, rather than income taxes, account for most of the direct tax burden for average-wage earners. As a result, social security contributions have little redistributive effect, and can even be regressive, in a number of OECD countries (Causa and Hermansen, 2017[35]; Immervoll and Richardson, 2013[36]). Partially shifting the funding of social protection systems away from social security contributions towards PIT may be an option notably for benefits that are only weakly linked to labour market behaviour – such as health insurance, certain types of pensions, and family allowances (OECD, 2018[2]).

A recurring cause of frustration for middle-class taxpayers in some countries (such as Austria and Germany) is the gradual inflation-induced increase in tax rates because tax rules are defined in nominal terms. It is referred to as "bracket creep" and particularly affects low- and middle-income earners for whom marginal tax rates rise most quickly with additional income if the tax schedule is progressive. Simulations indicate that its effect on income tax revenue may indeed be considerable, even at relatively low inflation rates unless if tax bands are frequently inflation-adjusted (Immervoll, 2005[37]; OECD, 2008[38]; Parlament der Republik Österreich, 2018[39]). While the issue can be easily addressed by, for example, indexing tax rates and allowances to inflation (as in Switzerland) or nominal wage growth (as in Sweden), governments may appreciate the budgetary flexibility they gain by being able to correct for inflation at their own discretion (Bach, 2012[40]).

However, any measures to cut middle-income households' tax burden put pressure on the sustainability of public finances. Significant tax cuts for middle-income groups would almost certainly lead to substantial shortfalls in public revenue, as middle-income households generate nearly two-thirds of overall direct tax revenue (see Chapter 2). The funding of social protection systems and public services, of which middle-class households are major beneficiaries, would undoubtedly be affected.

Larger reductions in the middle-class tax burden may therefore call for changes in the tax structure. In particular, tax reductions for the lower middle-income group would likely require better-off households – possibly including upper middle-income households – to make a greater contribution to financing public expenditures:

- *A more effective taxation of personal capital income* could allow the tax burden on labour to be lowered, providing tax relief for lower middle-income households and encouraging greater employment. Capital ownership is more highly concentrated than earnings, and in a number of OECD countries, the wealthiest often pay lower effective tax rates than the middle class. This is because a greater share of their income comes from returns on their financial or non-financial assets, and capital gains made on these assets are taxed at considerably lower rates than labour income.[20] Indeed, lower taxation of capital incomes has been one driver of the decline in the efficacy of income redistribution policies across the OECD since the mid-1990s (Causa, Vindics and Akgun, 2018[41]). More recently, Iceland raised its capital income tax rate from 20% to 22% in 2018 to narrow the gap between the taxation of labour and capital income, while in the Netherlands, the government has announced an increase in the tax rate for income from substantial shareholdings from 25% to 28.5% as from 2021 onwards.

- *Well-designed inheritance and gift taxes* could also be part of the solution. Inheritance and gift taxes, paid by heirs and recipients, are still applied relatively widely across the OECD. Many countries, however, have narrowed their base since the mid-1990s with the introduction of numerous exemptions and deductions, increasing opportunities for evasion through tax planning schemes affordable almost exclusively to higher-income groups. Belgium and France, however, levy substantial revenues from inheritance tax – 0.7% and 0.6% of GDP in 2016, respectively. The amounts collected suggest that other countries, too, could further exploit the distributional impact of inheritance and gift taxes (OECD, 2018[42]). Japan, for example, reformed its taxation of inherited assets and gifts *inter vivos* to good effect in 2015, reducing the tax-free threshold on the inheritance tax by 40% for certain higher-income groups. Appropriate allowances for households with low to medium wealth could ensure that inheritance taxes do not discourage the middle classes from accumulating wealth.
- *Higher marginal tax rates for high-income earners* could help finance some of the reductions in the tax burden of lower middle-income households. Proponents of higher rates emphasise that they have little to no negative effect on economic growth, and that there is a historic precedent for much higher top marginal tax rates. Up until the 1980s, the average top statutory tax rate in OECD countries was over 65%, compared to just over 43% in 2016 (OECD, 2018[34]). Israel, Korea, Luxembourg and Norway all increased their top PIT rates in 2017, with Korea applying the largest rise, from 40% to 42%. However, the capacity to generate substantial additional tax revenue from high-income earners is limited if one wishes to avoid also increasing the tax burden on the middle – the implied top marginal tax rates would otherwise have to be very high.
- *Greater international coordination on closing tax loopholes and fighting tax fraud* by individuals and corporations can help governments broaden their tax bases and hence raise additional funding. Estimates suggest that over 70% of the world's wealth held in tax havens originates from the richest households in OECD countries (Alstadsæter, Johannesen and Zucman, 2018[43]; 2017[44]). Country-level implementation of the wide-ranging *G20/OECD Base Erosion and Profit Shifting (BEPS) Project* has already had an impact on reducing corporate tax avoidance, with evidence emerging that some multinationals have already changed their tax arrangements to better align with their business operations.[21] The widespread adoption of the *OECD/G20 Standard for Automatic Exchange of Financial Account Information in Tax Matters* has also seen a significant increase in cooperation between countries on the financial accounts held by individuals in tax jurisdictions where they are not residents.[22]

Net wealth taxes have also been promoted recently as a way to raise tax revenues. However, recent OECD research has shown that when broad-based personal capital income taxes and well-designed inheritance and gift taxes are in place, there is a limited case for net wealth taxes, be it from an efficiency or equity perspective (OECD, 2018[42]).[23]

On the benefits side, in-work benefits can help boost disposable incomes lower down the income distribution by topping up modest earnings from work and encouraging employment (OECD, 2018[2]; Immervoll and Pearson, 2009[45]). The best-known employment-conditional income support programme is perhaps the United States' Earned

Income Tax Credit (EITC), introduced in 1975 to support working families on low earnings. Those whose income tax burdens are lower than the credit they would be entitled to may receive the difference in cash – the tax credit is "non-wastable". The EITC has repeatedly demonstrated positive employment and income effects, notably for single parents. While it is primarily an anti-poverty measure, with its effect being greatest among households on incomes of between 75% and 150% of the federal poverty line, more modest benefits accrue even to households on incomes that are as high as 250% of the poverty line (Hoynes and Patel, 2015[46]). In France, the *Prime d'Activité* is a direct cash benefit for working households with earnings below certain thresholds. The scheme yields up to EUR 300 per month for a single employee or self-employed worker earning around half of the full-time minimum wage. After extensions in 2018 and early 2019, it now benefits single-person households earning up to 1.5 times the minimum wage (Carcillo, Hijzen and Thewissen, forthcoming[47]).[24]

The affordability of extending in-work benefits to lower middle-income households varies from country to country. Recent evidence from the United States suggests that the EITC largely funds itself, with 87% of the programme's costs being recovered through savings in public assistance payments and increased tax revenues (Bastian and Jones, 2018[48]). However, designing and financing in-work benefits tends to be more difficult in countries where earnings at the bottom of the distribution are compressed. They have to phase out benefits more quickly as earnings rise. As a result, it is difficult to target the working households entitled to benefits with precision, the working households entitled to benefits, and there is a heightened risk that recipients may deliberately reduce their earnings to qualify (OECD, 2018[2]).

