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SPAIN



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Spain

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This book has...



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BASIC STATISTICS OF SPAIN (2007)

THE LAND

Area (1 000 km ²)		Major cities (thousand inhabitants)	
Total	506.0	Madrid	3 132
Cultivated (2005)	178.4	Barcelona	1 595
		Valencia	798
		Seville	699

THE PEOPLE

In thousands		Employment (thousands)	20 356
Population	45 283	Employment by sector (% of total)	
Net natural increase	79	Agriculture	4.5
Net migration (2006)	834	Industry	16.0
Number of inhabitants per km ²	89.5	Construction	13.3
		Services	66.2

PRODUCTION

Gross domestic product (GDP)		Gross fixed capital investment	
Million €	1 050 595	% of GDP	29.5
Per head in \$	23 413	Per head in \$	7 260

THE GOVERNMENT

% of GDP		Composition of Parliament (seats in March 2008)	350
Consumption spending	18.3	Spanish Labour Socialist Party (PSOE)	169
Revenues	40.6	Popular Party (PP)	154
Budget balance	2.2	Convergence and Union (CIU)	10
Fixed investment		Republican Left of Cataluña (ERC)	3
(% of gross fixed capital formation)	12.4	Basque Nationalist Party (PNV)	6
		United Left (IU)	2
		Other	6
		Next general elections: 2012	

FOREIGN TRADE

Exports of goods and services (% of GDP)	26.5	Imports of goods and services (% of GDP)	33.3
Exports as a % of total goods exports		Imports as a % of total goods imports	
Foodstuffs	11.4	Foodstuffs	5.7
Other consumer goods	25.4	Other consumer goods	21.8
Energy	3.6	Energy	14.9
Other intermediate goods	50.0	Other intermediate goods	47.4
Capital goods	9.6	Capital goods	10.3

THE CURRENCY

Monetary unit: Euro		Currency units per \$, average of daily figures	
		Year 2007	0.730
		September 2008	0.697

Executive summary

The 14 year-long period of strong expansion has come to an end, as residential construction has begun adjusting towards a sustainable level of activity and the highly indebted household sector is curbing spending in response to tighter financial conditions, while external demand is weakening as global financial turbulence worsens. The downturn is still at an early stage. Nonetheless, it has already resulted in a marked increase in unemployment, hitting workers in low-skill occupations, including immigrants, particularly hard. Moreover, some of the driving forces of past strong performance are also likely to lose momentum beyond the current downturn: immigration flows may slow, the potential for further gains in women's labour force participation is diminishing, and the expansionary impact of low real interest rates and strong credit growth following euro area entry on investment has ended. At the same time, even if there has been some improvement in productivity outcomes in recent years, the underlying trend still appears weak. Finally, the number of youths leaving full-time education with poor skills is high, while there are few workers with intermediate vocational skills, which offer high returns.

On the other hand the Spanish economy can count on two notable strengths to help it emerge from the deep slowdown: while the international financial crisis and the large exposure of domestic banks to the residential construction sector create a challenging context, the financial sector is overall comparatively well placed to withstand the foreseeable domestic contraction of activity, and the rapid expansion of tertiary education over the past 20 years provides a vast potential for future increases in economic welfare. While the short-term fiscal stimulus that was provided was appropriate so as to reduce risks of mutually reinforcing employment and activity losses, the scope for further discretionary stimulus is limited. In addition, government revenue growth is set to weaken markedly beyond the current downturn, requiring much tighter priority setting in spending.

The overarching policy challenge is to implement structural reforms that will more fully exploit existing potential and tap new sources of growth. Some of these would also do away with the need to offset market distortions with subsidy programmes, helping to lower government spending pressures.

- **Improve the matching of workers to jobs.** Better activation of the unemployed would make a significant contribution to mitigating the impact of the downturn on the labour market. Reform of stringent employment protection for existing long-term contracts would lower the substantial barriers for young qualified workers to obtain jobs commensurate with their skills, as would focusing housing market reforms more squarely on removing barriers to geographic mobility.
- **Exploit the contribution the education system can make to raising long-term economic performance.** The very large number of school drop-outs needs to be reduced and vocational training made more attractive. Education outcomes could be raised through improved accountability and autonomy of schools. Better funding arrangements in tertiary education could further boost the contribution of high tertiary attainment to improving living standards.

- **Enhance the role product market competition can play in boosting productivity growth.** *While past reforms in the regulation of some network industries have shown some good results, lack of independence and accountability of some sector regulators still deters entry of new firms. Reforms to heighten competition in transport, postal and professional services would have benefits throughout the economy owing to their use as intermediate inputs.*

Assessment and recommendations

The key challenge is to tap new sources of economic growth to accelerate recovery

The long period of virtually uninterrupted strong growth since the early 1990s has ended. This is likely to bring about lasting and profound economic changes. Housing construction is slowing sharply from an unsustainable level, and private consumption is also adjusting to more restrictive conditions in financial markets at home and abroad. The slowdown, although still at an early stage, has already had a significant impact on unemployment and is set to deepen in 2009, as the slide in housing construction is steepening. Some driving factors behind the robust historical performance – low real interest rates following euro adoption, ample credit availability, rising female labour force participation and massive immigration – are losing steam, portending only a modest rebound. Although predicting future potential growth is tricky, productivity gains have been weak, notwithstanding rapid capital accumulation, and it is as yet too early to assess whether the recent improvement will be sustained. Implementing an ambitious programme of structural reforms would surely enhance productivity performance in the medium and long term.

Nevertheless, the eventual recovery will benefit from some notable strengths. Banking institutions are, in the aggregate, comparatively well placed to absorb losses which will result from their lending exposure to domestic residential construction and to withstand ongoing international financial market turmoil. Fortunately, lending practises have in important respects remained relatively prudent. Looking further ahead, the vast expansion of educational attainment at the tertiary level, surpassed by only a few OECD countries, provides a huge opportunity for future gains in living standards. However, severe labour-market segmentation and low geographical mobility are holding back the integration of young highly qualified workers in the labour market. Moreover, rising tertiary attainment notwithstanding, the supply of poorly educated workers with meagre employment prospects is still substantial and growing – in large part because of immigration – while the availability of young people with intermediate vocational skills is limited, despite high returns to such skills.

The challenges facing the Spanish economy are therefore to minimise the economic costs of the current downturn, moving workers shed in the shake-out quickly to new jobs, and to raise sustainable productivity growth including by steps to unlock the potential inherent in young highly qualified workers.

- *Improve the matching of workers to jobs.* Scope remains to better activate the unemployed, especially for immigrants and unskilled workers. Housing-market policies need to contribute to remove barriers to internal mobility. Reform of employment protection

legislation could also go a long way to ending the marked underutilisation of highly qualified young workers.

- *Exploit the contribution the education system can make to raising long-term productivity prospects.* Outcomes need to be raised in secondary education. In particular, the number of young workers entering the labour market without qualifications must be lowered and vocational training be made more attractive. Better funding arrangements in tertiary education could further boost the contribution of high tertiary attainment to improving living standards.
- *Enhance the role product market competition can play in boosting productivity growth.* While significant advances have been made in a number of areas, such as in some network industries, barriers to competition are still significant, including in sectors that produce intermediate goods and services, exacerbating their negative impact on productivity throughout the economy.

A marked adjustment in private domestic demand is underway

Rising short-term interest rates, most recently caused by the ongoing global financial turbulence, have triggered the end of a decade-long boom of investment, especially in residential construction, and of consumption which together had pushed up the current account deficit to over 10% of GDP. The slowdown is deepening, as the drastic decline in housing starts has yet to fully feed through to activity, and the large number of new dwellings that have recently come on stream have added to oversupply. Private agents are also adjusting to tighter financing conditions and increased uncertainty worldwide. Export market performance has held up well, but foreign markets are weakening. The disinflationary impact of the sharp deceleration of domestic demand would be enhanced by boosting flexibility in wage and price setting, thereby limiting the negative impact on activity. If future wage bargaining continues to provide *ex post* indexation to the current inflation shocks, the recent impact of oil and food price increases on inflation will be at least partly passed on to wages. Competitiveness will be damaged, and the downturn will be accompanied by particularly heavy output and employment losses. *Should the total elimination of inflation indexation clauses in collective bargaining not be feasible in the short run, these clauses should be redesigned with a view to minimise second-round effects on inflation. To this end any indexation should be limited to an inflation measure that excludes oil and other commodity prices, and further reduces the degree of indexation. Making it easier to opt out of collective agreements would also be helpful.*

Freeing up the savings banks could provide added resilience

Although domestic financial intermediaries' balance sheets are heavily exposed to the shrinking domestic residential construction sector, cushions against losses that will result from this exposure are substantial, and supervisors have discouraged imprudent mortgage lending practices. However, the exposure of the unincorporated, private domestic savings banks – which hold about half of total banking-sector assets and are, as any other bank, under the supervision of the Bank of Spain – is higher than that of other commercial banks,

and their particular legal status places some limits on their ability to raise external equity. This could diminish their ability to offset any reductions in their solvency without resorting to tighter lending standards, although resulting macroeconomic effects could be mitigated if other institutions were to step in to fill the gap. No investor can own more than 2.5% of a savings bank's equity, and scope for takeovers are limited, even among savings banks themselves, as such mergers require regional governments' approval. *Consideration should be given to lowering barriers for savings banks to raise external equity. Such steps could include lifting the requirement of regional government approval for mergers and raising the limit on individual shareholdings.* Separately, loan defaults could rise more markedly if employment losses are large; this would especially affect young workers living independently. The indexation of interest rates on mortgages to short-term interbank rates heavily exposes the economy to changes in such rates (which have risen sharply in recent months) especially in view of high private household indebtedness. The government is appropriately taking steps to raise information requirements on interest-rate risk for loan customers and has lowered the costs of switching to mortgage rates which are less flexible. However, a small transaction tax is still weighing on such costs. *Transaction costs for switching to less variable mortgages should be lowered further.*

Fiscal policy has appropriately turned expansionary, but scope for further discretionary stimulus is limited

The government has introduced a package of expansionary measures to offset the sharp deceleration of activity, including an income tax rebate of € 400 – in addition to the adjustment of tax brackets and basic income tax allowances to inflation in the 2008 Budget Law – as well as an acceleration of public investment projects and an expansion of public lending guarantees for social housing. New child benefits payable at birth were already partly introduced in 2007. Overall, these expansionary measures have an expected budgetary impact of around ¾ per cent of GDP. Although the resilience of the financial sector is likely to help limit the fall-out of the residential construction downturn, and adjustment is inevitable, taking out some insurance was appropriate to limit the risk of a downward spiral in activity and employment, reinforced by declining house prices. However, some of these measures could be more closely linked to policy priorities for structural reform. In particular, *the resources taken up by the new tax allowances and child benefits could be more effectively used to lower the relatively high tax wedge on low income workers with children by means of an in-work benefit* (see below). In any case, fiscal policy expansion is nearing its limits, as the government has recognised in its budget proposal for 2009.

The attention of fiscal policy makers needs to turn to the medium term, as revenue gains are likely to diminish considerably even beyond the current cyclical downturn. This is because, as the current account returns to a sustainable position, economic growth will shift from domestic to external demand, which is less tax rich, and some of the drivers of economic growth in the recent past are likely to weaken. In addition, current primary spending relative to GDP has drifted upwards and ageing-related spending pressures will rise. The central government has therefore presented a draft budget that curbs spending growth, including on defence and some subsidies. *Fiscal policy could be more supportive of structural reform, raising the growth potential, by cutting remaining unproductive spending and further removing distortions in the tax structure.* Conversely, structural reform can contribute

to improving sustainability of government finances by making it easier to eliminate spending aimed at offsetting adverse consequences of inappropriate policy settings (see below). *Medium-term spending priorities need to be more stringently determined and tied to structural reform priorities.* On the revenue side, the recent decision to fully allocate pollution permits to firms participating in the EU greenhouse gas emission permit scheme for free until 2012 foregoes the opportunity to reduce the national debt without recourse to distorting taxation and risks undermining incentives to reduce emissions that result from the trading scheme. *The government should auction greenhouse gas emission permits after 2012. It should therefore support the elimination of the cap of 10% on the share of permits that can be auctioned according to EU rules.* Also size thresholds in the taxation of business profits provide disincentives for successful businesses to grow. *Differences in corporate tax rates according to firm size should therefore be phased out.*

The downturn and the need for structural change require better matching of workers to jobs

The deceleration of economic growth has already resulted in a marked increase in unemployment. This reflects labour shedding in construction and related sectors and an expansion of labour supply, as immigration is still substantial and female labour force participation continues to rise, albeit at a reduced pace. Workers in occupations with low qualification requirements have been affected the most by the rise in unemployment, including immigrants. Sectors which have employed many of these workers, mainly construction, are set to lose importance. The mismatch between qualified workers and available jobs is severe in international comparison, with an unusually large share of highly qualified workers employed in occupations not making adequate use of their qualifications.

Activation strategies for the unemployed can be improved

Effective active labour market policies (ALMPs) play a major role in damping the impact of the business cycle on labour-market performance. The government has recognised the importance of such policies, pledging an increase in resources to the public employment services (PES). Spain's activation policies are sound, with benefit receipt at least formally conditional on satisfying search requirements, but scope for improvement remains. While the central government level is responsible for financing unemployment benefits and part of the PES' activities, regional governments run the placement services. This split assignment of responsibilities risks weakening incentives for effective placement. Indeed, enrolling some unemployed in ALMPs is used to re-qualify participants for benefits, and placement interviews are conducted less frequently than in many other OECD countries. *To identify well and poorly performing placement offices the placement results of regional employment services should be benchmarked and linked to some financial reward for success.* Not all ALMPs are evaluated, and a large share of such spending is directed towards wage subsidies for offers of permanent contracts to the unemployed, which are subject to large deadweight losses and displacement effects. *Wage subsidies for the hiring of the unemployed on permanent contracts should be redirected to those ALMPs targeted at the difficult to place unemployed that prove most effective in moving them into unsubsidised jobs.*

While labour tax wedges are not generally high by OECD standards, the tax burden on low-wage earners with children is still comparatively high, even after improvements in their fiscal treatment introduced in the 2006 reform of the personal income tax. This adversely affects their employment prospects and contributes to their relatively high poverty rate. As mentioned above, *consideration should be given to introducing a means-tested in-work benefit, whose level would depend on the number of children in the household.* Higher child benefits conditional on school attendance could also reduce early dropping out from secondary school (see below).

More should be done to integrate immigrants in the labour market

As outlined in earlier *Surveys*, immigrants have helped to raise living standards through their large contribution to labour input, reflecting their relatively young age and high participation rates. However, many work in low-skill occupations, including in the construction industry, and in jobs that do not reflect their skills. Also, about half are employed on temporary contracts, exposing them heavily to the current economic downturn. About half of all immigrants arriving in Spain are not Spanish native speakers. *Incentives for immigrants to acquire local language skills should be raised, inter alia by adapting the national system of language skill certification to labour-market needs.* Finally, *barriers excluding non-EU workers from some regulated professions and from public-sector jobs should be removed.*

A fundamental reform of employment protection legislation is overdue

Stringent employment protection legislation (EPL) for workers on permanent contracts continues to encourage widespread use of temporary contracts. The precarious employment status of young workers, whose levels of qualification are especially high, is strongly related to their lack of access to positions that are commensurate with their skill levels. Measures taken in recent years, notably financial incentives for hiring on permanent contracts and some reduction in severance payments for new hires of young and female workers, cannot address the depressing impact of strict EPL for incumbent workers on worker turnover, including on voluntary job-to-job movements. This is the fundamental problem EPL poses for these demographic groups. *Severance pay for permanent contracts should be made less generous, reducing the difference in the degree of protection between temporary and permanent contracts.* One option to fully remove such differences is to create a universally applicable contract.

Housing policy reforms should focus on enhancing mobility

Limited geographic mobility contributes to a mismatch of workers with needed skills, especially among young, highly qualified workers, reducing the returns to education. Low mobility is linked to the stunted development of the private rental market, which is weakened in turn by slow rental contract enforcement by the courts. A more developed rental market could raise housing demand among young and low-income individuals. Progress has been made in this direction, and the government is preparing additional legal

reforms in order to shorten eviction processes, and the possibility of applying arbitration procedures to rental contracts is under consideration. Indeed, *judicial procedures to enforce residential private rental contracts need to be further accelerated*. Otherwise, the central and regional governments have embarked on an ambitious joint programme to raise the supply of social housing by 1.5 million units over the next 10 years. While at least 40% of the new units are aimed at the rental market, this programme risks exacerbating mobility barriers, as access is typically available only after a considerable waiting period. Moreover, social housing programmes are poorly targeted at low-income households, *inter alia* because part of social housing is made available for purchase. Means-tested cash benefits earmarked for housing costs are likely to achieve better targeting without harming mobility. The recently introduced mobility allowance for the young is a step in this direction. *Resources devoted to subsidising social housing should be redirected to means-tested earmarked cash benefits*. Such steps would more effectively improve the income prospects of the truly needy. *Developing new social housing for purchase should be abolished*. Finally, *the deductibility of mortgage and rent payments from the personal income tax should be phased out*.

Education reforms could boost productivity and employment outcomes

Improving education outcomes needs to be a vital part of Spain's strategy to catch up with the living standards in more advanced OECD countries. Education system reforms can also reduce inequality, by breaking the intergenerational transmission of low attainment. While progress has been impressive over the past 30 years in both early childhood education and tertiary attainment, more can be done:

- The early school drop-out rate is unusually elevated for a high-income country, constraining access to upper secondary education, where the graduation rate in the vocational stream is low. Dropouts are regrettably strongly correlated with socio-economic background.
- Learning outcomes in compulsory schooling, as measured by PISA scores, are somewhat below the OECD average, notably in reading.
- At the tertiary level, students' incentives are biased towards the vocational pathway, where returns are lower than in university education. Furthermore, Spanish universities have hardly emerged among the top internationally renowned institutions.

The number of early drop-outs must be lowered and learning outcomes raised in compulsory education

The high school drop-out rate is closely related to the very high grade repetition rate, resulting in many pupils leaving school at the age limit of compulsory schooling (16 years) before having completed lower secondary education. Grade repetition entails high social costs and little educational benefit. Reducing the number of early drop-outs has figured prominently among the government's reform priorities. Legislation passed in 2006 (*Ley orgánica de educación, LOE*) tightened qualification requirements for new teachers substantially. This should help future teachers to cope with diversity in the classroom. *Giving existing teachers incentives to acquire similar qualifications as those required of newly hired*

staff should be considered. The LOE also strengthened schools' capacity to identify pupils' learning difficulties early. However, formal grade advancement criteria give equal weight to all subjects, and graduation from lower secondary education requires a pass mark in all subjects. Curricula in the comprehensive secondary school system allow limited room for vocational subjects, although the LOE widened the choice of optional subjects to some extent. Curricula and grade advancement criteria are likely to discourage vocationally interested pupils. Grade advancement and access conditions to upper secondary education should be limited to those skills that are required in order to benefit from any type of upper secondary education, and room for optional subjects, especially of a vocational nature, should be widened.

While some regional governments have introduced regular centralised testing procedures, and the LOE provides for samples of schools to be regularly tested, nation-wide testing has not yet been utilised to benchmark regional education policies. The new law gives public schools some albeit limited influence in the decisions to hire teachers and to set curricular content. It is important that measures to strengthen school autonomy be conditional on progress with regard to accountability so as to ensure incentives are in place for schools to make good use of their enhanced autonomy. *Nation-wide sample-based evaluations of education outcomes should be used to assess the differential impact of regional educational policies to help determine best practice. External testing of all schools should be extended to all regions and should be used to benchmark performance against targets and identify priorities for improving performance. Consideration should be given to complementing these with centralised exams at secondary level. Indeed, the international evidence shows that external examinations reduce grade repetition considerably, reinforcing teachers' incentives to improve learning outcomes of all pupils. Autonomy of schools, notably with respect to hiring decisions of teaching staff and curricular content, should also be widened further.*

To reap the benefits of improved accountability and autonomy, schools' managerial capacity needs to be well developed and teacher career advancement linked to performance. While specific qualification requirements for the selection of public school head teachers have been introduced, their selection is in the first instance limited to the teachers of the school in question. Also, head teachers are paid little more than classroom teachers. *The pool of candidates among whom head teachers can be hired should be widened and their pay raised. Teachers enjoy a high degree of job protection and a good level of pay in international comparison but face weak incentives from promotion prospects and the pay structure. Opportunities for promotion or other rewards for teaching staff and management should be enhanced.*

Means-tested grants are available for families with children in secondary education; indeed, they have been raised in recent years. However, take-up, which requires an application, is low, and most funds are directed to upper secondary education and so cannot address the lower-secondary drop-out problem. *Support for low-income families whose children attend secondary education should be increased. One option would be to raise child benefits, linked to a means-tested in-work benefit (see above), and to make continued eligibility for child benefits beyond the age of 16 conditional on secondary school attendance.*

Vocational training can be made more attractive

Schools providing vocational education are closely integrated with non-vocational schools, suggesting that their accountability and autonomy can likewise be raised. *Schools offering*

vocational teaching should be evaluated with respect to their success in the transition of graduates to qualified jobs and results published. Employers have argued that a larger role for professional practitioners in vocational teaching would be beneficial, but there are barriers to their assuming teaching positions. *The teaching profession should be more widely opened to practitioners.* Employers have also complained of graduates' weakness in general competencies, such as written expression and foreign languages. *More emphasis on general skills within vocational pathways could also help sustain graduates' employability at more advanced age, strengthening their capacity to acquire new skills.* The attractiveness of upper secondary vocational education is also hampered by limited scope for transition into tertiary education. *Opportunities for transferring from upper secondary vocational to tertiary education should be improved.*

Funding arrangements in tertiary education need to be reformed

Government-sponsored loans are not available for most tertiary courses. At the same time, universities charge fees, whereas none are charged for tertiary vocational courses. While a means-tested student grant system is in place for students with low-income parents, access to university remains constrained. Indeed, these policy settings limit talented students' access to university and bias students' education decisions towards tertiary vocational courses, where study duration is much shorter than in universities but where returns have been lower. A loan scheme could address students' funding needs at a lower budgetary cost. *Loans with income-contingent repayments should be introduced for all tertiary students, including those in the vocational stream. Fees should then be introduced for tertiary vocational courses and raised elsewhere.* Many of the autonomous regions have not yet moved to outcome-oriented elements in universities' funding, and their autonomy is still limited with regard to working conditions and pay of academic staff. *University funding should be more closely linked to outcomes. Further strengthening their independence, notably with regard to the setting of contract conditions and pay, would be beneficial.* Finally, reliance on regional funding, notably for universities, diminishes incentives to provide centres of teaching excellence of national standing and to create university departments capable of attracting students from throughout the country. Indeed, while their graduates would be attractive to employers located elsewhere, providing regions would not reap the full benefits of their actions. *Thus, consideration should be given to creating a nation-wide funding scheme, supplementing existing regional funding, to reward the creation of centres of excellence in university teaching.*

Reforming product market regulation can play a key role in raising productivity performance

Trend productivity growth has been weaker than in other European countries across a broad range of both manufacturing and services sectors. Over the past decade productivity advances appear to have been particularly meagre in international comparison in transport services as well as post and telecommunications. Measures to further strengthen competition in these sectors, as well as in other network industries and in the professional services, would stimulate productivity growth beyond the sectors concerned, owing to

their use as intermediate goods and services. Recent reforms have already resulted in visible improvements in competition, for instance in the energy sector.

- *The independence and powers of sectoral regulators in some network industries should be strengthened.* In some sectors (railways and airports, for example), regulation is conducted by a central government ministry. *Independent sector regulators should be introduced in all sectors.* Regulatory autonomy is also compromised by government interventions in regulatory decisions, especially in the energy industry, and by the option of re-appointing the members of the regulators' boards. *Sectoral regulatory decisions should not be subject to government review, while the contracts of senior regulatory officials should not be open for renewal.*
- In the *electricity industry*, regulatory policy is more advanced than in many other OECD countries, notably with respect to vertical separation, helping new entrants gain market share. Electricity is still offered at regulated retail prices, which are set below cost. This practice undermines efforts to achieve greenhouse gas emission targets. The government intends to phase out regulated retail prices from 2009 to 2012, following the helpful elimination of high-voltage business customer tariffs in July this year. *Remaining regulated retail prices should be phased out as soon as possible, not only because of the distortions involved for users but because of the future risk that the current bond-financed supplier payment system poses to the taxpayer.*
- In *transport*, the government has announced measures to strengthen competition among ports, which are welcome. Licensing requirements in road freight haulage are more onerous than in other OECD countries, hindering entry and restructuring. *These licensing requirements should be eased.* The government is renewing road passenger transport licenses. *These licenses should be tendered on a competitive basis without favouring incumbents.* In the railways, market entrants have gained little market share in freight transport. *Access of competitors to the incumbent's rolling stock at non-discriminatory conditions should be guaranteed. Competition in passenger services should be introduced as soon as possible.* Experience in several OECD countries shows that the tendering of public service obligations in regional transport services, linked to the payment of subsidies, has been effective in lowering costs.
- In the *telecommunications sector*, the incumbent has been able to retain a large market share in ADSL services, but the spread between the incumbent's and competitors' prices for high-speed internet access is still unusually high. *To what extent this is the result of ongoing non-price discrimination against competitors in their access to the local loop is worthy of investigation.* Spain has moved ahead of other countries in considering how to regulate the new fibre-optic networks. In view of the limitations to the unbundling of individual customer connections to these networks, functional separation may perhaps need to be imposed on the incumbent to ensure effective competition. *The regulator should therefore be explicitly empowered to impose functional separation on the incumbent.* In *postal services*, competitors' access to the incumbent's network facilities, including address data bases, is limited. *Their access to these facilities should be improved.*
- The range of *professional services* for which Spanish regulation requires specific qualification requirements to be met is unusually large in international comparison, generating barriers to entry. The government is planning to reform entry conditions. *Qualification requirements for professional services should be reviewed and the range of covered professions narrowed.*

- Entry barriers at the regional level on large-scale retail outlets continue to depress productivity in *retail trade* with a significant impact on aggregate outcomes. The government appropriately intends to use the European Union Services Directive as an opportunity to remove them.

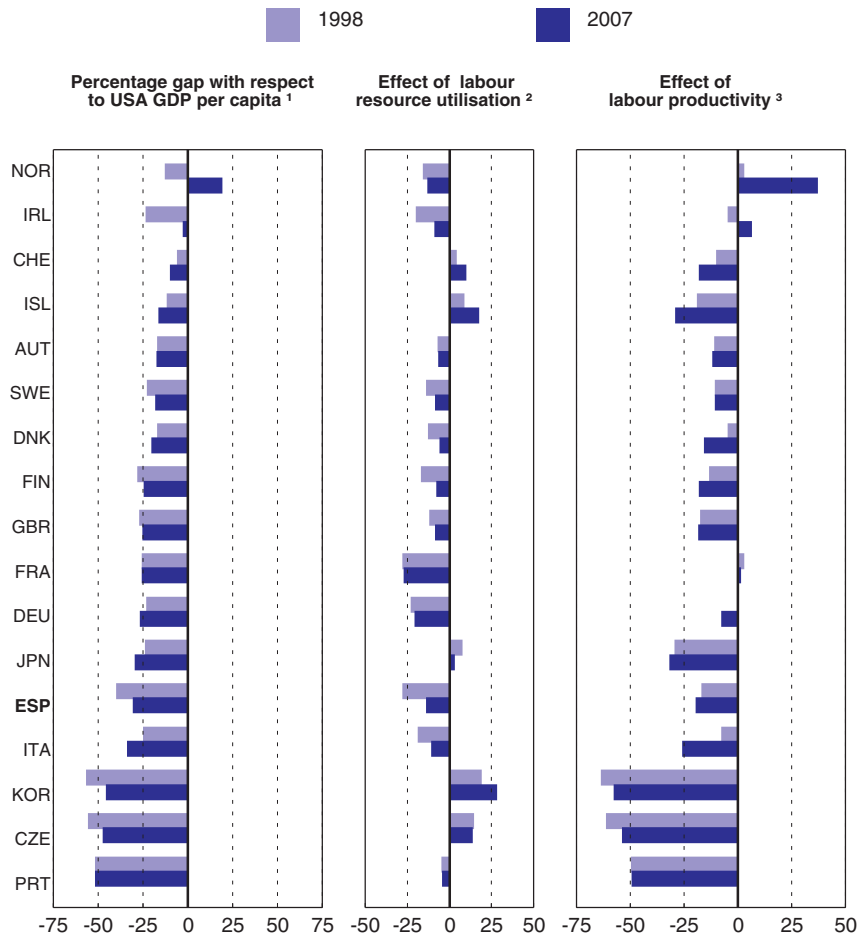
Chapter 1

Main challenges, macroeconomic developments and policies

Residential construction is slowing sharply towards a level which is sustainable in the long run and investors and consumers are also adjusting strongly to a marked deterioration in financial conditions in the wake of the international financial crisis, as well as to deteriorating job prospects. The slowdown is already having a significant impact on unemployment. Beyond this downturn some of the drivers of historical strong performance may weaken, notably vigorous credit growth, unusually low real interest rates in the wake of the adoption of the euro, exceptionally strong immigration and rapidly rising female labour force participation. An overall robust financial system in international comparison will help limit the economic consequences of shrinking housing-market activity and international financial market turbulence; and the ongoing large rise in tertiary attainment provides a significant potential to raise productivity growth, which has been weak on average over the past decade. However, in part as a result of strict employment protection for incumbent workers and low mobility, young qualified workers are often not employed in jobs commensurate to their skills, the inflow of young workers with a low education level into the labour market remains very large, and these workers are seeing their employment prospects deteriorate. The challenges will therefore be to improve the matching of workers to jobs so as to help limit the impact of the downturn on the labour market and improve the placement of highly qualified workers. Further reforms of the education system are also called for in order to cut the number of drop-outs from lower secondary school and to raise efficiency throughout the system. Reforms to intensify competition in product markets would also raise productivity performance.

Since the creation of the euro area in 1999, Spain has advanced considerably towards convergence in income standards with the most economically advanced OECD countries. However, a 14-year-long period of virtually uninterrupted strong growth has now come to an end as the residential construction boom has drawn to a close. The deceleration of domestic demand has spread to consumption and business investment. Some driving factors behind earlier robust performance – low real interest rates, ample credit availability, rising female participation and enormous immigration – are likely to lose steam in the years ahead. The heavy indebtedness of households and firms, combined

Figure 1.1. **Decomposition of GDP per capita in PPP terms of selected OECD countries**



1. Based on current purchasing power parities and current prices.
 2. Labour resource utilisation is measured as total number of hours worked divided by population.
 3. Labour productivity is measured as GDP per hour worked.

Source: OECD, data derived from Annual National Accounts database and productivity database.

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with a prevalence of lending at short-term rates to households over increasingly long periods, have made the economy vulnerable to changes in such rates and the tightening of credit conditions in the wake of the global financial crisis.

Trend labour productivity growth has remained weak, notwithstanding rapid capital accumulation over the past decade, widening the gap *vis-à-vis* the United States, and this gap has not diminished either in comparison to other top-performing countries. Catch-up with living standards in highest-income countries in the OECD has been based on rising labour utilisation, where the gap *vis-à-vis* the United States and other highest-income countries has diminished (Figure 1.1). For convergence in living standards to continue, total factor productivity gains will need to improve. The expansion in tertiary education attainment is impressive. However, the inflow of unskilled young workers into the labour market is still large, and segmentation in the labour market between holders of permanent contracts on the one hand and temporary contract holders on the other hand, as well as weak internal geographic mobility, hamper the integration of highly qualified young workers. The unemployment rate has already risen steeply, hitting workers in low-skill occupations, including the immigrant population, particularly hard, even though the unravelling of the residential construction boom is still at an early stage.

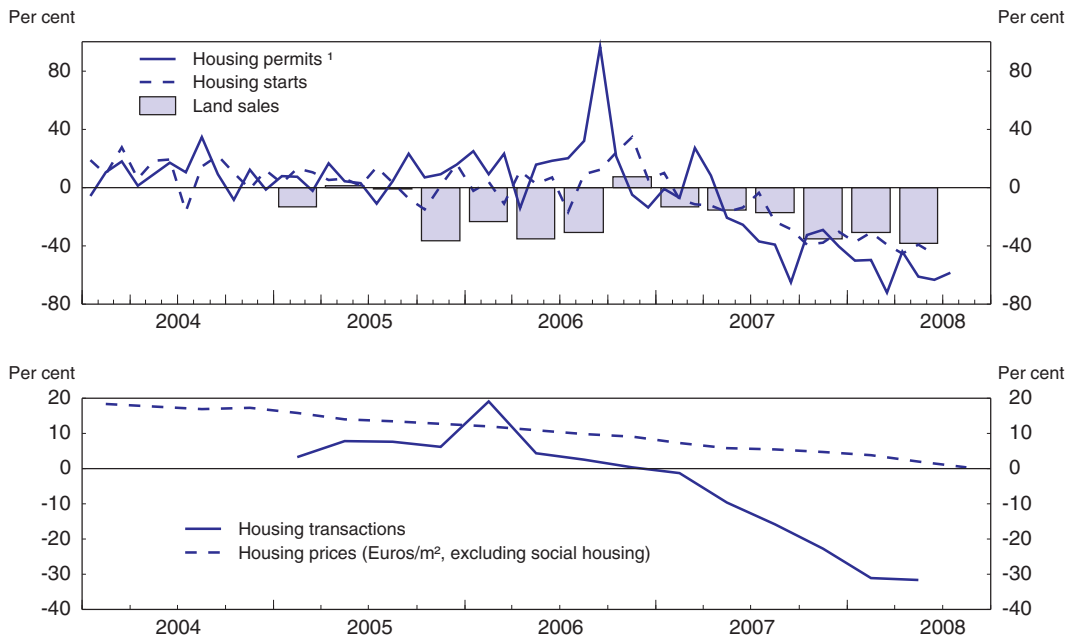
Recent developments point to a significant cutback in economic growth over several years

Housing construction will settle at a significantly lower level of activity

The rise in short-term interest rates, ongoing since 2005, has resulted in a significant decline in the demand for housing. The resulting deceleration of house prices has led to a revision of expectations of further increases, triggering the end of a residential construction boom that lasted for 10 years. As is typical for the early stage of the downturn in a residential construction cycle (see *e.g.* Catte *et al.*, 2004), the fall in demand has thus far manifested itself mostly in a significant drop in housing transactions as well as in a sharp fall-off in initiated housing construction projects (Figure 1.2), whereas the official house price index has not yet fallen year over year in nominal terms.¹ House prices typically lag the cycle, and the very large number of initiated housing projects in the year 2007, which are still coming on the market, will continue to act as a drag on house prices in 2009.² House prices in Spain have also been estimated to exceed fundamentals by between 20% and 32% (quoted in Girouard *et al.*, 2006b). Moreover, some of these fundamental determinants of house prices may contribute to lowering them in the future, as unemployment, real income and real interest rates appear to explain a significant share of historic house price developments in Spain, with interest rates exerting a sharply increasing role in shaping prices.³


Demographic developments are estimated to be consistent with a demand for additions to the housing stock of at least 315 000 per year between 2005 and 2010 (Banco de España, BdE 2008a), about 50% less than the increase in the housing stock observed in 2006.⁴ This evidence suggests that the currently observed decline in housing starts of about 60% may be broadly in line with a level that could be sustainable in the long run.⁵ However, the impact of demography on variations in housing demand in the short term is very low (*e.g.* García Montalvo, 2007, provides evidence for this in Spain). Moreover, these estimates are conditional on there being no oversupply in the existing stock.

Figure 1.2. **Residential construction indicators**
Year-on-year changes



1. Data in September 2006 and 2007 as well as March 2007 and March 2008 are affected by the introduction of a new building code, raising construction costs, in September 2006 and March 2007.

Source: Ministerio de Vivienda.

StatLink  <http://dx.doi.org/10.1787/485776763868>

The total housing stock – about 560 units per 1 000 population – appears to be larger than in other countries that likewise attract a large foreign demand for second homes, such as France and Italy.⁶ However, the share of housing used for tourism purposes – 22% – may be higher than even in these countries. For this and other reasons international comparisons of housing stock figures are fraught with limitations. The share of unoccupied housing may have reached up to 6% of the total in 2006.⁷ Few countries report substantially lower rates of unoccupied housing (see the international comparison made available by Ministry of Infrastructure of the Italian Republic, MIIR, 2006).⁸ This suggests that speculation on rising house prices had not resulted in a large build-up in the number of empty homes prior to the beginning of the housing downturn in 2007. However, more recently, on account of the drop in demand, the share of new dwellings entering the market which remain unsold more than doubled year-on-year, reaching close to one half of the pre-crisis level of annual purchases of new housing in October 2007 (latest data available), only a few months after the onset of the housing market slump.⁹ Most estimations suggest that excess supply is now large.

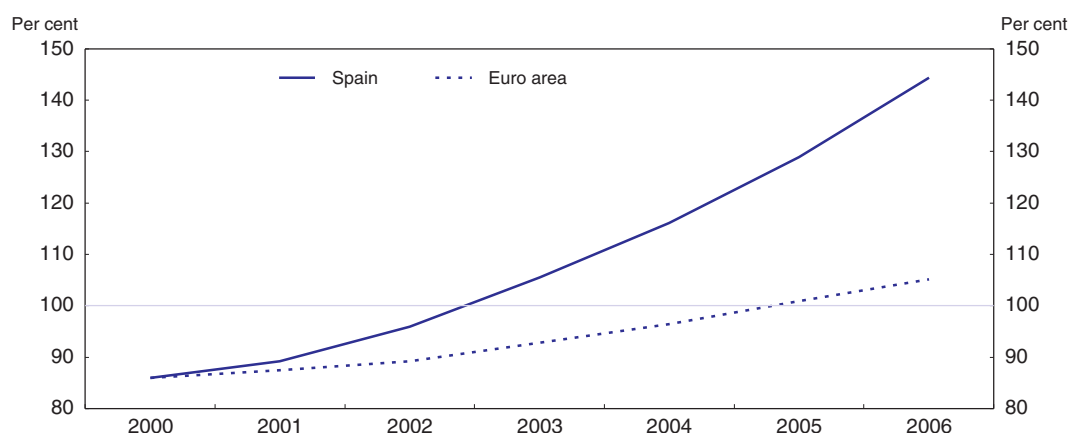
Some indicators point to potential demand that is not being satisfied at current market conditions: most young people aged 18 to 35 still live with their parents, and (as the 2007 *Economic Survey* pointed out) a significant share of low-income households are poorly housed. However, these individuals are unlikely to see their housing demand satisfied in the market place unless impediments to renting – which accounts for only 11% of main residences, a slight pickup in 2007 notwithstanding – are removed.

The cyclical slowdown has spread to consumption and business investment

Private consumption growth has also slowed markedly, in part reflecting changes in financial conditions. The marginal propensity to consume out of housing wealth in Spain is small (Girouard *et al.*, 2006a), as much of the domestically owned housing stock is directly held by owner-occupiers, and little mortgage borrowing is used for ends other than the acquisition of housing, both of which result in low liquidity of the housing stock held in households' portfolios. However, household debt – three quarters of which consists of mortgages – has reached high levels (Figure 1.3), making disposable income sensitive to changes in interest rates, all the more so because almost all mortgages are contracted at variable interest rates indexed to short-term interbank rates, which are being affected by the global financial crisis. Moreover, residual average maturities of outstanding housing loans are long, and the level of real interest rates was still low at the onset of the marked slowdown of activity in the first quarter 2008, all of which magnify the relative impact of a given change in interest rates on debt-service payments. Most household savings are on aggregate, absorbed by gross debt repayments (BdE, 2008a). In addition, with tighter credit standards in the wake of the international financial crisis, households are likely to be forced to cut back on consumption, as they may, in the aggregate, not be able to refinance all debt falling due. The direct effect of residential construction employment cutbacks and the relatively large impact of earlier oil-price rises on the cost of living (see below) have also weighed on real consumer spending. Moreover, business investment is being hit by declining domestic consumption, decelerating activity world-wide and a high level of indebtedness, which firms will likewise find more difficult to roll over. Another negative factor is profits, which are weakening. In view of these forces, which have been apparent in the national accounts since the fourth quarter of 2007 (Figure 1.4), the OECD projects a decline in economic activity in 2009 and a modest recovery in 2010, entailing a significant increase in the unemployment rate (Box 1.1).