5.2.4. Providing effective income protection for workers with unstable employment and earnings trajectories

Globalisation and digitalisation are profoundly transforming OECD labour markets. They increase the need for well-designed social protection systems while simultaneously throwing up challenges to the design of such systems. Greater labour market polarisation has heightened the risk of job displacement for mid-earning workers, and increased the need for effective out-of-work assistance to bolster incomes in the event of job loss and support re-employment. Many newly created jobs are of low quality – unstable and poorly paid – so raising concerns over inadequate coverage and funding of existing social security systems. Indeed, most of these systems were originally designed on regular, full-time, open-ended contracts with a single employer (OECD, 2017[8]). Already today, fewer than one-in-three jobseekers OECD-wide is covered by unemployment benefits (OECD, 2018[3]).

One approach to improving social protection coverage in times of increasingly fragmented working careers is to link entitlements to individuals rather than to jobs (OECD, 2017[8]; OECD, 2018[49]). In most OECD countries, employees build up unemployment benefit entitlements and pension rights independently of the employer for whom they work. By contrast, entitlements to severance pay in the event of dismissal typically lie with a specific employer, with a change of employers bringing about a loss of these rights. In some cases, health insurance coverage is also tied to the employment contract, so that employees who lose their job or transition into self-employment may also risk losing their coverage.

Austria offers an interesting policy lesson with its measure to increase the "portability" of entitlements. In 2003, the country replaced its severance pay scheme with personal, company-based pension accounts to which employers contribute a fixed rate of individual earnings. In the event of dismissal employees with at least three years of tenure can chose between receiving their severance payment from the account or saving it to boost their future pension entitlement. Employees who quit voluntarily or lose their job after a tenure of less than three years do not qualify for severance payment, but may carry over their entitlements to their next employer (OECD, 2013[50]; OECD, 2018[49]). The scheme was extended to independent contractors in 2008, and has been shown to increase the job mobility of workers in struggling firms (Kettemann, Kramarz and Zweimüller, 2016[51]). France introduced personal training accounts (*compte personnel de formation*) in 2015 allowing employees to build up and use training credits that are maintained if they change employer or become unemployed. A personal training account is also in place in Iceland (Brandt, 2015[52]; OECD, 2019[53]; 2019[54]; forthcoming[55]).

There is substantial scope for improving benefit coverage for the self-employed, who have more limited or no access to insurance-based benefits in most OECD countries (OECD, 2015[56]; Spasova et al., 2017[57]). A recent EU study estimated that 55% of the self-employed were unlikely to be entitled to unemployment benefits in 2014, and nearly 40% when it came to sickness benefits (Matsaganis et al., 2016[58]). The share of middle-income households headed by a person in self-employment – about 10% OECD-wide – is currently lower than among families on low or high incomes (Figure 3.11). However, the projected decline in regular employment in the middle of the skills distribution may give rise to greater independent employment among middle-income households.

A positive side effect of wider unemployment benefit coverage is that jobseekers stay in touch with public employment services, and so benefit from active labour market support. A number of countries have introduced voluntary schemes for the self-employed, e.g. unemployment insurance in Austria and Spain and family and sickness benefits in Canada. A weakness of such voluntary schemes, though, is that they tend to attract the most risk-prone people, which may jeopardise their financial sustainability (OECD, 2018[49]; forthcoming[12]).

An alternative approach to preventing gaps in social protection coverage could be to loosen its ties with the employment relationship. Granting benefit entitlements based on residency criteria or needs assessment, rather than on employment history, would be one way to do so. Benefits could be either contribution-financed – such as the Dutch basic pension scheme and the Swiss public earnings-related pension scheme – or entirely tax-financed, as with most social assistance schemes. Indeed, some social benefits – such as health insurance and maternity or parental leave – are already universal in a number of OECD countries. The Australian model may offer useful guidance for social benefit provision. Most of the country’s public benefits are flat-rate entitlements financed from general government revenue, with no explicit social security contributions required as a condition of eligibility. Income support payments are means-tested, though the criteria applied are typically more generous than those for social assistance schemes in many OECD countries (OECD, 2018[11]; OECD, 2018[11]).

Among middle-income households threatened by income loss, one group that is likely grow in size is mid-career workers displaced by structural economic change and forced to switch industry or occupation. Recent OECD case studies (OECD, 2018[11]; 2018[3]) highlight the obstacles to re-employment with which they have to contend – e.g. obsolete skills, no recent job search experience and possibly unrealistic pay aspirations. However, the studies also point to their strengths – notably histories of stable employment, strong labour force attachment and high motivation. Early counselling on the adjustment process and the development of realistic re-employment strategies can be very helpful. An interesting example in this respect are Sweden's so-called "job security councils". They are established through collective agreements and financed by employers, providing support both to employers and displaced employees in the event of restructuring (OECD, 2015[59]).

Some jobseekers are hard to re-employ. The focus should be on ensuring that they use their out-of-work periods efficiently in order to develop the skills required in changing labour markets (Section 5.4). Wage insurance schemes provide income protection for displaced workers who take up new jobs at lower wages by covering part of the earnings gap, albeit for a set period. There is only limited evidence to date on the effectiveness of such schemes, however. Evaluations of two small-scale programmes in Canada and the United States find that they indeed reduced the decline in the net incomes of displaced workers. They did not, though, have any significant effect on how fast they found new jobs or on their post-displacement wages (Bloom et al., 2001[60]; Wandner, 2016[61]; OECD, 2018[3]).

5.2.5. Enabling and encouraging middle-class households to accumulate wealth

The policy options described in the previous subsections can help boost the disposable incomes of middle-class households and, thereby, their capacity to save. To save, however, households need investment opportunities and incentives. One challenge that low- and middle-income households face is that most financial instruments available to those with small savings yield lower returns than those for large savers (Atkinson, 2015[7]).

A simple solution could be to introduce national savings bonds with a guaranteed positive real interest rate and a maximum holding per person, so affording households with limited savings capacity the opportunity of low-risk wealth accumulation. The United Kingdom, for example, regularly issues government-backed Index-linked Savings Certificates, most recently at an annual real interest rate of 1%.[25] Each issue comes with an investment ceiling of GBP 15 000 (EUR 16 700) per person. Returns are free of income tax, which also makes them attractive to higher-income earners. Ireland has a similar instrument in place with its Savings Bonds and Certificates, though they are not inflation-protected (Atkinson, 2015[7]).

A more far-reaching approach would be to provide all young adults with a capital endowment – or "minimum inheritance".[26] They could access it on turning 18 or 21 and use it for purposes like funding their education and training, as down payment on a mortgage, or as starting capital for starting a company. Proponents of minimum inheritance have suggested financing it through an annual personal wealth tax or a lifetime capital receipts tax and that should be paid back at death.