Figure 1.3. Net household debt of Spain and the euro area

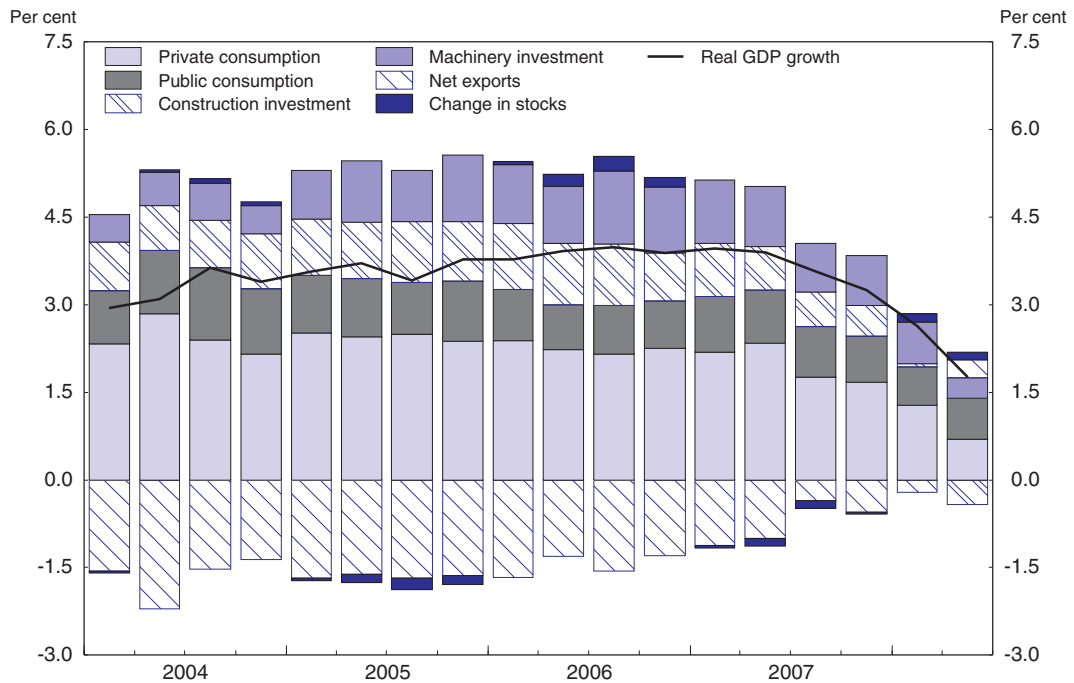
As a percentage of net disposable income




Source: OECD, Annual National Accounts and Eurostat databases.

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Figure 1.4. **Decomposition of real Gross Domestic Product**
Contributions to growth, year on year



Source: OECD, Analytical database.

StatLink  <http://dx.doi.org/10.1787/485821170315>

Box 1.1. Short-term economic prospects

Economic activity is expected to contract in 2009, followed by a slow-paced recovery in 2010. The sharp decline in residential construction is likely to persist, reflecting the continued steep drop in new housing permits, as house prices continue to fall. Moreover a significant overhang of unsold units will weigh on the number of housing projects that will be initiated over the projection period. Private consumption growth will be held back by restrictive financial conditions, employment losses and by declines in housing and stock market wealth, although much lower oil prices and falling interest rates are expected to provide some relief. Lower demand, tighter credit standards and falling profits will result in a substantial fall in business investment. Sluggish world trade in 2009 will limit export growth, although the fall in imports and in oil prices should reduce the current account deficit significantly. In 2010, growth is projected to begin to pick up again as declines in housing investment ease, financial turmoil recedes and world growth resumes. Indeed, exports are expected to be the main driver of Spanish growth in 2010, which would help to further lessen the current account deficit. The unemployment rate is expected to rise to close to 15%, although immigration is assumed to moderate significantly. Core and especially headline inflation will fall to around 1¼ per cent as significant slack opens up and recent oil and food price decreases are absorbed. The public accounts deficit, which is likely to reach around 1½ per cent of GDP in 2008, will continue to deteriorate, reaching around 3% and 3.8% of GDP in 2009 and 2010, respectively.

Box 1.1. Short-term economic prospects (cont.)

Given the high level of household and business indebtedness and the prevalence of variable rate mortgages, activity remains particularly sensitive to changes in short term interest rates. Credit constraints could tighten further, pushing economic activity lower than projected, if the international financial crisis persists or in response to rising non-performing loans on account of the exposure of banking institutions to the domestic residential market, which would be aggravated if employment losses were larger than projected and/or house prices fall substantially.

Table 1.1. **Gross domestic product and spending**

	2005	2006	2007	2008 ¹	2009 ¹	2010 ¹
	Current prices € billion	Percentage changes, volume				
Private consumption	525.1	3.9	3.5	1.2	-0.4	0.2
Government consumption	163.7	4.5	4.9	3.6	3.4	3.1
Gross fixed capital formation	267.0	7.1	5.3	-2.0	-9.2	-2.7
Of which residential	80.8	6.0	3.8	-9.8	-25.6	-14.8
Final domestic demand	955.9	4.9	4.2	0.7	-2.2	0.0
Stockbuilding ²	2.0	0.1	-0.1	0.0	-0.1	0.0
Total domestic demand	956.8	5.1	4.2	0.7	-2.3	0.0
Exports of goods and services	233.4	6.7	4.9	3.2	3.7	5.6
Imports of goods and services	281.4	10.3	6.2	0.9	-1.6	2.6
Net exports ²	-48.0	-1.5	-0.8	0.6	1.5	0.7
GDP	908.8	3.9	3.7	1.3	-0.9	0.8
<i>Memorandum items:</i>						
Harmonised index of consumer prices	-	3.6	2.8	4.4	1.8	1.5
Unemployment rate	-	10.3	9.6	10.9	14.2	14.8
Household saving ratio	-	10.3	10.2	11.2	12.7	13.8
General government financial balance ³	-	1.8	2.2	-1.5	-2.9	-3.8
Current account balance ³	-	-8.9	-10.1	-9.7	-7.4	-6.4

Note: National accounts are based on official chain-linked data. This introduces a discrepancy between real demand components and GDP. For further details see *OECD Economic Outlook Sources and Methods* (<http://www.oecd.org/eco/sources-and-methods>).

1. Projections.

2. Contributions to changes in real GDP (percentage of real GDP in previous year), actual amount in the first column.

3. As a percentage of GDP.

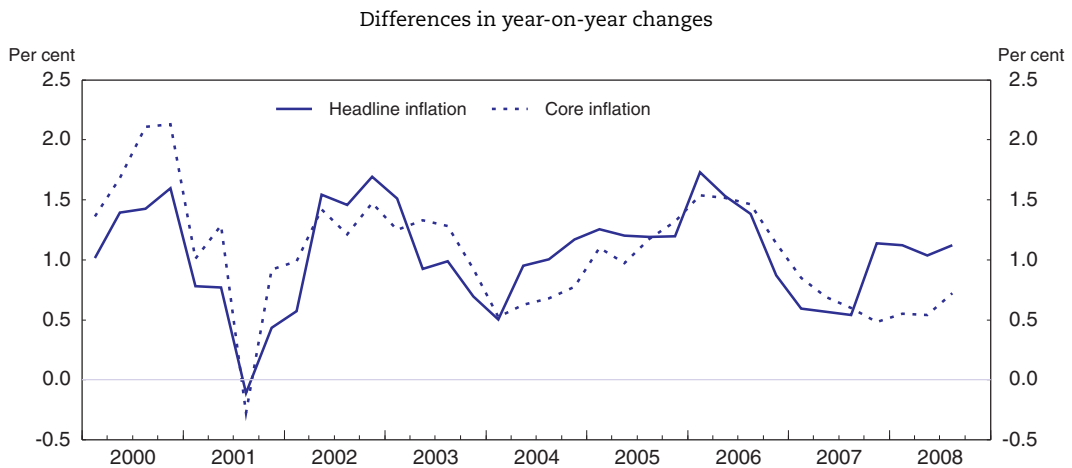
Source: OECD Economic Outlook No. 84 database.

The inflation differential has allowed the price level to converge to that of the euro area

Inflation differentials vis-à-vis the euro area have persisted since Spain adopted the euro and widened in 2007, which largely reflects the higher share of consumer spending devoted to energy than in the euro area as a whole. The gap in core inflation (excluding energy and food) has fallen in recent years, reaching 0.7% thus far in 2008 (Figure 1.5) and is expected to fall further in 2009 and 2010.

The persistent inflation differential vis-à-vis the euro area does not yet appear to have pushed up the level of prices of domestically produced goods and services above levels observed in other euro area countries, after allowing for the impact of differences in productivity levels, indirect taxation, and income per capita on the price level. If prices

Figure 1.5. **Core and headline inflation differential between Spain and the euro area**



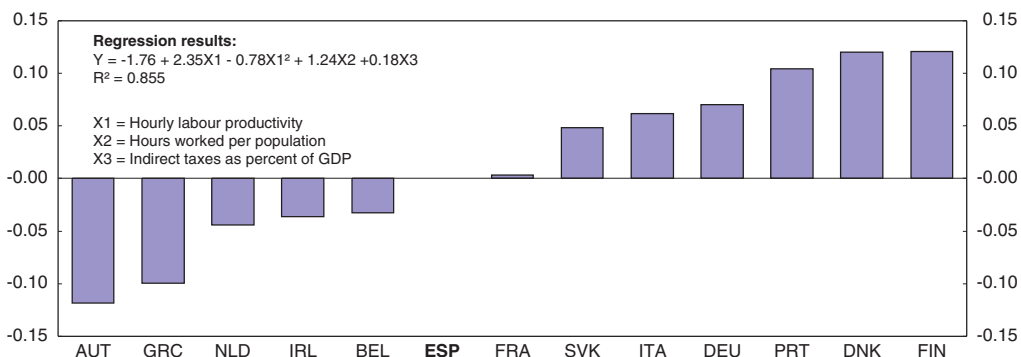
Source: OECD, Analytical database.

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were to lie much above an equilibrium defined in this way,¹⁰ the real exchange rate against euro area countries could be considered overvalued (Figure 1.6¹¹). In this case a protracted period of disinflation would be needed to restore equilibrium inside the common currency area. However, still high headline inflation is expected to feed significantly into higher nominal wage growth in the near term, with the attendant risk that the combination of adverse aggregate demand and supply shocks could result in both persistent inflation differentials as well as a more pronounced downturn in activity and employment. Indeed, *ex post* indexation of wage growth to inflation already pushed up collectively bargained wage outcomes in 2007, and this effect may strengthen in the course of 2008. In the first two quarters, underlying year—on-year hourly compensation growth rose to 6.3% and 4.6%, respectively, up from 4.5% on average in 2007. This increase has contributed to an accelerated deterioration in relative unit labour costs in manufacturing *vis-à-vis*

Figure 1.6. **Price level comparison**

After controlling for productivity, income per capita and indirect taxes, 2005



1. The figure shows differences in the level of prices for goods and services representative of GDP *vis-à-vis* Spain (expressed as a per cent of the price level in the United States), in euro area countries and countries linked to the euro through fixed-exchange-rate regimes.

Source: OECD, *Annual National Accounts and Purchasing Power Parities databases* and OECD calculations for hours worked.

StatLink <http://dx.doi.org/10.1787/485838014654>

competing developed economies (BdE, 2008c). Reforms that would reduce the feedback effects of inflation on wages and raise the intensity of competition in non-tradable services, where the productivity record in Spain is weak, notably in retailing, could help damp price and wage inflation. Such steps would strengthen competitiveness in sectors producing internationally tradable goods and services, helping to offset the impact of the decline in domestic demand on activity (Chapters 2 and 4).

Fiscal policy has turned expansionary

Against the backdrop of a sharp deceleration in economic growth, the government has taken a number of expansionary fiscal policy measures, worth a total of 0.8% of GDP. On the revenue side, these include a tax rebate amounting to around ½ per cent of GDP. On the spending side, a new child benefit, payable at birth worth around 0.1 percentage point of GDP, was introduced (in part already in 2007), and the government committed to a faster implementation of its existing infrastructure projects. The government made available an extra €10 billion (1% of GDP) worth of credit guarantees for the issuance of AAA-rated mortgage-backed securities, tied to the condition that the funds raised through the issuance be used for the development of social housing projects. Additional guarantees have been issued by regional governments. A further government credit line, worth €3 billion in the first instance, was made available to housing developers for the purpose of debt rescheduling in August 2008, tied to the condition that developers taking up the loans offer their unsold units for rental. Subsidised loans were also made available on a temporary basis to enterprises to replace vehicles. The impact on the budget of these loan programmes should, however, be small.¹² Moreover, personal income and corporate tax reductions, legislated in 2006 (see OECD, 2007b), as well as a further adjustment of tax brackets and the basic income tax allowance to account for higher inflation, are reducing government revenues by about 0.8 percentage point of GDP from 2008 onwards. All in all, the discretionary fiscal stimulus in 2008 amounts to 1½ percentage points. Automatic stabilisers are having a further significant impact on the government's fiscal position. In addition, further technical changes in corporate and value added tax rules, which are unlikely to have a significant impact on economic activity, lead to revenue losses in the government accounts of 0.6 percentage point of GDP in 2008 only. All told, revenues have fallen sharply in the first eight months of 2008, while unemployment-related spending is rising. The general government budget deficit is expected to reach about 1½ per cent of GDP in 2008.

The central government has proposed a budget for the year 2009 which limits spending growth to 3.3%, (about 2% excluding transfers to social security to fund unemployment benefit outlays) implying nearly constant spending in real terms. Defence spending and transport subsidies, in particular, have been cut, as have budgeted outlays for non-wage consumption spending across all ministries. The spending growth restraint in the central government budget may not ultimately be fully reflected in an improvement of the general government structural budget balance. In particular, lower transfers to sub-national government levels may raise their deficits, and reductions in planned expenditure on wage subsidies for specific groups hired on permanent contracts reflect the cyclical downturn in the number of hires. On the revenue side, the elimination of the wealth tax, which has already been legislated, will result in revenue losses of 0.2% of GDP, offsetting some of the restrictive impact of expenditure restraint. With sub-national levels of government taking measures, in some cases, to cut their wage bills, general government

budgetary policy is likely to be broadly neutral in 2009. Overall the central government projects that its budget deficit will reach 1.5 % of GDP, similar to the expected budget outcome in 2008.¹³ However, this projection is based on a more optimistic scenario for real GDP growth of 1% in 2009, which is well above the consensus view.

As in 2008, the expected central government budget deficit lies well above the legislated ceiling of 0.4% of GDP.¹⁴ The central government is therefore obliged to present a plan outlining how the target budgetary balance is to be reached by 2011.¹⁵ Regional and local governments will be close to their deficit ceiling of 1% of GDP, which would, in principle, require them to present adjustment plans as well. However, they have been allowed not to present such plans so as to avoid fiscal policy turning restrictive in the following years. As pointed out in previous Surveys (see Table 1.A.1, OECD, 2007b), the deficit ceilings on the various levels of government imposed in Spanish legislation, which became effective with the 2008 budgets, do not adequately take into account the operation of automatic stabilisers.

The counter-cyclical fiscal policy stance taken this year was appropriate to take out insurance against the risk that decelerating activity, job losses and declining house prices reinforce each other, bringing about a vicious circle. This consideration is especially relevant as the housing-market correction is to a substantial extent a country-specific shock, to which no monetary policy response can be expected. However, further scope for expansionary fiscal policy is limited. Indeed, policy makers' attention needs to turn to the medium term, as the pressures on the fiscal position of the government are likely to mount beyond the current cycle:

- On the revenue side, the elasticity of revenues with respect to nominal GDP were considerably larger than unity up to 2006 (see the 2007 *Economic Survey*), and some of the large windfall gains in direct (especially business) tax revenues relative to GDP observed since 2005 (Table 1.2), while recorded as structural revenue gains, are likely in fact to be cyclical. Indeed, unusually high profits contributed much to strong income tax revenue growth up to 2007, and this effect is reversing. In addition, economic growth will need to shift from domestic demand to less tax-revenue-intensive net exports. The structural surplus is therefore likely to be substantially overestimated. This argument is reinforced by the fact that immigration inflows, which have contributed considerably to budget surpluses, notably in the social security system, may diminish as the economy grows more slowly. Moreover, the scope for further expansion of female labour supply is likely to shrink (see below).¹⁶
- On the expenditure side, while government spending relative to GDP is still low in international comparison, non-interest spending relative to GDP has been on a vigorous upwards trend, reflecting, in particular, rising government employment at sub-national government levels and, recently, high pay increases for some government workers, as well as increased government spending to support research and development. The central government has announced that it will take measures to lower payroll spending in 2009, although the expected savings are small (€250 million). A marked increase in old-age dependency ratios from 2025 onwards will generate substantial spending pressures (see OECD, 2007b). These will be further increased by the recent introduction of long-term care benefits for the elderly. This programme has so far had a minor budgetary impact, but spending on long-term care is expected to eventually rise to 1% of GDP per year. Discretionary increases in minimum pensions in recent years have been

Table 1.2. General government accounts
As a percentage of GDP

	2000	2005	2006	2007
Current receipts	37.6	38.6	39.8	40.6
Direct taxes	10.2	10.9	11.7	12.9
Household	7.0	6.9	7.4	8.1
Business	3.2	4.0	4.3	4.8
Indirect taxes	11.4	12.2	12.4	11.8
Social security contributions	12.9	12.9	13.0	13.0
Other	3.2	2.6	2.8	2.9
Current expenditure	36.1	35.2	35.1	35.4
Government consumption	17.2	18.0	18.1	18.4
Subsidies	1.1	1.0	1.0	1.0
Social security outlays	12.0	11.6	11.5	11.6
Property income paid	3.2	1.8	1.6	1.6
Other	2.6	2.7	2.8	2.7
Net lending	-1.0	1.0	1.8	2.2
<i>Memorandum items:</i>				
Structural primary balance	1.1	2.6	3.0	3.2
Structural revenues	37.7	38.7	39.8	40.6
Structural current expenditure, excluding interest	33.4	33.3	33.5	34.0
<i>Budget balance of:</i>				
Central government	-1.0	0.2	0.6	1.3
Social security	0.5	1.1	1.3	1.2
Local and regional government	-0.4	-0.4	-0.1	-0.3

Source: OECD Economic Outlook 83, and Bank of Spain (2008), Boletín Estadístico, May.

easy to fund from social security contributions revenues, in view of the large inflow of young immigrants and women in the labour market. While these increases help damp marked poverty among pensioner households, they will raise pension spending permanently. More spending has also been committed to improve active labour market policies, integration of immigrants (Chapter 2) and student grants (Chapter 3). Spending contingencies may result as well from a future international burden-sharing agreement to combat global climate change.

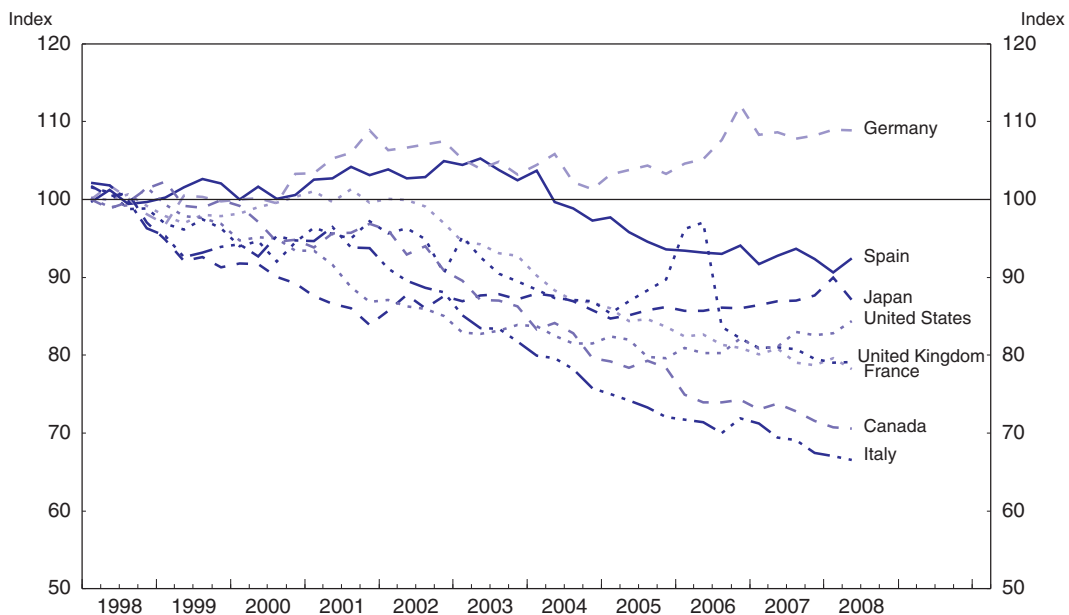
While the relatively low debt and expenditure levels favour the sustainability of government finances, budgetary policy will have to adjust to these changes in the medium-term outlook. On the expenditure side, this situation makes it urgent to identify and eliminate spending that is not conducive to raising potential growth or is poorly targeted at reducing poverty, as some reforms may take some time to implement. Some such spending areas include housing policies and wage subsidies (Chapter 2). The new credit guarantees for social housing may, moreover, contribute to oversupply of total housing, with the attendant risk of prolonging adjustment in the housing market. Some progress has been made in raising the transparency of sub-national government spending, which accounts for close to one half of total spending (OECD, 2005), including off-budget operations (Annex 1.A1). However progress is still needed, for example, in reforming the system of regional government funding so as to strengthen incentives to contain expenditure pressures. On the revenue side, the current policy of freely allocating greenhouse gas emission permits foregoes the opportunity to raise government revenues worth about 0.4% of GDP per year that would arise if such permits were auctioned in full, without the deadweight losses associated with taxation, and risks undermining the

incentives for pollution abatement the scheme intends to strengthen (Chapter 4). However, a ceiling of 10% still applies to the share of permits that can be auctioned according to EU rules.

The current account deficit largely reflects strong domestic investment

The current account deficit reached a historically high level of more than 10% of GDP in 2007. Most of the current account deterioration observed over the past decade is accounted for by the trade balance, reflecting the impact of increasing domestic absorption on imports, while net factor income outflows have made a modest contribution. Export performance has held up relatively well, for example in comparison with G7 countries, except Germany (Figure 1.7),¹⁷ demonstrating that relatively high inflation has not undermined competitiveness excessively to this point.¹⁸ At the same time, export prices have evolved relatively favourably, rising more strongly than in either Germany or France.¹⁹ The euro area still absorbs about 45% of Spanish goods and services exports, whereas fast-growing markets, notably in East Asia, still play a minor role, also in international comparison (IMF, 2008). Goods export performance has been sustained by a relatively strong presence of sectors that have exhibited strong demand growth world-wide so far, notably transport equipment and its components. The weight of manufacturing industries for which world-wide demand growth has been relatively weak, such as textiles, clothes and apparel, is low. The small share of these industries in Spanish exports also helps to explain the limited exposure of Spanish producers to competition from suppliers in emerging economies and sets Spain apart from other South European countries, including Greece, Italy and Portugal (IMF, 2008). Services have contributed heavily to export growth in

Figure 1.7. **Export performance**¹
Index, 1998 = 100



1. Export performance is the ratio between export volumes and export markets for total goods and services. The calculation of export markets is based on a weighted average of import volumes in each country's markets, with weights based on trade flows in 2000.

Source: OECD, Analytical database.

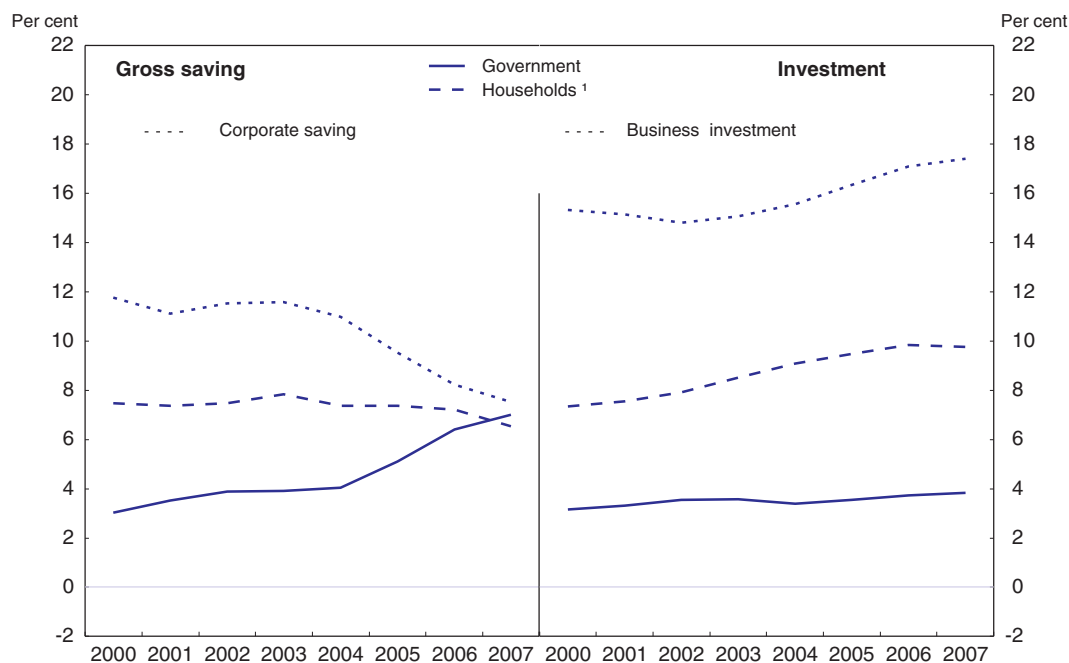
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recent years, and these have been characterised by significant diversification. Tourism services have contributed little to the expansion, and their weight in services exports has now fallen below 50%, whereas financial services and intermediate business services have taken on larger roles. The export share of these services, in which labour productivity tends to be high, is however still modest in comparison to more mature economies.

Over the past decade, the large current account deficit has reflected a very large share of investment in GDP, including both business and residential investment. This capital spending has exceeded high savings by households, enterprises and the government (Figure 1.8). Apart from low real interest rates, strong employment and population growth have been a driving force behind both high business and residential investment rates. Indeed, although the business investment rate has been very high in international comparison, capital intensity has advanced somewhat more slowly than in European OECD countries or the United States, resulting in a somewhat more modest contribution of capital stock growth to labour productivity gains (see below). The tightening of financial conditions and the cooling of the housing cycle are likely to add to the savings from a lower oil import bill and result in a marked correction of the current account deficit, although business investment may yet have to stay fairly strong to allow capital intensity to catch up with other advanced OECD economies.

Figure 1.8. **National savings and investment**

As a percentage of GDP



1. Households and non-profit institutions serving households.

Source: OECD, Annual National Accounts database, and Eurostat.

StatLink  <http://dx.doi.org/10.1787/485885724177>

The banks are overall relatively well placed to handle the downturn in residential construction

The exposure of Spanish banks to lending to the domestic housing sector is large. A significant share of bank assets (21%) consists of loans for the purpose of home purchase, whereas this share is only around 11% for the euro area as a whole. Moreover, the international financial market crisis creates a more difficult environment by limiting the ability of global financial markets to supply liquidity. The impact of housing market developments on the portfolio of existing mortgages held by Spanish financial intermediaries is, however, attenuated by various factors.

Loan-to-value ratios have remained modest, even at the peak of the lending boom in 2007, averaging 65%, and less than 10% of new mortgages granted in recent years have exceeded 80% of estimated house values. Mortgage borrowers' liability is not limited to the mortgaged property but also encompasses all other sources of income and assets, and recourse to mortgaged property is supported by a functioning property register. In addition, most have been asked to supply supplementary guarantees to lenders in case of high loan-to-value ratios, although in the majority of cases these are provided by relatives, while insurance against loss of employment appears to be relatively rare. However, unusually among OECD countries (see Catte *et al.*, 2004) house prices used in assessing loan-to-value ratios do not reflect actual transaction prices but prices as estimated by professional estimators (*tasadores*). Recent changes in legislation have strengthened requirements to separate activities of professional estimators from banks and the estimators are subject to supervision. However, incentives for estimators to overestimate prices may also result from contractual relationships with banks, as lower reported loan-to-value ratios may reduce provisioning costs and limit the need for borrowers to provide additional guarantees, even if banks have not shifted risks associated to mortgage lending off their balance sheets, which may limit their incentives to undervalue house prices.

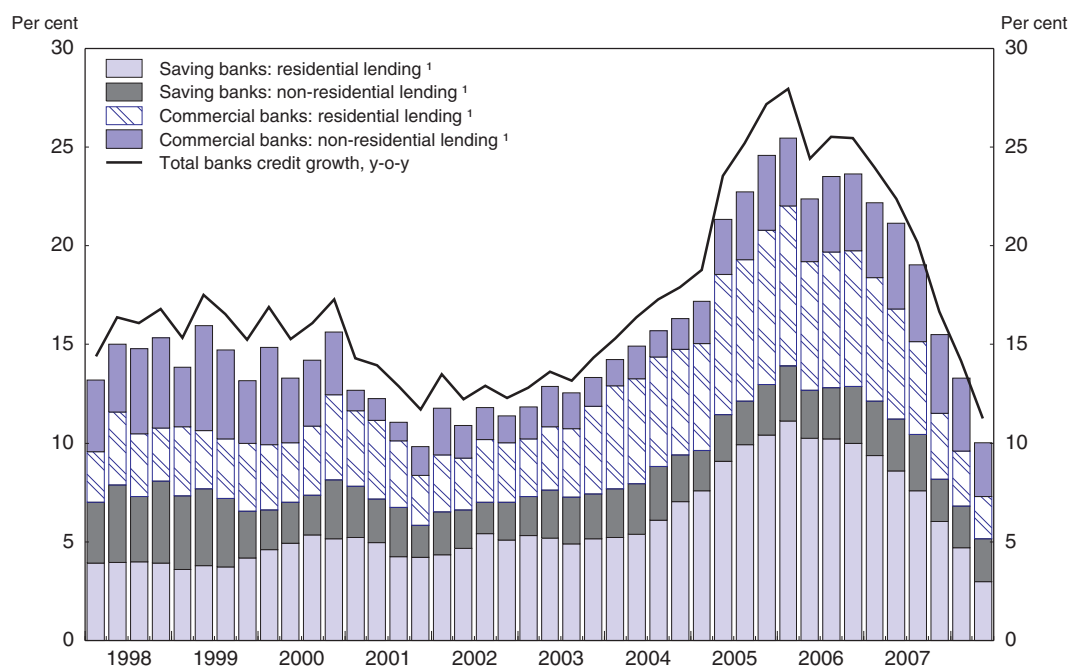
The relatively prudent loan-to-value ratios may well reflect particular safeguards in banking regulation, which are not common in all OECD countries, including the prohibition for banks to move assets off their balance sheets when they remain subject to the risks associated to these assets. Since Spanish banks have, in fact, kept those assets on their books, which have been used to collateralise bond issues, it appears that Spanish banks have not passed on risks to other economic agents (BdE, 2007a). Virtually all mortgages have been issued by deposit-taking banks, which are subject to stricter rules than non-bank lenders. These practices should help preserve lenders' incentives to maintain relatively stringent assessments of borrowers' expected ability to repay debt. Moreover, access to mortgage products for equity release is limited, as is accessibility to mortgages for households that provide information on income only by self-certification or which are credit-impaired (Catte *et al.*, 2004).

Spanish banks have been subject to tighter provisioning rules than those in other OECD countries, obliging them to make provisions for loans over and above those to cover for specific default risks.²⁰ These have increased the banks' cushion to absorb losses. The general provisions reach almost 1% of bank assets. While provisions are not included as part of banks' capital in calculating solvency ratios, capital and reserves are nonetheless higher relative to assets than in other large European countries, except Italy (BdE, 2008a); and banks' aggregate solvency ratios are considerably higher (about twice) than those required by the Bank of Spain. Moreover, the supplementary provisioning rules are likely to

have helped limit the magnitude of the pro-cyclical lending boom that followed the creation of the euro area in 1999.

Credit expansion continued to pick up steam until 2006 (Figure 1.9). Credit growth to construction firms and housing intermediaries was particularly strong, reaching 36% year on year in June 2007. While the ratio of deposits to assets is, at above 80%, higher than in many countries (BdE, 2007a), credit growth has exceeded deposit growth in recent years, prompting Spanish banks to resort increasingly to wholesale funding, notably through the issuance of mortgage-backed securities (the interbank market has not played a significant role as a funding source) (BdE, 2008b). These securities are subject to a considerable degree of over-collateralisation. In particular, the volume of *cédulas hipotecarias* is limited to 80% of the mortgage loans serving as collateral, and mortgages are permitted to serve as collateral only if their loan-to-value ratios are below 80%.

Figure 1.9. **Growth of credit granted by savings banks and commercial banks**



1. Contributions to total credit growth. Residential lending comprises loans for home purchase as well as loans to firms in the real estate service (including property development) and the residential construction sector.

Source: Banco de España (2008), Boletín Estadístico.

StatLink  <http://dx.doi.org/10.1787/486000162800>

In the wake of the global financial crisis, banks world-wide have found it increasingly difficult to obtain liquidity, for example, by issuing bonds. In response, in some countries, governments have injected equity into banks facing losses from depreciated assets. The Spanish government has taken a number of steps, mostly aimed at supporting bond issues by Spanish banks (Box 1.2), in line with the measures that euro area governments agreed to take in a coordinated effort to restore confidence in financial markets. Overall the government committed funds amounting to about 15% of Spanish GDP for purchases and guarantees of new bond issues.

Box 1.2. Measures taken by the Spanish government to support lending institutions

- A fund was set up to purchase highly rated securities newly issued by banks and other lenders that are backed by loans given to resident households and non-financial enterprises and tradable in Spanish bond markets. The fund is initially worth €30 billion with a maximum set at €50 billion (about 5% of GDP). The purchases of assets will be made on the basis of competitive tendering. 25% of the assets purchased in each auction will be assigned to banking institutions according to their contribution to aggregate new lending, at prices equal to the minimum prices determined in the auctions.
- The guarantee of deposits has been raised from 20 000 to 100 000 euros.
- The government will issue guarantees for further new issues of securities with a maximum maturity of 5 years, until 2009. For 2008, the guarantees are limited to 100 billion euros (about 10% of GDP). Banks will have to pay fees for these guarantees, according to the risks assumed by the government in each operation. The guarantees are not limited to highly-rated issues but may be subject to conditions regarding solvency of banks, as determined by the Bank of Spain. The guarantees will not in the first instance comprise interbank lending, although the government may extend them to other liabilities.
- The government will assume powers to acquire equity stakes in Spanish banks, including the special securities savings banks can issue (*cuotas participativas*). There are no plans to make use of these powers for the time being.
- The creation of the fund will not contribute to the government deficit, although it will add to gross debt while the guarantees will have a budgetary impact only if they need to be exercised. The net financial position of the government will ultimately only be affected significantly as a result of these measures if assets purchased or guaranteed depreciate significantly below the purchase or guaranteed price. The risks of this occurring appear larger for the guarantees, as they are not limited to highly rated bond issues. The risks incurred by the government will also depend on the procedures chosen to select and price eligible issues.

Default risks are concentrated among property developers and recent home purchasers

While the share of non-performing loans (2.5% in August 2008) is still low in international comparison, the heavy exposure of Spanish banks to this sector is likely to result in a significant rise in loan delinquency. Indeed, non-performing loans typically rise with a considerable lag after the onset of a housing market downturn (see Greenlaw *et al.*, 2008, for example). Risks are likely to be concentrated in lending to property developers, as these will be the most directly affected by the shrinking volumes of housing transactions and declines in the transaction prices of new housing. Stress-testing conducted by the Bank of Spain (Banco de España, 2008b), suggests that the impact of rising defaults among property developers on aggregate bank balance sheets would be very small, absorbing only about 60% of provisions, so would not even have any direct impact on reported profitability. However, the default rates were assumed only to reach levels attained in the preceding housing market downturn in 1993 (13%), while a considerably larger decline in residential construction must be expected on this occasion, which, arguably, could result in a higher share of loans being in default. The recovery rate of non-

performing loans was assumed to be 50%. Residential construction activity declined by 4% at its yearly trough in 1993. However, the OECD projects a decline in housing construction of 20% in volume terms in 2009. Nevertheless, as stated by the regulator, the Bank of Spain (2008a), other factors might argue against a sharper increase in non-performing loans, such as improved credit management risks by banks. Lending for activities related to residential construction appears to be particularly concentrated among savings banks, which account for about half of banking-sector assets but have a larger market share in loans related to residential construction. The exposure of savings banks to property developers amounts to 14% of total assets at end-2007 (BdE, 2008c), almost twice as high as among incorporated commercial banks. As outlined in Chapter 4, savings banks are subject to some limitations in raising external equity. They may therefore be more likely to respond to any losses on their assets by reducing balance-sheet growth should they seek to reduce leverage in such an event, although resulting macroeconomic effects could be mitigated if other institutions were to step in to fill the gap.

While the risks of mortgage defaults stemming from depreciation of housing assets are moderate overall, as outlined above, mortgage default risks would be higher should employment losses become large. The risk of such employment losses is particularly significant among households with young heads, owing to the very high share of young workers on temporary contracts (see further below). The weight of this segment of mortgage holders in the banks' mortgage portfolio is, however, limited by the fact that 64% of people aged between 18 and 35 do not live in their own main residence and hence do not form their own household, but instead in many cases live with their parents (BdE, 2008a), with most of the remainder owning (rather than renting) their main residence. However, the debt burden of households with a young head is high. In 2005 – the last year for which survey evidence is available – 47% of households whose head was less than 35 years old had contracted debt for the purpose of the purchase of a main residence. Total debt of these indebted households (mostly mortgage debt) amounted to about twice the level of their yearly disposable income, and for 36% of them this ratio was at least 300% (BdE, 2007b). Almost a quarter of these indebted households had debt to gross wealth ratios higher than 75%, with most of their gross wealth consisting of housing wealth, and this share is likely to have risen since. A decline of housing prices by 20% – which may bring housing prices close to their estimated fundamental value²¹ – would put some of these households into a negative-equity position, especially if transactions prices for repossessed houses lie significantly below market prices. They may therefore be exposed to the risk of defaulting on their mortgages if, at the same time, one wage earner in the household loses his/her job. Moreover, these households are heavily exposed to interest rate risk. Continued declines in short-term rates from recent highs could provide relief for their financial situation. Unlike in many European countries, Spanish bankruptcy law does not include specific procedures for consumer bankruptcy. This lacuna makes it more difficult for households to obtain access to a “fresh start”, in which – under restrictive conditions – insolvent households can be fully freed from debt. This would slow re-insertion in the labour market of over-indebted individuals who have lost their jobs.

Better matching of workers to jobs can soften the impact of the downturn and raise the contribution of qualified workers to economic performance

On aggregate, employment fell over the last year, by 1½ per cent, according to payroll data from the Social Security office for September. Job losses were particularly heavy in

construction but also occurred in manufacturing, real estate services, and retailing. With labour supply continuing to expand, the unemployment rate has quickly reflected the deceleration in activity. The unemployment rate reached 10.4% of the labour force (according to internationally comparable survey data) in the second quarter, 2½ points more than a year earlier. Immigration contributed about 2¼ percentage points to the growth of the population of working age in 2006 and there appear to be no signs of immigration flows abating as yet.²² The female participation rate is still increasing, albeit at a declining pace.