Child development accounts could serve a similar purpose. Current proposals by researchers in the United States call on governments and charities to make payments into so-called "baby bonds" for all children from families whose net worth is below the national median. The bonds would become accessible to the children when they turn 18 years old (Hamilton and Darity Jr., 2010[62]).[27]

A small step in a similar direction was the Child Trust Fund in the United Kingdom, a long-term tax-free savings account for children introduced in 2005 but discontinued in 2011.[28] It was designed to ensure that all British children had savings when turning 18 and to foster good saving habits. Evaluations suggest that the number of people putting aside monthly savings for their children increased threefold during the six-year period that the programme was active, whilst the amount saved rose by 60% over the same period (United Kingdom Parliament, 2010[63]). Similar policies have been proposed to incentivise smaller-scale wealth accumulation for a specific purpose. For example, children's savings accounts (CSAs) have been advocated as a way of building up sufficient assets to pay for higher education. In the United States, Elliott and Lewis (2018[64]) suggest that public institutions or philanthropic sources should be encouraged to place deposits in CSAs at birth, while low-wealth families would be given incentives for additional regular saving.[29]

Reducing variance in the tax treatment of different capital assets could also be a step towards encouraging wealth accumulation of lower middle-income households while improving tax equity. Recent OECD research has found that the large disparities within countries' tax treatment of different assets play a significant role in determining which assets people save their money in (OECD, 2018[65]), generally favouring more affluent savers. Private pension funds tend to be the most tax-favoured form of saving, with owner-occupied residential property also significantly tax-favoured. In contrast, rental property is often subject to relatively high marginal effective tax rates, as are bank accounts. Curbing the variance in the tax treatment of different assets – in other words, improving "tax neutrality" – by curtailing capital gains tax exemptions for example, could help increase the returns on smaller savings (Aghion et al., 2017[66]). Preferential tax treatment for private pension remains important for the middle class, however, given the need to encourage middle-income households to accumulate wealth for their retirement.

Inheritances are the source of a significant part of household wealth, including for the middle class (Balestra and Tonkin, 2018[6]). Indeed, a considerable share of the lower middle-income group hold relatively significant wealth despite their lower incomes, often because they have inherited their house. Inheritance taxes can generate significant revenue (see above) and promote equality of opportunity by reducing overall wealth inequality (OECD, forthcoming[67]), but must be carefully designed to avoid overburdening the middle class. For example, a substantial tax bill for lower middle-income households could force them into selling their inherited property to pay tax due. Inheritance taxes should be progressive, at increasingly higher rates for those with higher incomes and those who receive a higher-value inheritance (Causa and Woloszko, forthcoming[68]). Tax-free allowances ensure that those receiving small inheritances are spared. For lower middle-income households facing liquidity constraints, taxes on larger inheritances could be repaid in instalments or, for those occupying the inherited property, tax payments could be deferred until the property is sold.

5.3. Helping households cope with the rising costs of housing, education, health and long-term care

Middle-income groups' spending increased faster than their incomes between 1995 and 2015 (Chapter 4). Alongside a change in consumption patterns, there were rises in the prices of certain goods and services that were once traditional staples of middle-income households. As a result, many of them struggle to save, spending almost all that they earn, with many running up significant debts. Around 40% of middle-income households in EU OECD countries state that they have troubles coping with any unexpected expenses or sudden falls in income. Indeed, over-indebtedness has become commonplace in a number of countries (see Figures 4.10 and 4.11).

Rising housing costs have been central to middle-income households' struggles (see Figure 4.5).[30] Housing is their largest expenditure item, accounting for approximately one-third of disposable income OECD-wide. In the last two decades, house prices have been growing three times faster than household median income. This trend reflects widespread shortages in the supply of housing, particularly in booming urban areas, where construction often fails to keep pace with rising demand (Barbosa et al., 2017[69]). Moreover, housing is arguably more than just a standard consumption good. In many countries, being middle class has traditionally been associated with owning a home. Soaring house prices and high rents, which may put homeownership out of reach for both lower middle-income households as well as younger generations, throw into doubt the middle-class's self-perception and the promise of upward mobility. As a result, it is becoming an increasingly unrealistic prospect for many young people to accumulate the necessary wealth to one day acquire property. In a wide range of countries, they are far less likely to purchase property than their parents were.[31]

The cost of education has also risen considerably across OECD countries in the last 30 years. Middle-income households in EU OECD countries spent a 32% higher share of their disposable income on education in 2015 than in 1988 (Eurostat, 2018[70]), with the greatest increases seen in spending on pre-primary and tertiary education. Such increases in costs are obviously a strain on the budgets of middle-income families. However, they can also jeopardise upward mobility by reducing participation rates in early childhood education[32] – simultaneously creating additional hurdles for second earners with caring responsibilities seeking to enter the labour market, – and discouraging young people from pursuing higher education. Social class remains one of the most significant predictors of a child's educational outcomes (OECD, 2018[5]).

In some countries, health care costs have also become a major concern. On average, lower middle-income households in EU OECD countries spent a 28% greater share of their budgets on health care in 2015 than a decade earlier (Eurostat, 2018[70]). This figure masks significant variations between countries, however. Spending was particularly high in Greece and Latvia at respectively 6.8% and 7.2% of middle-income budgets compared to 1.4% and 1.9% in the Netherlands and Sweden. Social-care costs are forecast to rise further as life expectancy continues to increase – 13% of over-65s are already receiving long-term care (LTC) in OECD countries (OECD, 2017[71]). And those figures do not include the social care services that relatives commonly provide at home, and which often place significant financial, mental and physical pressure on families, and particularly on women.

This section looks at ways of supporting middle-income households who have to contend with rising costs. Policy solutions seek to help families live in affordable housing, access quality education for their children and reduce their expenditure on caring for their own health and that of their loved ones.

5.3.1. Ensuring affordable housing

Policy changes to make housing more affordable can reduce the strain on middle-income budgets considerably. To achieve sustainable improvements in housing affordability, policy makers need to address shortages in the *supply* of housing while providing *demand-side* support to bring accommodation within the financial means of households. While many housing policies in OECD countries have traditionally favoured homeowners, more could be done to promote a robust and affordable rental market.

A first set of solutions focuses on facilitating private construction to make the housing supply more responsive to market prices – increase its price elasticity, in other words. A critical assessment of existing land-use policies could be a first step in the many countries where unnecessarily strict regulations prevent or slow construction, thus driving up prices and rents in densely populated areas (Kok, Monkkonen and Quigley, 2014[72]; Saks, 2008[73]; Quigley and Rosenthal, 2005[74]). Examples of such regulations include minimum lot sizes, off-street parking requirements, single-family rules, lengthy permit application processes, and restrictions on accessory dwelling units.

Relaxing land-use regulations might also to make it easier to build higher-density housing projects that lower- and middle-income groups can afford, lessening residential segregation and urban sprawl (Reeves, 2017[75]). Tokyo used that approach in the early 2000s, allowing the construction of new housing clusters to increase the supply of affordable housing and achieved one of the lowest levels of social segregation for a city of this size by relaxing land use restrictions.[33] There are, however, concerns that higher-density housing projects would encourage high-rise luxury developments over affordable housing. One response is inclusionary zoning, which requires property developers to set aside a certain share of the units that they build as affordable accommodation below market rates for low- and middle-income households.[34] However, policies to lower house prices may meet opposition from current homeowners – often more affluent middle-income households.

As a complement to the provision of private-sector housing, some OECD countries operate social (subsidised) housing schemes that cater not only to low-income households, but also to those higher up the income distribution. Australia, Austria and Korea, for example, implement large-scale social rental housing programmes, in which they invest between 0.3% and 0.6% of GDP (Salvi del Pero et al., 2016[76]). In France, nearly one in six people lived in social housing in 2016 (Delance, 2018[77]). The most notable example is Austria, where Vienna's municipal housing subsidiary programme finances 80% of the dwellings constructed in the city, thereby meeting demand from parts of the middle class. The resulting plentiful supply of accommodation, together with rent-control regulations that apply to all subsidised buildings, generally keeps rents down, improves housing quality and reduces income segregation (City of Vienna, 2017[78]; Institute for Urban Strategies, 2018[79]). Across the OECD, 22 out of 29 OECD countries with available data support subsidised housing as a way of promoting affordability and inclusiveness. Such housing is intended mainly – though not exclusively – for low-income households (OECD, 2016[80]).

The length of time it takes for newly built housing – whether built privately or publicly – to translate into affordable homes has led many countries to control or cap rents. Rent controls usually entail determining, first, the highest permissible initial rent for a tenancy contract and, second, the rate of rent increases acceptable during the contract. The Netherlands and Germany have been increasingly active in protecting tenants from rent increases (Davies et al., 2017[81]).[35] Altogether, 15 OECD countries practice rent control (OECD, 2016[82]), though there is ongoing debate over its merits.

Critics argue that it can be counterproductive, deterring property owners from investing in housing or offering their homes for rent, constraining supply and pushing up house prices and rents. Indeed, a recent study on San Francisco found that rent control reduced the supply of rented accommodation in the city by 15% and, in the long run, promoted gentrification (Diamond, Mcquade and Qian, 2018[83]).[36] Proponents of rent control point to the disparity in rents as a share of household budgets in countries that control and those that do not. For example, the average household spends 25% of its income on rent in Germany, which practices rent control, compared to 40% in England, which does not (Davies et al., 2017[81]).

Most OECD countries also offer demand-side support to households who buy or rent a home. At least 29 OECD countries facilitate homeownership through grants, financial loan assistance and tax relief for buyers.[37] While slightly less common than social housing and income-related housing allowances, financial assistance for homebuyers tends to represent a much larger share of public spending on housing (Salvi del Pero et al., 2016[76]), and it is particularly relevant to middle-class households. In a typical OECD country, a significant reduction in the down payment required to access a mortgage increases the probability of owning a home for middle-income households (Andrews and Sánchez, 2011[84]).[38]

However, such policies come with important downsides. Preferential tax treatment of residential property, particularly mortgage interest tax relief and lower tax rates for owner-occupied housing, can have highly regressive effects, disproportionately benefiting more affluent middle-income and high-income homeowners (Salvi del Pero et al., 2016[76]). Support for homeownership may also encourage the purchase of more and larger properties by those who can already afford to buy, diverting investment from other savings assets towards housing, and reducing the supply of housing available for rent. As a result, opportunities to increase high-density housing are curtailed and further upward pressure is put on house prices, limiting access to homeownership for first-time buyers (Andrews and Sánchez, 2011[84]). Yet, scrapping all distortive tax advantages for residential property would significantly increase the tax burden on middle-class homeowners, who hold significantly higher proportions of their total assets in housing than any other income group (Balestra and Tonkin, 2018[6]). Applying a progressive tax schedule on recurrent taxes on immovable property is one policy recommendation to tax housing assets more effectively. This would need to be based on up-to-date property prices, which is often not the case in many OECD countries. Any tax should also account for liquidity issues in tax payments, such as enabling households to pay in instalments. In Denmark, a property tax reform was approved in 2017 and will become fully effective in 2021. It includes a new system for housing valuation and replaces a nominal freeze of property taxes with proportional taxation, maintaining a progressive element for the most valuable homes (OECD, forthcoming[67]).

A possible response is means-tested homeownership support schemes. Chile, for example, invests nearly 0.5% of GDP in support for low- and middle-income homebuyers through the Solidarity Fund for Housing Choices and the Integrated Housing Subsidy System (OECD, 2016[85]). Alternatively, mortgage interest tax deductions, as they exist in the United States, could be gradually replaced by one-time refundable tax credits for first-time house buyers, which have much more favourable distributional properties (Gale, 2019[86]). A number of countries offer support to young first-time buyers with the deposit needed to access a mortgage coming in the form of state guarantees (the Housing Loan Guarantee in Estonia, for example), interest subsidies (the ASP saving and loan scheme in Finland) or grants and saving schemes ("A Dwelling for the Young" in Poland).

Such measures can be of valuable help to middle-income households with limited savings that were disproportionately affected by the increased deposit requirements widely introduced to tighten up mortgage regulations in the wake of the 2008 financial crisis (Whitehead and Williams, 2017[87]).[39] In countries with an acute level of housing-related debt, mortgage relief measures can help overburdened households get back on track[40]. They usually entail refinancing mortgages by postponing or subsidising mortgage payments and debts. Examples include Norway's start-up loans, Hungary's Debt Management Service and Ireland's Mortgage to Rent scheme (OECD, 2016[85]).

5.3.2. Helping families pay for their children's education

Publicly subsidised, price-regulated ECEC is an effective way of limiting costs for households with small children without compromising on quality. A case in point is the provision in some Nordic countries, which does not require parents to pay much from their own pockets. Denmark, for example, conducts means-tests, providing ECEC services for free to low-income families and at reduced rates to those on moderate incomes.[41] Iceland

and Sweden also stand out as countries where participation rates are high and vary little with household income. In these countries, a combination of heavily subsidised, income-tested fees and sufficient supply means that very young children are likely to participate in formal ECEC regardless of family income (OECD, 2017[23]).[42]

An alternative option for helping families with high out-of-pocket expenditure is to reimburse them through the tax-benefit system. Such an approach can take the form of a direct refund through cash benefits, as seen in child-care benefits in the Netherlands, which is determined by the price of ECEC and parents' income. Other countries offer tax credits or deductions to parents who use formal services. In Portugal, for example, 30% of the costs of formal ECEC are tax-deductible up to a joint income limit of 160% of the national minimum wage (Adema, Clarke and Thévenon, 2016[88]).

However, means-tested childcare support needs to be carefully designed. Targeting too narrowly may leave lower middle- and middle-income parents with little support even though they may need it. Loose targeting, by contrast, can be very expensive, particularly where the income distribution is narrow, potentially taking resources away from lower-income families who may be in urgent need. Financial assistance can be phased out gradually as incomes rise to prevent ECEC becoming unaffordable for lower middle-income families and to maintain an incentive for parents to increase earnings from work. Some degree of price regulation may also be desirable to prevent childcare providers from capturing part of the financial support by raising prices (Rodgers, 2018[89]).

There are significant differences in the provision and funding of higher education in OECD countries. Accordingly, policy solutions for reducing the cost of higher education should also vary to meet local needs. Some countries with high tuition fees operate financial-support systems that offer all students loans with income-contingent repayments, combined with means-tested grants. Such an approach can be an effective way of widening access and promoting equity, while sharing the costs of education between taxpayers and students (OECD, 2016[90]). In an attempt to offset increases in university tuition fees in 2006 and 2012, England and Wales passed reforms that led to all students qualifying for tuition fee loans, regardless of economic status, available from the existing government-backed student loans company. The reforms also introduced means-tested grants and loans in addition to maintenance loans. Tuition fee loans are repayable only once a graduate's annual salary exceeds a given threshold, which is currently a little below the median income. Once a graduate's earnings are above a second, higher, income level of approximately double the median income, the maximum real interest rate charged is the inflation rate plus 3%.

However, there is concern over both the incentives and sustainability of high tuition fees, particularly when accrued under mortgage-style lending systems. High debt levels may deter children from lower middle-income backgrounds from entering higher education (Callender and Mason, 2017[91]; Perna, 2008[92]), and contracting such a high student debt may make these young adults reluctant to take out loans later in life – to buy a home, for example – potentially curbing their social mobility (Whitehead and Williams, 2017[87]). In the United States, certain states have now entirely abolished tuition fees for families earning below a certain threshold. New York, for example, has scrapped fees at state universities for households earning less than USD 125 000, which is just above the mean gross income of U.S. upper middle-income households.