The potential for further increases in female labour supply is likely to diminish in the years to come. The female participation rate in the group of 25 to 29 year-olds is now only 8 percentage points short of the equivalent male participation rate and is close to the highest rates observed in OECD countries. Female participation in high age groups, by contrast, is much lower than in best-performing OECD countries, held back by cohort effects and low educational attainment. The replacement of older age cohorts with low participation rates by young women with high participation rates will however continue to be a source of rising labour supply.

The quick response of construction employment to the incipient downturn reflects both its intensity and the high share of workers with precarious work status, in particular workers on temporary contracts and many self-employed, often working for just one firm, who are especially important in the construction sector. Over the past year the unemployment rate has risen more strongly among workers aged 20-29, in comparison to other age groups. The recent increase in unemployment has also been considerably more pronounced among immigrants than among natives (Table 1.3). The share of young people and immigrants with temporary contracts is particularly large (Chapter 2). Therefore, this trend may well become more marked in the near term, as more and more temporary contracts terminate and as employers adjust to deteriorating employment conditions by cutting back on hiring.

Table 1.3. Unemployment rates by immigration status

Per cent, not seasonally adjusted

	2006				2007				2008		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Average	9.1	8.5	8.2	8.3	8.5	8.0	8.0	8.6	9.6	10.4	11.3
Native born	8.6	8.0	7.7	7.7	7.8	7.3	7.4	8.0	8.7	9.3	10.2
Foreign born	12.3	12.0	10.9	12.0	12.6	12.0	11.8	12.4	14.7	16.5	17.4

Source: National Institute of Statistics, Labour Force Survey.

Modestly educated workers, who are in still large supply, still have high employment rates, relative to their more educated counterparts, in international comparison (OECD, 2007a).²³ But they are also seeing their employment prospects deteriorate relatively sharply. Indeed, past business cycles have been accompanied by much more marked increases in unemployment rates among unskilled workers than on average. Moreover, beyond the current downturn, construction, a significant employer of such workers, is unlikely to absorb many such workers in the years to come. At the same time, poverty is relatively marked among families with children in which at least one adult works (Table 1.4), reflecting both the still large supply of modestly educated workers and a

Table 1.4. **Relative poverty rates among households with a working individual,¹ 2006**

	All households:	
	without dependent children	with dependent children
Belgium	4	4
Germany	6	5
Greece	11	17
Spain	6	14
France	5	7
Italy	5	14
Portugal	11	12
Sweden	8	7
United Kingdom	6	10

1. Share of households earning less than 60% of household equivalised median income.

Source: Eurostat.

comparatively high tax burden on such families (Chapter 2).²⁴ Steps to reduce this tax burden could both alleviate poverty and strengthen employment prospects among workers with modest education.

Labour market segmentation between workers on temporary contracts, on the one hand, and workers with permanent contracts on the other hand, contributes importantly to limiting access of young workers – of whom many are now highly qualified – to jobs which are commensurate with their skills (see further below). The lack of access of young workers to housing binds them to the parental home and also contributes to the mismatch of their skills and those required by the jobs they hold.

Labour market policy thus faces the following challenges (Chapter 2):

- Improve the placement of the unemployed in jobs. Experience across OECD countries shows that effective activation policies help make the labour market more resilient to adverse shocks. Activation policies rest on sound principles, but scope for improvement remains, especially with regard to low-skill workers and immigrants. Steps to improve employment incentives for low-skill workers can also help reduce poverty rates.
- Improve the matching of qualified workers to jobs. This requires a fundamental reform of employment protection legislation for incumbent workers. Measures have been taken to improve mobility of young students and workers, but housing policies need to be more consistently geared towards reducing impediments to mobility.

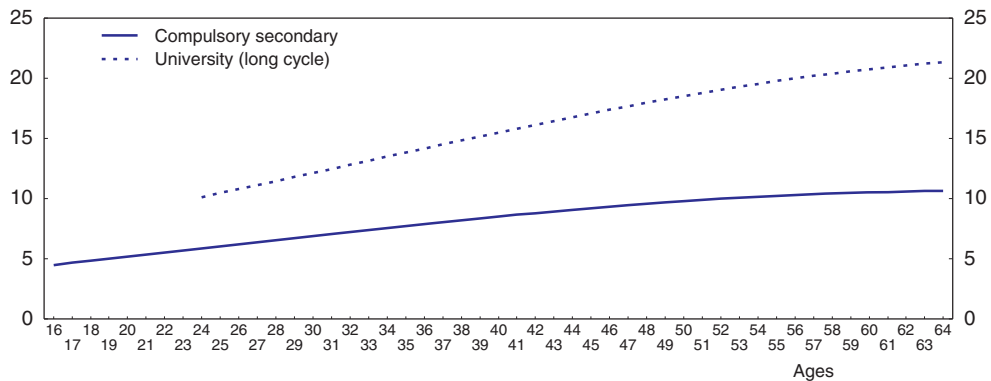
Rising education outcomes could make a bigger contribution to economic performance

Tertiary education attainment has risen dramatically over the past decade, with almost 40% of workers aged 25 to 35 possessing a tertiary degree, considerably more than in the OECD on average, and 20 percentage points more than among 45-to-55-year-olds. This vast increase in the supply of highly educated workers is much reinforced by the fact that the more educated young cohorts, who have entered the labour market recently or are about to enter it, are relatively numerous. Indeed, the age cohort of 25-to-34-year-olds is more than 43% larger than the age cohort of 50-to-59-year-olds.²⁵ The economy has not yet experienced all of the benefit of this huge inflow of highly qualified workers. Indeed, wages rise more strongly with experience for highly qualified workers than for poorly qualified


workers (Figure 1.10). Moreover, this effect does not reflect cohort effects resulting from younger workers having lower returns to education but, instead, reflects steeper experience premia in the wages of tertiary graduates. Indeed, Table 1.7 shows that returns to tertiary education are not lower for young workers than for their older counterparts. This evidence suggests that their contribution to productivity growth has yet to be exhausted.

Figure 1.10. **Age-earnings profiles for university graduates and lower secondary graduates**

Euros per hour in 2005



Source: García Montalvo, J., J.M. Peiro and A. Soro Bonmatí (2006), *Los jóvenes y el mercado de trabajo de la España urbana: resultados del Observatorio de Inserción Laboral 2005*.

StatLink  <http://dx.doi.org/10.1787/486012011155>

While steeper experience-earnings profiles are a feature also observed in other OECD countries, young workers' integration into the labour market is more difficult in Spain, with attendant productivity losses for the economy, given the relatively high educational attainment of young workers. The prospects for young people to gain access to occupations that reflect the skills they have acquired are poor. Only 40% of tertiary graduates aged 25-34 have access to professional and managerial positions, whereas this share reaches 60% for older graduates. This gap is much larger in Spain than in most other EU countries for which comparable data are available, whereas the share of middle-aged and older graduates in such positions is in line with the share observed in other EU countries. Other international comparisons provide similar results.²⁶ Access to positions with adequate skill requirements is equally difficult for young graduates from upper secondary education (Table 1.5, Panel A), even though the supply of such workers is low in international comparison (see further below), indicating that the mismatch between worker skills and job skill requirements does not reflect an oversupply of skilled workers. The share of qualified young workers whose skills are not fully utilised is much larger for workers on temporary contracts than for those on permanent contracts (Table 1.5, Panel B). Low age, temporary contracts and lack of geographical mobility have proven to contribute significantly to explaining the likelihood of over-qualification in econometric models. According to García Montalvo *et al.* (2006), workers aged 16-30 are more than 50% more likely to occupy jobs which underutilise their skills if they live at the parental home and more than twice as likely to occupy such jobs if they are on a temporary contract, controlling for other individual as well as job characteristics. The precarious work status to which young workers are subject may well compromise their earnings over their lifetime,

Table 1.5. **Match of worker qualifications and job qualification requirements, 2005**

Panel A. By level of education			
	Lower secondary	Upper secondary	Higher
Broadly adequate	76.67	55.06	61.28
Job requires higher qualifications	2.78	1.83	0.91
Job requires lower qualifications	20.56	43.12	37.80

Panel B. By type of contract		
	Permanent contract	Temporary contract
Broadly adequate	75.00	57.85
Job requires higher qualifications	2.25	1.88
Job requires lower qualifications	22.75	40.27

Note: The results relate to workers aged 16-30, the Survey was conducted in municipalities with a population of more than 50 000 inhabitants.

Source: Garcia Montalvo et al. (2006).

as there is some evidence to suggest that workers on temporary contracts are less likely to participate in employer-provided training activities (OECD, 2006). Reforms to raise worker mobility and lower the degree of labour market segmentation between holders of permanent and temporary contracts would help to make the most of the skill potential of highly educated young workers (Chapter 2).

A key priority for education policy is to lower the large inflow of unskilled youth into the labour market. As outlined in Chapter 3, the proportion of youth failing to complete lower secondary education is extremely high in international comparison, reaching 30%, and many of these youths are unlikely ever to attain upper secondary credentials. As a result, upper secondary graduation rates also remain low, especially for vocational degrees. The economic consequences in terms of employment and earnings prospects are severe. Indeed, the returns to education are particularly high in the vocational upper secondary pathway (Table 1.6), even though they have diminished for young workers.

Learning outcomes in compulsory schooling, as measured by PISA, are somewhat below OECD averages, especially in reading. However high school failure cannot be attributed to poor learning outcomes, as the distribution of these outcomes is relatively compressed, with the share of pupils attaining very low competencies not much higher than in other countries. While modest PISA performance can in part be attributed to relatively low educational attainment in the parental generation, considerable scope remains to improve education outcomes through further reform of the school system.

At the tertiary level, returns compare unfavourably with those of other OECD countries (Oliveira Martins et al, 2007). Returns to vocational education are lower than for university courses, although this difference is considerably less marked for workers who have received such education in more recent years (Table 1.6). However, tertiary graduation rates are particularly high in vocational courses, whereas they have stagnated in university education at a level below the OECD average of late.

Hence the challenges facing education policy are as follows:

- Reducing the large number of youths who leave schools without upper secondary education credentials.
- Improving learning outcomes of pupils in compulsory education.

Table 1.6. **Rates of return to education**

Panel A. Taking into account the probability of employment			
	1995	2002	
Lower secondary	2.61	2.71	
Vocational upper secondary	13.55	14.32	
Academic upper secondary	9.85	9.46	
Vocational tertiary	-2.41	3.87	
University short degree	15.65	11.64	
University long degree	15.66	14.18	

Panel B. Evolution of returns by age group, conditional on being in employment			
	Age group 16-35		Age group 16-65
	1995	2002	2002
Lower secondary	-0.67	1.00	1.67
Vocational upper secondary	10.50	7.50	12.00
Academic upper secondary	11.71	6.57	10.57
Vocational tertiary	1.33	6.00	2.67
University short degree	8.29	8.57	8.86
University long degree	15.00	12.50	12.50

Note: Returns are per year of schooling completed relative to the educational phase that normally precedes it. For example, returns to tertiary degrees are based on gross hourly wage differences between tertiary degree holders and academic upper secondary degree holders. Income in case of non-employment is assumed to be zero. Earnings data are gross wages. Estimates are based on Mincerian wage equations and take into account only the opportunity costs of education resulting from forgone earnings. Panel A also takes into account the impact of education on the probability of employment.

Source: García Montalvo (2008).

- Raising the returns tertiary education generates for graduates in the form of higher earnings and employment outcomes.

Removing regulatory barriers to competition can raise productivity performance

Comparatively weak productivity growth has hindered convergence of living standards in Spain relative to the highest-income countries in the OECD. To a small extent, this weakness is accounted for by the expansion of construction activities, including related real estate services (Table 1.7). The rising share of construction in economy-wide value-added has damped aggregate productivity advances, as value-added per hour worked in construction is only about two thirds of the average level in the economy. However, this effect has been offset by the expansion of real estate services, where value

Table 1.7. **The impact of the expansion of construction sector activities on productivity growth**

Contribution to hourly productivity growth in sectors, in percentage points, yearly average, 1996 to 2005

	Within sector	Shift effect
Construction	-0.15	0.33
Real estate services	-0.55	0.51
Other sectors	n.r.	-0.50
Sum	-0.70	0.34

Note: n.r. = not relevant.

Source: EU Klems database, March 2008.

added per hour worked is several times the average level in market sectors. Overall, the shift effect between the construction-related sectors and other sectors of the economy is positive, albeit small. This finding corroborates recent comparative work on the impact of shifts in the composition of output on aggregate productivity in European countries and the United States, which suggests that such shifts have, overall, had a similar, small positive impact on productivity growth between 1995 and 2004 in Spain as in other OECD countries (van Ark *et al.*, 2008).

Both construction and real estate services have also exhibited negative productivity growth, with some impact on aggregate productivity growth. The decline in labour productivity growth in real estate services appears to be accounted for by an inflow of labour attracted by a steep increase in the prices charged for such services, which are likely to be linked to prices for real estate. Between 1996 and 2005 -0.7 percentage point of the weaker productivity growth performance *vis-à-vis* other European countries²⁷ is attributable to the negative within-sector productivity growth contributions in construction and in real estate services. The combined shift and within-sector effects of the construction-related sectors was almost -0.4% .

These special construction effects are unlikely to recur and will probably be reversed more quickly than they have built up, boosting productivity over the next few years, as residential construction contracts. However, even after making allowance for these special construction-related effects, productivity advances have been modest. This weakness is largely accounted for by a paucity of total factor productivity improvements. The accumulation of capital per hour of labour employed has also been somewhat slower than in other OECD countries (Table 1.8), especially with regard to equipment of workers with ICT capital goods. Moreover, the weakness in productivity growth cannot be attributed to a lack of accumulation or poor use of human capital. Indeed, changes in the skill composition of employment – as measured by the skill and age composition of workers, weighted by relative compensation levels²⁸ – appear to have contributed at least as much to hourly productivity growth, on average, as in other countries included in Table 1.8. This development reflects the large differences in educational attainment between workers who are retiring and those entering the labour market after completion of full-time

Table 1.8. Accounting for labour productivity growth in Spain, European countries and the United States

Market economy, annual average growth rates, in percentage points, 1995-2004

Labour productivity	Labour productivity growth contributions from:				
	Labour composition	ICT capital per hour	Non-ICT capital per hour	MFP	
Spain	0.2	0.4	0.3	0.4	-0.9
10 EU countries	1.5	0.2	0.5	0.5	0.3
United States	3.0	0.3	0.8	0.4	1.4

Note: Labour composition is measured as changes in the composition of employment across three education levels, three age groups and the two sexes. "ICT" is information and communications technology and includes information technology hardware, communication equipment and software. Non-ICT capital goods include machinery and equipment, transport and non-residential construction structures. The productivity contributions of an input are measured as the growth rate of the input, relative total hours worked, weighted by the appropriate income shares. MFP is the residual. The 10 European Union countries are Austria, Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Spain and United Kingdom. Numbers may not sum exactly due to rounding.

Source: van Ark *et al.* (2008).

education. However, as argued above, much scope remains to raise the productivity growth contribution from a highly educated workforce.

As noted above, sectoral reallocation effects cannot account for the relatively weak productivity growth performance in Spain. Moreover, in international comparison, the Spanish economy does not appear to be specialised in sectors in which productivity growth is low, except in those that are construction-related.²⁹ The causes for weak productivity growth must therefore be sought within sectors, including within those not related to construction. Table 1.9 below shows a comparison of within-sector productivity gains (after accounting for the contributions of the factor inputs listed in Table 1.8) in a wide range of sectors in Spain, the United States and selected European countries. Productivity gains in Spain have been weaker in many industries, in both manufacturing and services. In services, weak productivity growth has been remarkable in post and telecommunication services³⁰ as well as transport. In both post and telecommunications services and a few ICT-related manufacturing sectors included in electrical and optical equipment manufacturing, a part of the difference in productivity growth is accounted for by differences in the growth of implicit value-added deflators, which appear relatively large in Spain. In these sectors, price-measurement issues can also play a role, although the weight of these sectors in the economy is not significant enough to have a large impact on aggregate productivity performance. The productivity growth gap in wholesale and retail trade has a significant impact on economy-wide performance because of their large shares in total value added. The evidence from other OECD countries shows that easing restrictions on entry of large-scale retail outlets encourages more intensive use of information and communication technology and raises total factor productivity growth (van Ark et al., 2008).

Table 1.9. Differences in total factor productivity growth in selected sectors

In percentage points, 1996-2005

	With respect to 10 EU countries ²	With respect to the United States
Total manufacturing	-16.5	-56.9
<i>Of which:</i>		
Electrical and optical equipment	-53.0	-273.4
Electricity, gas and water supply	-1.9	11.4
Wholesale and retail trade	-14.0	-34.3
Hotels and restaurants	-9.7	-20.9
Transport and storage	-23.5	-28.6
Post and telecommunications	-75.7	-42.7
Renting of machinery and equipment and other business activities	2.5	-6.8

1. Total factor productivity is measured as indicated in Table 1.8.

2. The countries listed in the footnote of Table 1.8.

Source: EU Klems database.

Output per worker accelerated in 2006 and 2007, both in market services and in manufacturing, although this may largely reflect high capacity utilisation as the output gap peaked, although convergence of private sector R&D spending relative to GDP as well as patenting towards high-income countries in recent years may perhaps be interpreted as a sign of some improvement in underlying productivity performance, although the pace remains moderate and the performance gaps are still significant. Chapter 4 investigates

how reforms designed to enhance competition and to improve product market regulation can contribute to raising productivity performance.

Notes

1. The house price index published by the Housing Ministry is based on estimates of market prices of professional estimators (*tasadores*), rather than transaction prices. An additional index has recently been introduced by the National Statistics Office, based on transaction prices, which shows a slight year-on-year decline in the second quarter (-0.2%)
2. The average duration of a residential construction project is two years according to BBVA (2007). Rodríguez López and Fellingner Jusué (2007) estimate an equation predicting changes in house prices as a function of changes in the housing stock and changes in the user cost of residential capital (net of tax and including backward-looking expectations term on house prices), which generates predictions of house price declines in real terms of between 1 and 3% in each of 2008 and 2009. However, this equation does not take into account the role that forward-looking expectations and credit conditions may play, and the resulting predictions are conditional on interest rates which are below levels observed in June 2008. Indeed, since variations in housing stock growth are small and changes in interest rates cannot be predicted, such equations cannot predict significant changes in house price growth.
3. See García Montalvo (2007). The relative weight of these variables depends on the period considered.
4. This demand could be somewhat stronger if the trend decline of household size towards levels in other European countries observed in recent years continues (Banco de España, 2008a).
5. This estimate covers domestic demand for second residences. The contribution of purchases from non-residents was estimated to be 30 000 in 2007 (Rodríguez López and Fellingner Jusué, 2007). Should housing starts throughout 2008 fall by 50% with respect to the previous year, the number of housing starts would reach 380 000. New homes will also need to cover depreciation of existing housing stock, which is estimated at about 56 000 a year (about 0.2% of the housing stock; Ministerio de Vivienda, 2008a), implying that the resulting net change in housing stock may be consistent with the demographic determinants of demand.
6. In MIIFR (2006) the housing stock in France was estimated at 516 per 1 000 inhabitants.
7. According to data provided by the Spanish housing ministry, about 3% of the housing stock is declared empty without being declared available for sale or renting, while another 3% is on offer for sale or renting without being declared occupied.
8. A share of 16% was cited in the 2007 *Economic Survey*, on the basis of the housing census in 2001, which appears to have been subject to statistical flaws.
9. The stock of new housing on offer was estimated to amount to 4.5 units per 1 000 inhabitants (Ministerio de Vivienda, 2008c).
10. The equilibrium price level can be assumed to be determined by approximate parity in tradables prices (net of taxes on goods and services purchased domestically), while prices in non-tradables would vary according to differences in productivity gaps between tradable and non-tradable sectors across countries. If differences in economy-wide productivity mostly result from differences in productivity in the tradables sector, there is a positive relationship between economy-wide productivity and the level of prices in all goods and services. See *e.g.* Obstfeld and Rogoff (1999). Moreover, differences in income per capita could influence price levels, as a result of imperfect competition in tradables markets, which may result in deviations from parity, for example, because producers charge higher prices in high-income countries. Figure 1.6 reports the residuals of a regression of the price level on variables capturing the influence of these variables on the price level.
11. The residuals reported in Figure 1.6 can give only a rough indication, in view of the fact that they are derived from an equation with unknown functional form. In particular, the relationship between economy-wide productivity and prices may well not be linear, for example, because countries with the highest average productivity may be more likely to have competition-friendly regulation in non-tradable goods and services markets, which would lower their relative prices. To account for such non-linearities, a squared productivity term was introduced. Hours worked per population was included to control for differences in income levels, which may be correlated with price levels because of imperfect competition and price discrimination in tradable goods markets. Also, since purchasing power adjustments are made on both sides of the equation, measurement

errors in these could bias the productivity coefficient. Instrumenting productivity on educational attainment and introducing product market regulation indicators in the equation did not change the results with respect to Spain's position much (which is not true for all other countries). All variables are expressed relative to the United States. The regression was run for all OECD countries for which data were available.

12. Additional stimulus measures include, *inter alia*, increased social assistance to people who have recently become unemployed, fiscal incentives to the rehabilitation of housing and additional guarantees for loans to small and medium-sized enterprises.
13. The 2008 budget outcome is affected by negative one-off effects on government revenues, related to changes in VAT repayments to enterprises and accounting changes in corporate taxation, amounting to 0.6% of GDP.
14. The ceiling includes an allowance for infrastructure and R&D spending. See OECD (2007b).
15. This assumes that real GDP growth will remain below 2% in 2011. If growth is higher, the budget is required to reach balance.
16. Declining inflation may also reduce revenue growth through slower bracket creep, but this effect is already being offset by partial indexation of tax brackets (see the 2007 *Economic Survey*).
17. IMF (2008) reaches similar conclusions, with the comparison of market share developments covering other south European countries, notably Portugal and Greece.
18. Demographic developments have also sustained Spain's relative export performance, with population of working age growing more strongly than in the other countries. However, these cannot fully account for the relatively favourable outcomes. Population of working age grew at a rate similar to Spain's in the United States, but 0.7 percentage point faster per year than in the United Kingdom and 1.5 points faster than in Germany or Italy.
19. The export price index has risen by about 20% since 1998, compared to 10% in Germany, whereas it has stagnated in France. Very strong export price growth was, however, also registered in Italy (Banco de España, 2008c).
20. These include "statistical" provisions, which have to be calculated on the basis of fixed percentages for each asset class, with each percentage representing the net specific provisioning that has historically been necessary, on average over the cycle, for specific provisions. The statistical provision is charged if it exceeds specific provisioning. If specific provisioning exceeds the statistical provisioning required, accumulated statistical provisions can be lowered. See, for example, Mann and Michael (2002).
21. There is clear evidence of significant house-price overvaluation, with an estimated range of 24 to 31% in 2004, as quoted in Girouard *et al.* (2006b). This may have risen further by 2007.
22. According to the Labour Force Survey, the increase in the stock of foreign nationals in the population of working age did not decelerate significantly up to the first quarter 2008.
23. To some extent, however, this is due to the age composition of the population, as young worker cohorts are numerous and unskilled workers' employment rates drop off sharply with age.
24. Cash benefits and tax breaks for families were worth 0.5% of GDP in Spain in 2003, while they reach or exceed 1.5% in most high-income OECD countries, according to the OECD Family database.
25. This is according to population estimates of the National Statistics Institute. Less than half of the difference is accounted for by immigrants (and these are included in educational attainment statistics).
26. See Eurostat (2005) An analysis of careers of tertiary graduates in 1999, cited in García Montalvo *et al.* (2006), indicates that 18% of Spanish university graduates were employed in positions which did not require tertiary-level skills, compared to 8% in 10 EU countries.
27. In EU countries, average productivity growth in construction and real estate services was close to zero between 1996 and 2005.
28. The skill composition variable distinguishes three different education levels.
29. Between 1995 and 2005 the sum of the productivity growth contributions of all market economy sectors does not change significantly if they are weighted by their shares in value added observed in 15 EU countries rather than by their actual shares.
30. In both post and telecommunications services and a few ICT-related manufacturing sectors included in electrical and optical equipment manufacturing, a part of the difference in

productivity growth is accounted for by differences in the growth of implicit value added deflators, which appears relatively high in Spain. In these sectors, price measurement issues can also play a significant role.

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ANNEX 1.A1

Progress in structural reforms

This annex reviews action taken on recommendations from previous *Surveys*. Recommendations that are new in this *Survey* are listed at the end of the relevant chapter.

Recommendations in previous <i>Survey</i>	Action taken since December 2006
Managing fiscal policy in the medium and long term	
Incorporate a more systematic inflation adjustment of the tax brackets and allowances in the income tax code.	In 2008, tax brackets and personal and family allowances were indexed to an inflation target of 2%.
Reconsider the tax incentives for private pension plans.	None.
Improve co-operation between fiscal and police authorities to increase the effectiveness of tax-fraud investigations.	None.
Grant the public policy evaluation agency a high degree of independence from the political process and ensure its findings are easily available to the general public.	The evaluation agency is required to make the results of its analysis available to the general public.
Develop a comprehensive strategy to tackle future deficits in the pension system and raise incentives to work at old age, including parametric reform, for example by increasing the contribution period to qualify for a full pension and basing benefits on life-time earnings ,as well as raising public savings.	None.
Encourage the disabled to return to work by introducing invalidity in-work benefits. Consider extending the employer-paid sickness period.	In-work allowances for active disabled workers were increased in 2008.
In the new Fiscal Stability Law, set thresholds on economic growth used to determine government balance requirements at the national and sub-national levels relative to potential output growth, and have a reputable, impartial entity compute it. Avoid a too mechanical implementation of the law, which could result in a pro-cyclical budgetary outcome. Avoid favouring tangible over other forms of productivity-enhancing expenditure resulting from the exceptional exclusion of increases in public investment.	None since the introduction of the Fiscal Stability Law.
Base spending caps set in the central government's budgetary process on estimated potential GDP.	None.
When designing the fiscal strategy, keep using a prudent assessment of future macroeconomic conditions. Investigate the reasons behind the large tax elasticity observed in recent years.	None.
Public sector reform	
Improve transparency of sub-national government budgets and audit them by an independent body to avoid the expansion of off-budget operations through public enterprises.	In 2007 a stocktaking of all entities that depend on the regional governments was published.
Ensure that the regional financing mechanism does not unduly increase the central government's burden, and make sure that it is robust to demographic developments by making transfers more reflective of their average net budgetary impact. Provide incentives for regional and local governments to rely increasingly on their own taxing powers.	None.

Recommendations in previous <i>Survey</i>	Action taken since December 2006
Develop benchmarking for services provided by sub-national governments, including in regional hospitals, and make results public. Promote the sharing of experience among these governments. Relax the obligation for regional governments to spend a minimum amount on health care.	A report issued by a working group (with government participation) on the analysis of health care expenditure includes a benchmarking exercise on health care spending and on measures taken to control health care spending.
Avoid using earmarked grants or at least increase transparency on the amounts and criteria used to allocate them across regions.	None, although earmarked grants are a small share of regional financing in international comparison.
Reduce the bias in favour of less developed regions in allocating central government investment. Use more effective instruments in supporting poor regions' growth potential, such as education policies.	None.
Improve local government's reliance on real estate tax and abolish the local business tax.	None.
Introduce means-tested co-payments on drugs for pensioners.	None.
Improve the functioning of the housing market	
Phase out the deductibility of mortgage payments from taxation.	Maximum thresholds for deductible mortgage payments are not adjusted for inflation.
Improve the legal security in the landlord-tenant relationship.	Six new judicial courts have been opened in areas where the number of eviction processes is high.
In the medium term, evaluate the need for the public rental agency. Reassess the existing rent assistance programmes. Revise the cost-effectiveness of the system of social housing, relying on a system of vouchers for disadvantaged groups.	An evaluation of the public rental agency is planned, and rent assistance programmes will be revised in the new housing plan 2009-12.
Increase the resilience of the economy	
Reform the collective bargaining system by allowing firms to opt out of regional and/or sectoral outcomes. Eliminate <i>ex post</i> indexation clauses linking wage growth to inflation.	None.
Increase incentives to reduce the energy content of production.	Industrial sectors covered by the European Directive comply with GHG emission limits and operate in the European Trading System.
Strengthen innovation policy	
Allow more than one government-backed project per principal researcher.	None.
Improve the budgetary, managerial and administrative independence of public research centres.	A new law has been approved (<i>Ley de Agencias</i>) that facilitates the management of public research centres, giving them more autonomy.
Improve the quality of public sector research by raising researchers' remuneration and basing their recruitment to a greater degree on evaluation.	The Ministry of Science and Innovation is currently developing a researcher career path that will reward quality. The government intends to significantly increase researchers' remuneration.
Improve co-ordination among innovation-oriented programmes within central government and among the regions so as to facilitate access to information by firms, and particularly SMEs.	Initiatives taken include the setting up of electronic information access points for all information on R&D support programmes.
Assess the various incentives aimed at encouraging private research and innovation expenditure and at diffusing ICTs.	A programme was launched to evaluate all R&D initiatives in the INGENIO programme. A new scheme was launched (AVANZA) to foster catch-up in use of ICT technologies.
Strengthen higher level education	
Improve statistical information on the functioning and results of universities as well as dissemination.	ANECA will work with universities to set up evaluation schemes.
Place more weight to applied research and technology transfers to firms in the researcher assessment system, and apply it to non-civil-servant researchers. Publish the results of the national quality agencies' assessments on a regular and comprehensive basis.	With the 2007 University Law, applied research and technology becomes a main function of universities.
Strengthen the system of income-contingent loans for students. Raise university spending per student, financed partly by raising tuition fees. Link university funding to performance.	In 2007 such loans were introduced for postgraduate studies.
Remove the obstacles to university teachers moving to the private sector and participating in spin-off firms. Increase the freedom of universities to recruit non-permanent professors and to adjust all professors' remuneration according to performance.	Professors can take sabbaticals to work at firms. Universities are allowed to create joint research institutes with firms.

Recommendations in previous <i>Survey</i>	Action taken since December 2006
Introduce joint public-private financing of training projects.	None.
Improve the framework conditions for entrepreneurship	
Reduce the regulatory obstacles to institutional investors' participation in venture-capital companies.	None.
Consider the introduction of a single work contract with moderate increases in severance payments according to length of service. Step up activation measures in exchange for less protection of permanent employment. Reduce the uncertainty in the application of EPL and the obstacles to the mobility of workers.	None.
Labour market issues	
Continuous evaluation of ALMPs should be independent and provide feedback for improving measures.	A new framework for evaluation of ALMPs is in place, an external evaluation of public employment services will be done every three years, and internal evaluations will be conducted yearly.
Restrict eligibility conditions for subsidies for unemployed rural workers to enhance regional labour mobility.	None.
In order to raise female participation, increase day care facilities for young children and health- and home-care provision for dependent elderly.	A new system of public support for elderly dependents is gradually being implemented in co-operation with regional authorities.
Improving the functioning of product markets	
Adopt the draft reform of general competition law, in particular the leniency programme.	Implemented.
Raise the independence of sectoral regulatory bodies.	None.
Be more active in assessing the impact on competition of certain sectoral regulations, as in professional services.	The regulation of professional services is partially affected by the implementation of the European Services Directive. Evaluation of additional professional services regulations is currently under way.
Reduce the market power of the vertically integrated electricity companies. Eliminate barriers to the establishment of new firms, including foreign ones. Encourage the use of forward bilateral contracts. Adjust tariffs in a more transparent and rapid way on the basis of production costs.	Virtual power plant auctions have taken place since mid-2007 and the use of bilateral contracts has increased. Tariffs (net of transport costs) reflect wholesale electricity prices and are updated on a quarterly basis.
Lower the ceiling on the <i>gas companies'</i> stake in <i>Enagas</i> Encourage the emergence of a secondary wholesale gas market.	The first auction to allocate gas storage capacity took place in April 2008. Storage capacity can be sold in a secondary market on a bilateral basis.
Give the telecommunications regulator responsibility for consumer protection.	None.
Implement the European directive on services to reduce the regional barriers to new hypermarkets. Relax regional regulations, at least the criteria for defining a hypermarket, to which special license requirements are attached. Remove local obstacles to the opening of petrol stations in super- and hyper-markets.	The European Services Directive is being implemented. As a result, some regional barriers to new hypermarkets are likely to be dismantled, and other barriers will be replaced by less restrictive measures.
Amend the excessive and sometimes discriminatory restrictions in the <i>pharmacies</i> sector.	None.
Make the tender of freight and regional passenger transportation services compulsory.	None.
Abolish the remaining unwarranted constraints involved in obtaining a <i>road freight haulage</i> operating license.	Geographic barriers to operating licenses were abolished.
Remove the import restrictions on <i>cement</i> .	None.
In <i>public procurement</i> , take active steps to strengthen the Internet portal so as to reduce management costs and improve transparency. Lower the thresholds making open public tenders obligatory.	New regulation on public procurement increases the use of electronic procedures to rationalise costs and speed up tenders.
Further liberalise postal services.	A new independent regulatory body, the <i>Comisión Nacional del Sector Postal</i> , was created.

Chapter 2

Improving the matching of workers to jobs

The deceleration of economic activity and the necessity for structural change in order to return to sustainable growth imply a need for a better matching of workers to jobs. This chapter looks at the main institutional features and policies in the labour market that are behind the mismatch between qualified workers and available jobs, which is severe in international comparison. A well designed strategy to activate the unemployed can help ensure that unemployment benefit recipients find a suitable job as fast as possible and minimise the risk that the availability of unemployment benefits unduly reduces work incentives. An adequate level of coordination between the administration of unemployment benefits and activation policies lowers the risk of benefit traps if activation policies are used to ensure that recipients re-qualify for unemployment benefits. Reform of employment protection legislation would help to increase the employment prospects of highly qualified young workers and other groups who face entry problems. Immigrants have high participation rates and relatively low unemployment, but they hold precarious jobs for which they are overqualified. Hence, there is scope to increase their labour market integration. Housing market policy reforms need to focus on removing barriers to geographic mobility, and the wage bargaining system should be reformed in order to ensure an efficient allocation of labour by allowing wage agreements to reflect firm-level conditions.

Activating the unemployed

A well defined strategy to activate the unemployed can help ensure that benefit recipients have a good chance of obtaining employment in as little time as possible and minimise the risk that the availability of unemployment benefits does not unduly reduce work incentives. The essence of activation strategies is to encourage jobseekers to become more deliberate in their efforts to find work and/or improve their employability.¹ It is important to direct spending to those measures that are found to be most effective. Indeed, as in other OECD countries, there seems to be considerable scope for improving the effectiveness of Spain's active labour market policies (ALMPs) for any given level of spending. But, while international experience can provide some broad suggestions for policy, more evaluation is needed to identify those individual policies that work cost-effectively. Given the decentralised nature of the public administration, it is important to achieve an effective coordination of ALMPs with the administration of the unemployment benefits system (OECD, 2006a).

Spain is following a well-designed activation strategy, but it can be improved

There is a growing awareness across OECD countries of the importance of basing activation strategies on the “mutual obligations” principle (OECD, 2007d). A careful integration of active and passive measures, combined with close monitoring of job search, can be effective in encouraging job-seekers to become more diligent in their efforts to find work and/or improve their employability. Indeed, empirical results confirm the disincentive effects of unemployment benefits are lower in countries that spend more on ALMPs (Bassanini and Duval, 2006). A number of other recent macro-econometric studies on the impact of aggregate ALMP spending on aggregate unemployment have found that it speeds up re-employment for benefit recipients and other job-seekers (OECD, 2007d).

Spain's activation strategy relies on a series of labour market services and training courses, most of which are available to all unemployed people (see Box 2.1). After a comprehensive interview in order to assess work availability and identify job skills of the unemployed, an individualised action plan is established, and the participation of the job-seeker in the plan is obligatory. Intensive interviews between the job-seeker and an employment counsellor are done regularly, on an average frequency of six times a year, although this is somewhat less frequent than most other OECD countries.² In most cases, they are referred to vacancies directly by the employment services, which not only helps reduce the risk of prolonged unemployment, but can also act as a work test. In addition, the average number of direct referrals to jobs per unemployed person is amongst the highest in the OECD area (OECD, 2007d).

Spending on relatively inefficient employment subsidies is high...

Empirical evidence from cross-country studies suggests that spending on ALMPs is found to decrease the initial impact of macroeconomic shocks (OECD, 2006a). In addition,

Box 2.1. The Spanish activation strategy

Despite the fact that many countries are now following an activation strategy based on the mutual obligations principle, relatively little is known about how they implement these strategies in detail. Based on detailed answers from governments of OECD countries, the 2007 Employment Outlook (OECD, 2007d) sought to fill this gap. The following description of Spain's activation strategy is based on these results.

Within 15 working days the unemployed person must register as a job-seeker with the regional public employment services (PES) office. Benefits are paid from the first day of unemployment, with no waiting period, and back pay is available for up to two weeks from the initial time of registration. The person must then subscribe to an activity agreement undertaking to actively seek work, accept appropriate job offers and return proof of a job referral to the regional PES office. A detailed interview is done, in most cases within two weeks of registration, after which a level of employability is determined and an individual action plan is drawn up. The individual plan can contain, *inter alia*, the following: a personal training and employment plan, counselling to improve self-esteem and motivation, and active job search (classes on job-search and interview skills). The actions included in the personalised plan are compulsory and, in case of non-compliance, benefits can be cut or, for those not receiving any, access to public employment services can be suspended. Intensive interviews, during which job-search verification also takes place, are conducted every two months on average. In Spain, most vacancies are "closed" – that is, they are not advertised and are directly offered to the job-seeker by the regional PES administrator.

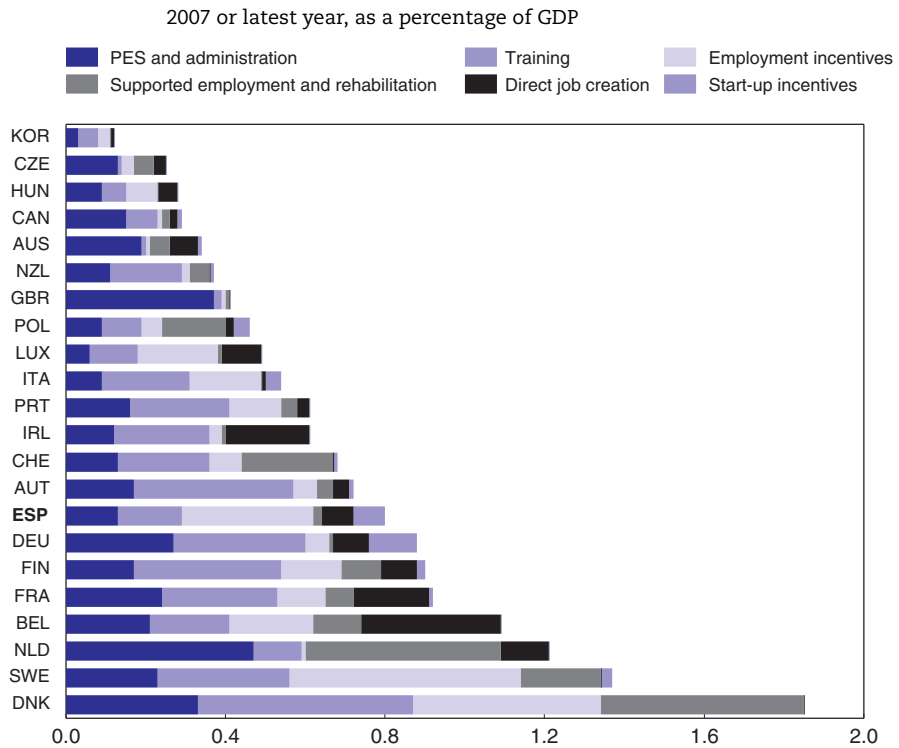
the composition of spending on ALMPs does appear to matter: in the same study, training programmes were found to have a significant impact on unemployment. Some general principles of what works can also be identified from the increasing number of micro-econometric evaluations of ALMPs around the world: relatively low-cost job-search-assistance services and individual case management often rate well, whereas public job-creation programmes do not (European Commission, 2006). In addition, wage and employment subsidy programmes tend to perform poorly in terms of their net impact on the future employment prospects of participants (OECD, 2007g). Studies also suggest that the returns to different activation programmes vary widely across countries, suggesting that details of programme design are important to determining success.

Spain's overall spending on active labour market programmes is close to the European average (Figure 2.1). A significant share of it (around 40%) is spent on employment subsidies, mostly for the promotion of permanent contracts (see below). For the most part, these are subsidies paid to employers who create a permanent employment contract for unemployed workers. These subsidies are likely to have a very large deadweight loss and are typically considered to be the least cost-effective activation measure.³ Counselling and job-search assistance also seem to be underdeveloped in Spain (OECD, 2007g).


... and few programmes are evaluated

It can be useful to assess whether activation programmes are cost-effective in terms of savings in benefit outlays (due to earlier exits from unemployment) relative to their direct budget costs, and also to assess which programmes are the most effective in relative terms. However, in Spain, few ALMPs covering the unemployed are evaluated on a regular

Figure 2.1. **Public expenditure on active labour market programmes in OECD countries**



Source: OECD (2008), *Employment Outlook*.

StatLink  <http://dx.doi.org/10.1787/486037805137>

basis (OECD, 2007g), and rigorous evaluation studies of activation programmes done by researchers and other private institutions are scarce (European Commission, 2006). Such evaluations have been carried out in Australia, France, Switzerland and the United Kingdom, among other OECD countries, and are used to improve the design of ALMP measures. Measures that are financed by European Commission funds are evaluated at regular intervals, but these evaluations do not always provide clear guidance on which measures work best for different groups of workers (OECD, 2005). As part of a package of measures to enhance the efficiency of ALMPs that came into force in 2008, the public employment services (*Servicio Público de Empleo Estatal, SPEE*) will be subject to an external evaluation every three years, and an internal evaluation will be conducted yearly. However, there remain many examples of Spanish programmes that have a significant budgetary cost but have not been evaluated. For instance, about 6% of youth (2004 figure) entering unemployment participate in job-creation programmes aimed at facilitating the integration into the labour market of the unemployed, through temporary jobs. In addition, 11% of unemployed youth (also a 2004 figure) take part in programmes for the promotion of agricultural employment in rural areas. Both these programmes have been running since the mid-1980s but have not been evaluated (OECD, 2007g). Job creation programmes have often proven ineffective in placing the unemployed into unsubsidised jobs (OECD, 2006a).

Co-ordination between regional and central governments can be improved

The central government (via the SPEE) designs and finances both passive and active policies, while the regions are responsible for managing these active labour market policies.⁴ This set-up implies that the regions do not receive the full fiscal benefits of a reduction in unemployment – it is the central government that benefits through lower unemployment benefits claims. Regions that succeeded in putting the unemployed back to work, however, receive less central government funding, since resources are allocated across regions according to the number of unemployed people. Moreover, withdrawal of unemployment benefits to job-seekers who do not comply with search requirements would result in the region receiving less central government transfers for its unemployed, reducing incentives to apply sanctions in such cases. There is also a risk that, as has happened in other highly decentralised countries like Canada and Switzerland, ALMPs are not designed to promote employability but rather to place recipients in short-term jobs that re-qualify them for unemployment benefits paid by the central government. For instance, in the case of direct job creation, the SPEE works in co-operation with the autonomous communities to help the unemployed find a subsidised, temporary job. There is evidence that this process is sometimes used to help the most disadvantaged youth to acquire a sufficient contributory history to earn benefit entitlements (OECD, 2007g).

Improving active labour market policies and the public employment services

Increased funding for better targeted ALMPs could come from reducing outlays on employment subsidies (see below). However, greater evaluation of policies is needed in order to identify which ALMPs are effective in returning the unemployed to work. It is important that evaluations highlight examples of good practices at the regional level as a starting point for better co-ordination between the central government and autonomous communities as well as more co-operation among communities. The performance of regional employment services should be assessed and benchmarked, and this information should be publicly available in order for poorly performing regions to be placed under political pressure to improve, as is done, for instance, in Switzerland (OECD, 2007c). Linking placement success to a financial reward could offset the disincentives that result to some extent from the attribution of the responsibilities across levels of governments.

Better coordination between the administration of unemployment benefits and activation policies is also needed to avoid the risk of benefit traps, especially to the extent that ALMPs are used to ensure that recipients re-qualify for unemployment benefits. Assessing the work availability of the unemployed and gathering other relevant information when registering for benefits are key for ensuring an early and effective intervention. However, entitlement to unemployment benefits starts from the first day of becoming unemployed, and benefits can be paid retroactively (for up to two weeks) from the initial time of registration. It is possible that a certain number of potential matches of jobseekers to suitable vacancies are currently missed during this short period when benefits are already being paid. Therefore, registration for placement should be made a precondition for benefit payment and the full interview should be mandatory at the time of registration.

Many recent evaluations have shown that job-search assistance and monitoring can have a sizeable impact on re-employment rates. While Spain has explicit and regular job-search reporting procedures, the intensive interviews through which job-search verification takes place are not done as frequently as in most other OECD countries. Half of

OECD countries require reporting of job search every two weeks or monthly (OECD, 2007d), and Spain should adopt a similar practice. In situations of longer unemployment spells, compulsory participation in ALMPs can help improve employment prospects and reduce the risk of either long-term unemployment or labour market exit. In Spain, while there is no general obligation to enter programmes at a certain stage in the unemployment spell, benefit recipients nevertheless need to comply with a referral to an ALMP by a PES counsellor. However, making the participation in ALMPs after a period of unsuccessful job search compulsory could strengthen this and help reduce fraud. The proportion of contracts actually intermediated by the SPEE is low and is highly concentrated among low-skilled jobseekers. Allowing temporary employment agencies and other for-profit firms to offer placement services to the unemployed could also improve the effectiveness of overall placements of workers to jobs.

Reducing the duality of the labour market

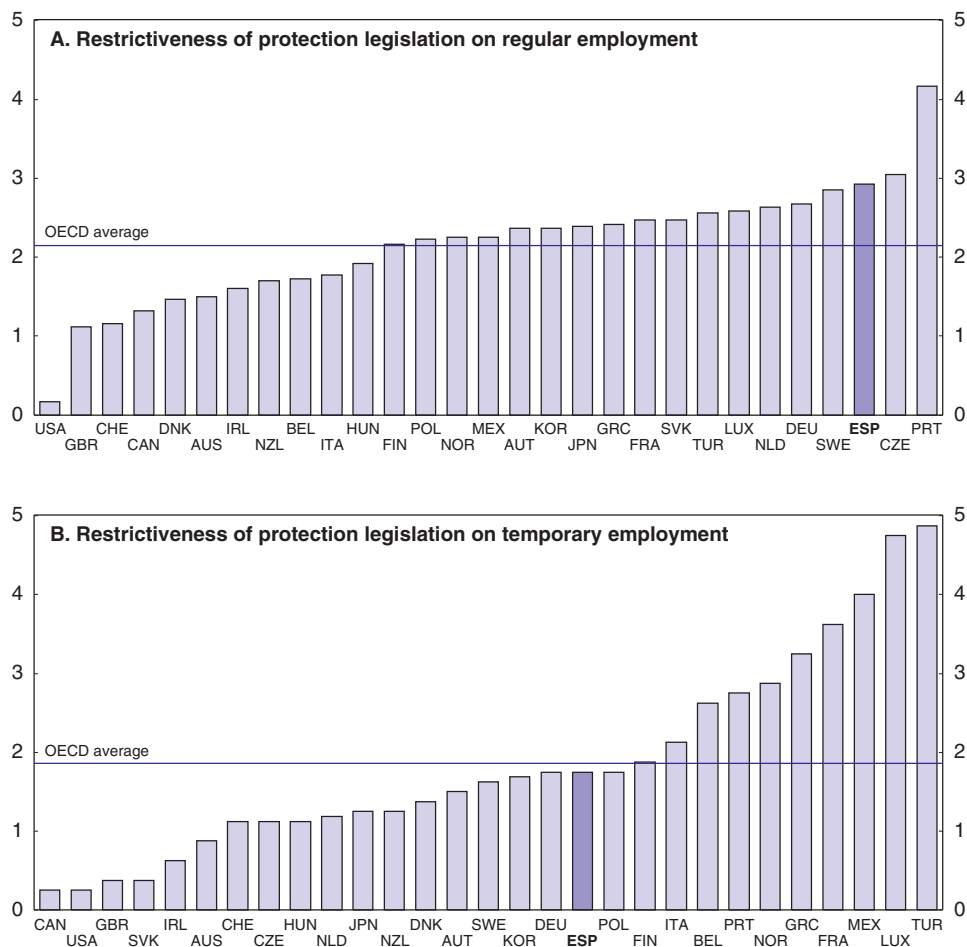
Employment protection legislation (EPL) – the set of rules governing the hiring and firing of employees – continues to be amongst the strictest in the OECD area. The overall EPL restrictiveness indicator computed by the OECD (OECD, 2008c) is the third highest in the OECD, and the international comparison is even starker when looking only at the key indicator – the level of severance payments for permanent workers (Figure 2.2). In Spain this indicator points to a burdensome system, as courts consider most firings as unfair – around 90% of cases in recent years. As a result, in the majority of cases severance payments reach 45 days of wages per year of service up to a ceiling of 42 months for standard contracts. On the other hand, temporary contracts have much lower firing costs (eight days of wages per year of service), and, although they should be used only for a limited duration,⁵ there is evidence to suggest that they have been widely used beyond the legal limit (OECD, 2007a). Temporary contracts are so favourable in terms of labour cost and employer risks that they continue to be widespread, despite repeated attempts at reform that have offered financial incentives and reduced severance costs for the hiring of certain groups of workers on permanent contracts.⁶ Although their share in total employment has fallen recently, at around 27% of total employment⁷ the share is still more than twice the OECD average of 13%.

Employment protection legislation is impairing the integration of the young, women and immigrants...

EPL increases job security for existing workers. However, it can also restrain job creation, as it increases firms' costs of adjusting their workforce. Furthermore, the long and variable delays that characterise the administrative and judicial procedures used to implement EPL tend to make these costs unpredictable (OECD, 2007g). This uncertainty may however have been reduced by the option, given to employers in 2002, to make an upfront compensatory payment to dismissed workers that is equivalent to the payment they would receive if the dismissal were to be declared unfair by the courts, allowing employers to avoid paying wages while court procedures are pending. The net effect of EPL on total employment is *a priori* ambiguous and can take either direction, although the majority of empirical studies done on the subject have found only a small positive effect of EPL on unemployment (OECD, 2006a).

The effects of EPL appear to vary across labour-market groups. Strict EPL tends to compromise the employment prospects for those groups that are most subject to entry

Figure 2.2. **Employment Protection Legislation (EPL), 2006**
Index scale of 0-6 from least to most restrictive



Source: OECD (2008), *Going for Growth*.

StatLink  <http://dx.doi.org/10.1787/486058367804>

problems, such as young workers, women, and immigrants, by reducing labour turnover and hiring. Bassanini and Duval (2006) have shown that partial reform of the labour market – lowering protection for temporary jobs, but leaving permanent contracts untouched – encourages temporary jobs and labour-market dualism. Employers tend to hire new workers largely through temporary contracts and are reluctant to convert these into permanent jobs. As high-tenure workers are entitled to significant severance payments but surrender this entitlement if they voluntarily change employment (OECD, 2006a), labour turnover is concentrated on work-force groups who are over-represented in temporary jobs, especially young workers, potentially trapping them on a path of “precarious” jobs that imply high levels of employment insecurity, as well as under-investment in firm-specific human capital. The effective protection of workers with a permanent contract is likely to be higher than that implied by the high severance costs alone, since temporary workers are likely to act as a “buffer” when the workforce is being scaled back. In sum, the pronounced duality of the labour market has made it more difficult for younger workers

(who are better qualified than older cohorts) and immigrants to get access to permanent contracts, hampering their integration.

It seems clear that labour-market segmentation contributes to the over-qualification rates of the young (see Chapter 1). The high incidence of temporary contracts among young workers contributes to their being employed in positions which are not commensurate to their skills. Even though highly qualified labour market entrants are likely to eventually obtain a permanent contract, this effect has had particularly adverse consequences for productivity in Spain, where the level of qualifications of workers who entered the labour market recently is significantly higher than those of older age cohorts. Recent empirical research suggests that stringent EPL for regular contracts has a significant but small negative impact on long-run productivity growth (OECD, 2007d). However, this effect may well be larger for Spain because of the contribution of the high incidence of temporary contracts among young workers on the underutilisation of their skills. Indeed, differences in education levels across age cohorts are much more marked in Spain than in other OECD countries (see Chapter 3).

Past efforts to encourage permanent contracts have concentrated on financial incentives for employers

A wide-ranging labour-market reform was introduced in mid-2006, after a year of consultations between the government and the social partners, which resulted in a consensual agreement. The reform was profiled in detail in the 2007 Survey. Among others, measures were adopted to limit the excessive use of temporary contracts, public financial incentives in favour of permanent contracts with low redundancy costs were increased and, for a limited time, subsidies were offered to all temporary contracts converted into permanent contracts with the lower redundancy costs. In addition, social insurance contributions were reduced and certain benefits were increased, and the government also planned to modernise the public employment services, increase the funding of ALMPs and increase the number of workplace inspectors in order to ensure that the reform be strictly applied. Since the reform was introduced, the share of temporary contracts has fallen by 4.4 percentage points. The reform did not, however, modify the heavy protection provided to those on permanent contracts and therefore did not address the fundamental problem that strict EPL for permanent workers poses for the young, women and immigrants: its depressing impact on worker turnover, including voluntary turnover.

Options for reform

Several options are available to reduce EPL on regular contracts while still providing adequate protection to workers. It may be possible to build political support for relaxing the level of protection if it were combined with measures to improve assistance available to job losers. These measures do, however, imply relatively heavy public spending. Severance pay for permanent contracts should be made less generous, reducing the difference in the degree of protection between temporary and permanent contracts. One way to go in this direction would be to create a universally applicable contract in which severance pay increases with job tenure up to a limit that lies below current levels. This would be useful to promote employment. If this is not possible, then lengthening trial periods of permanent contracts (which are usually determined in wage bargaining, and are often set below the maximum set in the Labour Code) could be considered, which could help employers assess the productivity of new hires and encourage them to recruit them

under permanent contracts. This could be achieved by making it easier for firms to opt out of collective agreements reached at a higher level (see below). Increasing the trial period may encourage the use of permanent contracts, although care should be exercised not to set them for too long in order to avoid the risk that employers abuse the system. Besides providing a safety net to laid-off workers, severance payments also serve to raise the cost of dismissals, which lowers employment volatility (OECD, 2005). This goal could also be achieved by a system of experience rating of unemployment insurance premia paid by employers,⁸ modelled on the US system (Blanchard and Tirole, 2003; Dolado and Jimeno, 2004). In such a system, employers' contributions to unemployment insurance would depend on their previous layoff behaviour, so that those firms who tend to engage in more layoffs cover a greater part of the social cost caused by the volatility of their labour demand.

Improving the integration of immigrants

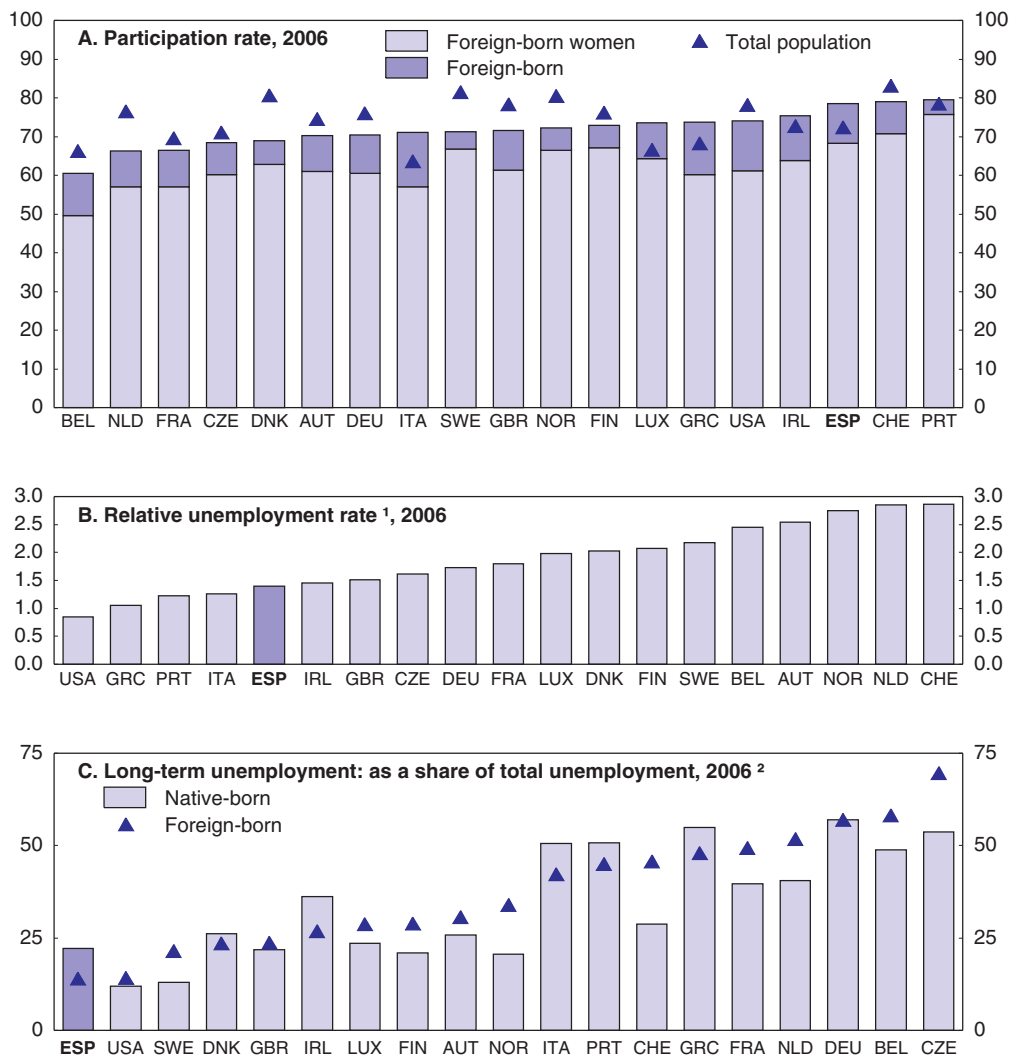
Immigration is a relatively recent but increasingly important phenomenon in Spain. A recently adopted national integration strategy and a comprehensive regularisation programme in 2005 have been important elements behind the remarkable integration of immigrants into the labour market. However, this happened at a time when the economy and employment in particular, was booming. In 2007, there were close to 4.8 million immigrants in Spain, close to 10% of the total population. Of these, around 40% came from Latin American countries, 22% from EU-25 countries and close to 17% from Africa. On average, around 500 000 immigrants have arrived each year since 2001. As immigrants will be hard hit by layoffs in the construction and services sectors, it will be increasingly important to improve their integration into the economy and society in general. A new package of measures to induce immigrants who become unemployed to return to their countries came into force in September 2008, including *inter alia* a lump-sum payment of unemployment benefits and subsidies to cover travel expenditures. However, only a small number of immigrants are likely to take advantage of these benefits, as those who do will be unable to apply for a work permit in Spain for three years. Reflecting the importance of the issue of a successful integration of immigration for the authorities, a Secretariat of State for Immigration was created as part of a reorganisation of responsibilities that saw a reshuffling of immigration duties away from the Ministry of the Interior. A new Integration Plan for 2007-10 was drawn up after careful negotiations with regional and local governments and the social partners, including immigrants' representatives. The Plan is backed up by considerable funding – €2 billion over the period – and includes plans to, among other things, improve immigrants' access to ALMPs and better tailor policies to their needs, increase research to identify best practices for integration and prevent discrimination and exploitation in the workplace.

Immigrants have low unemployment, but hold precarious jobs for which they are overqualified

Empirical evidence suggests that, across OECD countries, immigrants typically fare less favourably in the labour market than natives. They face numerous barriers and disadvantages related to, in particular, legal constraints, language proficiency, social and cultural norms, quality of education and skills recognition and certification. However, in contrast with the experience of other European countries, where immigrants' probability of being unemployed is higher than for (comparable) natives, the employment integration

of recently arrived immigrants in Spain has been relatively successful (Figure 2.3). The significant increase in the share of immigrants in the labour market (they now represent more than 12% of the total active population) is the result of both the large flows of immigrants that have reached Spain in recent years and their considerably higher participation rates. Their higher participation rates are the result of the relatively younger age structure of immigrants, but also of higher participation rates among specific age groups than the native population. Immigrants also have higher employment rates than natives, a lower incidence of long-term unemployment and, until recently, only somewhat higher unemployment rates.


Figure 2.3. Labour market integration of immigrants in selected OECD countries



1. Foreign-born to native-born ratio.

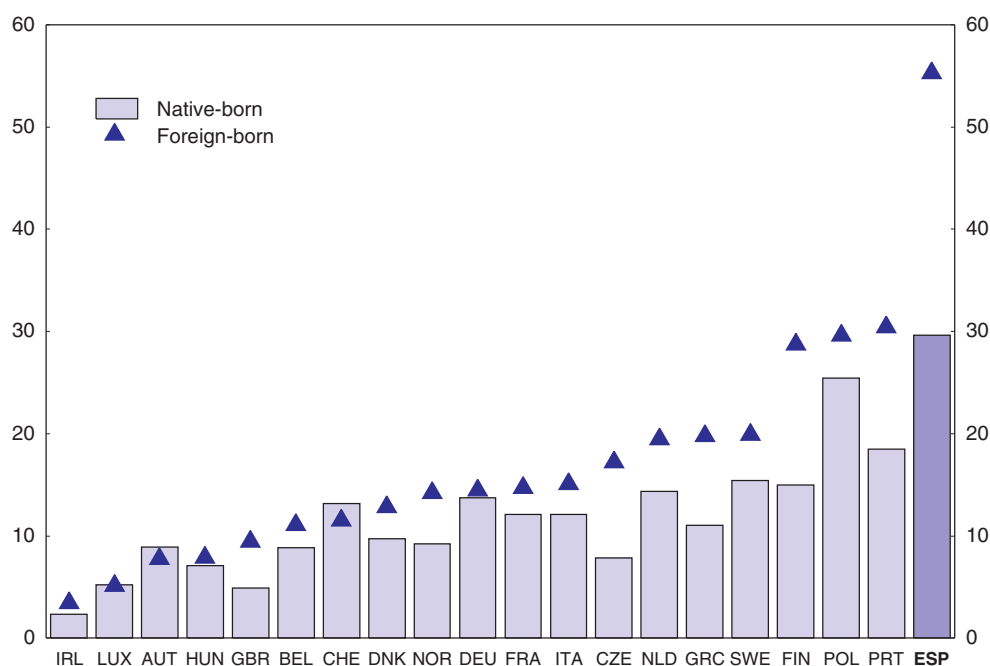
2. Or latest year available.

Source: OECD (2008), *International Migration Outlook: SOPEMI*.

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Even though employment of immigrants grew strongly up to August 2008, the recent spike in unemployment, led by the fall in construction employment, has been relatively marked among this group of workers (see Chapter 1),⁹ likely as a result of the high degree of flexibility among immigrant workers with precarious work status, in particular those on temporary contracts. Indeed, close to 56% of immigrants are on a temporary contract, nearly double the rate among native-born and far higher than in other OECD countries (Figure 2.4).¹⁰ Recent immigrants are less highly educated than natives entering the labour market – only around 21% of immigrants present in the country for 10 years or less have a tertiary qualification, compared to almost 45% of natives aged 25-34 (Figure 2.5). Wages received by immigrants tend to converge over time to those of natives, but in general the gap is never fully closed, partly reflecting these differences in human capital. In addition, the labour market does not appear to reward immigrants' educational investments and work experience in the country of origin sufficiently – immigrants tend to hold jobs that do not adequately reflect their skills, and this mismatch appears to be persistent over time (see Fernández and Ortega, 2006). They are more likely to work in the relatively low-skilled sectors of the economy, most notably construction, agriculture, tourism and domestic services. In some of these sectors employment has grown strongly in recent years. The percentage of workers employed in domestic services was particularly high: in 2006, around 18% of foreign workers in Spain were employed in “services to households”, and a big majority of these were women (OECD, 2008b).

Figure 2.4. **Temporary employment by birth status**
As a percentage of total, 2005

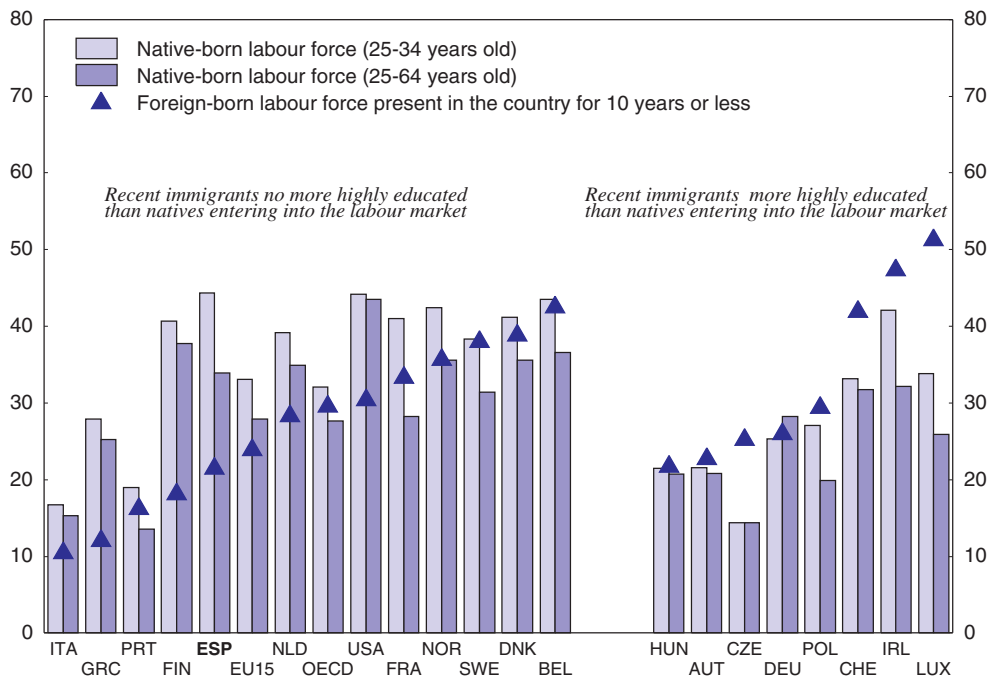


Source: OECD (2007), *International Migration Outlook: SOPEMI*.


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Figure 2.5. **Educational status of immigrants and natives in selected OECD countries**

Persons in labour force with tertiary qualification, 2005



Source: OECD (2007), *International Migration Outlook: SOPEMI* and OECD (2008), *Factbook*.

StatLink  <http://dx.doi.org/10.1787/486238443524>

Recognising the skills acquired by immigrants can help improve their labour market performance

As in most other countries, immigrants in Spain appear to have difficulty getting their foreign qualifications properly recognised and thus end up in jobs for which they are overqualified. More than 40% of immigrants were in such a position in 2004, the top rate among OECD countries. The high rate of over-qualification of workers relative to the qualification requirements of their jobs is not limited to immigrants, as the rate is also exceptionally elevated for native-born workers. In addition, while immigrants do appear to move into better jobs the longer they stay in the country, more than 30% of those with 11 or more years in the country still hold a job for which they are overqualified. Employers may not necessarily be discriminating against immigrant workers, but merely reflecting the potential costs of uncertainty about their productivity compared to native-born candidates, the qualifications earned in the country of origin, and work experience that cannot be easily verified and evaluated. Recent empirical research confirms that labour markets in OECD countries make major distinctions between degrees obtained in the host country and those earned abroad (OECD, 2007f), which partly explains the differences in wages between immigrants and natives.

This suggests that the procedures for recognising formal qualifications can be improved. Indeed, such steps could help turn the over-qualification of immigrant workers, relative to the skill requirements of the jobs they occupy, into an advantage, helping to shift workers to more productive activities, as residential construction activity adjusts to lower levels. Some OECD countries have created agencies that are charged with evaluating and

certifying foreign credentials. For instance, Denmark has established an agency that provides binding assessments of foreign qualifications at all levels and has recently established regional knowledge centres to assess and certify non-formal qualifications and skills (OECD, 2007f), while Ireland has created a one-stop shop for enquiries by employers and immigrants (OECD, 2008a). Besides the general issue of the equivalence of foreign qualifications, licensing requirements in certain regulated liberal professions might also present additional hurdles for immigrants to take full advantage of their training and skills in the host country (see Chapter 4). Arriving immigrants may have significant experience in their fields garnered in their country of origin but may have difficulty having this experience validated.

Acquiring an adequate level of proficiency in the local language is thought to be one of the most important issues for integration. In a recent study of OECD countries (OECD, 2007f), a measure of language proficiency significantly increases the odds of employment for foreigners relative to natives. Other empirical studies confirm that language proficiency is one of the most important elements of human capital with respect to integration (Chiswick and Miller, 2007). Since a significant number of immigrants come from Latin America, the language issue is less important. However, more than 60% of immigrants still originate from non-Spanish-speaking countries. The supply of language courses for the adult population, which is primarily the responsibility of the regions, seems to be insufficient and often lacks coordination among regions (OECD, 2006b). It would therefore seem necessary to improve the supply of courses of instruction in official languages. The few empirical evaluations of language training available suggest that its impact is clearly positive for newly-arrived immigrants (in particular at the very beginning of their stay), but diminishes significantly over time (OECD, 2007e). One measure that would help to strengthen incentives to acquire language skills is to adapt the national system of language skill certification to the needs of both immigrants and potential employers.

There is still significant scope to increase the integration of immigrants

In order to ensure that foreign qualifications are properly understood and recognised, an agency in charge of the recognition of foreign qualifications at all levels could be created, and bilateral agreements with originating countries to recognise and certify credentials should be pursued. In addition, more measures to reduce employers' perceived risks of hiring immigrants are needed. This would argue in favour of measures that reduce the uncertainty and costs of hiring immigrants, at least temporarily, allowing the employer to assess the capabilities of potential immigrant recruits. For instance, Sweden's public employment services run an on-the-job skills-assessment programme through which, in less than three weeks, a quick assessment of foreign credentials, skills and work experience is carried out. After this period, a certificate is issued that can be used in future job applications (OECD, 2007b).

To the extent that immigrants are overrepresented among disadvantaged groups in the labour market, the reforms suggested to reduce the duality of the labour market and increase the quality of activation strategies, supplemented by targeted labour-market programmes designed for immigrants, could have especially favourable effects on immigrants (Jean *et al.*, 2007). In order to identify and implement integration practices that are found to be effective, a benchmarking system could be implemented to assess the success of regional governments in the integration of immigrants, following the Danish

example (OECD, 2007f). Policies that allow a greater occupational mobility should also be pursued – such as, for instance, reducing the number of jobs closed to foreigners. In particular, ending the prohibition for non-EU immigrants (but who hold a valid work permit) to hold jobs in the public sector should be considered. For instance, Denmark has set a target that the share of immigrants employed in the public sector should match their population share.

Introducing an in-work benefit to improve job prospects for the unskilled and reduce poverty

Governments have increasingly used in-work benefit programmes as a tool to raise the monetary returns from work. In-work benefits simultaneously supplement the disposable income of households in which at least one adult works, but whose labour income is nonetheless insufficient to keep the family out of poverty, and increase the attractiveness of working *vis-à-vis* non-employment (and possibly relying on social security benefits). In-work benefits can also significantly reduce the marginal effective tax rates associated with moving from unemployment (or inactivity) to employment, although as they are phased out, the tax on further increases of earnings may lead to reduced incentives to increase hours worked and/or move into a higher-paying job. Empirical studies suggest that in a well designed system of in-work benefits, the increase in participation can more than compensate for the reduction in hours worked by some persons already employed (OECD, 2006a). Micro simulation analysis (Immervoll *et al.*, 2006) suggests that a marginal switch toward in-work benefits would be welfare enhancing in all EU15 countries analysed, including Spain.

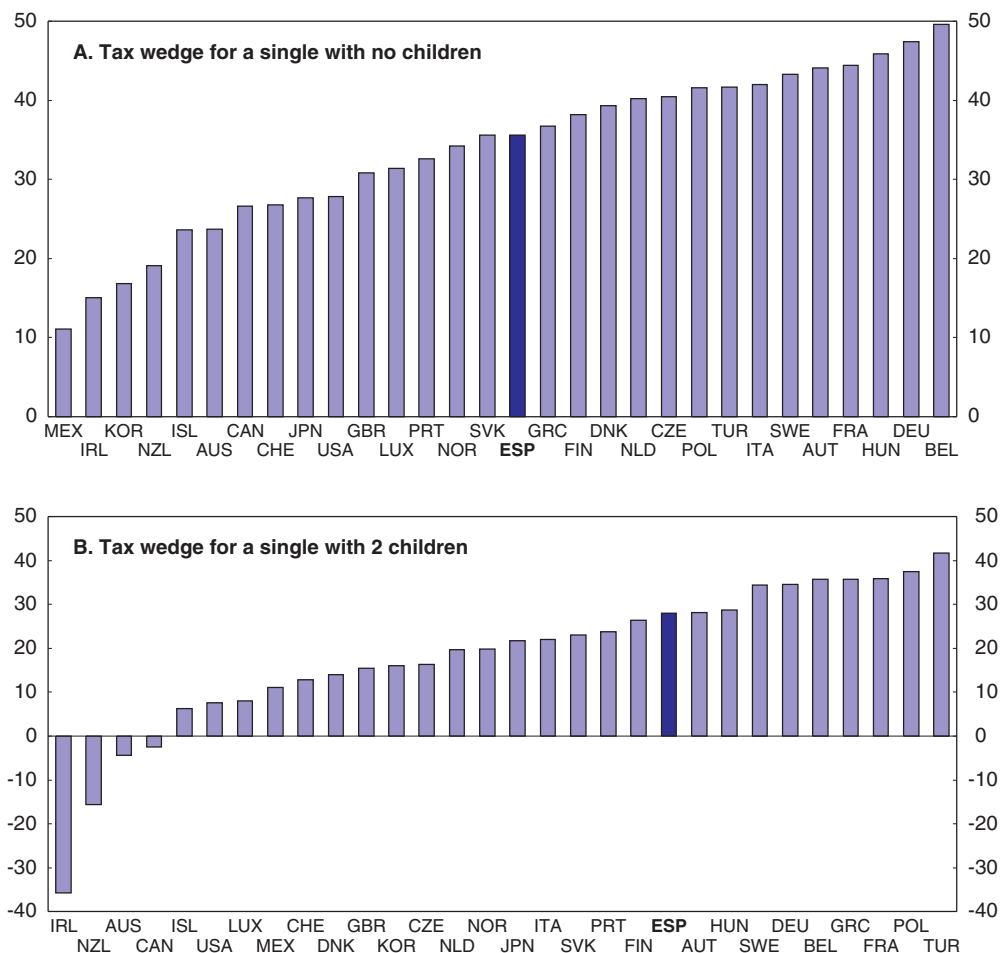
In Spain, while average labour tax wedges are not particularly large by international comparison, the tax burden on low-wage earners with children remains relatively heavy (Figure 2.6), even after the 2006 reform of the personal income tax provided some relief. This reflects in part relatively low child benefits. Relative poverty rates are also concentrated among families with children (see Chapter 1). Meanwhile, the share of unskilled workers is also high in international comparison. This indicates that the number of workers whose employment incentives could improve as a result of the reduction of marginal income taxes would be large, relative to the number of workers whose incentives would deteriorate in the phase-out range. This suggests that introducing an in-work benefit should be considered, with the level of the benefit depending on the number of children in the household. Any such benefit could be subject to a minimum requirement on hours worked and be phased out gradually above a household income level determined by a poverty threshold.

Lowering the impediments to the geographical mobility of workers in housing policy

Internal migration rates in Spain are among the lowest in the OECD area, which may sustain the wide dispersion of unemployment rates across regions. Increasing labour mobility would make it easier for workers to reallocate across sectors, help to raise the returns to education by allowing a better match of qualified workers with adequate jobs, and smooth the transition of youth into a first job.

Empirical evidence suggests that the high regional variance of unemployment is also likely to be at least partly due to the small size of the rental market (Barcelo, 2006). Indeed, the private rental market remains the thinnest among European countries (OECD, 2007a),

Figure 2.6. **Average tax wedge at 67% of average wage earnings**
As a percentage of labour costs, 2007



Source: OECD, Taxing Wages database.

StatLink  <http://dx.doi.org/10.1787/486272886217>

although in 2007 the share of rented housing stock grew slightly. Letting apartments appears to be relatively unattractive for private landlords because they find it difficult to enforce eviction, for example for non-payment of rents, as legal procedures are excessively long (De los Llanos, 2006). The plans to speed up the resolution of conflicts between tenants and landlords via the creation of swifter court procedures (OECD, 2007a) have not yet been fully carried out, although some progress has been made lately – six new judicial courts (out of 10 planned by the authorities) have been opened in areas with a high number of eviction procedures. Additional legal reforms in order to shorten eviction processes are under consideration, as is the possibility of applying arbitration procedures to rental contracts.

Government spending on housing policy is significant, close to 0.7% of GDP between 2005 and 2008, excluding tax expenditures, and has been primarily aimed at the expansion of social housing. In 2008, the central and regional governments had a target of building close to 70 000 new subsidised houses, of which 70% are to be sold to their occupants. In addition, the authorities have announced a goal of substantially raising the

social housing built to 150 000 units per year on average for the next decade, at least 40% of which will be aimed at the rental market. More recent measures have also been designed to stimulate the rental market. On the demand side, means-tested cash benefits have been made available to people aged between 22 and 30 years to cover rent payments. This measure is likely to have a relatively low deadweight loss, appears to be well targeted and should help to improve the matching of young workers to jobs. Moreover, in order to eliminate the positive bias towards purchasing created by the deductibility of mortgage expenses from the personal income tax, rent payments have been made deductible for all households, subject to a limit on income. On the supply side, measures include subsidies to the construction and/or refurbishing of dwellings intended for social housing, as well as for making existing housing in the free market available as social housing. In addition, the revenue from a rental property is exempted from the personal income tax. Several autonomous communities have also created public rental agencies, which are trying to jumpstart the rental market by acting as intermediaries (and absorbing some of the risks) between landlord and tenants. These agencies mirror the one created by the central government at the end of 2005 (OECD, 2007a).