In countries where tuition fees are low – such as Austria, Belgium, France, Italy and Switzerland – it is crucial to provide financial support for costs not directly related to tuition. Means-tested assistance for non-tuition costs serves distributional purposes most effectively when it is granted according to financial need rather than academic achievement (Heller and Marin, 2002[93]) and can also ensure costs remain manageable for governments. Loans and grants may cover tuition, but where necessary they may also be needed for attendance costs, i.e. money for books, housing and transport (Marcucci, 2013[94]). Providing students with support for accommodation and travel is of particular importance in the light of rapid price increases as for many children from lower middle-income families, the cost of housing and transport can discourage higher education attendance (Broton and Goldrick-Rab, 2016[95]). Poland uses a combination of low tuition fees, scholarships and loans to ensure that young people enjoy wide access to higher education. In 2011, it widened its system of grants by awarding them on the grounds of income rather than merit, as was the previous practice. It also raised the income threshold for grant eligibility by 30% to cover attendance costs, such as accommodation and transport.

5.3.3. Supporting households with high health care and long-term care costs

Large out-of-pocket payments for health and long-term care can be a significant burden on the budgets of middle-income families. The value and frequency of these expenditures, and thus inequalities in the access and use of services, are closely tied to the health care funding model in place (Devaux and de Looper, 2012[96]). Major reforms to health and long-term care systems are challenging for a number of reasons – the variety of stakeholders involved, the sheer size of systems, the need to maintain operating levels, their cost and the time required. However, even limited improvements to existing systems may yield significant positive effects.

The vast majority of OECD member countries offer universal health care coverage. It may be funded by taxes and publicly provided, as in the United Kingdom, or through compulsory public or private health insurance, often with regulated premiums, as in France and the Netherlands. The share of health care costs covered for particular services – known as the height of cost coverage – can vary notably, however. Significantly lower coverage for some outpatient specialist care, such as dentistry and optical services, and for the purchase of pharmaceuticals (Pearson et al., 2016[97]). Out-of-pocket spending on such services may be substantial, therefore, regardless of the health care financing model (OECD, 2018[98]).

Increasing the share of health care costs covered could provide substantial relief for middle-income households.[43] Countries with co-payment systems could apply payment ceilings, either for specific services or for total co-payments. This instrument is in place in many EU countries, with the ceiling defined either as a nominal amount, as in Denmark and Sweden, or as a share of annual income, as in Austria, Germany and Luxembourg (Paris et al., 2016[80]). Voluntary health insurance can also serve to reduce the impact of out-of-pocket payments on access and financial hardship, such as in France and Slovenia, but this requires widespread access to private coverage and, in particular, measures to ensure that lower-income groups have access. More specifically, greater coverage of pharmaceutical spending would help to reduce financial hardship caused by out-of-pocket health spending (OECD, forthcoming[99]).[44] Under insurance-based financing systems, governments have a number of options to support lower middle-income households including subsidising premium payments, and making sure that coverage is not lost if people default on premium payments.

In middle-income countries without universal health coverage, moving towards comprehensive coverage, regardless of employment status or income, would be the best solution for narrowing health inequalities and easing strains on household budgets. Indeed, in some of these countries, middle-income households spend a higher share of their budget on health care costs than poorer and richer households (Eurostat, 2018[70]; Komisar, 2013[100]).[45] Extending health insurance subsidies to poorer middle-income households, particularly those with incomes marginally greater than current qualification thresholds, could help to reduce household budget pressures. Moreover, coverage gaps can be reduced to prevent geographical location or employment status determining the affordability of insurance.

Ageing populations and other societal changes across OECD countries have increased the demand for LTC for those who are not able to look after themselves.[46] Most OECD governments have set up some form of collectively financed schemes for personal health care and nursing costs, though benefit provision is often tightly means-tested or linked to income, in order to control costs.[47] For many middle-income households, LTC costs can equate to the majority of their income if they are not supported. And for some, this may require selling of their assets, such as their house, to pay for care costs, instead of being able to pass them on to their children.

Because it is hard to predict when and for how long people might need LTC services, the most efficient way of avoiding large out-of-pocket payments by the sick, elderly and their families is to pool LTC-related financial risks through targeted universal coverage (Colombo et al., 2011[101]).[48] That is, within universal health systems, support can be directed to where needs are greatest, ensuring both fairness and value for money. However, only one-third of OECD countries offer a form of targeted universal coverage, whether through tax-funded social-care systems (as in the Nordics), dedicated social insurance schemes (in Germany, Japan, Korea, Luxembourg and the Netherlands) or via the general health care system (in Belgium).

In the absence of targeted LTC coverage, well-structured support can go a long way in helping informal carers, who are in most cases women caring for a family member or friend. One-fifth of OECD countries provide no financial support to carers (Colombo et al., 2011[101]), while others, which means-test, could be more generous. In the Nordic countries of Denmark, Finland and Norway, municipalities manage LTC and pay caregivers directly. Payments for caregivers vary from municipality to municipality and depend on the needs of the care recipient, but some countries apply a minimum lower threshold to ensure caregivers receive at least some compensation. The cost of administering these LTC programmes can be high, but they take pressure off local care institutions where access to care is often very restricted.

Aside from cash payments, countries deploy a range of measures to support informal carers – for example, training, respite care, pension credits and leaves of absence. Access to such support can be determined through needs assessments for both care recipients and caregivers, as is common in Australia, Sweden and the United Kingdom. However, these assessments are often complicated by the challenge of determining who can be considered as an informal carer. A number of countries prioritise financial compensation for carers who have had to give up their job or cut down on their participation in the labour market (Ansah et al., 2016[102]).[49] Other support can include basic care training for the family members concerned, work reconciliation measures such as flexible work arrangements, and respite care. When implemented together these measures can collectively form holistic LTC plans.

5.4. Equipping the middle class with the skills needed in a changing workplace

Labour markets in OECD countries are undergoing profound transformation driven by globalisation, digitalisation, demographic trends and migration. These trends are changing the types and quality of jobs available and the skills sets in demand (Chapter 3 and OECD (2017[8]; forthcoming[12]; forthcoming[103])), thereby affecting the employment prospects, job security and earnings of middle-class workers. Production processes are increasingly integrated, with many mid-skilled, middle-pay jobs being offshored to lower-income countries. Manufacturing sectors, as the traditional backbone of a middle-class economy, are exposed to growing competition through the international trade in final goods (OECD, 2017[104]). The rapid digitalisation and automation of OECD economies is projected to reinforce labour market polarisation: an estimated one-in-six middle-income workers are currently employed in occupations at great risk of being automated (Figure 3.12). The risk is particularly high in occupations that do not require advanced cognitive skills or complex social interaction, such as clerical or production work (Nedelkoska and Quintini, 2018[105]). And while OECD analysis (forthcoming[12]) suggests that the ongoing transformations are unlikely to cause a net job destruction in OECD economies, they certainly give rise to significant anxiety. Nearly three-quarters of people in EU OECD countries are worried that robots and artificial intelligence will “steal people’s jobs” (European Commission, 2017[106]), and a similar share in the United States believe that artificial intelligence will destroy more jobs than it will create (Gallup, 2018[107]).