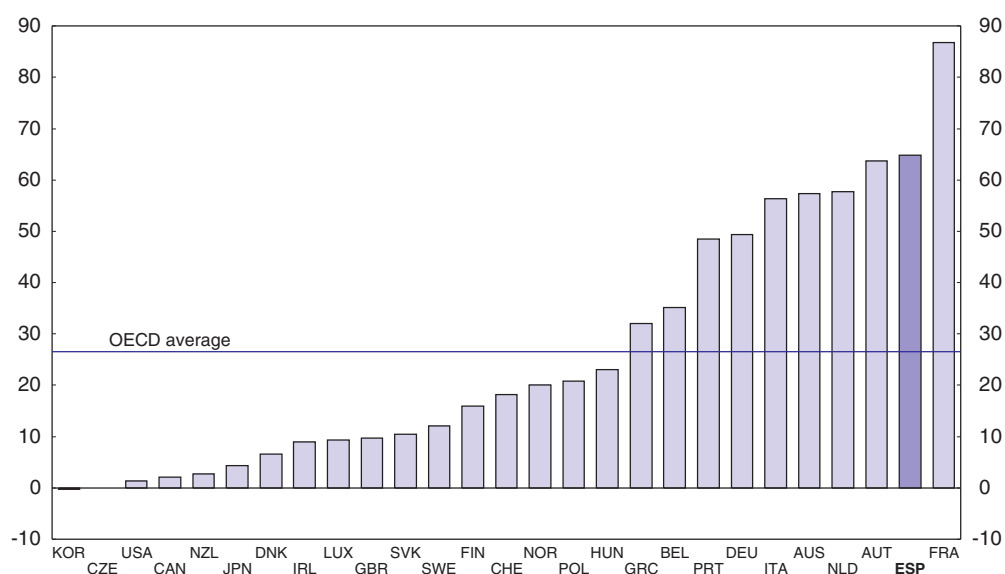
The goal for reform should be to nurture the development of the private rental market. Perhaps the first priority is to ensure that contract enforcement is improved. This would also help to mobilise housing demand of young people (a significant share of whom still live with their parents) and low-income earners for whom access to housing is easier by renting than by purchasing. In addition, social housing should be reformed. Since social housing is provided at below market prices, an excess of demand is created and is resolved through queues. Long waiting lists for social housing, whether rentals or owner-occupied, increase the opportunity cost of accepting a job offer that implies relocation, decreasing the geographic mobility of labour. In addition, providing owner-occupied social housing, especially to the young, is poorly targeted on the poor, as household income is likely to increase in the latter stages of the life cycle, while the housing subsidy is enjoyed throughout one's lifetime. In order to avoid creating impediments to the mobility of workers while still providing assistance to the less well-off to afford a decent and safe place to live, resources devoted to subsidising social housing should be redirected to means-tested earmarked cash benefits, and social housing for purchase should be abolished. Finally, housing tax subsidies for owner occupied and rental housing, besides having a high budgetary cost (of around 0.7% of GDP in 2008), are likely to be badly targeted on the poor, as they are given via deductions from the personal income tax, and many of the least well-off already are not liable for such tax. Targeting is also weak for the measure that exempts suppliers of rental housing from income tax, as it is not subject to a means test. It would therefore be preferable to remove, in the medium term, the distortions in the tax system by accelerating as much as possible the pace of the phasing out the tax deductibility of mortgage and rent payments.

Reforming the collective bargaining process

A decentralised bargaining system allows wages to reflect firm-level conditions, while centralised wage bargaining may exploit economies of scale in bargaining and incorporate externalities that are not considered by individual workers and employers. The current system lacks the advantages of either type of negotiation. Wage negotiations are done mainly at the industry or at the regional level – negotiations at either the company or national level are rare (OECD, 2005) – but legal extension clauses for many agreements

result in their application to all firms and regions, including firms that did not take part in the negotiations. Thus, despite a relatively low rate of union membership, collective bargaining coverage is very high (Figure 2.7). The use of catch-up clauses that protect workers in case of inflation surprises¹¹ is widespread: in 2007, around 50% of workers in the private sector were covered by a catch-up clause.¹² While the indexation clauses imply that in general only a fraction of the inflation surprise is incorporated into wage increases, their use is especially problematic in the case of adverse supply shocks such as the recent oil-price hikes, which feed into higher wage increases and raises the likelihood that the downturn in domestic demand that the economy is undergoing will be accompanied by particularly heavy output and employment losses.

Figure 2.7. **Difference between coverage rates of collective bargaining agreements and trade union density rates, in 2003-04¹**



1. The coverage rate is measured as the percentage of workers who are covered by collective bargaining agreements, regardless of whether or not they belong to a trade union. The union density rate is the percentage of workers belonging to a trade union. Each data point on the figure is calculated as the simple arithmetic difference between the two rates.

Source: OECD (2008), *Going for Growth*.

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Agreements reached above the firm level contain opt-out clauses that allow individual firms to deviate from the conditions set in the agreement. However, in practice these clauses have been subject to restrictive conditions on firm performance and thus have been seldom used by firms. Allowing wage negotiations to take place at the regional level (as they do now), but replacing the compulsory application of outcomes with an opt-in system that allows firms to adopt the wage agreement if they want to would allow small firms to save the costs of individual negotiations if they so choose, while making room for greater wage dispersion. If this ambitious reform cannot be implemented, making it easier for firms to opt out of agreements negotiated at the regional or sectoral level should be considered. In order to reduce the feedback effects of inflation on wages, the total elimination of inflation indexation clauses in collective bargaining should be encouraged. If this is not feasible in the short run, any indexation should be limited to an inflation

measure that excludes oil and other commodity prices, and further reduces the degree of indexation, so as to minimise second-round effects on inflation.

Box 2.2. Recommendations to make the labour market more flexible

Improving active labour market policies

- Reduce subsidies for hiring the unemployed on permanent contracts, and redirect them to better targeted active labour market policies (ALMPs).
- In order to identify the most effective ALMPs, increase their evaluation. Implement a system of benchmarking of regional employment services, and make this information publicly available at successful regional placement services should receive a financial reward.
- Make registration for placement a precondition for benefit payment and conduct a full interview already at the time of registration. Shorten the job-search reporting period of benefit recipients. Make participation in ALMPs compulsory after a defined period of unsuccessful job search.

Reducing the duality of the labour market

- Make severance pay for permanent contracts less generous, reducing the difference in the degree of protection between temporary and permanent contracts. Consider introducing a single labour contract with significantly lower severance pay entitlements than those linked to current permanent contracts. If this is not possible, consider making it easier for firms to introduce longer trial periods for permanent contracts by relaxing the conditions under which firms can opt out of collective agreements (see below). Consider implementing a system of experience-rating of employers' unemployment insurance premia in exchange for such a reduction in severance costs.

Increasing the integration of immigrants

- Create an agency in charge of the recognition of foreign qualifications at all levels. Pursue bilateral agreements with originating countries to recognise and certify credentials obtained in those countries. Consider introducing an on-the-job skill assessment programme through which a quick assessment of foreign credentials, individuals' skills and work experience, is carried out and certified.
- Step up efforts to increase the quantity and quality of public language training. Adapt the national system of language certification to the needs of the labour market.
- Broaden the array of ALMPs that are tailored to immigrants' needs as foreseen in the 2008 Integration Plan.
- In order to identify and implement integration practices that are found to be effective, implement a benchmarking system to assess the success of regional governments in the integration of immigrants.
- Reduce the number of jobs closed to foreigners. In particular, allow non-EU immigrants (but who hold a valid permit) to hold jobs in at least some parts of the public administration.

Introducing an in-work benefit scheme to make work pay and reduce poverty

- Consider introducing an in-work benefit targeted on low-income households and linked to the number of children in the household.

Box 2.2. Recommendations to make the labour market more flexible (cont.)**Reducing the impediments to the geographical mobility of workers in housing policy**

- Implement in full the current plans to speed up the resolution of conflicts between tenants and landlords, via the creation of swifter court procedures, so as to enhance the geographic mobility of workers.
- Redirect resources spent on subsidising social housing to means-tested earmarked cash benefits, and abolish social housing for purchase. Phase out the tax deductibility of mortgage and rent payments.

Reforming the collective bargaining process

- Replace the compulsory application of wage agreements reached at higher levels with an opt-in system that allows employers the choice of whether to adopt the wage agreement. As another option for reform, make it easier for firms to opt out of agreements negotiated at the regional or sectoral level. Encourage the elimination of inflation indexation clauses in collective bargaining. If this is not feasible in the short run, use an inflation measure that excludes oil and other commodity prices and further reduces the degree of indexation, so as to minimise second-round effects on inflation.

Notes

1. This is reflected in the restated OECD Jobs Strategy, which noted that public employment services should be adequately funded to implement well designed active labour market policies, while strictly enforcing work-availability criteria as a condition for benefit payment (see OECD, 2006a).
2. Half of OECD countries require reporting of job search every two weeks or at least monthly (OECD, 2007d).
3. See for instance the results in Mato *et al.* (2004) and Cueto and Mato (2006). García and Rebollo (2007) find that wage subsidies have only a small effect on the transition rate into permanent employment either from a temporary contract or from unemployment.
4. The autonomous communities can also design and finance their own active labour market policies.
5. As part of the 2006 reform of the labour market, the consecutive use of temporary contracts was restricted to two consecutive contracts on the same post, covering no more than 24 months within a period of 30 months. After this, the employee is entitled to a permanent contract.
6. Hiring women, the young (those aged under 30) and older persons (over 45) on a permanent basis benefits from lower severance payments of 33 days of wages per year of service, with a ceiling of 24 months.
7. The decrease in the share of temporary contracts used is also likely to have been attributable at least partly to the shrinking construction sector, which has a higher-than-average use of temporary workers.
8. This is also sometimes referred to as a *bonus-malus* system.
9. According to the most recent Labour Force Survey, in the third quarter of 2008 the unemployment rate for foreign-born reached 17.45%, almost 5.7 percentage points higher than a year before, while the unemployment rate for native-born was 10.2%, a rise of 2.8 percentage points.
10. This is by far the highest rate among OECD countries (OECD, 2007f).
11. In 64% of collective agreements the adjustment is determined by the difference between the observed and the expected inflation rate (usually set at 2%). In 18% of agreements, the clause is triggered if the inflation rate is higher than the initial wage increase. In 12% of agreements, the adjustment is made on the difference between the observed inflation rate and a predetermined rate of increase. In the remaining 6% of contracts, some other form of adjustment is used.
12. In 2007, more than 80% of workers in the private sector were covered by a collective agreement, and almost 71% of these workers were covered by a catch up clause.

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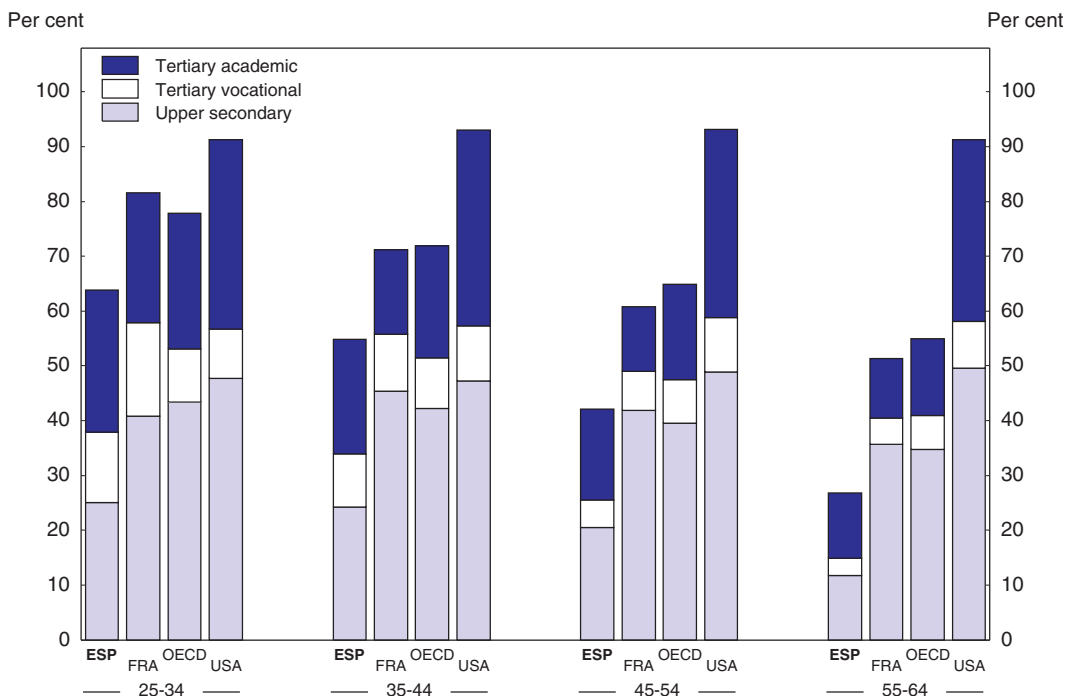
Chapter 3

Raising education outcomes


Impressive progress has been made in raising participation in early childhood education as well as tertiary educational attainment over the past 30 years. However, the inflow of poorly educated youth into the labour market is unusually heavy for a high-income country, largely on account of elevated drop-out rates in lower secondary education which, in turn, reflect one of the highest grade repetition rates in the OECD. The supply of workers with intermediate vocational skills is surprisingly low, despite the high returns, in terms of labour market outcomes that these skills offer, even if they have recently deteriorated. There is room to raise learning outcomes up to the end of compulsory school, as measured by PISA, although, owing to a compressed distribution of such outcomes, the share of poorly performing pupils is not unusually large. While significant reforms have been undertaken to address these problems, more measures are needed to reduce grade repetition and raise education outcomes, by improving accountability of schools and school staff, as well as by raising school autonomy further than has already occurred. Vocational training needs to become more attractive. In tertiary education, few Spanish universities have attained a high level of international standing, and scope remains to improve the contribution tertiary attainment can make to gains in economic welfare, notably by reforming funding arrangements.

Since Spain turned to democracy in 1975, improvements in educational attainment have been on an impressive scale, as reflected in the share of successive cohorts with tertiary and upper secondary education attainment (Figure 3.1). Tertiary attainment, in particular, has risen strongly, both in academically and vocationally oriented subjects. The extension of the comprehensive, compulsory schooling age limit from 14 to 16, legislated in 1990 and fully implemented by regional governments by 2002, marks another milestone in the raising of educational standards. An outstanding effort has also been made in early childhood education, in which Spain is among the few OECD countries with almost universal coverage for children between the ages of three and six years.

Figure 3.1. **Upper secondary and tertiary attainment**
By level and age group, 2006



Source: OECD (2008), *Education at a Glance*.

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The supply of unskilled workers is nevertheless unusually large for a high-income country, in part reflecting a legacy of low educational attainment of middle-aged cohorts. Almost a quarter of the population of working age has not earned the compulsory schooling certificate (Ministry of Education and Science, MEC, 2007a). Moreover, the inflow of unskilled youth into the labour market remains very large: nearly a third of youth still leave full-time education without having attained at least upper secondary education, and many of these

have not completed lower secondary education either. At the same time the supply of vocationally skilled workers is relatively small. There is significant room to improve educational outcomes in primary and secondary education, as the results from the *Progress in International Reading Literacy Study* (PIRLS) and the *Programme for International Student Assessment* (PISA) testify. In upper secondary and university education, access is severely limited for students from disadvantaged socio-economic backgrounds, and in most academic disciplines no Spanish university has emerged in the top group of internationally renowned institutions. Returns to tertiary education are estimated to be low among OECD countries, although to a significant extent this is accounted for by returns on tertiary degrees of older workers, who obtained their education a considerable time ago. Graduation rates are high for vocational degrees, where returns are lower than for university degrees, and scope remains to make both more attractive with regard to labour-market prospects.

Spending per pupil relative to GDP per capita in early childhood, primary and secondary education is close to the OECD average and the EU-19 average. Since Spain still has lower income levels per capita than most high-income countries in the OECD, the level of resources devoted per student is fairly modest, especially if the low level of informal inputs resulting from the relatively poorly educated parental generation is taken into account.¹ In tertiary education, cumulated spending over the duration of studies of each graduate is close to the average of OECD countries, in part reflecting the comparatively long duration of studies, notably in the academic stream (OECD, 2007d). As outlined below, most education spending is carried out by regional governments, reflecting the decentralised management of the education system, in which the institutional structure and framework conditions are set at the central government level.

Hence the challenges to which education policy needs to respond are as follows:

- Raising the proportion of pupils obtaining at least an upper secondary education diploma. This requires, in particular, reducing the large number of youths who cannot proceed to upper secondary education because they fail to obtain the basic school diploma that certifies completion of lower secondary education.
- Improving learning outcomes of pupils in compulsory education, which fall significantly short of outcomes in best-performing countries, while maintaining the low impact of socio-economic background on these outcomes, as measured by PISA.
- Raising the returns tertiary education generates for graduates in the form of higher earnings.

Recent legislation has aimed at addressing these challenges and at incorporating OECD recommendations. In particular, the Organic Education Law (*Ley orgánica de educación*, LOE), introduced changes from early childhood education to upper secondary education in 2006. University reform was legislated in 2007 and was already discussed in the 2007 *Economic Survey*. This chapter analyses remaining weaknesses in education outcomes as well as progress made in addressing them and makes some proposals how these reforms can be followed up.

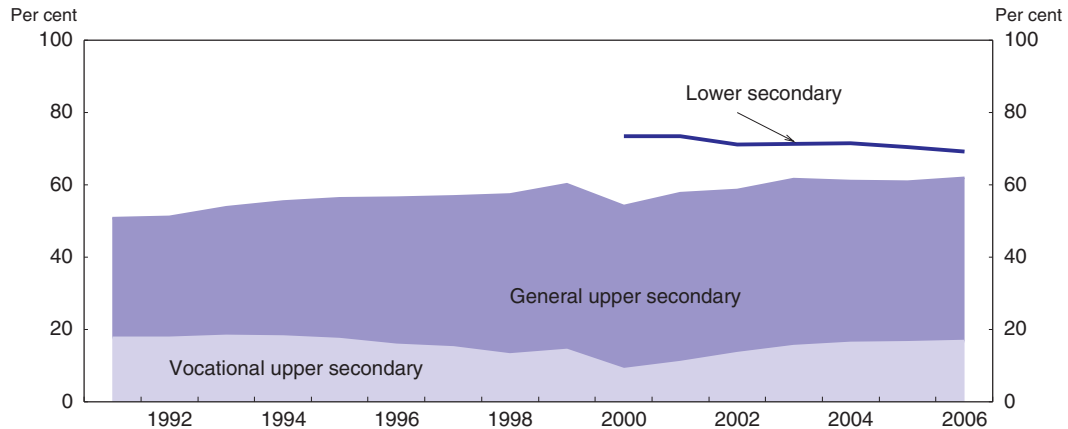
Education outcomes

Upper secondary education graduation rates are low...

Although education to the upper secondary level is now considered to be the minimum necessary for all workers in high-income economies, the upper secondary graduation rate in Spain remains low in international comparison. Moreover the rise in


upper secondary attainment has come to a standstill over the past 10 years: graduation rates have risen only marginally since 2001 and are only a little higher than attainment rates for the population in the 25-34 years age bracket (Figure 3.2). The resulting large inflow of poorly skilled young workers into the labour market adds to the already plentiful supply of unskilled workers from earlier age cohorts.

Figure 3.2. **Secondary education graduation rates**¹



1. Preliminary data for 2006.

Source: Ministry of Education and Social Affairs.

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To some extent, the low upper secondary graduation rate reflects the relative ease with which young, poorly qualified workers have been able to get unskilled jobs in some regions, where tourism, in particular, offers jobs for such low skilled young workers. Indeed, multivariate regression analysis shows that – other things equal – living along the Mediterranean coast has had a depressing impact on participation in upper secondary education, which researchers link to the ample supply of unskilled jobs in the tourism industry (Calero, 2006b; MEC, 2007a). However, few regions have graduation rates that exceed 60% by a substantial margin. Throughout the country, participation in upper secondary education of all types is strongly related to parental educational background: while more than 83% of children whose mother has attained tertiary level studies graduate at the upper secondary level, only 51% of children whose parents have not completed lower secondary education do so. Differences are also large with regard to the level of household income: 73% of children from households with income in the top quintile of the income distribution graduate at this level, whereas only 51% of children from households in the lowest quintile do so (Fundación Alternativas, 2008). Only 33% of immigrants' children enrol in upper secondary education compared to 56% among natives (Calero, 2006b).

... especially in vocational education

The upper secondary graduation rate is especially low for vocationally-oriented degrees (mostly *ciclo formativo profesional de grado medio*, CFPM²). The *bachillerato* is the chosen avenue to upper secondary education qualifications for 80% of lower secondary graduates, with most entrants into CFPM having a modest parental education background (MEC, 2007a). Employers indicate that the skill mix of labour supply gives too little weight to vocationally trained workers at the upper secondary level. Returns to secondary vocational education seem to be relatively high, especially if differences in employment

probabilities for workers with different educational pathways are taken into account (Table 1.5). Graduates appear to have better earnings prospects than graduates from the *bachillerato* who do not go on to tertiary education. Moreover, since graduates from lower secondary school with good marks are likely to choose to go on to the *bachillerato* – reflecting the social stigma associated with upper secondary vocational degrees, the estimated returns for the CFPM are likely to be underestimated.³ However, these returns have fallen for young workers (Table 1.6).

Pupils fail on a very large scale, notably in lower secondary education

An important factor behind the low upper secondary graduation rate is the high proportion of pupils leaving school without the degree that certifies the successful completion of lower secondary compulsory education (*graduado en educación secundaria obligatoria*, GESO, see also Annex 3.A1), which pupils are expected to obtain at the age of 16, the age at which education ceases to be compulsory. In 2005, close to 30% of pupils left lower secondary school without the GESO. This diploma is in general required to gain access to upper secondary education, in both the academic stream and the main vocational streams (CFPM). Fall-back programmes have been created for pupils failing to obtain the GESO, notably the *programas de garantía social* (PGS; see for example, OECD, 2007f, for a more detailed description). These programmes provided basic general and vocational education mostly for manual occupations. However, graduation rates from these programmes have been quite low, amounting to about 4.5% of a full age cohort. The PGS are being replaced by the *programmes of initial vocational qualification* (*programas de cualificación profesional inicial*, PCPI) (see below), and these programmes are better integrated with main educational pathways, including the CFPM (Box 3.1). The high rate of failure of pupils to obtain the compulsory schooling certificate is strongly related to socio-economic background (see e.g. Fundación Alternativas, 2008, which provides information on graduation rates by parental income and occupational status).

Some pupils succeed in obtaining the degree subsequently. By the age of 22 the proportion of youths who have not obtained a lower secondary degree drops to 14%, although this share has been rising in recent years.⁴ However, these youths seem to regain little of the lost ground in terms of moving into further education or improving their labour-market prospects, perhaps reflecting both the loss of time and the stigma of initial failure. Only 14% of students who initially fail compulsory education enrolled in mainstream upper vocational education programmes (CFPM) at any time in the subsequent four years, suggesting that the share of pupils who ever succeed in moving towards upper secondary education after having initially failed to obtain the compulsory schooling certificate is very low. By contrast, almost all pupils who succeed in graduating from compulsory education enrol in upper secondary education (INE, 2007). On the other hand, among the few young people who do manage to enter the CFPM despite having failed the GESO, most succeed in passing the degree, and the success rate is not substantially lower than among students who attempt CFPM after passing the GESO on the first attempt.⁵

Labour-market prospects for pupils who have abandoned compulsory education without having obtained the compulsory-schooling certificate are very poor, even under the very favourable macroeconomic conditions for employment prospects of unskilled workers observed over the past 10 years (Chapter 1). Survey evidence indicates that 41% of workers who had abandoned school without the certificate in 2001 had failed to find any

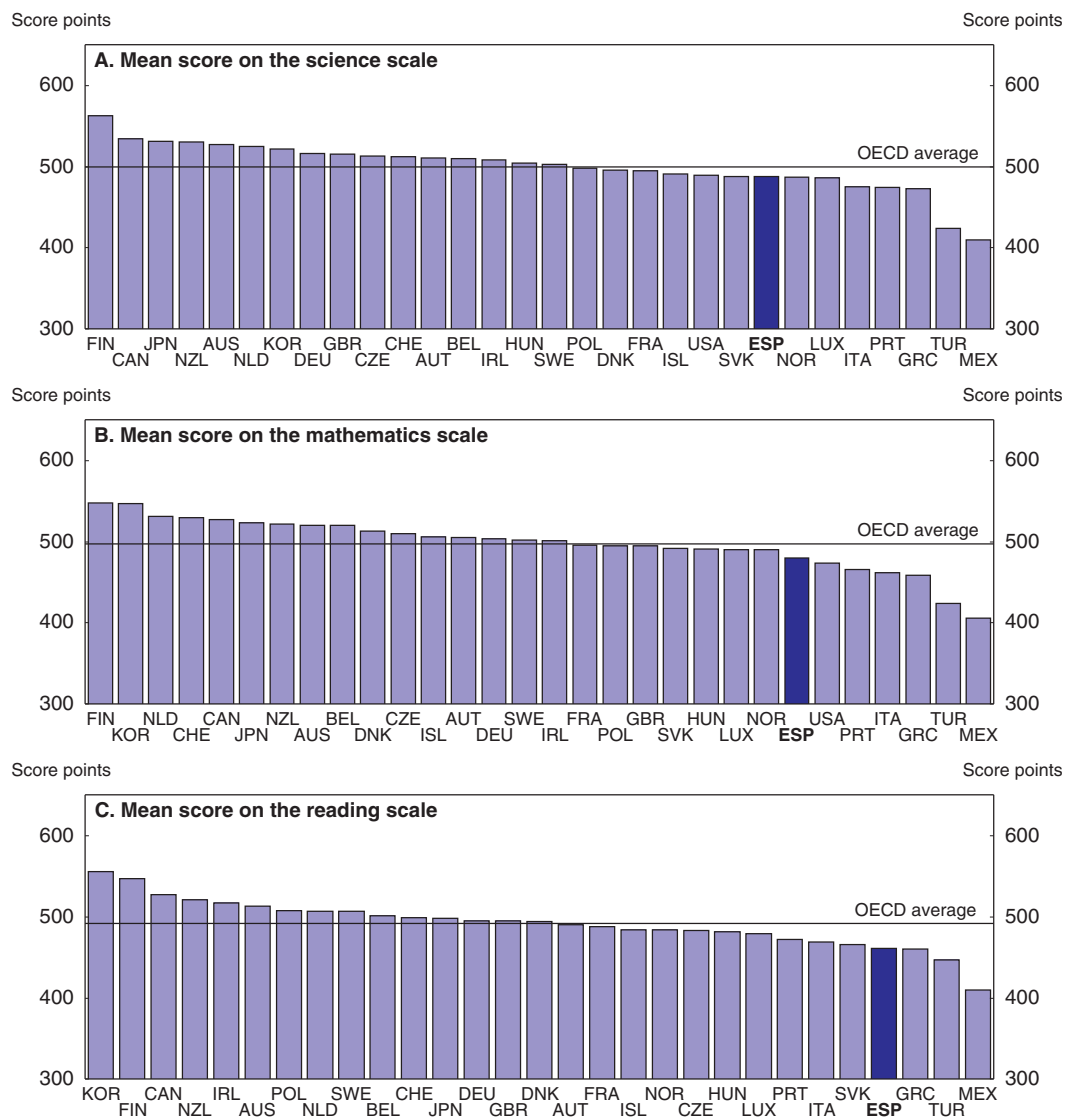
job in the year following their departure.⁶ For graduates from the CFPM the corresponding rate was 29% (Fundación Alternativas, 2008).

Pupils also fail upper secondary courses in large numbers. Only 60% of pupils who have graduated with the GESO and proceed to the *bachillerato* obtain the degree within the time foreseen and 23% not at all. Of pupils proceeding to CFPM, 72% obtain the corresponding degree (estimated based on data in INE, 2007). These failure rates explain the bulk of the difference between lower and upper secondary graduation rates in Figure 3.3.

Much scope remains to improve competencies in reading, mathematics and science at age 15

The PISA results of 15 year-old pupils in 2006 were below the average in all three competencies (Figure 3.3). Spain occupies one of the lowest ranks among high-income

Figure 3.3. **Average student performance in the OECD 2006 PISA study¹**



1. The higher the score, the higher the performance.

Source: OECD, Pisa 2006: Science Competencies for Tomorrow's World, Vol. 1.

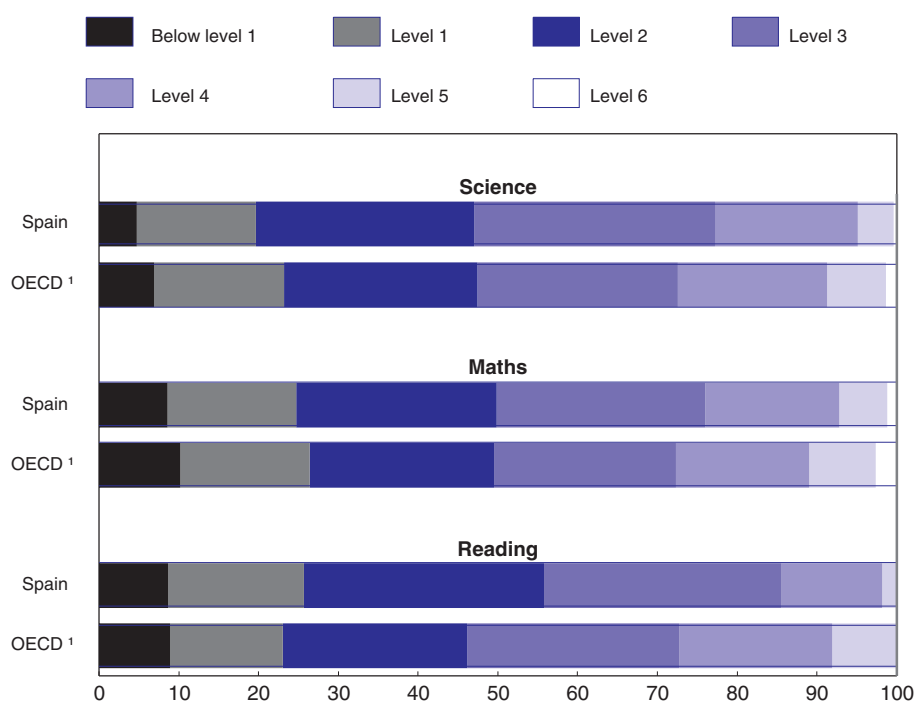
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OECD countries, although, with many countries located close to the average, the Spanish score is not much below the average in science and mathematics. Moreover, the relatively weak level of education of the parents' generation in Spain can – in statistical terms at least – partly explain the relatively weak performance of Spanish pupils.⁷ Indeed, once the statistical effects of parental education level and GDP per capita are removed, the science score in Spain is equal to the average of OECD countries and equal to the score in, for example, Germany, one of the high performers on the unadjusted science scale.

Nonetheless, the PISA results show there is considerable room for improvement. Relative performance is weakest in reading, and it has deteriorated dramatically since 2000, with an increasing share of pupils failing to obtain basic reading skills. PIRLS results indicate that reading skills are also weak among pupils in primary education,⁸ with a relatively large share of pupils failing to reach the level of basic skills. The study also reveals that primary education outcomes are considerably worse than average for children with two immigrant parents. Moreover, many children participating in PIRLS had already benefitted from early childhood education, suggesting that performance of schools (possibly including early childhood education institutions) needs to improve.

The Spanish PISA results stand out for their low overall variance of results. The variance of outcomes is particularly low between schools. Moreover, the impact of socio-economic background on PISA outcomes is lower than in most OECD countries (OECD, 2007b). As a result, the share of pupils who fail to obtain basic competency levels is not much higher than in other high-income countries, although this considerable advantage is lost to some extent owing to high school failure rates that are characterised by substantial social stratification. The share of high performers is low (Figure 3.4). As a

Figure 3.4. **Distribution of PISA scores by level of competency attained**



1. Weighted average.

Source: OECD, Pisa 2006: Data, Vol. 2.

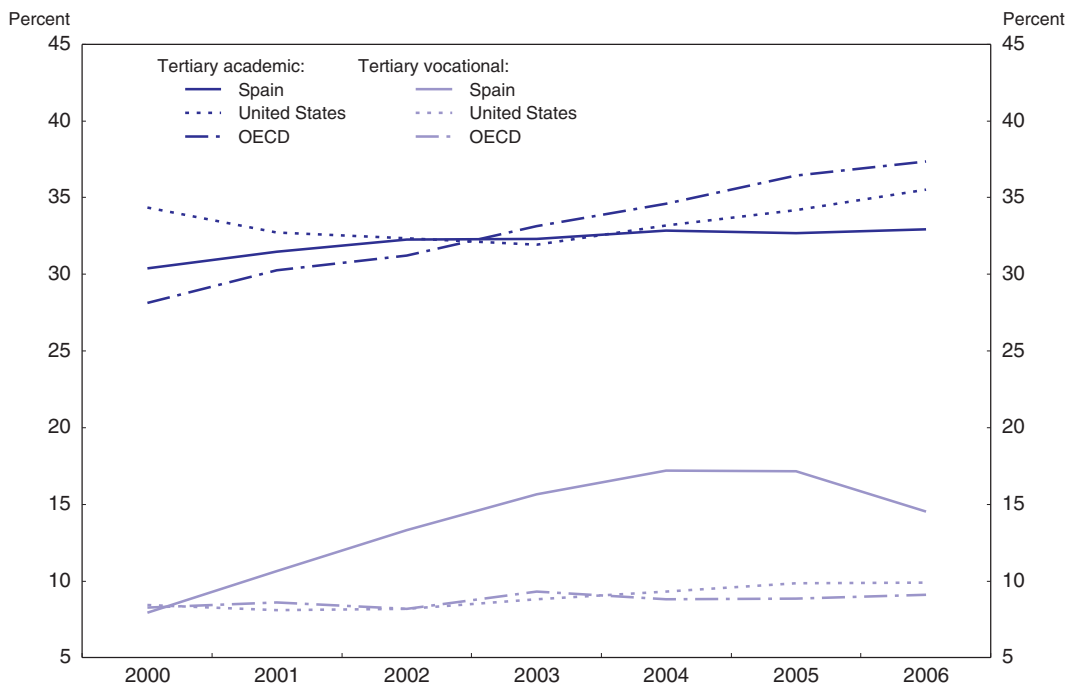
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counterpart to the low between-school variance, within-school variance in performance is high.

Tertiary attainment is high, but returns are low

Tertiary attainment among young workers in Spain is higher than in the OECD on average and continues to expand, with the graduation rate exceeding current attainment rates as well as average graduation rates in the OECD. The graduation rate in tertiary vocational studies is among the highest in the OECD, whereas it has been stagnating for university studies, which is now below the OECD average (Figure 3.5).

Figure 3.5. **Tertiary graduation rates**
As a percentage of population at the typical age of graduation



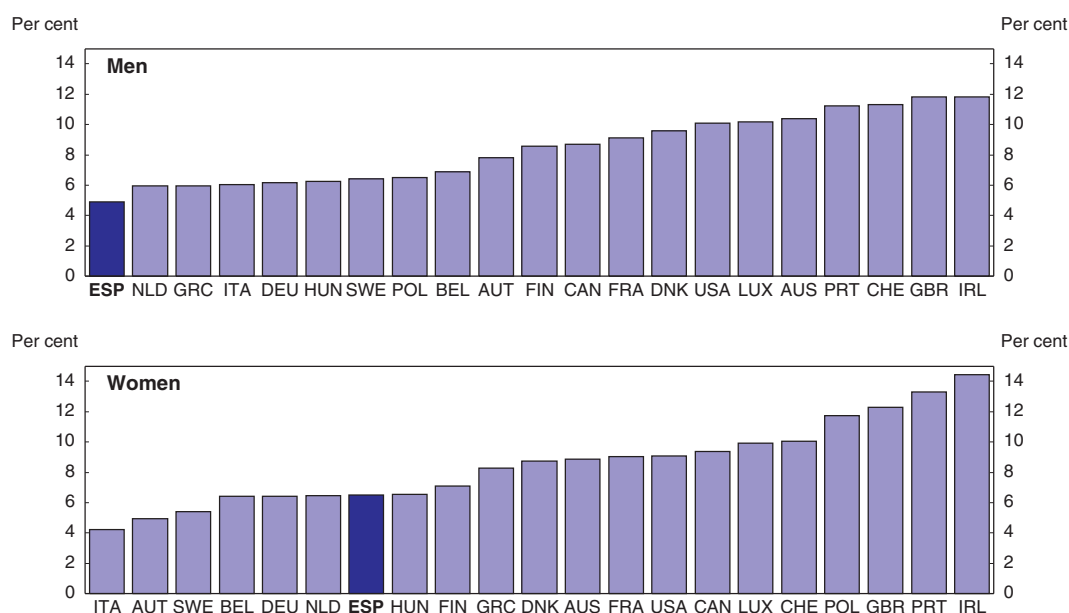
Source: OECD (2008), *Education at a Glance*.

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The private internal rates of return on tertiary education are among the lowest in the OECD (Figure 3.6), reflecting a smaller gross wage premium on wages of workers educated to the upper secondary level (Oliveira Martins *et al.*, 2007).⁹ However, it does not appear that these low returns can be attributed to a significant extent to the expansion of the tertiary education system, at least between 1995 and 2002, the latest year for which estimated returns to education are available. Returns diminished somewhat between 1995 and 2002 for university graduates but rose for graduates from vocational courses (Table 1.6). For young workers they rose for both short-cycle university graduates and tertiary vocational graduates.¹⁰

A potentially important source of differences in rates of return across countries is the distribution of graduates across subject disciplines, as earnings of graduates differ substantially depending on the subject studied, with the highest returns observed for


Figure 3.6. **Estimates of the internal rates of return to tertiary education**¹
2001²



1. Uniform labour productivity growth across countries assumed to be 1.75% per year.

2. Except Poland and Switzerland: 2000 and Hungary: 1997.

Source: : Oliveira Martins, J., R. Boarini, H. Strauss, C. de la Maisonneuve and C. Saadi (2007), The policy determinants of investment in tertiary education, *OECD Economics Department Working Paper*, No. 576.

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graduates of sciences and engineering, followed by social sciences. However, in Spain, the composition of tertiary graduates resembles that of other countries and so does not explain the low returns (Oliveira Martins *et al.*, 2007).¹¹ Pay compression, for example as a result of collective bargaining, could also in principle contribute to depressing returns to tertiary education. However, it is unlikely to be the principal cause, as pay compression is difficult to reconcile with the finding, in an OECD study (Oliveira Martins *et al.*, 2007), that the impact of tertiary attainment on the probability of employment, while positive, is fairly modest in international comparison.

Among tertiary degrees, rates of return seem to be highest for long university degree courses, followed by those on short degree courses. Returns are lower on tertiary vocational education (see Table 1.5). Rates of return compare less unfavourably for tertiary vocational graduates if only young workers up to the age of 35 are considered (Table 1.6), a perhaps more relevant comparison, given the changes the education system has undergone over recent decades. The large number of tertiary vocational graduates (they make up close to 30% of all workers educated to the tertiary level (OECD, 2007a)), appears to have depressed average returns to education, perhaps by as much as 2½ percentage points,¹² although this effect is lower for younger workers.

Comprehensive compulsory education in private and public schools helps limit the impact of socio-economic background on learning outcomes

Primary schools (from the age of 6 to the age of 12, if pupils do not repeat a grade) and lower secondary schools (from the age of 12 to 16) are comprehensive, although some flexible ability grouping is applied within grades in many schools. About a third of Spanish

pupils up to lower secondary level attend private schools, of which almost all are publicly funded. Private schools receiving government funding (*escuelas concertadas*) are not allowed to charge fees, have to abide by the same admission principles and are subject to the same governance rules as public schools. While admissions in compulsory schooling are subject to administrative rules, giving priority *inter alia* to pupils residing in the school's neighbourhood, there is some room for choice and competition, with about 80% of lower secondary schools competing with at least one other school in the neighbourhood (OECD, 2007b). There is also an element of supply responsiveness to parental choice, as publicly funded schools are financed according to capitation and schools are closed if attendance is insufficient.