The growing demand for higher, non-routine skills puts pressure on countries to rethink and reform their education and training systems. The most widespread response to the growing skill demand has been to expand and encourage university education, with nearly one-in-two young adults OECD-wide completing a university-level degree (OECD, 2018[108]).[50] Meanwhile, vocational education and training (VET) is less and less able to fulfil its traditional function of providing a pathway into middle-income groups. Indeed, the decline in the share of young people in the middle-income group (Figure 2.11) has been even more pronounced among those in low- and mid-skilled occupations.[51] This is a concern, because VET has also historically provided learning pathways for those from less-educated, lower-income backgrounds giving them the opportunity to develop the foundation skills and practical knowledge needed to find skilled work. If VET is to remain a catalyst for upward mobility into the middle class, many OECD countries will need to modernise their vocational programmes.

Strong provision of adult learning can help people develop the complex skills demanded by labour markets. Adult learning should be part of a wider move to move from a front-loaded education system – which often ends when students finish secondary or higher education – to lifelong learning. Adult learning programmes can be particularly useful to people employed in mid-skilled jobs and in industries and regions particularly at risk from labour market changes. They enable them to acquire the competencies they need to keep their jobs or to transition into better-quality employment (OECD, 2017[8]). However, attendance rates and duration amongst older middle-income adults without tertiary education are notably lower than among those who are younger and better educated. Another obstacle is that employers tend to underinvest in employees whom they perceive to be less attached to the company – e.g. contract workers or women with caring responsibilities (OECD, 2019[44]) – many of whom belong to the middle-income group.

5.4.1. Offering attractive vocational pathways

If vocational programmes are to steer learners into increasingly skill-intensive middle-class jobs, they should set out well-defined pathways that go further than upper-secondary level to post-secondary and higher education. A common reason why, in many OECD countries, vocational education appears unattractive to more able or ambitious learners is that VET qualifications are often seen as dead ends, affording little opportunity to deepen and update skills or transition to academic programmes (OECD, forthcoming[109]). This need not be the case, however, and a number of OECD countries have developed pathways to higher-level professional qualifications that are both attractive to learners and demanded by employers.

- In Austria, higher vocational colleges (*Berufsbildende höhere Schulen*, BHS) offer popular five-year upper- and post-secondary programmes that combine vocational and general education. Students acquire a higher vocational qualification and may choose to obtain a Matura university admission certificate. BHS graduates with a Matura certificate attain foundation skill levels comparable to those of general high school graduates (OECD, 2014[110]), and more of them continue higher education than take up work (Statistik Austria, 2018[111]; 2019[112]).
- Japan's *kōsen*, prestigious colleges of technology, give students three years of specialised upper-secondary education followed by two years of post-secondary training in technical subjects, particularly engineering (OECD, 2017[113]). Since their introduction in the 1960s, the *kōsen* have proven highly responsive to the skill needs of the Japanese industry. They have also earned a reputation for giving excellent vocational training to students from lower socio-economic backgrounds. *Kōsen* graduates qualify for admission to higher education and nearly 40% of them do in fact go on to university.

While such post-secondary vocational programmes will likely play an increasingly important role in providing pathways towards high-skilled occupations, still too few countries systematically integrate work-based learning into their programmes as a quality-assured, credit-bearing element (OECD, 2014[114]). Work-based learning should be a core component of good-quality vocational programmes, because it provides trainees with an attractive learning environment and employers with influence over the training quality and contents. In Denmark, all academy profession programmes include a minimum of three months of work-based learning. Learners' work placement outcomes are systematically assessed, and the links between vocational programmes and employers form part of the accreditation process. In Sweden, mandatory workplace training constitutes as much as one-quarter of the two-year professional programmes.

Many countries carry out skills assessment and anticipation exercises to align VET policy and social partner actions with the needs of rapidly changing labour markets (OECD, 2016[115]). These exercises can inform curriculum development and career guidance, and help identify the number of student places on courses:

- Germany's Federal Institute for Vocational Education and Training produces short-term econometric forecasts of the supply and demand for apprenticeship places for the following year.
- Australia and Northern Ireland use skill needs assessments to promote apprenticeships in occupations and industries with greater demand for skilled labour. Australia relies on this information to direct funding to training organisations that offer programmes suited to address the identified skill needs.

Northern Ireland extends the funds available for apprenticeships in these sectors to candidates of all ages, not just young people.

- The Austrian government uses skills assessment and anticipation exercises to determine the provision of post-secondary education. In order to receive accreditation for new programmes, Austrian legislation requires that Universities of Applied Sciences (*Fachhochschulen*) complete a demand and acceptance survey that evaluates the projected demand for each qualification seeking accreditation.

However, relatively few countries have used skills anticipation exercises specifically to predict possible skill imbalances arising from the digitalisation of the economy, and those who do have usually not systematically used those to change the design of skills policies and programmes (OECD, 2016[115]).

As workers' careers are becoming more fragmented, equipping people with skills that are *transferrable* as they move between jobs, occupations or employment types is increasingly important. VET programmes should provide occupation-specific skills that are general enough to be portable across employers. More importantly, they need to build a set of broader cognitive skills (literacy, numeracy, problem-solving) and social and emotional skills (teamwork, communication, flexibility and the capacity to learn new skills) that will be of growing demand. Specifically, such skills will be needed as graduates working as professionals and technicians will be confronted with increasingly complicated tasks (OECD, 2015[116]). They are also more malleable and thus provide learners with greater flexibility in the job choice and with a tool for further learning. Results from the OECD Survey of Adult Skills indicate that, currently, students from short-cycle (i.e. less than bachelor's level) professional training programmes, who later enter jobs involving higher-level technical and professional skills, partly lack basic skills, particularly numeracy (OECD, 2014[114]).

Making vocational education a more attractive prospect requires improved funding. In almost all countries, per-student expenditure on education increases with each educational level. The sole exception is post-secondary, non-tertiary education, where the average per-student expenditure is around that in primary education (OECD, 2018[108]).

5.4.2. Promoting adult learning – on the job and out of work

Adult learning programmes that target the middle class should seek principally to equip those at risk of losing their jobs with the skills needed for tomorrow's economy. An effective adult learning provision that is relevant to the needs of the labour market is challenging. It involves meeting evolving demands and co-ordinating stakeholder's needs, including those of businesses, governments and social partners, to develop coherent programmes. Nevertheless, policies should focus on providing tailored training for the older and less educated and encouraging their take-up, given these groups have traditionally had low participation rates.

To ensure that adult education and training are well aligned with the skill needs of the economy, many OECD countries rely on the skills assessment and anticipation exercises described above, steering investment in adult learning towards programmes targeting in-demand skills (OECD, 2017[117]). Norway's national Strategy for Skills Policy, for example, was jointly developed by 15 different partners.[52] The co-ordination required to put it in place helped to align the actors' priorities for adult learning programmes, i.e. the sectors, skills and people that should be targeted (OECD, 2014[118]). Where adult learning systems need expanding in the future, financial co-operation between actors is expected to ensure they receive sufficient resources.