Comprehensive schooling is likely to have helped limit the impact of socio-economic background on learning outcomes, as measured by PISA results. While students do slightly better in schools where there is some ability grouping, the gaps are small and disappear once the differences in the composition with regard to the socio-economic background of the pupil intake between schools with varying internal grouping practices are taken into account.¹³ The evidence on peer effects among pupils can perhaps be interpreted as indicating that comprehensive schooling may not be harmful to high performers, and might, perhaps, raise average performance, but the evidence is as yet inconclusive.¹⁴ Cross-country empirical evidence suggests that the widespread availability of privately run schools can raise the performance of the overall school system, provided private schools are mostly publicly funded (Wößmann, 2005b).¹⁵ By contrast, in countries where a large share of pupils attend private schools that are largely *privately* funded overall performance seems to suffer, arguably because this fosters adverse selection and undermines choice.

Some tensions have however appeared in the system. Cases have been reported of practices that discourage pupils from poor socio-economic background from attending private schools. Some schools also appear to have sought financial contributions from parents, such as through fees for meals and transport services that are provided for free at most schools and other practices with selective effects (OECD, 2006; Calero, 2006a). Measures have been taken to restrict the extent to which private schools can raise ancillary charges from parents. On the other hand, private publicly funded schools receive lower capitation fees than public schools. This setting perhaps offsets the impact of a more favourable socio-economic background of pupils in private schools on their resource needs. In this case, however, it would be preferable to link funding more strongly to the number of pupils who require more teaching support. This could also help lower incentives for private schools to engage in selective practices. The prohibition against raising fees from parents in all publicly funded primary and lower secondary schools as well as against recourse to selection criteria should be enforced. A level playing field in the rules assigning resources to public and publicly funded private schools should be ensured.

Moreover, the rules of the system of the *escuelas concertadas* do not apply to upper secondary schooling, where private schools can receive government funding, while at the same time charging fees. Also, unlike private lower secondary schools, they are allowed to determine their own selection criteria. Although government grants are available for pupils from low-income families to attend such schools, such mixed funding may induce schools to compete with one another on selection based on socio-economic background, rather than adding "value" to the education of incoming students; the empirical literature on lower secondary schools suggests that this could possibly be to the detriment of overall performance. Consideration should be given to linking the disbursement of subsidies to

upper secondary schools to the obligation of offering schooling free of charge, as is done in lower secondary education.

Improving the integration of immigrant children

About 9% (8%) of pupils in early childhood (primary) education have immigrant background. Close to one half of these children have arrived from Spanish-speaking countries (MEC, 2008a). While public schools accept 67% of all students, they admit 82% of foreign pupils.

Many regions have introduced special programmes for arriving immigrant children. In many regions, the children are separated from other pupils for a limited period of time, usually for six months, to help them catch up with educational standards of their native peers. There is some evidence that these programmes have helped the integration of immigrant children (OECD, 2006), although education specialists' assessments are mixed (see the review in García Castaño *et al.*, 2008). Educational outcomes for immigrant children have nonetheless remained weak. Most immigrant children do not pass the GESO and often fail to attain the level of education the parents attained in their home country, even if their home language is Spanish.¹⁶ The difference in PISA scores between immigrant children and natives is equal to the corresponding OECD average gap (OECD, 2007a), notwithstanding the relatively large share of immigrants whose native language is Spanish. On the other hand, the relatively recent arrival of many immigrants, and the large share of immigrants who have been attracted by demand for poorly qualified labour in Spain, may still render the integration of immigrants more difficult than elsewhere.

The central government makes earmarked grants available to regional governments for funding programmes to integrate immigrant children, which are disbursed according to agreements reached between the central and regional governments. The disbursement of these transfers does not appear to be linked to an evaluation of the effects of regional programmes on educational outcomes and attainment of immigrant children. In view of the well known risks that earmarked transfers are not spent effectively, creating such a link is particularly important. The disbursement of earmarked central-government transfers to regional governments, notably for programmes to foster the integration of immigrant children, should be linked to the results of evaluations, conducted by the central government, of the effectiveness of such programmes in raising educational outcomes and attainment levels.

Combating school failure in compulsory education

The Organic Education Law (LOE), approved in 2006, provides a number of measures aimed at improving education outcomes in all schools, as well as increasing educational attainment rates at the lower and upper secondary level (Box 3.1). To this end, the new legislation widens the scope for offering remedial programmes for pupils who have fallen behind, notably the *programas de diversificación curricular*, and foresees measures to identify and support pupils falling behind early in primary schools. Indeed, some evidence suggests that they have been successful in raising weak students' chances of obtaining the compulsory schooling certificate (OECD, 2006), although relatively few pupils have so far participated, and that programmes for the early identification and support of weak-performing students help reduce grade repetition (OECD, 2007g). Application of these programmes has been uneven across the regions, and the programmes also vary across schools, which have autonomy over their design. However, no evaluations are available at

Box 3.1. **Measures to improve educational outcomes in the Organic Education Law (Ley Orgánica de educación, LOE)**

The LOE was approved in May 2006 and stipulates a gradual implementation of the measures indicated below, which will be completed by 2010. It replaces a number of earlier laws, including the most recent Ley orgánica de la calidad de la Educación (LOCE) described in OECD (2003), which was however hardly applied, after having been revoked following a change in government in 2004. The LOE further develops structures established in previous legislation at selected points. Changes mentioned in this chapter generally refer to the situation before the LOCE. Across all education levels the LOE introduces new content into curricula, including competency-based targets for teaching, to the extent these are determined by the central government (see also Box 3.2 below).

Pre-school education

The regional governments are required to raise the supply of places in accredited childcare facilities for children up to the age of 3, although they are not required to reach specific quantitative targets. The LOE also confirms that early childhood education is free, as stipulated by the LOCE. It introduces education objectives, notably on basic numeracy and reading skills, for this educational phase while leaving the definition of educational objectives for children attending accredited childcare facilities (*educación infantil, primer ciclo*) to the regional governments.

Primary education

The law requires schools to focus on the early detection of learning difficulties and to respond to such difficulties with special support programmes for weak students (*programas de refuerzo*). An increase in the hours of teaching in mathematics and foreign languages is also prescribed. Primary schools are required to evaluate the degree to which basic competencies have been reached at the end of the fourth year.

Compulsory secondary education

Measures to strengthen school autonomy and accountability

The law gives regional governments the freedom to grant more autonomy to schools. In addition to educational plans, schools are asked to develop management plans that set their work priorities and to make these publically available. They have been given autonomy in all organisational and managerial matters as well as with regard to teaching methods. The law also empowers regional governments to allow schools to outsource the provision of ancillary services. With regard to the management of teaching personnel regions can allow schools to propose specific requirements on the qualifications of teachers to be hired by regional education administrations.

Regular evaluations through testing of samples of schools have been introduced for pupils aged 12.

Measures to widen curricular choice

The LOE widens scope for pupils to choose among subjects, notably in their final year of lower secondary school. As was the case before the LOE, three options must be selected, but the catalogue of optional subjects has been widened and now includes two, rather than one, vocationally oriented subjects (general technology and information technology). The list of subjects is prescribed for all schools and is given in the LOE. In the preceding grade, scope for choice is limited, and the list of subjects consists only of academic subjects.

Box 3.1. Measures to improve educational outcomes in the Organic Education Law (Ley Orgánica de educación, LOE) (cont.)

Measures to help the transition of students to upper secondary education

The law widens the use of “programmes of curricular diversification” (*programas de diversificación curricular*). These programmes, which were introduced in 1990, aim at supporting students at risk of failing to obtain the compulsory education diploma. In these programmes pupils can be offered a curriculum specifically adapted to their needs, differing from the mainstream curriculum. Pupils can now participate from age 15 (rather than 16) onwards. Participation remains conditional on having repeated a school year and subsequent poor performance. Pupils participating in these programmes – which schools design autonomously – benefit from more teacher support and smaller groups. The new legislation also requires specific action plans for students who have failed individual subjects without being forced to repeat a year.

The LOE also introduces the *programmes of initial vocational qualification* (*programas de cualificación profesional inicial, PCPI*) replacing the “social guarantee programmes” (*programas de garantía social*). As the social guarantee programmes, they provide a combination of basic general and vocational education, aimed at pupils who have failed the compulsory schooling certificate. Unlike their predecessors, pupils who are still in lower secondary education, but who are at risk of failing, and whose performance has not improved through participation in other programmes (such as those of curricular diversification) can also participate. While the social guarantee programmes did not lead to any formal diploma, and therefore did not open a pathway to mainstream upper secondary education, the PCPI are to some extent linked to the mainstream education pathways. They include a module – which is optional for pupils who are above 16 years of age – which, if passed, allows pupils to obtain the compulsory schooling diploma on the basis of acquiring the basic competencies the diploma requires. In addition, vocational qualifications acquired in the PCPI are recognized as basic qualifications within the CFPM. Regional governments are also empowered to introduce courses which prepare PCPI graduates for taking the entrance exam into mainstream upper secondary vocational training programmes (the CFPM).

To strengthen reading skills, the law foresees the setting aside of time for reading across all subjects and increasing resources in school libraries. Regional governments can attribute additional funding to schools to take account of differences in the composition of the pupil intake.

Initial teacher training

The pedagogical qualifications to be obtained by teachers will be raised. Newly trained teachers at secondary schools will be required to take a one-year course training them in pedagogical and didactical skills, leading to a Master’s degree, and the overall post-secondary qualification for teachers in primary and early childhood education as well as childcare (*educación infantil*) will increase from three to four years. In both cases practical training will be given more emphasis.

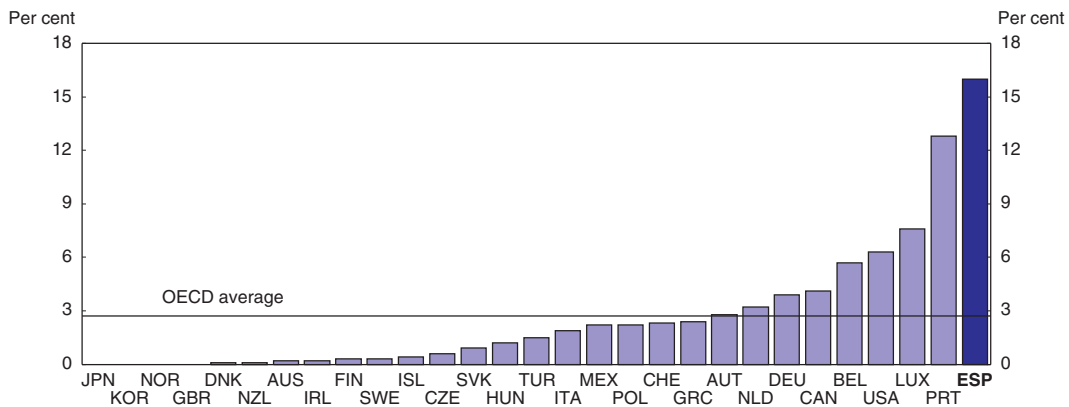
the national level that would allow an assessment of the impact of these different forms of programme on education outcomes. The programmes of curricular diversification and for the early identification of learning needs need to be implemented and evaluated to determine best practice.

The LOE also introduces new programmes aimed at pupils who have failed lower secondary education or are close to doing so in the final stage of lower secondary education. The new programmes may be more successful in offering opportunities to acquire formal qualifications that facilitate integration into upper secondary education. On the other hand, they may also entail a risk of raising incentives for teachers and schools to “deal” with weak students by separating them from others, by making them repeat grades and subsequently placing them into these special programmes. In any case, both of these programmes deal with school failure at a late stage, when problems – notably grade repetition – have already occurred, and need to be complemented by preventive measures.

Grade repetition fosters early departure from school


The high rate of school failure in lower secondary education is closely related to the very high proportion of pupils repeating one or more school years, which is much higher than in all other OECD countries for which data are available in the PISA study (Figure 3.7). The frequency of grade repetition rises sharply towards the end of compulsory education, from age 14 onwards, whereas repetition is tightly restricted by regulation in primary education. More than 40% of pupils at age 15 have repeated at least one school year. A large number of pupils who have attained the upper age ceiling of compulsory education of 16 years leave school without completing all grades up to the compulsory schooling certificate. Almost 20% of students of each age cohort appear to leave lower secondary school in this way,¹⁷ accounting for about two thirds of the total number of pupils failing to obtain the certificate. Since 2000 the rate of pupils leaving lower secondary school without the GESO has increased, which reflects the implementation of the increase in the compulsory schooling age to 16.

Figure 3.7. **Repetition rates in lower secondary education across OECD countries**¹



1. School principals were asked what percentage of students in their school repeated a grade at the levels of lower secondary education (ISCED 2) in the previous year of schooling.

Source: OECD, PISA 2006.

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Empirical evidence shows that grade repetition is of little educational benefit for the pupils concerned (see *e.g.* Seibel, 1984, for evidence on France; and the references quoted in OECD, 2008 or OECD, 2007a). Moreover, as a result of repeating, students subsequently lose a year of earnings and generate additional government outlays. As repetition has little positive impact on academic performance of the pupils concerned, it also does little to

diminish any negative peer effects of weak performers on fellow students. Hence, to the extent that repeaters stay on in school for longer, they exert whatever negative effects there might be on fellow students for a longer period of time, further adding to the social costs of repetition. To the extent pupils abandon school prematurely when they reach the age limit on compulsory schooling, as appears to happen frequently in Spain, social costs are likely to be very high, as repeaters fail to gain access to upper secondary education and are thus denied reasonable job prospects.

To reduce school-year repetition the LOE requires schools to improve the early identification of learning problems. It stipulates that schools should provide additional teaching for pupils who have fallen behind in basic competencies and adapt the organisation of teaching flexibly to deal better with diversity, although how this is implemented will depend on regional governments and individual schools. However, the international comparison of PISA results suggests that education outcomes in core competencies may not account for most of the high repetition rate. As noted above, owing to the compressed distribution of PISA results in Spain, the share of pupils who fail to attain basic competency levels in reading, mathematics and science is not substantially higher than in many other high-income countries, which all have much lower repetition rates. While repeaters do less well than their fellow students who have not repeated in PISA, for example on the science scale (MEC, 2007d), their average score still lies in the middle of competency level 2, which denotes “adequate scientific knowledge to provide possible explanations in familiar contexts or draw conclusions based on simple investigations” (OECD, 2007a). PISA-rating differences between repeaters and non-repeaters are similar in reading and mathematics.

The rules with respect to school marks which trigger automatic relegation of pupils have been softened somewhat with regard to the previous legislation, although the rules are still tougher than in the period between 1990 and 2002 (specified in the *Ley orgánica general del sistema educativo*, LOGSE), a period in which school year repetition was, however, also frequent. Pupils can be forced to repeat a grade if they fail three or more (out of nine) subjects. Once pupils are deemed to have failed four subjects or more, relegation to the previous grade is automatic. By contrast school-year repetition is much more restrictive in primary education, where at most one repetition is allowed over the period of six years.

Almost all the subjects pupils take in lower secondary school are prescribed by law and are of an academic rather than vocational nature. To obtain the GESO pupils need to obtain a pass mark in *all* subjects. While the equal weight given to all subjects by this rule is, in practice, weakened by lowering the standards required in subjects that are not considered core skills, this rule may encourage early school departure. Education experts suggest that there are complementarities between academic and vocational subjects in the learning process of those pupils whose interests are vocational (OECD, 2006). These arguments suggest that it could be beneficial to further widen the scope of schools to offer and for pupils to choose further options, including in vocational subjects. Moreover, introducing more optional vocational content into compulsory lower secondary education could create links to upper secondary vocational education tracks. Extending options could help appeal to the interests of highly gifted pupils, thereby helping to improve performance at the top range of the performance spectrum. While the LOE has introduced somewhat broader possibilities for pupils to follow vocational options, these opportunities remain limited. Scope for choice of options in the final stage of compulsory schooling should be widened further, including offering more vocationally oriented subjects. The criteria for granting

pupils promotion to subsequent grades and access to upper secondary education should be more narrowly focussed on core competencies that are needed to follow any type of upper secondary education.

The nature of the social costs attached to grade repetition suggests that these may not necessarily be internalised in teachers' decisions. Teachers may, for example, use grade repetition to remove weak students from their classes. Indeed, teachers in lower secondary school sometimes keep their classes in consecutive years, although this does not appear to be the rule. Teachers also face obligations to cover a certain curricular content over the school year, which can prompt them to fail students (OECD, 2006). A large majority of teachers themselves believe that grade repetition decisions do not take into account the affected student's best interest at all or only to a limited extent (MEC, 2003). These arguments suggest that schools need to be held accountable for the learning outcomes of pupils, with the objective of reducing grade repetition to a minimum so as to shift teacher incentives away from completing a set curriculum to improving all pupils' learning results (see also below). Indeed, grade repetition is strongly negatively correlated with the presence of external exams, a major instrument to raise school accountability (OECD, 2007a, and below). Indeed, across all countries which participated in the PISA 2006 study, the presence of external standards-based exams explains almost 25% of the cross-country variation in repetition rates. Indeed, such external exams could focus incentives in schools towards improving all pupils' educational outcomes, even if they advance at different speeds, rather than towards covering a set curricular programme.

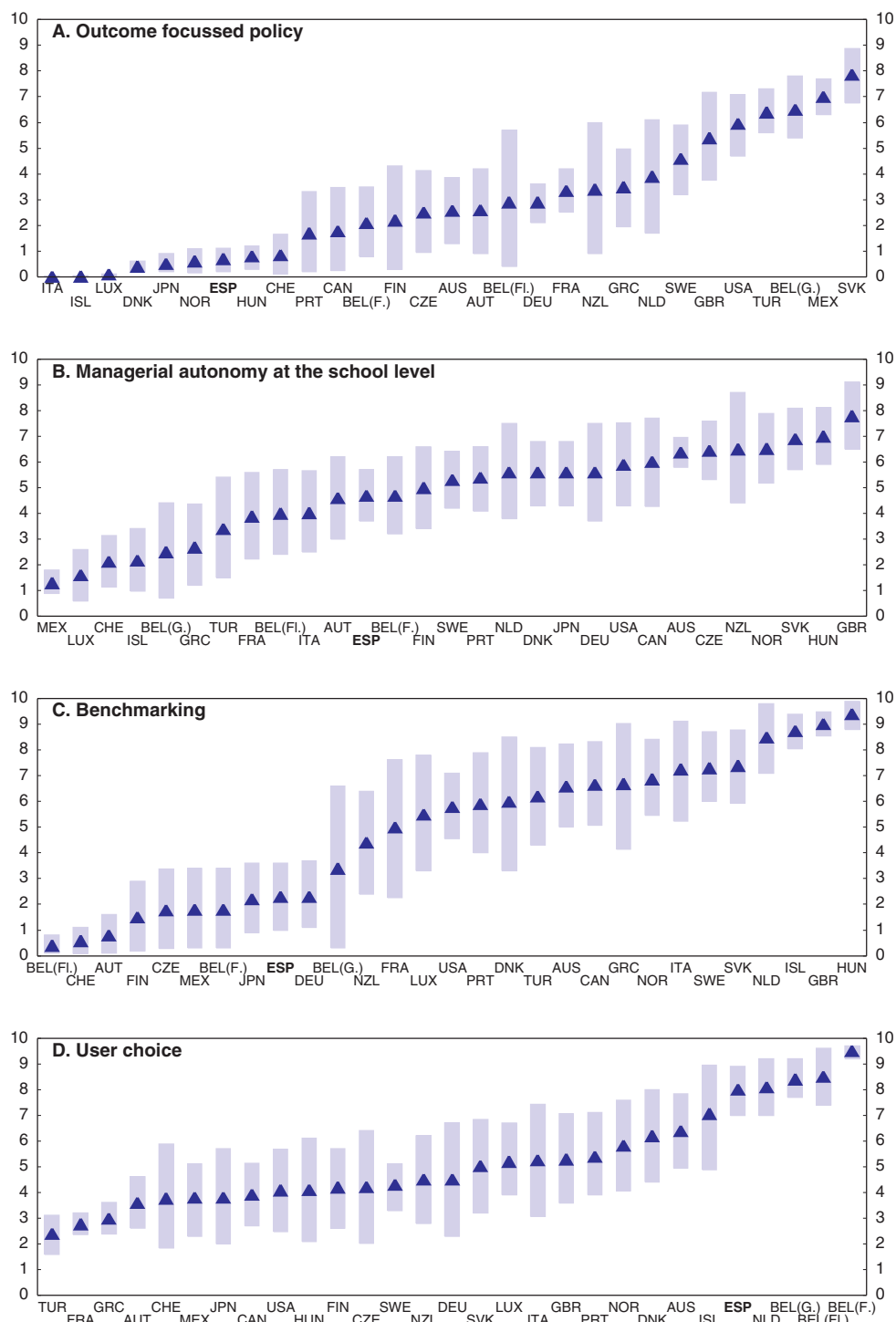
Raising learning outcomes in primary and secondary education

Empirical evidence suggests that increased autonomy in schools that are held accountable improves student achievement. Schools that are held accountable for their outcomes are most likely to utilise their autonomy to find the best means to improve achievement, given the specific nature of the pupil intake. For example, school autonomy with regard to teacher salaries has been estimated to increase maths outcomes somewhat.¹⁸ However, these effects were estimated to occur only if accountability mechanisms, such as external final exams, are in place (Wößmann, 2005a).¹⁹ School autonomy in procedural matters, for example in the choice of books, the purchase of teaching materials, the hiring of teachers and the use of the budget, was also estimated to have a positive impact on schooling outcomes. According to Wößmann (2005a), besides reducing repetition, externally set final exams improve education outcomes: indeed, the boost is about as large as what pupils learn on average in one school year; and the effect appears to be considerably greater if there are also regular standardised tests to monitor pupil performance in the course of their school careers.²⁰ Several methods of enhancing school accountability have been used across OECD countries: centralised final exams and regular, repeated external testing of pupils' progress as well as the publishing and qualitative monitoring of school results. Whichever method is employed, the collection of information on results needs to be followed up by analysis of results to allow recommendations to be drawn for school practices.

School accountability is weak


Accountability is only weakly developed in the Spanish school system (Figure 3.8). Externally set final exams are neither conducted at the end of lower secondary nor at the end of upper secondary education, although pupils who have passed the *bachillerato* do

Figure 3.8. **Institutional policy settings in primary and lower secondary education across OECD countries¹**



1. The figure gives the average and the range that contains 90% of the 1 000 random weighted indices. The data refer to the situation in 2006.

Source: Gonand, F. (2006), *Public spending efficiency in primary and secondary education: institutional indicators*.

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have to pass a centralised exam if they want to proceed to university. School inspection is mostly oriented toward the implementation of rules concerning inputs. The LOE requires regular evaluations of 10 and 14 year-old pupils' competencies at randomly selected schools. A pilot study was conducted in April this year and will be followed by testing of pupil performance in samples of schools every three years. Testing in samples of schools has already occasionally been conducted at the national and regional levels in the past at various points in compulsory education, highlighting, for example, shortcomings in foreign language skills. However, such studies have thus far not been used to investigate the contributions of differences in regional educational policies to education outcomes.

The considerable role of regional education policies (Box 3.2), with significant differences in the way national framework programmes (such as the *programas de*

Box 3.2. Attribution of competencies across levels of government and regional funding of education

A process of devolving decision-making powers to regional governments was initiated in the early 1980s and was concluded in 2000. Ninety-five per cent of all public education spending is conducted by the regional governments, with central government funding largely limited to grants awarded to low-income families with children. Although regions are subject to input requirements set by the central government in the area of primary and secondary education, differences in spending are considerable across regions on both compulsory education as well as in early childhood education and childcare, although differences in the pay of teaching staff across regions are mostly minor. To some extent regional differences in expenditure are explained by differences in the share of pupils attending private schools, which receive less funding per pupil. Empirical evidence suggests that differences in resources (including human resources) devoted to education do not contribute to regional differences in educational outcomes (Santín, 2006). However, the study is based on PISA results from the year 2000, which did not yet fully reflect the effects of growing regional differentiation of policies. Differences in spending per capita on education are not strongly related to GDP per capita.

Across all levels of government the central government remains in charge of ensuring equality of access at all levels of education and sufficient homogeneity of programmes across regions. The central government also regulates academic and professional titles and financial support to students. Legislative responsibilities have been furthest devolved in tertiary education, where the central government's jurisdiction is limited to the legal framework and the grant system.

In early childhood education as well as in primary and secondary school education the central government sets general curricular guidelines and minimum content. At schools, the central government sets 65% of total content in regions in which only Castilian is spoken, and 55% in regions with an additional official language. The regions determine the remaining curricular content, implement legislation from the central government level and are in charge of personnel and student welfare. Inspection services are a regional responsibility, whereas evaluation is a shared responsibility. The conference of education ministers co-ordinates education policies. The local authorities are in charge of providing and maintaining the physical infrastructure of childcare, early childhood education and primary education facilities and can contribute to extra-curricular activities at all schools. They are also represented in schools' decision-making bodies (the school council).

diversificación curricular) are carried out, suggests that such an evaluation could provide guidance to regional policies and improve incentives for policy innovation. Moreover, testing a sample of schools cannot serve to hold individual schools accountable. Whether these tests will be extended to all schools depends on the decisions of regional governments. While the LOE has introduced basic competencies that pupils are expected to reach, no education objectives have yet been defined at the national level against which school performance can be measured, although more than half of the curriculum within compulsory schooling is set by the national government. However, the government intends to develop indicators showing the degree to which basic competencies are achieved and which can be used for the setting of benchmarks (MEC, 2007a). The government also intends to propose agreements between schools and government in which school objectives are fixed, although such agreements would need to be implemented by regional governments. Some regions, such as Andalucía, have introduced such agreements. Nation-wide sample-based testing of pupils' education outcomes should be used to evaluate the differential impact of regional educational policies to help determine best practice. Accountability of individual schools should be raised. To this end, external testing at the school level should be extended to all regions and should be used to benchmark performance against targets and identify priorities for improving performance. Consideration could be given to complementing these with centralised exit exams at lower and upper secondary schools.

School autonomy is modest

Spanish schools enjoy less autonomy than those in most OECD countries. The choice of teaching materials is – as in most OECD countries – largely a matter for schools to decide, and schools enjoy budgetary autonomy, although the latter is limited by the high weight of teacher salaries, over which schools have no discretion. Few principals report that they have any autonomy in the setting of course content and the choice of courses. Public schools do not have autonomy with respect to the hiring of teachers, although the LOE has introduced some margin for schools to influence these decisions, Hiring decisions are taken by regional governments on the basis of centralised competitive exams. Privately run schools, including those which are publically funded do have autonomy with regard to the hiring and dismissing of teachers (MEC, 2007d). All schools are also bound by collectively bargained contracts on pay.

The LOE allows regional governments to assign further responsibilities to schools. For example, regional governments have been given the right to devolve competencies for the contracting of services. However, the LOE still limits school autonomy in many ways: decisions on the hiring of teachers continue to be made by regional education administrations, and changes in the organisation of timetables and the number of hours taught and the introduction of experimental teaching projects need to be approved by the administration (European Commission, 2007). Moreover, the LOE still applies detailed prescriptions on educational inputs which schools are required to use. For example, to improve reading outcomes the LOE prescribes that teaching time be specifically devoted to reading across all subjects.

While the degree of school autonomy is limited, the lack of mechanisms to make schools accountable for their results suggests that further independence might not by itself contribute to better education outcomes. Indeed, while the private, publicly funded schools, which are considerably more autonomous than their public counterparts, have

better average PISA results, their performance advantage disappears once adjustment is made for the socio-economic background (Calero and Escardíbul, 2007; OECD, 2006a). Possibly, the lack of accountability may prevent the realisation of any gains the private schools might make on account of their greater independence. These arguments suggest that developing accountability at Spanish schools further should be the policy priority for improving education outcomes. Once measures have been put in place to improve accountability, autonomy of schools, notably with respect to hiring decisions of teaching staff and curricular content, should also be widened. Indeed, the government intends to give schools teaching hours at free disposal (MEC, 2007a).

Schools that are held accountable and become increasingly independent need well qualified management teams. While the LOE has introduced specific qualification requirements for the selection of head teachers in public schools, the duration of the required training is short, and the responsibility of head teachers for improving education outcomes is not clearly formulated. Cross-country evidence suggests that head-teacher training geared towards raising a school's contribution to education outcomes and clearly defined responsibilities help schools benefit more from autonomy (Pont *et al.*, 2008). Candidates for head-teacher positions must be chosen from the pool of teachers of the school in question; this can be widened only if there are no suitable candidates. This procedure limits the degree to which best-qualified school managers can be chosen. The government is considering reinforcing leadership by the school directors, strengthening their powers in the management of personnel of schools as well as in the setting of teaching-method priorities. Head teachers are paid little more than classroom teachers, which provides little scope for attracting qualified managerial staff, a problem that will become more acute if more accountability and autonomy are introduced. Indeed, experience from other OECD countries shows that significant pay premia for head teachers, as well as hiring criteria that are strictly based on aptitude, are important complements to school autonomy and accountability (Pont *et al.*, 2008). The responsibility of head teachers for improving educational outcomes should be more clearly defined. The pool of candidates among from which head teachers can be hired should be widened, making their selection exclusively dependent on their potential. Pay premia for head teachers should be raised.

Framework conditions for the teaching profession need to be improved

The reform of teacher training marks progress

While the social inclusiveness of Spanish schools in comparison to other countries is likely to have helped to limit the impact of socio-economic performance on education outcomes, the high degree of PISA score variation within schools also places particular attention on Spanish teachers. While demanding qualification requirements are placed on aspiring secondary school teachers with regard to their competency in the academic discipline they intend to teach, teachers have thus far had to undergo fairly modest pedagogical training and qualification requirements. This qualification profile suggests teachers may find it particularly hard to deal with weak performers who are alien to their own learning experience (OECD, 2006a). Pedagogical qualifications have thus far been required only for teachers of secondary education (Certificado de Aptitud Pedagógica, CAP), and the CAP has usually taken candidates less than two months to complete. Indeed, at primary school, only 40% of pupils are taught reading skills by staff who have received specific training on how to teach reading, considerably less than in other countries which

participated in PIRLS (MEC, 2007b). One half of teachers report not being trained in how to adapt teaching methods and organisation to diversity among pupils, and most teachers recognize that diversity in the classroom requires pedagogical changes for which they have not been prepared. Perhaps as a result, most teachers rejected the principle of comprehensive education up to the age of 16, especially at public schools (MEC, 2003).

Certified pedagogical qualifications of teachers appear to be a strong predictor of school performance (Clotfelter *et al.*, 2007), even after controlling for the level of resources invested in the school system (Sutherland and Price, 2007), suggesting that their weakness is a considerable lacuna. To address this shortcoming, a reform of teacher training has just been launched, requiring higher standards in pedagogical skills, covering pre-primary up to upper secondary education teachers (Box 3.1). This reform is timely, as in the next 10 years one third of primary and pre-compulsory education teachers need to be replaced, and more generous early retirement provisions may accelerate the shift in composition of the teacher body towards better qualified staff. Nonetheless, incentives for established teachers as well to acquire the new certified qualifications could help to improve education outcomes.

The empirical evidence, however, also suggests that specifying a general optimal profile for teachers is not possible. Conversely, there is empirical evidence that principals can identify well performing teachers in terms of value added to student learning (Hanushek and Rivkin, 2006; OECD, 2005). This evidence reinforces the case for decentralising decisions on hiring, promoting and dismissing teachers to the school level, once schools are made more accountable. Indeed, observers have noted the current centralised hiring procedures for teachers, which are focused on formal entry requirements, have not been conducive to ensuring the selection of the most apt candidates. This rigid structure of hiring criteria, which is administered by hiring tribunals whose members are not chosen according to professional criteria related to their capacity to assess candidates (del Pozo Ortiz, 2008), may also have deleterious effects on the quality of the training process of future teachers, as the skills they acquire are unlikely to be appropriately valued. Conversely, school autonomy could also have beneficial feedback effects on the courses offered by universities, which would be better able to adapt them to the schools' teaching needs. Teacher selection procedures are therefore in need of reform.

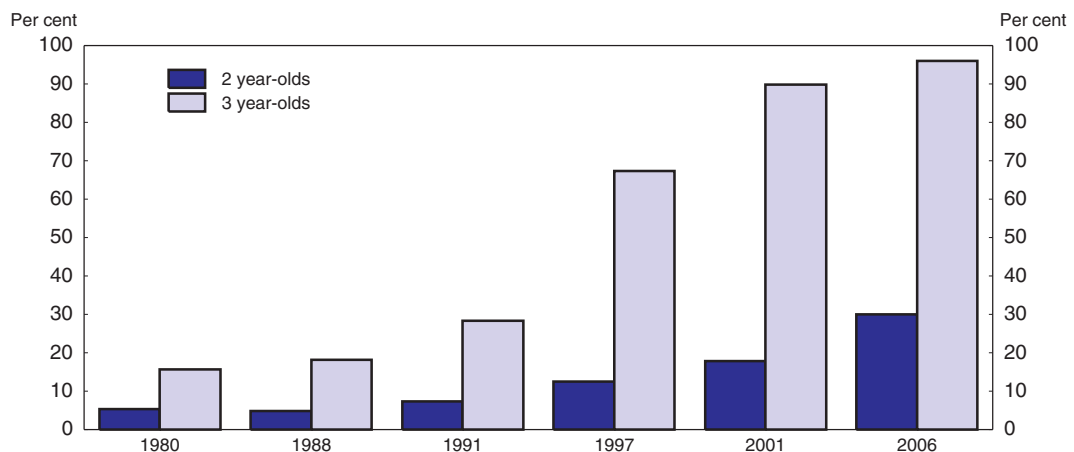
Teacher careers need to be reformed

Public school teachers, who are civil servants, enjoy a high degree of job protection and are comparatively well paid but face few incentives through promotion and pay structure. Promotion is largely based on seniority. In general, neither school managers nor teachers are given financial rewards linked to results obtained. However, a few regions have introduced performance-related pay elements (*e.g.* Andalucía), and limited incentives for school leaders result from quality contests among schools ("*Marta mata*"), which are combined with small financial rewards. Recent evidence suggests that performance-related career incentives can have a positive impact on education outcomes (Hanushek and Rivkin, 2006, and references therein; OECD, 2005). The central government is also considering introducing prizes for teachers for outstanding contributions to better educational practices. Opportunities for promotion or other forms of reward for teaching staff and management should be enhanced.


Places in childcare are still scarce for those families that need them the most

While full coverage has been virtually attained in early childhood education for ages from three upwards, childcare coverage for children below the age of three is still modest and uneven across regions, although much progress has been made in its expansion. Thirty per cent of two year-olds and 16% of one year-olds attended accredited childcare facilities in 2006 (Figure 3.9). The number of children attending any childcare facility – including unaccredited institutions – is considerably larger, but care and education standards are often lower in the latter. The large expansion of early childhood education in recent years offers the opportunity to raise children’s subsequent education outcomes significantly, in view of the evidence on the cumulative effects of education. This shows that schooling at a very young age raises educational opportunities at later stages, especially for those with fairly poorly educated parents (Cunha *et al.*, 2006).

Figure 3.9. **Enrolment rates in childcare and early childhood education at ages 2 and 3**



Source: Ministry of Education and Science.

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Children appear less likely to attend a childcare facility if the mother’s educational background is relatively limited, suggesting that the scope to increase coverage is especially large among children who are likely to benefit the most,²¹ perhaps because some less educated women may have a smaller propensity to enter the labour market, and could prefer to take care of the children themselves. Places in public accredited childcare facilities are subsidised, and fees are means-tested, giving free access to the families with the lowest incomes. While children from low-income households are given priority, it appears that rationing also affects the supply of places to children in families with low socio-economic background. Fees for private institutions, which provide about half of the places, are considerable.

While funding of childcare facilities falls under the responsibility of regional governments, the central government provides co-funding. It has launched an ambitious plan to extend coverage of children between the ages of 0 and 2 by about 30 percentage points on average by 2012, requiring 300 000 new places. In addition to offering an opportunity to make an early start in raising education outcomes for children, the expansion of places also generates scope to increase labour supply and raise mobility of

young families, who will depend less on relatives for the provision of informal childcare. Central government funding for childcare facility provision is appropriate, as the associated education benefits are likely to be subject to significant geographic externalities, in part because children benefitting from such education may well reside elsewhere when active in the labour market as adults.

These arguments suggest that central-government subsidies for accredited childcare facilities should be targeted on children in low-income families. To this end, the subsidies could be disbursed in the form of vouchers to low-income households with children, covering the full cost of a place in an accredited facility. Moreover, the geographic externalities also suggest that minimum education objectives in childcare facilities should be regulated at the central-government level, as already occurs for early childhood education facilities.

Financial support to families with children above the compulsory schooling age could be improved

Students in upper secondary and tertiary education can apply for means-tested grants from the central and regional governments. However, about two thirds of the funds spent for this purpose are directed to university students. Although the resources devoted to supporting low-income families with dependants in upper secondary education have been raised significantly, they remain limited: one tenth of students in upper secondary schools received a grant averaging €450 per year in 2006 (MEC, 2008b). Grants are awarded on application only and are contingent on family income and academic success.

This grant system suffers from some weaknesses. *First*, the grants are not available for pupils who have reached the age of 16 before completing lower secondary school and who therefore can leave school.²² For these pupils the perceived opportunity cost of staying on at school rather than taking up a non-qualified job is likely to be very high, especially if the benefits of education are not valued appropriately by the parents, which is likely in many cases, or discount rates are high because of borrowing constraints or lack of financial wealth. The low level of child benefits²³ – among the least generous in the OECD – may further push young people into early take-up of a job. Indeed, poverty among families with children is relatively widespread (see Chapter 1). Furthermore, child benefits are paid up to the age of 18 only, when many students have not yet completed upper secondary education.

Second, the concentration of the funds on tertiary-level students is likely to reduce their effectiveness in raising educational attainment of youth from disadvantaged backgrounds. This is because the benefits of upper secondary education are less likely to be perceived by potential participants (as a result of their young age), providing a stronger case to consider upper secondary education to be a merit good. Loan schemes with income-contingent repayments for students would be a more appropriate funding mechanism in tertiary education. Moreover, students need to complete upper secondary education before moving on to tertiary education. Indeed, the incidence of the grants at the upper secondary level on the overall distribution of household income are mildly redistributive towards households with lower income, whereas grants paid for tertiary level students have a regressive impact (Calero, 2006b).

Third, the low number of upper secondary students receiving grants reflects not only social stratification in the access to upper secondary education but also a significant

number of students entitled to the grants and their families failing to apply, perhaps because they are unaware of their entitlement. Indeed, empirical evidence from the United States suggests that, while targeted student aid programmes can be effective in raising enrolment rates of young people from disadvantaged socio-economic backgrounds, complexity and perceived uncertainty of grants undermine the impact of targeted student aid on enrolment even to the point of making them completely ineffective (see Dynarski and Scott-Clayton, 2008; and references therein).

Indeed, academic research has provided evidence that raising disposable income among families with children helps raise education outcomes.²⁴ Financial support for students in secondary education should improve incentives for pupils to remain in education beyond the age of 16. To this end, child benefits could be raised and be made conditional on continued attendance in full-time education. Payment of more generous benefits could be linked to an in-work benefit for low-income families (see also Chapter 2).