Findings from skills assessment and anticipation exercises can also help to identify individuals who lack the skills required by the labour market and support them in retraining. Training incentives may target workers and firms in sectors where demand is declining, that are at high risk of automation or offshoring, or grappling with significant restructuring in how work is organised. Australia and Austria have both implemented retraining schemes in response to these changes:

- Australia targets employees in sectors where future employment opportunities are expected to be low or where large-scale closures are likely to affect the local labour market. In 2018, the Stronger Transitions Package was introduced to support individuals in five regions affected by structural change in transitioning to new jobs and training for the future. It begins by conducting comprehensive skills assessments. The findings they yield enable tailored support for job search preparation, resilience training, language, literacy and numeracy support, digital literacy training, financial management information, exploring self-employment options, health and wellbeing support, and industry awareness experience (OECD, 2019[53]).
- In Austria, social partners introduced Outplacement Labour Foundations (*Arbeitsstiftung*) to support workers in industries undergoing structural change. These foundations provide funding to cover the costs of training and related expenses, active job search assistance and career guidance. Employers can form a foundation for their employees by themselves or as part of a group of companies – the latter of which has been apparent at a regional and sectoral level in response to large-scale job cuts. Foundations are co-funded by local labour actors, who include the public employment service and the employers affected (OECD, 2018[3]).

To encourage workers to reskill, learning opportunities often need to be more accessible and flexible and include targeted career advice and guidance to help individuals make informed decisions about investing and committing to further skills development. One way to improve access to training is to make it available to all, not just those in employment. France, for example, introduced personal training accounts in 2015, which allow individuals to accumulate entitlement to training hours. The accrued entitlement is transferable between jobs and employment statuses. Iceland uses a similar personal training account model. Designing training programmes in modular formats can help provide flexibility so that training can be undertaken around busy work schedules and family responsibilities (OECD, forthcoming[12]). And to lighten the training burden, particularly for older workers, the formal recognition of skills acquired through experience should be strengthened.

To encourage uptake and provision, public financial support should be made available for training. This would reduce training costs for employers, therefore incentivising greater investment in training for at-risk employees. In the Netherlands, workers aged 45 and over can benefit from subsidised career development guidance (*Ontwikkeladvies*), while in Germany, the public employment service funds the training of lower-skilled and older workers in small and medium-sized enterprises through the WeGebAU programme. The programme gives companies a 75% subsidy towards the cost of training workers aged 45 and older (Dauth, 2017[119]). Another example is from Austria, where the public employment service covers course and course-related costs (e.g. learning materials, special clothing, and accommodation) for jobseekers and low-income employees so that financial barriers do not deter jobseekers and low-income employees from taking up training.

Notes

[1] In comparison, two out of three find taxes too high for low-income households, while only about one-quarter find them too high for high-income households (OECD calculations based on the International Social Survey Programme 2016: Role of Government). Those numbers are consistent with recent results from the OECD Risks that Matter Survey, which indicate that, on average, 58% of middle-income households in OECD countries consider that they do not receive a fair share of public benefits for the taxes and social security contributions that they pay (OECD, 2018[135]).

[2] Among middle-income households of working age, the imbalance between personal direct taxes paid and benefit received averages 17% of disposable income OECD-wide (Figure 2.16). Among middle-income households with an elderly head of household, benefits exceed taxes by 60% of disposable income. Middle-income households' average net tax burden has not significantly increased over the last decade in OECD countries.

[3] Real-estate wealth represents the largest share of the gross assets of households in the middle quintile – 77% on average across the OECD (Balestra and Tonkin, 2018[6]).

[4] Data on trends in collective bargaining coverage by type of occupation are limited, and the available information on occupational patterns of middle-income workers (Figure 3.3) is too coarse to reliably estimate coverage rates.

[5] This holds true at least in systems where bargaining takes place at firm level. The work environment also tends to be of better quality in firms with a recognised form of employee representation, such as a trade union or works council. They also benefit from a better work environment, largely because of lower work intensity, more training options and better prospects for career advancement.

[6] See OECD (2018[2]; 2018[3]) for detailed discussions.

[7] Freelancers can apply to become employees and so be covered by the collective agreement. They automatically obtain employee status after 100 hours of work unless if they choose to opt out.

[8] Estimating the exact share of workers on the minimum wage in middle-income households is very difficult, because data with precise information on both incomes and hourly wages (or earnings and hours worked) are lacking in most countries.

[9] Higher minimum wages are thus associated with lower wage inequality, both between and within countries: a 10% increase in the minimum-to-median wage ratio reduces earnings inequality by 3% (2011[126]).

[10] Gross minimum wages average 50% of the median wage across OECD countries, ranging from below 40% in the Czech Republic, Mexico, the United States, Estonia and Japan to 60% and over in Turkey, Chile, France and Slovenia.

[11] The UK government started significantly raising the statutory minimum wage for workers aged 25 years and over from 2016, referring to it as the National Living Wage. The level of the National Living Wage is not based on any estimated basic cost of living, however, and it is separate from the (higher) living wages paid on a voluntary basis by some UK companies.

[12] Recent cross-country evidence for seven European countries and the United States indicates that changes in labour income taxes have accounted for a large share of the changes in employment rates and hours worked by married women since the 1980s (Bick et al., 2018[121]).

[13] In such systems, second earners effectively pay tax at a higher part of the income tax rate schedule (i.e., usually a higher tax bracket) than they would under individual-based taxation, because the primary earner is already gaining the full benefit from the lower part of the tax rate schedule (OECD, 2016[21]). The gap in average tax rates between a primary and a secondary earner is largest in Belgium, which operates a partial-splitting system that has very similar effects. In Germany, family-based taxation is optional but usually beneficial for couples with large earnings differences.

[14] Childbirth and parenting responsibilities are often associated with a break in women's careers. The gender gap in labour force participation, earnings and hours worked is much greater for mothers than for women without children (OECD, 2018[3]). Raising women's lifetime earnings would also increase their pension entitlements, so reducing concerns about old-age poverty, which tends to be higher for women than for men.

[15] Longer paid-leave durations are associated with a modest increase in female employment rates, the female-to-male employment ratio, and the relative number of hours worked by women compared to men. However, effects turn negative when paid leave is longer than two years. Greater public spending during the paid leave is associated with higher full-time employment rates (Thévenon, 2013[27]; Thévenon and Solaz, 2013[127]).

[16] In the United Kingdom and the United States, for instance, the equivalised net income for an average-earnings, dual-earner, two-child couple during the first month after the birth of the second child was less than half of what it was prior to birth in 2014.

[17] Maternity or paternity leave is the employment-related leave of absence for employed mothers or fathers at or around the time of childbirth. Parental leave is often in addition to specific maternity or paternity leave and frequently follows the maternity leave period. Entitlement to the parental leave period is often individual (i.e. each parent has their own entitlement), while entitlement to public income support is frequently family-based (OECD, 2017[122]).

[18] Enrolment of the under-3s in formal ECEC has increased fourfold in Korea and nearly threefold in Germany since 2005 (OECD, 2017[123]).

[19] Moreover, several countries increased tax allowances for families with children (Germany and Israel), single parents (Luxembourg) or home carers (Ireland) (OECD, 2017[33]; OECD, 2018[34]).

[20] Also, capital gains are usually taxed only after the sale of assets so that borrowing against these assets enables the wealthy to further minimise their tax burden.

[21] The new International Value Added Tax/Goods and Services Tax Guidelines is estimated to have increased EU tax revenues by over EUR 3 billion.

[22] In 2018, 4 500 bilateral exchanges of information were made between 86 sending and partner jurisdictions concerning assets held by non-tax residents.

[23] Net wealth taxes tend to be more distortionary and less equitable than capital gains taxes, as they are generally levied irrespective of the actual returns that taxpayers earn on their assets. But where a country's overall tax burden – on capital, inheritance and gifts *inter vivos* – is low, or their implementation unfeasible, net wealth taxes can be an imperfect policy substitute. They may be useful in countries with dual income tax systems that tax capital income at flat, often low, rates. Only four OECD countries levied recurrent taxes on individuals' net wealth in 2017, down from 12 in 1990.

[24] OECD calculations for a single person without children using the OECD tax-benefit model, www.oecd.org/social/benefits-and-wages.

[25] Interest rate for bonds with a three-year term. The instrument was withdrawn from general sale in 2011 because of high investment levels but will be reissued in May 2019.

[26] The philosopher Tom Paine is believed to be the first to have proposed a minimum inheritance, in the late eighteenth century (1797[125]). Ackerman and Alstott (1999[124]) reignited debate on the

topic in the 1990s, suggesting giving USD 80 000 to all US citizens upon turning 21. More recently, the late Anthony Atkinson was a vocal proponent of its implementation (2015[7]).

27 Children in the lowest wealth quartile would receive up to USD 50 000 or USD 60 000.

28 The CTF provided new parents with a GBP 250 voucher which they could invest, tax-free, for 18 years in a shares or cash-based account for every child born after 1 September, 2002. Children born in low-income households received grants that were twice as large. A further GBP 250 were provided when the child turned seven, while in the meantime the account could be topped-up with an additional GBP 1 200 per year. For middle-income families a well managed fully topped up fund could yield a maximum of GBP 35 000.

29 In 2017, 382 000 children used one of the 54 CSA programmes in 32 US states.

30 On average, nearly 9% of mortgaged middle-class homeowners in OECD countries are defined as being overburdened by housing costs, as they spend at least 40% of their monthly disposable income on mortgage payments. In 2016, this figure reached 20% in Ireland, Greece and Sweden (Salvi del Pero et al., 2016[76]).

31 This trend is striking in the United Kingdom, where millennials in their 30s have only half the chance of owning their home than the baby boomers at the same age (Corlett and Judge, 2017[132]).

32 Amongst EU OECD countries, 45% of lower middle-income families with a child under five years old report making little or no use of formal childcare. They explain that it is due to high costs. Out-of-pocket childcare costs for families with moderate earnings are particularly high in Ireland, Switzerland and the United Kingdom. In these countries, children aged three or younger from middle-income backgrounds are one-quarter to one-third less likely to use formal ECEC than children from high-income backgrounds (Adema, Clarke and Thévenon, 2016[88]).

33 Besides the aforementioned intra-urban aspects, cities and national governments could review the actual regional regulations that restrict the expansion of dense, sustainable housing.

34 Research shows that inclusionary zoning initiatives can have a positive, though modest, affect on the number of housing units. In the United States, inclusionary zoning policies produced between 129 000 and 150 000 affordable units over a 30-year period (Calavita and Mallach, 2010[131]). California produced at least 29 000 affordable units between 1999 and mid-2006 (Sturtevant, 2016[134]). However, the success of such initiatives depends on whether governments and developers can establish viable financial schemes to close the funding gap created by providing homes at below the market price.

35 In the Netherlands, rent controls cover around 90% of the rental sector. In Germany, regulated rents apply to all rental units except for new or modernised buildings (OECD, 2016[82]); rents cannot be increased by more than 20% over a three-year period; and landlords may only raise the rent once every 12 months (Fitzsimons, 2014[133]).

36 Property owners reduced the rental supply of small multi-family housing by either living in the house they own or by converting them into more expensive, high-end rented accommodation. In the long run, changes as the housing supply raised prices, attracted higher-income residents and increased gentrification (Diamond, Mcquade and Qian, 2018[83]).

37 There is a wide variation in the different combination of policy instruments across countries. Chile and Mexico spend more on grants to home buyers and Luxembourg, Poland, France, Spain, Canada, the Netherlands and Japan give more support to mortgage borrowers (OECD, 2016[85]).

38 A ten percentage-point increase in the housing loan-to-value ratio, such as a reduced down-payment, is associated with a 2-percentage point rise in the homeownership rate of middle-income households – and twice as much for young households (Andrews and Sánchez, 2011[84]).

[39] Regulating the minimum size of deposits may be beneficial for middle-income households in the long run, however, as restricting the expansion of mortgage credit can limit house price rises and improve affordability (Kohl, 2018[128]).

[40] Household debt-to-income ratios are significantly above 100% in most countries and exceed 200% in the Netherlands, Portugal and Spain. Households in the lower quintiles of the income distribution are particularly vulnerable, with debt-to-income ratios exceeding the conventional at-risk threshold value of 300% (Causa and Woloszko, forthcoming[68]).

[41] Fees are adjusted in line with household income up to a threshold of approximately 1.25 times the average wage.

[42] Public expenditure on ECEC as a share of GDP in the three countries are 60 to 100% higher than in the OECD on average, at 1.2 to 1.8% (the OECD average in 2015/16 was 0.76% of GDP, OECD (2018[108])).

[43] Extending cost coverage would likely be expensive. However, greater spending could be financed by efficiency improvements, lower spending on other areas of or broadening the contribution base in many countries. See OECD (2015[129]) for a range of options.

[44] Therapy using pharmaceutical drugs plays a key role in both the primary and secondary prevention of many diseases. Several studies have shown that financial barriers to accessing these necessary medicines are strongly correlated not only with poorer health outcomes, but also increased use and cost of other health services (Kesselheim et al., 2015[130]).

[45] However, when using the concept of catastrophic spending, the poor are more likely to face financial hardship than the middle class due to direct health care costs.

[46] Including the labour market participation of women and changing living arrangements in old age.

[47] LTC assessment criteria in Germany and Korea, for example, are more demanding than in Japan (Campbell, Ikegami and Gibson, 2010[120]).

[48] Within the confines of universalism, there are many ways to target or direct support where needs are greatest, so ensuring both fairness and value for money. This idea is thus known as “targeted universalism”.

[49] Cash benefits should be part of wider care plans that include basic training for the family member concerned, work reconciliation measures such as flexible work arrangements, and other forms of support to carers, including respite care.

[50] Among 25-to-34 year-olds, 44.5% had completed a tertiary degree in 2017, compared to 26.4% in 2000.

[51] Besides young adults in elementary occupations, service and sales people, crafts and trades workers and plant and machine operators have experienced the largest declines in the chances of reaching the middle-income group since the mid-1990s. Meanwhile, the chances have remained more or less stable for technicians and associated professionals and professionals. OECD calculations for 25-to-34 year-olds using data from the ECHP/EU-SILC and LIS data for 18 countries.

[52] The Strategy partners include five different ministries, the Sami Parliament, the Norwegian Association of Local and Regional Authorities, three employer associations, four trade union associations and one organisation representing civil society.

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ISBN 978-92-64-54283-9 – 2019

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Middle-class households feel left behind and have questioned the benefits of economic globalisation. In many OECD countries, middle incomes have grown less than the average and in some they have not grown at all. Technology has automated several middle-skilled jobs that used to be carried out by middle-class workers a few decades ago. The costs of some goods and services such as housing, which are essential for a middle-class lifestyle, have risen faster than earnings and overall inflation. Faced with this, middle classes have reduced their ability to save and in some cases have fallen into debt. This report sheds light on the multiple pressures on the middle class. It analyses the trends of middle-income households through dimensions such as labour occupation, consumption, wealth and debt, as well as perceptions and social attitudes. It also discusses policy initiatives to address the concerns raised by the middle class, by protecting middle-class living standards and financial security in the face of economic challenges.

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Co-funded by the European Union

ISBN 978-92-64-54283-9

9 789264 542839