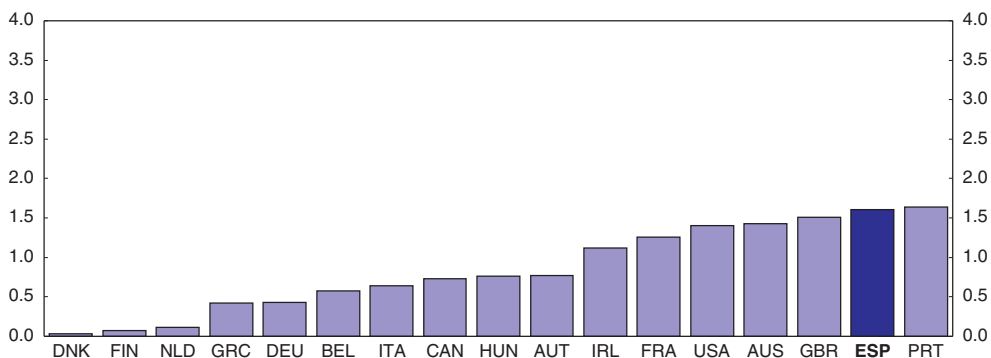
Further reform of the regulatory framework of tertiary education could raise earnings prospects

Funding policies distort decisions to take up tertiary education

A government-sponsored loan scheme with income-contingent repayments has been in place since 2007, but only for postgraduate students enrolled in Master's courses, for which they were introduced in 2007. The absence of such a loan scheme for other tertiary-level students limits the resources that can be raised to fund tertiary education from students themselves through tuition fees. Indeed, students pay a moderate fee at public universities (on average €631 in 2003), and students in tertiary vocational courses (*ciclos de formación profesional superior*, CFPS) pay no fees at all. Moreover, many students subject to liquidity constraints may well be financially unable to take up tertiary studies (Figure 3.10) or may be able to take up only tertiary vocational education even if they are better suited to university education, because study duration for vocational courses is shorter²⁵ and direct costs lower. Conversely, students from wealthy families may be prompted to take up university studies even if they are better suited to vocational studies. Indeed, few students with modest socio-

Figure 3.10. **Estimated impact of easing liquidity constraints on tertiary graduation ratios¹**

2006, percentage points



1. Effect of an alignment of the ratio of investment costs to financing resources on the minimum in the sample, Sweden.

Source: Oliveira Martins, J., R. Boarini, H. Strauss, C. de la Maisonneuve and C. Saadi (2007), The policy determinants of investment in tertiary education, OECD Economics Department Working Paper, No. 576.

StatLink  <http://dx.doi.org/10.1787/486548486141>

economic background study at university: among young people whose parents do not have secondary education only 13% take a university course, whereas this proportion is 65% for those youths whose parents have taken a long university degree.²⁶ By contrast, access to overall tertiary education (including tertiary vocational education) seems relatively equally distributed across different socio-economic groups (OECD, 2007d). Besides the inequities involved, the resulting mismatch of students to education pathways contributes to lowering returns to tertiary education. Loans with income-contingent repayments should be introduced for all tertiary students, including vocational students. University fees at public universities should be increased, and fees should be introduced for tertiary vocational courses.

A recent reform of university education is a step forward in improving teaching outcomes

A new university law, passed in April 2007, strengthens quality assessment of university education, widens universities' autonomy over the content of their courses and introduces modular course structures to encourage mobility of students across universities (see the 2007 *Economic Survey of Spain* for a detailed discussion of the draft law). Moreover, the two-tier structure of degrees has been reformed, in line with the EU *Bologna* process. While short- and long-cycle degrees used to run in parallel, which often required students to take a decision as to the length of their studies at an early stage, master's degrees can now be taken after a first degree, which may help lower barriers to study longer degree courses, which appear to have the highest returns (Tables 1.1 and 1.2).

There is still much scope for progress. Some regions – such as Valencia – have moved to funding universities according to output indicators. In others, funding is still fully determined by historical entitlements. The current funding arrangements appear to have encouraged inefficient resource use, as reflected in very high teaching staff-student ratios in comparison with other OECD countries (Santiago *et al.*, 2008). Actual study duration is often very long – on average eight years in engineering – much longer than programmed statutory durations, although the national accreditation process of the new degrees complying with the *Bologna* process take study programmes and realistic programme durations into consideration. There also appear to be few incentives to seek cost savings, for example, through joint use of facilities across universities (Santiago *et al.*, 2008). The independence of universities remains limited with respect to the contract and pay conditions for teaching staff. For example, universities are still obliged to award 51% of posts through civil service contracts (see the 2007 *Economic Survey* and MEC, 2007c). Reform of universities needs to be pursued further. University funding should be more widely linked to indicators of teaching quality. Strengthening the independence of universities, notably with regard to the setting of contract conditions and pay, would be beneficial.

Universities have developed little specialisation, thereby foregoing opportunities to develop centres of excellence (MEC, 2007c). There is little competition among universities across regional borders, neither through competitive funding elements – as universities are funded by the regions – nor through mobility of students. The lack of rental housing contributes to low mobility, pushing students to live with their parents and choose a local university. Measures recently taken to encourage mobility, notably through improving access to rented accommodation for young people, will also benefit students (Chapter 2). A government loan scheme with income-contingent repayments for all students could also contribute to raising mobility by reducing students' dependence on parental accommodation.

While mobility of young people – both during and after their studies – is desirable and may well increase in future, especially if an income-contingent loan scheme is widely introduced and rental housing becomes more readily available, it might aggravate geographic externalities resulting from regional responsibilities for providing and funding tertiary education. As mobility increases, the regions might be discouraged from providing resources for high-quality teaching in universities. This is because a larger part of the ensuing benefits, in terms of higher earnings and employment prospects of graduates, would accrue to students who originate from other regions or who obtain a job in another region. Indeed, such geographic externalities would be particularly strong for centres of excellence, which would attract students from all over the country. The fact that subsidies for student accommodation needed to be provided by the central government may be an illustration of such externalities.²⁷ All externalities would also exist in the absence of mobility, to the extent that regions do not keep tax revenues generated by their residents.²⁸ These arguments suggest that a nation-wide funding mechanism is needed to foster incentives among universities to encourage the development of centres of national and international significance. Consideration should be given to creating a national funding scheme, supplementing existing regional funding, to reward the creation of centres of excellence in university education, which could attract highly qualified students and staff nationally and internationally. Such a funding scheme could introduce an element of competition among universities nationally. Germany is an example of a country that has introduced such a scheme for both postgraduate teaching and university research in the context of decentralised responsibilities for university education.²⁹

The attractiveness of vocational education can be raised

To a significant extent, the low number of students graduating with upper secondary vocational qualifications reflects the high failure rate of pupils in the GESO, which is likely to depress participation of vocationally interested pupils in upper secondary education. Moreover, upper secondary vocational schools suffer from poor reputations. The returns to upper secondary vocational education, while still high, have fallen, and returns to tertiary vocational education are lower than in the academic stream. Employability of vocational graduates also appears to decline more strongly with age than is the case for workers in academic streams. Hence, policies which raise the attractiveness of vocational education could make a contribution to increasing upper secondary graduation rates as well as to improving labour-market outcomes of those graduates with vocational qualifications.

Vocational institutions at both the upper secondary and tertiary levels are closely integrated with secondary schools in the general education stream and therefore have similar institutional characteristics. Measures to improve independence and accountability could help to improve quality and labour-market relevance of vocational degree courses. A step in this direction has been taken by allowing the creation of vocational schools that are separate from the general education stream and that are given autonomy in the hiring of teachers. To raise their accountability, vocational schools could be evaluated with respect to their success in moving graduates into suitable jobs. Publication of such results could improve students' school choice and raise competition among schools. Vocational schools should be evaluated with respect to their success in the transition of graduates to qualified jobs. The qualifications required for teachers in upper secondary vocational schools are in general the same as in lower secondary schools (MEC, 2008b). While practitioners can be hired under current legislation, their number

appears to be small. Employers consider the lack of practitioners in the teaching staff a weakness and have argued that teachers are therefore not sufficiently aware of ongoing technological developments (Círculo de Empresarios, 2007). Consideration should be given to opening up the teaching profession in vocational schools to practitioners more widely. Reducing dismissal costs for permanent contracts in general labour law could go some way to facilitate the hiring of practitioners.

The government is advised on vocational training by the General Council for Vocational Education which brings together education experts from central government and the social partners (MEC, 2007c).³⁰ This helps to ensure that curricula are adapted to skills demanded by employers. Moreover, vocational schools require students to complete a practical training module in an enterprise in the course of their education. However, central and regional governments share the setting of curricular content, which may prevent the adaptation of schools to local labour market needs and the technological capacities of local enterprises, exacerbating the adverse impact of lack of mobility. Indeed, the mismatch between the qualifications of workers with CFPM degrees and the qualification requirements of the first jobs they occupy is significant, with, on average, more than 40% of graduates working in jobs for which they have not been trained. Four years after graduation, this share is similarly high. Moreover, mismatch appears to afflict graduates from most specialities, with construction-related qualifications being the only exception (INE, 2007), suggesting that it does not reflect nation-wide excess supply or demand for specific skills. Consideration should be given to raising vocational schools' capacity to adjust curricular content more substantially to local labour-market needs.

Vocational courses include little general education except to the extent necessary to attain specific vocational education objectives. However, employers have demanded that more general educational content be incorporated in vocational courses, including, for example, oral and written expression or foreign languages (Círculo de Empresarios, 2007). The absence of non-vocational course content in the vocational schools may compromise graduates' capacity to adapt to technological change, lowering employment prospects at later age. The lack of general education or vocationally trained workers may prove to be a particular disadvantage as working lives lengthen and the inflow of young cohorts diminishes. This lack may prove to be a particular disadvantage as working lives lengthen and the inflow of young cohorts diminishes. Employment rates of vocationally trained workers at both the upper secondary and tertiary level diminish more strongly as age advances than is the case for tertiary graduates (Table 3.1). Non-vocational education content in core competencies should be raised in vocational education.

One factor that may contribute to the low reputation of CFPM degrees is likely to be the lack of access of graduates to tertiary degrees. The regular access mode to tertiary vocational courses (CFPS) is the *bachillerato*. In contrast to *bachillerato* graduates, CFPM graduates have access only to a limited range of CFPS degree courses and have to pass a special entry exam. Entry conditions for these graduates appear to be unattractive, as the share of students pursuing any further education immediately upon graduation is only 5% (12% in the subsequent five years).³¹ Only 0.5% gain access to university following their graduation, by passing a special exam (Fundación Alternativas, 2008). Introducing non-vocational content into vocational curricula could improve direct progression to tertiary level studies, notably of a vocational type. Opportunities for transferring from upper secondary to tertiary vocational education should be improved.

Table 3.1. **Employment rates by age group and highest education attainment**
2005, per cent

	Pre-primary to primary	Lower secondary	Upper secondary general	Upper secondary vocational and post-secondary, non-tertiary	Tertiary education – vocational	Tertiary education – academic
	0/1	2	3A	3B,C & 4	5B	5A & 6
<i>Men and Women</i>						
25 to 34	63.3	73.9	75.3	79.7	82.5	80.9
35 to 44	63.4	69.1	80.6	76.8	83.3	87.8
45 to 54	56.0	66.9	76.6	72.4	84.9	88.3
55 to 64	35.6	44.9	49.9	52.7	55.7	67.2
<i>Men</i>						
25 to 34	77.0	87.2	82.1	90.0	88.8	83.9
35 to 44	80.2	87.9	91.9	92.4	93.0	94.3
45 to 54	78.7	87.2	88.1	88.0	90.7	93.5
55 to 64	55.6	62.2	60.5	61.4	57.9	71.4
<i>Women</i>						
25 to 34	44.1	55.1	68.3	69.1	75.6	78.8
35 to 44	44.3	49.6	69.1	60.9	70.7	82.3
45 to 54	36.4	47.0	63.5	61.8	72.9	82.6
55 to 64	19.8	28.9	37.4	45.2	49.0	60.5

Source: OECD (2008), *Education and Employment, Labour and Social Affairs Database*.

Box 3.3. Recommendations to improve education outcomes

Maintaining an inclusive primary and secondary school system

- The prohibition of raising fees from parents in publicly funded primary and lower secondary schools as well as of selection criteria should be enforced. A level playing field in the rules assigning resources to public and publicly funded private schools should be ensured.
- Consideration should be given to linking the disbursement of subsidies to upper secondary schools to the obligation of offering schooling free of charge.
- The disbursement of earmarked central-government transfers to regional governments, notably for programmes to foster the integration of immigrant children, should be linked to the results of evaluations, conducted by the central government, of the effectiveness of such programmes in raising educational outcomes and attainment levels.

Raising the share of students graduating from upper secondary education

- To raise access to upper secondary education, scope for choice of options at the final stage of compulsory schooling should be widened further, including vocationally oriented subjects. The programmes of curricular diversification and for the early identification of learning needs need to be implemented and evaluated to determine best practice.
- The criteria for granting pupils promotion to subsequent grades and access to upper secondary education should be focused on those core competencies that are needed to follow any type of upper secondary education.
- Financial support for pupils in secondary education should improve incentives for pupils to remain in education beyond the age of 16. To this end, child benefits could be raised and be made conditional on continued attendance in full-time education. Payment of more generous benefits could be linked to an in-work benefit for low-income families.

Box 3.3. Recommendations to improve education outcomes (cont.)**Improving accountability and autonomy of schools**

- Nation-wide sample-based evaluations of education outcomes should be used to evaluate the impact of regional educational policies to help determine best practice.
- Accountability of individual schools should be raised. To this end external testing at the school level should be extended to all regions, and be used to benchmark performance against targets and to identify priorities for improving performance.
- Autonomy of schools, notably with respect to hiring decisions of teaching staff and curricular content, should be widened. Schools should be given powers to hire, reward and dismiss teachers..

Reforming teacher careers

- Opportunities for promotion or other forms of reward for teaching staff and management should be widened.
- Incentives for established teachers to acquire certified pedagogical qualifications should be strengthened.
- The pool of candidates among whom head teachers can be hired should be widened, making the hiring of head teachers exclusively dependent on their potential.
- School managers' pay should include a larger premium over teacher salaries to attract qualified candidates, especially if accountability and independence of schools are raised.

Further improving access to and quality of early childhood education

- Central-government subsidies for accredited childcare facilities should be targeted on children in low-income families. To this end, the subsidies could be disbursed in the form of vouchers to low-income households with children, covering the full cost of a place in accredited childcare facilities.
- Minimum education objectives in childcare facilities should be regulated at the central-government level.

Raising the returns to tertiary education and improving access to university

- Loans with income-contingent repayments should be introduced for all tertiary students, including vocational students. University fees at public universities should be increased and fees introduced for tertiary vocational courses.
- University funding should be more strongly linked to indicators of teaching output. The independence of universities, notably with regard to the setting of contract conditions and pay, needs to be strengthened further.
- Consideration should be given to creating a nation-wide funding scheme, supplementing existing regional funding, to reward the creation of centres of excellence in university education.

Raising the attractiveness of vocational education

- Vocational schools should be evaluated with respect to their success in the transition of graduates to qualified jobs, and results should be published.
- Non-vocational education content in core competencies should be widened in upper secondary vocational education.
- Opportunities for transferring from upper secondary to tertiary education should be improved.
- Consideration should be given to opening up the teaching profession in vocational schools more widely to practitioners.
- Consideration should be given to raising vocational schools' capacity to adjust curricular content more strongly to local labour-market needs.

Notes

1. Overall spending on education relative to GDP diminished between 1995 and 2004 and has dropped to one of the lowest ratios in the OECD, especially in primary and secondary education. This development largely reflects demographic developments: children of school age are now a fairly small share of the Spanish population.
2. OECD statistics also classify the *Programas de Garantía Social* (PGS) as upper secondary degrees (see further below).
3. The estimated returns do not control for composition effects which result from students with high marks in the GESO being more likely to choose *bachillerato* courses rather than CFPM courses.
4. The share has risen from 10% in 2004.
5. Roughly 60%, compared to about 70% for pupils with the GESO (OECD estimates on the basis of INE, 2007).
6. Moreover, regions with high failure rates do not have much lower job-finding rates, suggesting that mere selection effects play a limited role.
7. See OECD (2006a). The control variable used for education of the parental generation is the share of the population aged 34-44 with at least upper secondary education outcomes. Per capita GDP was also included as a control variable.
8. Participating pupils have completed four years of primary education. Unlike in PISA, the selection criterion is not age, resulting in differences in the average age across participating countries. In Spain the average age is relatively low, which may also contribute to weaker results.
9. The study also takes into account other determinants of the rate of return, such as the effects of marginal and average tax rates, the impact of tertiary education on the employment probability (conditional on the decision to participate in the labour market), entitlements to unemployment and pension benefits and direct study costs.
10. However, note that for young workers the estimated returns do not take differences in employment probabilities across education levels into account.
11. However, while the overall share of tertiary graduates in science and engineering is similar to the rates observed in high-income European OECD countries, a very large proportion of these graduate from vocational courses rather than from university.
12. This is only a rough approximation, which is based on the differences between the rates of return between vocational and non-vocational tertiary degrees, which are, however, not estimated according to the same methodology as the internal rates of return in Oliveira Martins *et al.* (2007)
13. Across most OECD countries, schools with no or limited ability grouping outperform those which have ability grouping for all subjects. However, schools with no ability grouping may simply be selective in admissions or be part of selective systems.
14. The evidence on peer effects is not yet conclusive, as available data sets have, for the most part, not yet allowed the resolution of estimation issues (such as self-selection and simultaneity, see the review in Nechyba, 2006). Existing studies do find peer effects. Some studies report asymmetric peer effects. Recent studies, which resolve estimation problems to some extent, include Hanushek *et al.* (2003) who report that students whose performance is rated in the upper quartile are not affected by performance of other pupils, in contrast to performance in the lower quartiles (see also references quoted in Calero and Escardíbul, 2007). Asymmetric peer effects would also be consistent with the improvement in *average* PISA results in Poland following the postponement of the age of tracking in lower secondary schools (reported in OECD, 2007a). Making weak students repeat grades might, on the strength of this evidence, thus still adversely affect the performance of medium or other low performers.
15. According to this study, countries with a high share of privately run schools and at the same time a high share of public funding, tend to have better PISA scores in maths. Wößmann explains this with a level playing-field with regard to competition for student intake. The risk of competition by selection is also reduced. The question of the effect of private schools on overall education outcomes needs to be distinguished from the question as to whether private schools generate better outcomes than public schools. At a general level, the evidence on private schools' relative performance is mixed. See, for example, the review in Calero and Escardíbul (2007). Research quoted in Wößmann, on the basis of PISA data from 19 countries, establishes modest evidence that privately run but publically funded schools are more effective in the teaching of pupils from weak socio-economic backgrounds.

16. See Castaño et al. (2008), who quote evidence on children from the Dominican Republic.
17. Estimated on the basis of an age cohort of 428 000. OECD estimates based on MEC (2008a).
18. In PISA by 4 points and in TIMSS (Trends in International Mathematics and Science Study) by 20 points (relative to an international average of 500 points in both studies).
19. Conversely, external final exams can be counterproductive if schools do not have autonomy with regard to teaching contents. With external final exams, the PISA score in maths is estimated to improve by 19 points if schools have autonomy over teaching content, whereas they deteriorate by 12 points as a result of such autonomy if no external final exams are set.
20. With standardised tests, PISA maths results are estimated to improve by 28 points as a result of the introduction of centralised exams. When standardised tests are absent the gain is only estimated to be 9 points (Wößmann, 2005a). Moreover, if external exams are absent, regular standardised tests were found to be counterproductive.
21. Household survey data show this for the total of childcare facilities, Fundación Alternativas). For accredited facilities this is argued by Calero (2006a) and OECD (2006a).
22. A separate means-tested grant system exists for early childhood education and compulsory education, but the amounts paid per pupil are considerably lower.
23. Child benefits amount to €291 per year and child. The benefits for the first child are fully withdrawn as annual gross family income rises above approximately €9 000 (the threshold rises with each further child) (OECD, 2007e).
24. Akee et al. (2008) find that children who are in households affected by the cash transfer programme have higher levels of education in their young adulthood and a lower incidence of criminality for minor offenses.
25. While the duration of a first degree at university is four years, following implementation of the Bologna process, vocational tertiary studies take one to two years to complete.
26. See OECD (2008a) which quotes research carried out in 2003.
27. Provision of student housing by regional governments would attract more students from other regions.
28. Close to one half of regional government revenues does not come from locally raised taxes. See the 2005 *Economic Survey of Spain*.
29. See e.g. the 2008 OECD *Economic Survey of Germany* for a discussion of geographic externalities of university education in Germany and the 2006 *Survey* for a critique of the design of the German initiative.
30. It is advised by the National Institute of Qualifications (INCUAL), which works on the definition and accreditation of courses offered and whose chairperson is appointed by the Ministry of Education.
31. Between 2001 and 2005. See INE (2007).

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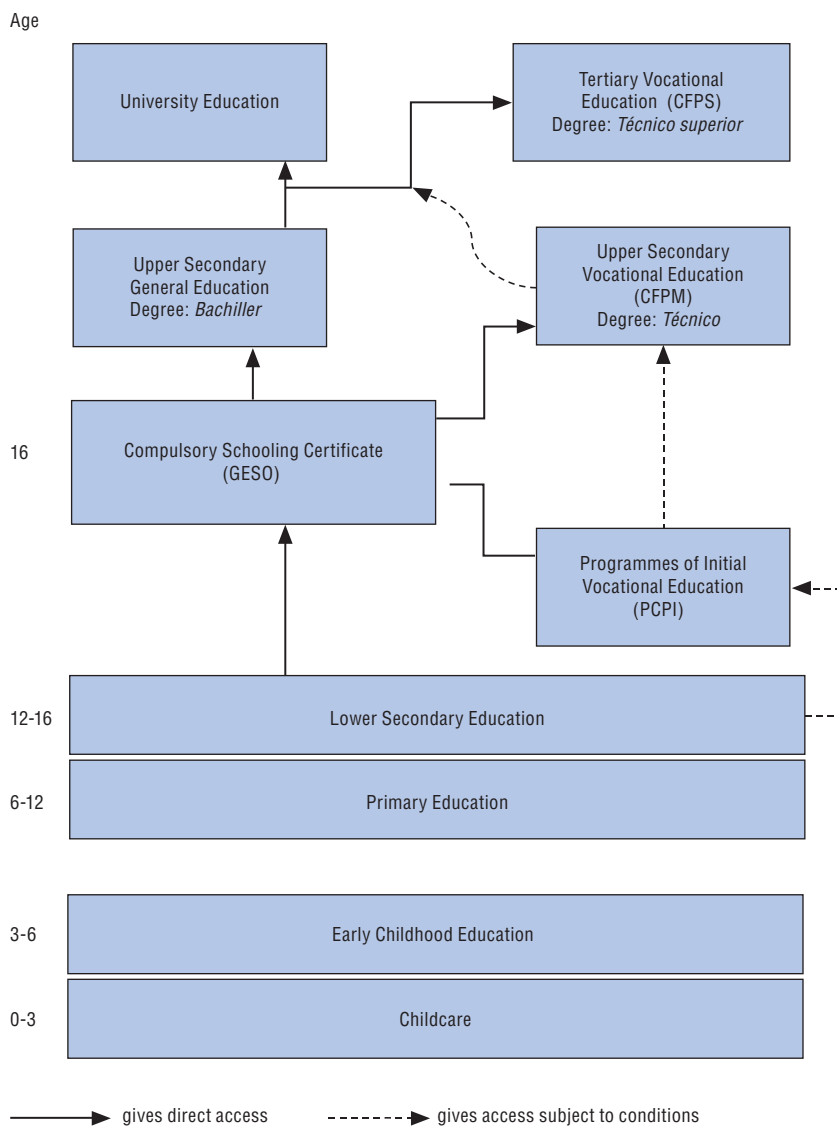
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ANNEX 3.A1

Basic elements of the Spanish educational system



Chapter 4

Fostering competition in product markets to boost productivity

While significant advances have been made in strengthening product market competition in a number of areas, there is still considerable scope to enhance the role it can play in boosting productivity growth. Barriers to competition are still significant, including in sectors that produce intermediate goods and services, extending their negative impact on productivity throughout the economy. This chapter looks at the barriers to increased competition in goods and services markets and analyses the improvements introduced in recent years. These reforms concern sectoral aspects such as the regulation of network industries – in particular, the energy, telecommunications, transport and postal sectors, as well as other markets including savings banks, retail trade and the regulated liberal professions. Recent measures announced by the government, for instance in some network industries and in professional services, are a step in this direction.

Trend productivity growth has been relatively weak in international comparison, even after accounting for compositional effects related to the unusually large construction sector. Over the past decade productivity advances appear to have been particularly meagre in international comparison in transport services as well as post and telecommunications (see Chapter 1). The government has recognised the important contribution that a competition-friendly regulatory framework can make to productivity performance and employment. Progress has been made across several policy areas, such as in some network industries, and a major reform of the competition law and enforcement system was implemented in the fall of 2007 (see the 2007 *Economic Survey* for details of the reform).

However, significant barriers to competition in some sectors remain. Raising competition in the network industries, as well as in the professional services, as could be achieved for example by some of the recent measures announced by the authorities, would have a “knock-on” effect throughout the economy, as they provide intermediate inputs to other sectors. Limited competition among suppliers may increase the cost of inputs and make the products supplied less innovative and of poorer quality, lowering productivity in downstream sectors. In addition, raising the intensity of competition in retail trade could help contain inflation, strengthening competitiveness in sectors producing internationally tradable goods and services. Recent OECD empirical analysis shows that competition-restraining regulations slow the rate of catch-up with the technological frontier, where labour productivity is the highest (Conway and Nicoletti, 2006; OECD, 2007d). This chapter suggests reforms designed to enhance competition and to improve product market regulation in order to enhance productivity performance.

There is considerable room to strengthen the sectoral regulators

While sector-specific regulators exist in the majority of the network industries, in some cases the independence from the government is relatively weak. In the railways sector, the regulator is an internal department within the Ministry of Public Works, although an overhaul of the regulator is under discussion. The terms of office of senior regulatory appointees are typically limited to six years, and reappointment for an additional term is possible, tending to limit their independence. The powers of the regulators are less well developed than in other OECD countries, making it more difficult to prevent market incumbents from using their market power to restrict entry. For instance, the Spanish energy regulator (CNE) lacks the authority to set network access tariffs, as its duties are restricted to submitting a report to the Ministry of Industry, which has the final say. In addition, the Ministry can revoke the CNE's decisions. In some industries, an independent regulator has yet to be created – in the water distribution and airport sectors, for example. Another weakness is that, in general, while regulators can be obliged to appear before Parliament, their regular appearance is not mandated.

Strengthening the independence and providing sufficient powers for network regulators can help ensure that potential market entrants perceive regulation to be neutral and predictable, facilitating their entry and making it more credible. This, in turn, will discipline price-setting behaviour by incumbents. There is some consensus on what institutional characteristics are most conducive to strong regulators (see OECD, 2005 and Smith, 2007). *First*, regulators should have an arm's-length relationship with regulated firms, consumers and other private interests in order to take decisions related to pricing and access to infrastructure free from interference. *Second*, they should also have an arm's-length relationship with political authorities so as to avoid perceptions by market entrants that the government may be acting in the interest of the incumbents. Restricting regulators to a single term in office reduces the scope for them to be influenced by government officials, particularly when the term is about to expire. The regulators' decisions should be final and not be overturned by other offices. *Third*, regulators should be granted all of the attributes of organisational autonomy necessary to foster the requisite expertise and to underpin those arm's-length relationships. *Fourth*, they should be accountable not just to Ministers but also to Parliament and to interest groups with a duty to explain decisions clearly and transparently. Increasing the accountability of regulators provides legitimacy and credibility to regulatory activities, promotes public confidence in the regulator and ensures that regulatory decisions can withstand challenges and public and governmental scrutiny. The Government has committed to present a proposal by 2009 to increase the independence, supervisory powers and accountability of sectoral regulators. Some of the changes needed could be modelled after the reform of the competition authority, whose independence was raised in 2007.

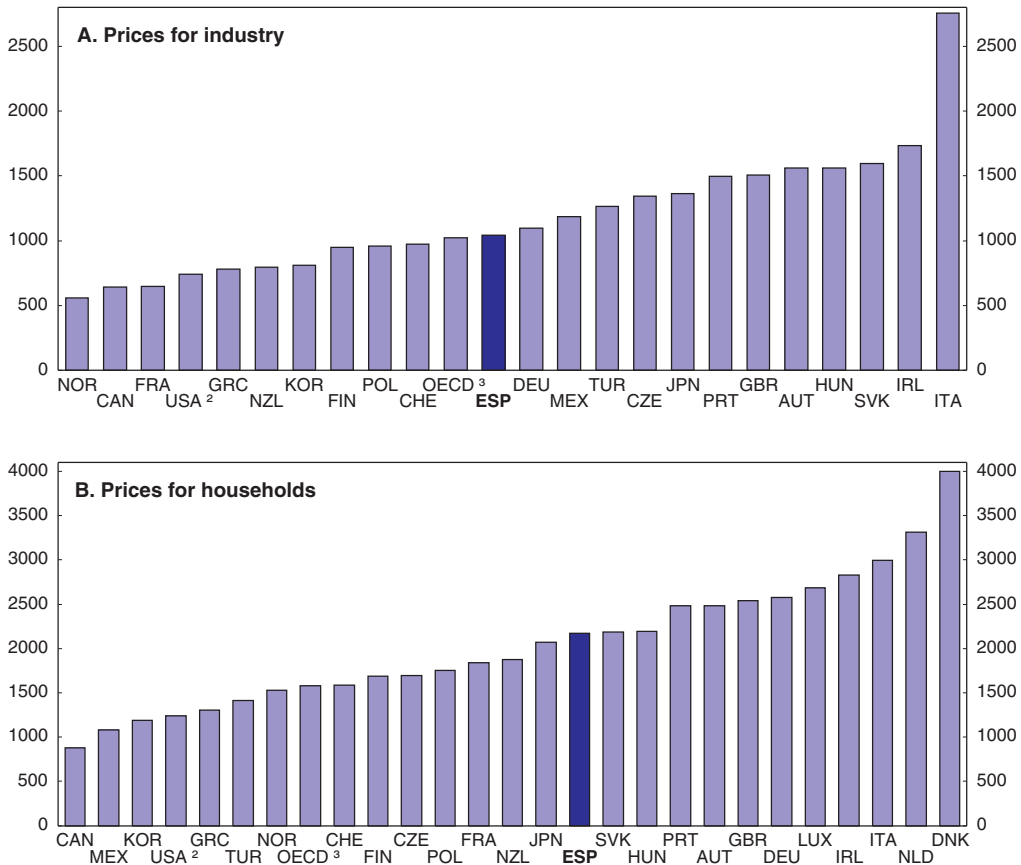
The regulatory framework of the electricity market has been significantly improved

Spain's electricity market was liberalised in 1998 and has recently been the centre of intense debate mainly because of concern about the possibility of increases in retail prices. Although international price comparisons must be interpreted with care, as price differences reflect other factors besides differences in the degree of market liberalisation or competition, retail prices for households appear to be relatively high (Figure 4.1) in Spain, notwithstanding the fact that they remain heavily regulated (see below). Significant changes in the regulatory framework are expected to become effective from 2009 onwards, improving the prospects for effective competition. However, there is still room for further improvements.

Interconnections with other countries remain few, but significant entry in generation has occurred

The electricity market is not sufficiently open to the outside world, which limits competitive pressures. Although interconnection capacity with Portugal has increased, it is still subject to congestion. Trade with France remains extremely limited, accounting for less than 3% of energy demand, and existing interconnections are heavily congested (European Commission, 2007). Although two vertically integrated firms (Endesa and Iberdrola)¹ account for almost half of electricity generation, their shares have decreased substantially since liberalisation. In addition, there has been significant market entry. Gas Natural, the incumbent in the gas market, and other international firms have invested in natural gas combined-cycle plants. In addition, firms in the renewable-energies special

Figure 4.1. **Electricity prices for industry and households**
US dollars/toe, 2007¹




1. toe = tonne of oil equivalent. 2005 for Canada and Greece. 2006 for Japan and Germany.

2. Price excluding tax for the United States.

3. Weighted average.

Source: IEA, *Energy Prices and Taxes*, 2nd quarter 2008.

StatLink  <http://dx.doi.org/10.1787/486550043544>

regime now account for around 12% of total electricity generation. Ownership separation of the electricity transmission network from competitive activities is likely to have supported entry, removing incentives to discriminate against entrants. There is, however, agreement among market participants that the authorisation process to build new power plants is long and cumbersome, and can be a significant barrier to further entry (Pérez-Arriaga, 2005). There is a large number of agencies at every level of government that are involved in the authorisation process, a heterogeneous group of entities that can lead to duplication in some cases. In addition, the lack of independence of the regulator (as discussed above) might also hamper new entrants' confidence in having a level playing field with incumbents.

New futures trading and medium- and long-term electricity contracts have recently been introduced, although they are still not widely used, as most transactions are done on the spot market, with prices and quantities determined through a uniform price auction. International evidence suggests that spot electricity markets, even in cases where supply is sufficiently fragmented, are prone to manipulation, especially in peak periods when

generators can increase prices without losing market shares (Beato and Delgado, 2007). In addition, the use of medium-term contracts improves competition in the spot market, as the quantity offered by the supplier in that market, and hence the potential benefits of increasing prices above costs, is reduced (Newbery, 1998).² Lastly, the resulting lower uncertainty about price fluctuations can encourage more capital investments.

Regulated retail prices have distorted the market

Retail electricity prices are regulated by the government and are set without fully taking into account the actual evolution of the cost of energy, generating a substantial deficit (around €3 billion in 2006 and €1.2 billion in 2007). The deficit is covered by bonds issued by distributors and will be recovered through a surcharge in the (regulated) access tariff (Vives, 2006). In this way, retail distributors receive the full market price for electricity, but tomorrow's consumers will pay higher prices to pay down the accumulated deficit. The low pass-through of electricity costs into retail prices makes final demand less sensitive to changes in such costs and is a reason behind Spain's overshooting of previously set greenhouse gas emissions targets (see below).

Retail prices are further distorted by the mechanism of capacity payments made to generators as a reward for their contribution to the reliability of the power system (Fabra, 2006). A surcharge on retail prices is set by the authorities, and the collected funds (amounting to around €1 billion in 2006) are distributed amongst providers based on the time they are available to increase production. However, firms receiving the payment are under almost no obligation to actually increase capacity. For instance, if a generator is not available at a moment when needed, it forgoes the capacity payment for that day (a relatively small sum) but is still entitled to receive payments for the rest of the year (Pérez-Arriaga, 2006). Hence, at present, capacity payments are still not sufficiently linked to the use of capacity when capacity utilisation is high, but rather they are linked to the existence of spare capacity. Spare capacity can, in turn, create an entry barrier, since it creates a threat to bring it on stream to lower market prices in case of new entry. The authorities are working to introduce a variable payment that will be linked to the actual use of capacity at peak times.

The authorities have acted on several fronts

Several improvements to the market have recently been made. *First*, interconnection with Portugal has increased since the Iberian electricity market (MIBEL), an integrated wholesale market, was established in 2006. A single market operator was created, and a common price for electricity for both countries is now set if the interconnection capacity allows it. In addition, efforts are being made in order to harmonise regulation between the two countries. There is still scope, however, to increase interconnection capacity, especially in order to benefit from additional investments in generation that are planned in Portugal, which will increase production at a faster rate than the expected increase in domestic demand (OECD, 2008a). In June 2008, the governments of Spain and France agreed to build a new interconnection grid that is estimated to increase the interconnection capacity to 5% of peak demand in 2011.

Second, as in several other OECD countries (for instance, Belgium, Canada, France and the Netherlands), a virtual power plant scheme was introduced in 2008 through which Iberdrola and Endesa are obliged to auction off a share of their existing generating capacity to other firms. The winner of the auction acquires an option to purchase electricity

(whether at peak or base hours) at a predetermined strike price, up to the capacity that they have paid for. The authorities aim to increase competition in generation activities, by helping to develop forward electricity markets, increasing the liquidity of long-term markets and decreasing the importance of the spot market (Pérez-Arriaga, 2005).

Last, a new law regulating the electricity sector was adopted in 2007, including several welcome changes to the way that regulated retail electricity prices are set. All suppliers to the regulated market are now able to acquire energy through auctions of medium-term (three months) bilateral contracts with generators. The price of electricity resulting from the auction is then fully reflected in the regulated retail price, which can be updated on a quarterly basis. This has somewhat reduced the distorting effect of regulated retail prices. The subsidy needed to cover the difference between the regulated retail price and production costs resulting from a too-low tariff is allocated to the regulated activities, through lower access tariffs. In this way, retail prices net of transport costs reflect the actual costs of electricity, eliminating distortions in competition³. In addition, most regulated high-voltage retail prices were suppressed in July 2008 and regulated retail prices will be limited to a maximum price for low-voltage customers (both households and small firms) by 2011. Allocating powers to set retail prices to the ministry entails risks that such prices would continue not to be sufficient to cover costs because of political pressures. As retail prices for low-voltage consumers remain heavily subsidised, 52% of the total electricity consumption is purchased in the regulated market, and switching providers is practically nonexistent. The creation of a new office (in August 2008), in charge of overseeing and regulating customer switching in the gas and electricity markets, could make switching easier for consumers by providing adequate information about prices, and providing and enforcing a clear set of rules.

More can be done to increase competition

Further reform efforts should focus on providing the necessary means for the market to work properly and to restore the central role of market prices in determining production and investment decisions. In light of the phasing out of regulated tariffs, it is particularly important that interconnections with both France and Portugal be increased as planned and that remaining entry barriers be dismantled. This could be accomplished by streamlining the authorisation process of new power plants by grouping all procedures into a single process (“one-stop shop”), formally setting the co-ordination mechanisms among the interested entities, and increasing the human and technical resources in charge of processing the applications. In addition, increasing the independence of the regulator (as discussed above) would increase new entrants’ confidence in having a level playing field with incumbents. Regulated retail prices should be eliminated as soon as possible, and support to low-income households should be offered via means-tested cash transfers. If regulated prices cannot be eliminated for all consumers, then the regulator should be entrusted to determine them. In addition, the regulator should determine the access tariffs to the distribution network. It is important to reward adequately stand-by capacity in order to avoid under-provision at peak times. To achieve this, the current system of capacity payments should be enhanced with a more direct link between the payments and the use of capacity when capacity utilisation is high, instead of linking payments to the existence of spare capacity, as planned by the authorities.

Competition has increased in the market for natural gas

The natural gas market in Spain is relatively recent and has been growing strongly, in particular due to increased combined cycle generation in the electricity sector. The market has achieved a high degree of effective competition (Bel et al., 2006; European Commission, 2007b) after it was further liberalised in mid-2007, when a new law was adopted that implemented the elements of the European Directive on the internal gas market not yet contained in previous legislation. The new law limits regulated retail prices to households and small business customers (the so-called *tarifa de último recurso*) and mandates the functional separation of transport from retail distribution activities of firms that also have trading activities. The transmission system operator, *Enagas*, is fully ownership unbundled, and there is agreement among market players that access conditions to the grid have improved considerably in recent years. The market share of the incumbent (Gas Natural) has fallen to below 45%, and there has been considerable market entry – by large electricity-generating companies, including from abroad. Retail prices remain close to the OECD average, both for households and industry (see Table 4.1), however, price differences across countries may not only reflect different degrees of competition. As in the case of the electricity market, consumers can freely choose their suppliers. Market liberalisation has progressed more rapidly in the natural gas market, with 95% of total consumption purchased in the liberalised market. Switching appears to be almost nonexistent, although the creation of the office to oversee customer switching may help raise it. Abandoning the regulated tariffs should be considered, relying instead on prices that adequately reflect the various cost components and providing support to the less well-off by a system of targeted cash transfers.

Table 4.1. **Natural gas prices for industry and households**
US dollars/toe, 2007¹

	A. Prices for industry	B. Prices for households
New Zealand	231.9	1 381.3
Canada	287.2	542.6
Finland	297.6	426.2
United States	323.5	555.0
Greece	347.1	667.6
OECD ²	356.7	670.1
United Kingdom	369.8	836.9
Mexico	385.6	701.6
Poland	416.7	765.0
Spain	422.5	964.3
Czech Republic	435.2	641.7
France	460.1	873.1
Portugal	476.4	1 194.4
Japan	483.6	1 376.0
Turkey	489.8	577.2
Italy	504.6	1 040.7
Ireland	517.7	1 021.6
Korea	612.3	792.2
Switzerland	640.6	963.1
Hungary	649.1	683.7

1. toe = tonne of oil equivalent. Data refers to 2005 for Greece and 2006 for Ireland, Italy and Japan.

2. Weighted average.

Source: IEA, *Energy Prices and Taxes*, 2nd quarter 2008.

Additional efforts to reduce greenhouse gas emissions are needed

The government remains fully committed to reducing the country's greenhouse gas emissions (GHGs) and the strategy can also benefit the Spanish economy. Preliminary data suggest that GHG emissions reversed their trend growth in 2006 and 2007, falling by around 4 percentage points from 2005. This fall was mostly the result of the high level of emissions in 2005, which was mostly due to the severe drought that cut hydroelectric power generation by 40%, the latter having to be replaced by supplies from emissions-intensive sources. However, GHG emissions remain close to 50% higher than the base year (1990), and Spain is one of the OECD countries furthest away from reaching its Kyoto target, although emissions per capita remain below the OECD average. In light of the difficulty of reaching the domestic target set in 2005 of a 24% increase over the 1990 level of GHG emissions for 2008-12, the government raised the target to 37%.⁴

The new target is, however, still close to 13 percentage points below projected levels. Indeed, the latest official projections (submitted to the European Commission in December 2007) suggest that, with no additional policies, emissions will stabilise at close to 50% above their 1990 level. Hence, in order to reach the GHG target for the period 2008-12, emissions will need to be reduced by around 27 million tons of CO₂ per year.⁵ The central government has implemented a number of measures intended to reduce emissions by around half this amount, among them, exempting low-emission vehicles from payment of the vehicle-registration fee and charging higher fees to high-emission vehicles, as well as measures to reduce energy consumption in public buildings. In addition, an ambitious national target to increase the use of renewable sources to 12% of total energy consumption and 29% of electricity consumption by 2010 was adopted. The number of emission allowances allocated under the European Directive will be reduced by 16.2% (compared with the 2005-07 period). Permits were assigned directly to firms for free, based on a benchmarking system using as a point of reference the cleanest production technology available in each sector.

Selling CO₂ emission permits through an auction mechanism instead would help attain environmental targets at lower efficiency cost to the economy, for two reasons. *First*, it is difficult to avoid linking the allocation of pollution permits to emissions-generating activity. Therefore, to the extent that agents can anticipate future permit allocation rules, incentives to abate pollution may be reduced and non-viable incumbent firms may have incentives to stay in business to receive free emissions permits. *Second*, selling all of the permits to be assigned through an auction mechanism would help reduce government debt by close to 0.4% of GDP per year without resorting to distortionary taxation. Moreover, a well-designed CO₂ permit scheme generates marginal opportunity costs in the emission of CO₂, regardless of whether the permits are auctioned or allocated for free-the latter is just a problem of distribution of economic rents. CO₂ emission permits should be sold through auctions. EU rules applying to the current permit allocation plan only allow the sale of up to 10% of the permits. Spain should also use its influence to eliminate this cap.

A feed-in tariff regime (called the special regime) has been in place for renewable sources of electricity since 1997. The owners of the distribution networks are obliged to purchase all the electricity supplied by companies in the special regime, which in effect, therefore, face a perfectly elastic demand. Special-regime companies can also decide to take part in the wholesale market, where they receive a premium over the market price. Either way, the goal is to reward energy produced from renewable sources at a price that guarantees the generating facilities are run profitably. The premium is payable over the complete useful life of the asset used in generation, in contrast to other countries where eligibility is set at a

fixed number of years. The tariffs are recouped through a surcharge on consumers' electricity bills that is proportional to their overall electricity consumption. The main justification for the special regime is that it can internalise the marginal social benefits in the form of the environmental advantages of renewable energy. While the special regime has been successful in increasing the supply of renewable energy, the existing evidence suggests this is not the most cost-effective solution to curbing GHG emissions (OECD, 2004). Thus, in order to assess the effectiveness of the special regime, more studies on cost effectiveness and, in particular, comparisons with other abatement methods are needed.

The telecommunications market has become more open to competition

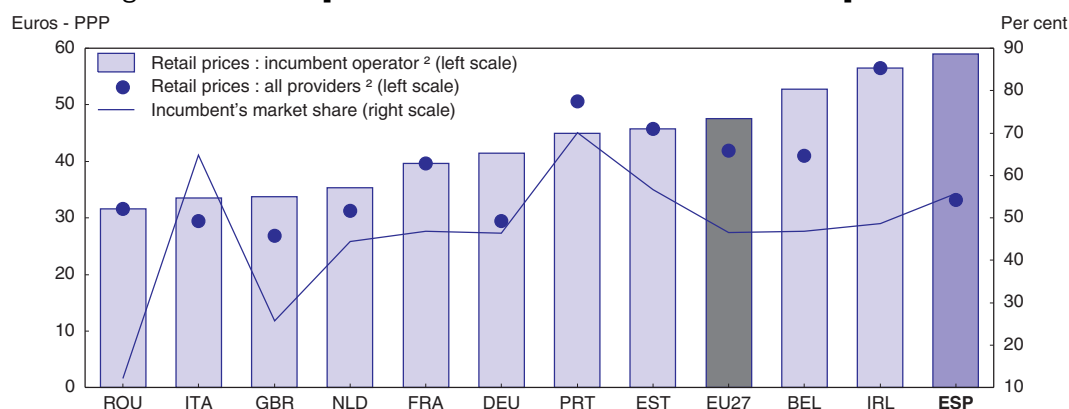
Competition is strong in the fixed and mobile telephony markets

The telecommunications sector continues to grow at a healthy pace, supported by some improvements to the regulatory framework that have stimulated competition. Competition is vigorous in voice services, with mobile telephony accounting for more than 45% of all voice traffic (Comisión del Mercado de las Telecomunicaciones, 2007). Significant market entry has occurred, with seven new entrants launching mobile services in 2007. Number portability is among the highest in the EU for mobile (13.4 million) and fixed line (3 million) numbers, which demonstrates that it is not costly for customers to switch providers.

The incumbent maintains a strong position in the broadband market and is laying out a new fibre network

The broadband Internet market is on a dynamic growth trajectory. ADSL lines account for almost 75% of broadband access lines, while cable access has reached a market share of 20%. Recently, local loop unbundling (LLU) has overtaken bitstream access to become the main means of access, after cable, for alternative operators. The increase in the number of unbundled lines in the local loop suggests some improvement has taken place in the unbundling process, and average retail prices have recently fallen to international levels. However, according to a study done by the regulator (CMT), the prices charged by the incumbent (Telefónica) are above those of incumbents in other countries and are also higher than those of its competitors (Figure 4.2). Moreover, information from the European

Figure 4.2. Retail prices and market shares of broadband providers¹



1. Prices are adjusted for PPP, and are for advertised access speeds between 2 and 10 Mbps, which accounts for around 84% of all connections in Spain.
2. Best available offer.

Source: Comisión del Mercado de las Telecomunicaciones and European Commission.

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Commission suggests that Telefónica's market share remains high, at around 55%. In addition, while broadband penetration has increased, it is, at around 19 subscribers per 100 inhabitants, still significantly below best-performing countries. Telefónica has announced plans to lay down a new fibre-optic network with a total investment of around €1 billion between 2007 and 2010 and is still carrying out trials of both VDSL and fibre to the home (FTTH) technologies. Different technologies in fibre networks have vastly different implications for competition, in particular as regards the possibility of allowing different operators to access the new network (Box 4.1).

The regulator has been active in ensuring fair access to the incumbent's network...

Significant efforts have been made by the authorities to improve protection of users' rights and quality of service information, with the creation of a dedicated office to protect telecommunications consumers, and the creation of a webpage where users can compare offers from different providers. In addition, a new charter of consumer rights is expected to be in place before the end of 2008. The CMT, who appears to have more independence and regulatory powers than the other regulators in Spain, has resolved access disputes and breaches of LLU obligations. Over the past year, the CMT established that Telefónica voluntarily obstructed the provision of LLU services by alternative operators in a continuous and generalised manner and imposed fines totalling more than €41 million. It has also resolved a number of access and quality-of-service disputes and worked to streamline unbundling requests and procedures. In addition, the European Commission ruled that Telefonica's wholesale prices (which were authorised by the CMT) were excessively high and fined it more than €150 million. Both the government of Spain and the CMT have appealed the European Commission's ruling, arguing that the fact that the CMT's resolutions have been struck down due to a posterior decision of the Commission generates judicial uncertainty. In addition, the government claims that the Commission's ruling is based on an inaccurate analysis of the market. The appeal is not likely to be settled until sometime next year.

... and has published the guidelines for the regulation of next-generation networks

The CMT has been one of the first European regulators to publish a document, in January 2008, that outlines the main features of future regulation of Next Generation Networks (NGAs), including in particular fibre-optic networks. The document reflects a process of public consultation and aims to provide a consistent and reliable legal framework for all operators and promote infrastructure-based competition (Comisión del Mercado de las Telecomunicaciones, 2008). The existing regulatory framework of the legacy copper network will be maintained – current access obligations to alternative operators will remain as long as any part of the copper network is used. A market analysis will be done to determine whether markets need to be separated into competitive and non-competitive segments, which can be subjected to different regulatory obligations. In areas that are deemed to be non-competitive, the operators will be required to provide wholesale access (*bitstream*) only as long as broadband services cannot be provided by competitors. In areas that are declared to be competitive, wholesale access will be mandated only for a specified period of time. In all areas, operators who roll out fibre to the home (FTTH) networks will not be required to provide full unbundling. More recently, the CMT published a set of regulatory measures that will be in place until the full regulatory framework of NGAs is completed, in order to reduce Telefónica's first-mover advantage when laying

Box 4.1. Next generation networks

The emergence of new services that are provided over the internet, such as high-definition TV or video conferences among others, is likely to increase the demand for transmission capacity to at least 50Mbit per second. In order to increase available capacity to satisfy new demands, significant investments will be needed in order to develop Next Generation Networks (NGN) that bring fibre optic networks closer to end users. There are a number of different configurations for the roll-out of a NGN, and their implications for the future development of competition in access markets can be vastly different.

In a fibre to the home (FTTH) network, a fibre optic cable reaches the customer's house or building. There are two basic configurations of a FTTH network. In a point-to-point (P2P) FTTH network, a single fibre cable is run directly from the central offices to the customer's premises. This is generally regarded as the most competition-friendly network, as full unbundling is easy and inexpensive. While the roll-out costs of such a network are high, some operators believe that in the long term they may be more cost-effective (OECD, 2007a). In a passive optical network (PON) FTTH, a fibre cable from the central offices is split into individual fibres that are run directly into the customer's premises. If the fibre is split close to the customer, it is only possible to unbundle all of the homes that use a fibre together. The fibre can also be split at a street cabinet, and in this case unbundling can take place at the street cabinet for individual houses (OECD, 2007b).

As an alternative to FTTH, some operators are investing in fibre to the node (FTTN) networks, where the fibre reaches a street cabinet, where VDSL technology is used on the existing copper loop to the house or building. This requires the installation of street cabinets close to the customer premises – in order to deliver adequate speeds (of around 50Mbit/s), they should be placed no more than about 450 meters away from the customer. Providing direct access through full unbundling of a FTTN is possible, although it faces several difficulties. First, alternative operators will need to invest significant resources in order to place their equipment in the street cabinets. Second, street cabinets require substantial space, and this may result in local governments and citizens objecting to the placement of multiple street cabinets in the same location. Third, a FTTN can be deployed relatively quickly, and can give the operator a first-mover advantage over other potential competitors.

Maintaining unbundling as the cornerstone of regulation might not be feasible if, for technical and/or economic reasons, unbundling is not possible. Since it is not desirable to mandate the network topology chosen by a firm with an existing dominant position in the fixed access market should allow for unbundling, the main barriers to market entry policy makers need to address in the roll-out of fibre are likely to be returns to scale in civil works and access to homes/buildings (OECD, 2007a). Construction costs are likely to account for up to 80% of total costs in rolling out a FTTH network, and incumbents have a significant advantage because their historical monopoly position has given them existing rights of way, and they usually own the ducts used by copper networks (which often means they do not pay for rights of way). The main *ex ante* regulations needed to reduce bottlenecks include ensuring access to rights of way for new entrants and incumbents; allowing new entrants to access existing civil works of both network operators and utility companies and municipalities; regulations to ensure the sharing of access to the inside wiring of apartment buildings and homes; and facilitate access to street cabinets.

Where adequate facilities-based competition is not viable, wholesale access (bitstream) policies need to be applied to new fibre networks (OECD, 2008b), and the regulator should ensure that it is provided on a non-discriminatory basis.

down the new network. Among other measures, the CMT has mandated Telefónica to offer access to civil works infrastructure on transparent and non-discriminatory terms. This is important as civil works are a significant part of the total costs of rolling out a new network. The current local-loop unbundling obligations might adequately protect alternative operators' investments in Telefónica's exchanges from the risk of closure. However, it is to be expected that some of the exchanges will become obsolete once the new fibre network is rolled-out. Telefónica will be allowed to dismantle them under certain conditions to be determined by the new regulatory framework.

Further reforms are needed to ensure vibrant competition in a changing landscape

In a rapidly growing broadband market like Spain's, where each year around 1.5 million new customers enter the market, the fact that the incumbent has been able to increase its market share while offering its services at higher prices might reflect problems in the wholesale access market. Past breaches of local loop unbundling obligations by Telefónica, even if they have been corrected by the CMT's actions, might have created a lasting public impression of bad quality of service from alternative operators. This could explain customers' reluctance to leave the incumbent for more attractive offers from alternative operators. The regulator should make sure that the combination of Telefónica's high prices and elevated market share in the broadband market are not due to a lack of competition in the wholesale access market.

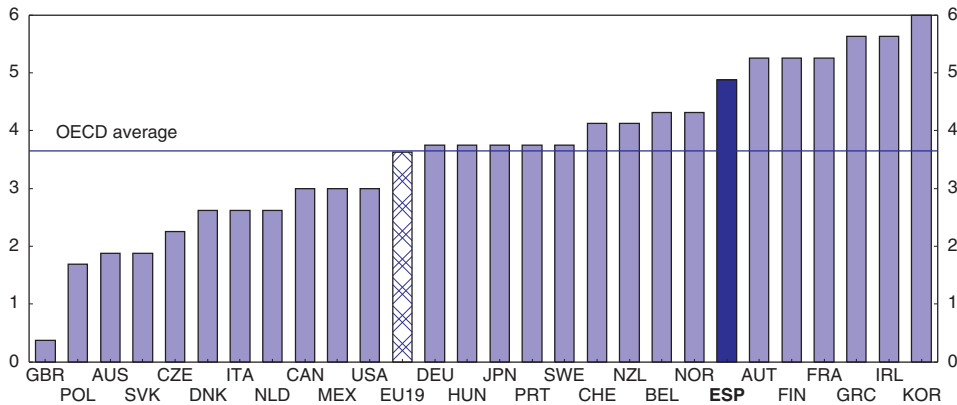

The deployment of NGA networks is posing new challenges to the regulatory framework, as in other countries. The CMT is to be commended for taking early steps by publishing the guidelines for the regulation of the NGAs. The main risk posed by the deployment of NGAs is that infrastructure-based competition fails to materialise, leading to a situation where the incumbent regains a dominant position in the wholesale market. This could be extremely difficult to correct *ex post* through regulatory measures – as discussed above, unbundling procedures can be very difficult under some network architectures and wholesale access could be the sole source of competition. In this case, to prevent discrimination against alternative operators using wholesale access, some separation requirements are likely to be necessary between network access services and competitive retail services. Currently, the CMT does not have the explicit power to mandate the functional separation of the incumbent. However, it could do so, as it is authorised to take extraordinary measures in order to safeguard competition in the telecommunications market, but such a move would need to be approved by the European Commission. As both the Competition Authority and the European Commission have recommended, the CMT should be granted, as a measure of last resort, the explicit power to implement the functional separation of the incumbent. Future regulation should ensure that sufficient notice be given to alternative operators when the incumbent plans to shut down exchanges. The current norms regarding common telecom infrastructures inside shared premises do not cover fibre and do not apply to older buildings. They should be updated.

Rail and road freight transport should be opened fully to competition

Regulation of the rail market is restrictive in international comparison (Figure 4.3). The new Railroad Law, which was approved in 2003 but only fully implemented in 2005, introduced managerial and legal separation between network management and transport activities, as required by EU law. The former operator, Renfe, was split into two independent, state-owned companies – Renfe (Renfe-Operadora), the transporter, and

Figure 4.3. **Sectoral regulation in the rail sector, 2003**

Indicator scale of 0-6 from least to most restrictive

Source: OECD (2008), *Going for Growth*.StatLink  <http://dx.doi.org/10.1787/486565614215>

ADIF (*Administrador de Infraestructuras Ferroviarias*), the new agency for rail infrastructure management (see Barea *et al.*, 2007).⁶ The local and international freight transport market was subsequently liberalised, and private companies have already been granted operating licences to compete with Renfe, although their market share remains small (Campos, 2008). Liberalisation of the passenger segment of the market will be delayed at least until 2010 – until that time Renfe will remain the sole passenger operator.

A new regulatory body, the Railway Regulation Committee, was created as part of the Ministry of Public Works and charged with granting licences and with overseeing the two public companies. The authorities have announced plans for a reform to strengthen the independence (as required by EU directives) and expand the responsibilities and tasks of the industry regulator, which remain limited. The introduction of competition in passenger transport could be brought forward, for example by putting the operation of regional passenger services out to tender on a compulsory and regular basis, as other OECD countries already do or are considering doing. The experience of OECD countries in liberalising passenger transport services suggests that incumbents typically have an effective monopoly over rolling stock, as technical requirements on rolling stock are different across countries and tendered service contracts are relatively short term (Hoj *et al.*, 2007). Hence, the incumbent should be required to make its rolling stock available on non-discriminatory terms and conditions.

Restrictions to entry and consolidation in the road transport sector should be abolished

More than 95% of internal transport of merchandise is done by road, a share that is much higher than the average in the European Union, reflecting still modest development of the railway infrastructure (OECD, 2007c). The requirements to obtain an operating license for the transport of heavy merchandise seem excessive, as the Competition Authority has previously observed (Tribunal de Defensa de la Competencia, 2005), and are more restrictive than those in Spain's main partner countries and seem disproportionate. They are likely to restrict the entry of new competitors in this market. In addition, it could make reorganisation efforts and capacity reductions more difficult (Comisión Nacional de la Competencia, 2008). Hence, the constraints involved in obtaining a road freight haulage

operating license should be abolished, and the authorisation process should be reformed in order to make consolidation of firms easier. A recent report by the competition authority (Comisión Nacional de la Competencia, 2008) found that the tender of transport licences favours incumbents. In the near future, the government will begin the process of renewing road passenger transport licenses. When it does so, it should ensure that these licenses are tendered on a competitive basis without favouring incumbents.

The postal market has been opened up to competition

The postal market in Spain has been liberalised, and a number of alternative operators have entered the market, although their market shares remain limited. The universal service provider (*Correos*), a publicly owned corporation, retains a market share of around 90% of domestic deliveries. As in other European countries, in Spain *Correos* is granted an exclusive right to conduct a business for collection, transport and delivery of letters and other items under 50 grammes. Intra-city mail is excluded, however, and the delivery of direct publicity has also been liberalised. Overall, the practical effect of the remaining legally-guaranteed monopoly appears to be relatively small compared to the postal monopolies in other European countries and this reserved area will disappear when the market is fully liberalised in 2011.

Access to the postal network can be improved

The public postal network (PPN) is a vast network of physical and informational resources, including for example the final delivery of letters, that is subject to natural monopoly conditions and is owned and operated by *Correos*. Since late 2006, competitors can access the PPN on terms that are negotiated on an individual basis with *Correos*. The regulator acts as a mediator in case the parties cannot come to an agreement. Access to the network can ensure the benefits of the economies of scale are shared between all the market participants, allowing alternative operators to compete with *Correos* in the market segments that have been liberalised. Establishing *ex ante* price-cap regulation, by fixing prices several years in advance, could decrease uncertainty about access to the networks and could also help to lower access prices in an efficient manner. The new independent postal regulator, which is expected to be in place in late 2008, should be charged with the enforcement of this regulation. In addition, access to the database of valid physical addresses and address changes is not guaranteed to alternative operators. A consensus seems to be emerging among European countries that the regulator should ensure an appropriate level of access of competitors to the downstream services of the universal service providers, in particular address databases (PricewaterhouseCoopers, 2007).

Savings banks should be more exposed to market mechanisms

One of the main features of the Spanish banking sector is the coexistence of two major distinct groups, the (originally regional) savings banks (*Cajas de Ahorro*) and commercial banks, both of which are equally subject to the supervision of the Bank of Spain.⁷ While savings banks also exist in a number of other OECD countries, what stands out in Spain is the fact that savings banks as a group have steadily increased their market shares, rivalling commercial banks, and even attaining dominance in certain segments of the market. Although they lag the commercial banks significantly in expanding internationally, they have grown outside their regions of origin, with several *Cajas* now having national networks. As a sector, they have been highly profitable and have expanded significantly in

the residential construction sector: by the end of 2007, their share of the residential mortgage market was 57%, and lending to property developers has also been substantial (see Chapter 1).

The *Cajas* have a particular legal status – they are “not-for-profit foundations” and are, in effect, ownerless. Their governance structure is such that those exercising control and taking operating decisions are not the legal owners. On the one hand, they are financial institutions that function in the market economy; on the other, they are foundations that are exposed to political influence by political entities, in particular local and regional governments. Reflecting their origin as foundations, they devote a significant share of their profits (around 25% in recent years) to social spending.

Regional and local governments can exert influence through direct participation in governing bodies...

Public-sector entities can exert some political influence over the *Cajas*' business decisions.⁸ They can do so through their direct representation in the fundamental administrative body, the General Assembly, which is typically composed of elected representatives of founders, local and regional authorities, depositors, employees and other groups. New legislation in 2002 took a first step to mitigate this political influence. In that year, the national ceiling⁹ on the share of public representation in the General Assembly was lowered to 50% (Boix and Ureña, 2006),¹⁰ and the average share of public representation among all *Cajas* was reduced from 48.5% to 42.3% between 2002 and 2005. Additionally, the mandate of its members during their terms of office was made irrevocable and prolonged from four to six years, thus decoupling political cycles from the *Cajas*' management terms. Scope remains to insulate the *Cajas* from political influence, for instance, by further lowering the public sector representative ceiling.

... and through regulation

On the basis of a national framework, the autonomous communities can adapt the rules of the *Cajas*, in a variety of ways. For instance, mergers by *Cajas* from different regions need to be approved by both autonomous communities because they need to agree on the distribution of the public-sector representatives in the General Assembly of the new entity's board. This can prevent mergers across regions when they might be economically advantageous. Another source of concern, which similarly arises in public-sector banks in other countries, lies in their industrial holdings. While they remain a smaller share of assets than in the case of commercial banks, there is a risk that conflicts of interest are generated if autonomous communities acquire some control over private firms, even if only indirectly, when, at the same time, they are subject to regional regulation.

Limitations to outside equity raises problems

To raise outside capital, *Cajas* can issue only the so-called *Cuotas Participativas*, which in essence are non-voting equity securities. The *Cajas* can also issue preferential shares and subordinated debt which is redeemable and must be remunerated and therefore belongs to tier II capital. The *Cuotas Participativas* issued must not exceed 50% of the value of tier I capital, and no individual investor may acquire more than 5% of the units issued, in effect limiting investors to holding no more than 2.5% of a savings bank's equity. An additional element that might make the *Cuotas Participativas* less attractive to investors is the fact that the General Assembly has a degree of latitude to decide the size of the payout

attributable to the *Cuotas Participativas*, yet the bearers have no voting rights in the General Assembly. The conditions may be sufficiently restrictive to make it unlikely that investors will find them attractive in case of financial difficulties of issuers (Deutsche Bank, 2004b and Bergés and García, 2007). Some *Cajas* have recently announced plans to issue *Cuotas Participativas*, and the first *Caja* to use this instrument since its introduction in 2002 raised €300 million in 2008. Preferential shares are limited to 30% of tier I capital. Unlike the *cuotas participativas* they can generally be redeemed (subject to approval by the Bank of Spain) after a period of five years. They also yield a return as determined prior to the issue (which may, for example, be indexed to market interest rates), although it is conditional on positive profits. While they are classified as tier I capital, they are, therefore, considered to be a less reliable source of funds than the *cuotas participativas* (Bergés and García, 2007). Moreover, there is no possibility of being taken over by other institutions, with the exception of other *Cajas*, and this is not a straightforward process, as discussed above. If a *Caja* found itself in financial trouble, the limits to accessing outside funds would prove disadvantageous, as they could reinforce pro-cyclical lending policies, as a *Caja* would, in such an event, be more likely to restrict lending to raise the amount of capital relative to the value of assets and could slow any needed recapitalisation, and potentially raise the need for public funds in such a process.

Further reforms are needed

The regulation of the *Cuotas Participativas* should be reformed in order to make them more attractive to investors. The requirement for regional governments to approve mergers of *Cajas* should be eliminated and should be subject only to approval by the Bank of Spain and the national competition authority. To simplify such mergers, the division of public-sector representation of the regions represented in the savings banks to be merged could be determined *ex ante*. The ceiling on public-sector representation in the General Assembly should be lowered significantly, and the selection of management on the basis of professional criteria be strengthened, for example by introducing an independent selection panel.

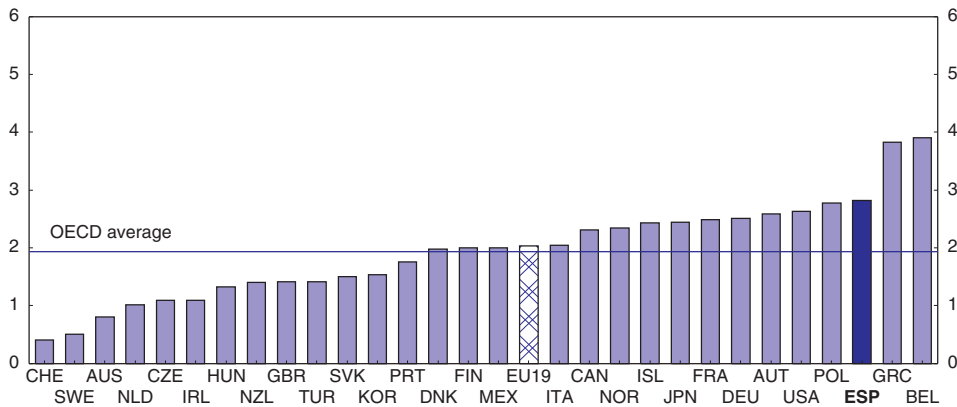

Existing restrictions to retail trade should be dismantled

The retail distribution sector benefits from economies of scale and scope, and in many countries this is manifest in the ongoing process of structural change involving larger retail outlets, consolidation into retail chains and greater concentration and vertical integration. It is the main connection between manufacturers and consumers, and it is where final consumer prices are determined. An efficient distribution sector disciplines costs in the upstream wholesale sector, where productivity growth has been low in international comparison, and gives consumers access to a wide variety of goods at competitive prices. An efficient regulatory regime in this sector is therefore crucial for overall economic performance (Høj et al., 2007).

There is evidence to suggest that retail regulations in Spain are rigid by international comparison (Figure 4.4). They may even have become tighter in recent years, in part due to increasing regulatory powers of regional and local governments, who are likely to be less inclined to grant planning permission to large retail outlets, possibly because they are more subject to pressures from incumbents. Freedom to set shop-opening hours, a competence of autonomous communities, was reduced for large establishments, and restrictions for hypermarkets remain rigid. These trading restrictions are in part meant to

Figure 4.4. **Sectoral regulation in retail distribution, 2003**

Indicator scale of 0-6 from least to most restrictive

Source: OECD (2008), *Going for Growth*.StatLink  <http://dx.doi.org/10.1787/486601328503>

achieve social objectives such as protecting workers from unattractive work hours. However, they are also meant to safeguard local establishments by restricting the entry of new firms, thus impeding efficiency gains.

Recent evidence suggests that less restrictive regulations in the retail sector are associated with positive effects on sectoral efficiency and employment (Høj *et al.*, 2007). Judicious reductions in restrictions on trade in distribution services can improve competition and efficiency, and reduce the prices paid by the final consumer. Cost reductions resulting from easing restrictions in large outlets have had a measurable impact on consumer price inflation in the Czech Republic, for example. The new European Services Directive is aimed at creating a single market for services, principally by doing away with unwarranted service industry regulations (European Commission, 2007a). The transposition of the Directive is an opportunity to dismantle regional barriers to trade in Spain. In particular, the authorities should make sure that, as they have already announced, the transposition of the Directive is done in an ambitious manner. In any event, the central government should take resolute action to reduce the variety of different regional regulations in cases not covered by the Directive, for example in the regulation of professional services (see below).

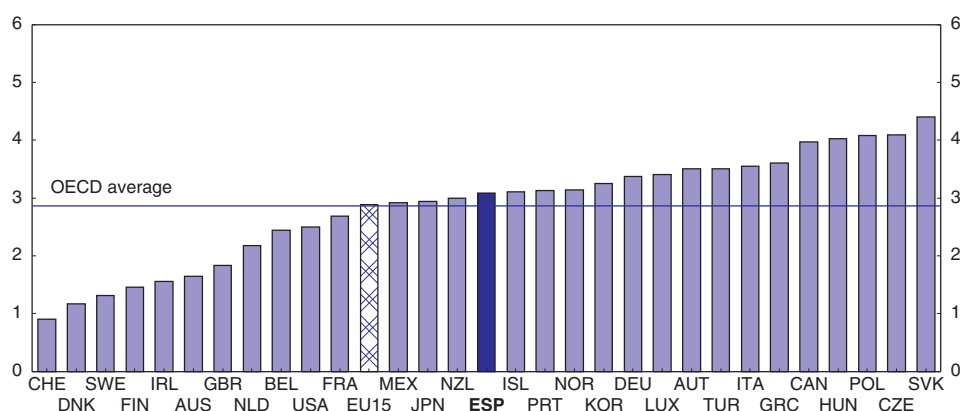
The regulation of professional services should be revised

In OECD countries, professional services are generally subject to pervasive regulation including, among others, as regards entry, access and residency requirements, regulated prices and the exclusive exercise of certain functions (see Høj *et al.*, 2007). Although these regulations could in principle lead to improvements in service quality and prevent market failure, empirical evidence suggests that the associated restrictions lead to higher prices and less innovation, without improving quality (Nguyen-Hong, 2000; Paterson *et al.*, 2007).

In international comparison, the regulation of professional services in Spain does not seem to be particularly restrictive overall (Figure 4.5). However, it is among the countries with the highest number of regulations that restrict professional activities to holders of specific academic or professional degrees – a total of 122 regulated professions, without considering health services and architecture. Of these, there are 22 professions that are not

Figure 4.5. **Sectoral regulation in professional services, 2003**

Indicator scale of 0-6 from least to most restrictive

Source: OECD (2008), *Going for Growth*.StatLink  <http://dx.doi.org/10.1787/486633117423>

regulated in any other EU15 countries besides Spain,¹¹ and 60 professions are regulated in no more than five other countries. The regulation of lawyers is the fourth most restrictive in the EU15 (Table 4.2). In addition, the proliferation of new regional professional associations, which are involved in regulation threatens to limit the scope of national licensing systems and creates incentives for them to increase entry barriers, which might also result in lower geographical mobility of workers within Spain (see Chapter 2). As pointed out in a recent report by the competition authority (Comisión Nacional de la

Table 4.2. **Regulation indices for the liberal professions in Spain and the EU15¹**
2003

	Lawyers		Notaries		Accountants		Architects		Engineers		Pharmacists	
	Spain	Average	Spain	Average	Spain	Average	Spain	Average	Spain	Average	Spain	Average
Market entry												
Total	6.5	5.2	9.4	9.5	3.4	4.5	4.0	2.6	3.2	2.4	7.5	6.6
Entry regulation	3.4	2.8	4.6	4.8	1.9	3.1	3.2	1.6	3.2	1.6	3.6	3.3
Licensing	6.0	4.0	6.0	5.6	1.5	4.0	6.0	2.5	6.0	2.7	3.0	3.3
Requirements in education	2.5	3.1	2.5	3.8	3.3	3.7	1.9	1.6	2.1	1.4	2.1	2.5
Duration of special education	5.0	4.1	5.0	4.7	3.0	4.1	5.0	2.8	5.0	2.4	5.0	4.8
Duration of compulsory practice	0.0	2.3	0.0	3.4	3.0	3.7	0.0	1.1	0.0	0.8	0.0	0.6
Number of professional exams	2.0	2.1	2.0	2.4	4.0	3.0	0.0	0.4	0.0	0.2	0.0	1.3
Number of entry routes	6.0	4.8	6.0	5.6	4.0	4.3	4.0	2.2	6.0	3.0	6.0	5.3
Quotas	0.0	0.0	6.0	5.4	0.0	0.0	0.0	0.0	0.0	0.0	6.0	4.4
Market conduct												
Market conduct regulation	3.1	2.3	4.8	4.7	1.5	1.4	0.8	1.0	0.0	0.9	3.9	3.3
Prices and fees	2.0	1.7	6.0	5.0	1.0	1.2	2.0	1.8	0.0	1.3	3.0	3.7
Advertising	4.0	3.2	6.0	4.6	4.0	2.4	2.0	1.9	0.0	1.4	4.0	2.9
Location	0.0	1.2	6.0	3.4	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.4
Diversification	3.0	2.0	0.0	5.1	0.0	0.9	0.0	0.0	0.0	0.5	6.0	4.2
Form of business	5.0	3.0	6.0	3.9	2.0	2.1	0.0	0.7	0.0	0.6	6.0	3.9
Inter-professional co-operation	6.0	3.7	6.0	4.9	3.0	2.3	0.0	1.2	0.0	1.0	6.0	4.5

1. The higher the respective figure, the higher the degree of regulation intensity (within a range from 0 to 12). The total value for the index is a weighted average of the individual components.

Source: Paterson, I., M. Fink, A. Ogas (2007), "Economic impact of regulation in the field of liberal professions in different Member States", European Network of Economic Policy Research Institutes Working Paper No. 52, February.

Competencia, 2008), excessive regulation has a negative effect on the efficiency of the sector – for example, there is evidence to suggest that Spanish professional services firms are on average smaller than in other European countries.¹² Co-ordinated actions between the transposition of the Directive and additional measures to liberalise professional services could exploit synergies that would boost the services sector and could have larger economy-wide effects on productivity and competitiveness. Therefore, the qualifications requirements for professional services should be reviewed and narrowed as much as possible.

Box 4.2. Recommendations to enhance product market competition

Strengthening the sectoral regulators

- Ensure that regulators have an arms-length relationship with regulated firms, consumers and other private interests, as well as with respect to political authorities. Restrict regulators to a single term in office. Strengthen their regulatory powers and make sure that their regulatory decisions are final and cannot be overturned by other government offices. Make regulators accountable to Parliament, with a duty to explain their decisions clearly and transparently.

Energy markets

- Increase electricity interconnections with both France and Portugal, as planned.
- Dismantle remaining entry barriers to generation activities, streamlining the authorisation process for new infrastructures by grouping all procedures into a “one-stop shop”, formally setting the co-ordination mechanisms among the interested entities, and increasing the human and technical resources in charge of processing the applications.
- Phase out regulated retail gas and electricity prices as soon as possible, replaced by support to low-income households via means-tested cash transfers. If regulated prices cannot be eliminated for all consumers, then entrust the regulator to determine them. In addition, the regulator should determine the access tariffs to the distribution network.
- Reform the current system of capacity payments by providing a variable payment that is linked to the use of capacity when capacity utilisation is high, as planned.

Reducing greenhouse gas emissions

- Sell CO₂ emission permits through auctions as from 2012, and support the elimination of the EU rules that allow the sale of only up to 10% of the permits.
- Conduct more studies on the cost effectiveness of the feed-in tariff regime for renewable sources of electricity generation, comparing it with other abatement policies towards greenhouse gas emission reductions.

Telecommunications

- Ensure that the combination of the incumbent’s high prices and elevated market share in the broadband market is not due to a lack of competition in the wholesale access market.
- Allow the regulator, in an explicit manner, to mandate the functional separation of the incumbent as a measure of last resort.
- Ensure that the incumbent is required to give sufficient notice to alternative operators when it plans to shut down exchanges. Update the current norms regarding common telecom infrastructures inside shared premises to also cover fibre installations.

Box 4.2. Recommendations to enhance product market competition (cont.)**Rail and road transport**

- Consider putting the operation of regional passenger transport services out to tender on a compulsory and regular basis. Require the incumbent to make its rolling stock available with non-discriminating conditions.
- Remove the constraints involved in obtaining a road freight haulage operating license, and reform the authorisation process to make consolidation of firms easier. Ensure that road passenger transport licenses are tendered on a competitive basis without favouring incumbents.

Postal services

- Ensure an appropriate level of access of competitors to the public postal network and ensure access to the address databases of the postal services incumbent.

Savings banks (Cajas de Ahorro)

- Reform the regulation of the *Cuotas Participativas* for example by removing the ceiling on individual investors' holdings. Explore other ways for savings banks to increase their access to outside equity.
- Remove the requirement for regional governments to approve mergers of savings banks. Make approval by the Bank of Spain and the competition authority sufficient.
- Lower the ceiling on public-sector representation in Caja's General Assemblies.

Services

- Implement the European Directive on Services in an ambitious manner, as planned by the government, in order to lower entry barriers in services imposed at the regional level. Review and narrow qualifications requirements for professional services, which are not covered by the Directive.

Notes

1. Both Endesa and Iberdrola function as operators of electricity distribution networks and as generators and as retail distributors.
2. When a firm increases its price, it faces the following trade-off: on the one hand, the higher price will decrease the quantity it sells, losing the revenue of some units at the margin. On the other hand, the higher price implies higher benefits from the energy that is sold. Having long-term and futures markets reduces the magnitude of the second effect, as price increases in the wholesale market do not affect the electricity sold through either of these mechanisms.
3. These distortions resulted from cost-based retail price regulation and from the fact that only vertically integrated firms could supply the regulated market.
4. The government plans to cover the target *via* the increase in emissions authorised by the Kyoto treaty (15 percentage points), the use of carbon sinks (2 percentage points), and by purchasing emission permits in international markets (the remaining 20 percentage points).
5. The 27 million tons of CO₂ represents the 13 percentage points increase beyond the 1990 level that is above the target of a 37% increase.
6. At that moment, the Spanish government assumed 70% of Renfe's total debt amounting to around 0.5% of GDP (€5 459 billion), while an additional billion euros related to infrastructure was assumed by ADIF, in order to guarantee the solvency of the two new firms.
7. Mutual banks play only a small role, mainly in rural areas.
8. Some autonomous communities and some municipalities have launched targeted programmes that aim at offering young people attractive mortgage conditions. These agreements have to be

assigned through competitive public tenders, equally accessible to all banking institutions. In some instances, in which the agreement was obtained by a local savings bank, the governments made available public buildings to promote these mortgages. This was the case, for example, of the region of Valencia, which set up an office to gather the applications and the required paperwork.

9. The autonomous communities decide the exact distribution of representation among the different groups.
10. In addition, the share of depositors in the General Assembly is limited by regulation to between 25 and 50%, and that of employees to between 15 and 25%. Other entities are not subject to explicit limits.
11. Professions that are only regulated in Spain include, *inter alia*, marine engineer, air stewards, nautical engineers, mining engineers, nautical mechanics, administrative managers and oenologists.
12. For instance, Spanish engineering and architectural firms are under represented among Europe's biggest firms (see Swedish Federation of Consulting Engineers and Architects, 2006).

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