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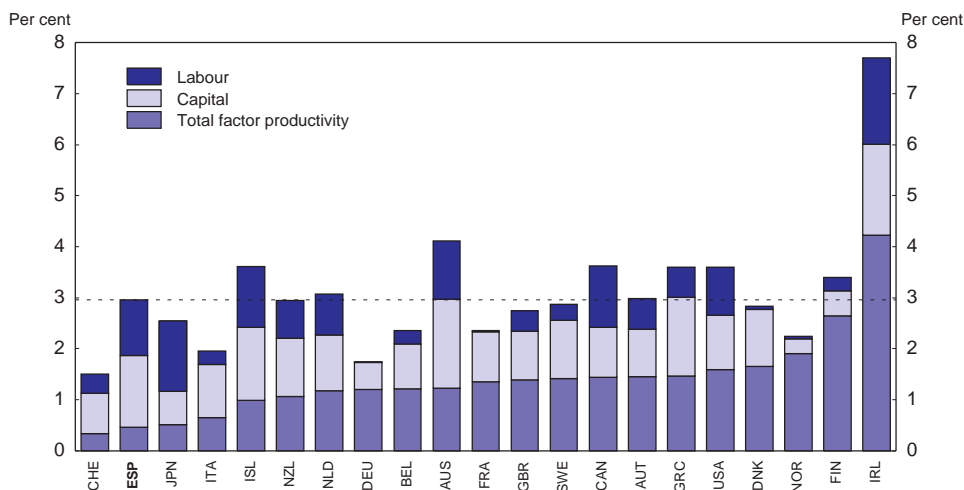
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### **III. Structural reforms to sustain a strong performance**

In recent years, strong growth of output and employment were underpinned by a wide-ranging structural reform programme and a sound macro-economic policy framework, while real interest rates have come down to low levels. Privatisation of large public companies was almost complete by 2000, and was accompanied by several liberalisation “packages” that included an early introduction of competition in network industries, among other measures. Labour market reforms that lowered severance payments for most new permanent contracts, together with real wage moderation and the use of temporary contracts have boosted the employment ratio from 50.7 per cent in 1997 to 58.8 in 2002. At the same time, the unemployment rate fell by 5.5 percentage points, even though it is still – at over 11 per cent in late 2002 – one of the highest in the OECD.

Strong job creation was, however, accompanied by sluggish productivity, which has hampered the catch-up process with the leading countries from being even faster. Other countries have also experienced strong employment growth during the upswing of the late 1990s while maintaining significant productivity gains (Figure 14). In Spain, productivity growth was held back by a range of factors, whose relative contribution is difficult to quantify. Part of the explanation lies in the labour market integration of a large number of workers, such as long-term unemployed or young workers, who are initially less productive; but this is likely to be a temporary phenomenon. More important is probably the influence of the dual structure of the labour market, with a large share of temporary workers. This not only raises equity concerns, but may also reduce incentives to strengthen human capital, since temporary workers may not receive much specific training if they have a short career perspective in the firm (Dolado *et al.*, 2001), while permanent workers may lack strong incentives to improve their human capital because their job is secure. Breaking this duality would be positive for productivity growth. Another reason for low productivity is the bias of growth towards labour-intensive sectors, like construction, and some service sectors (Figure 15). This bias has

Figure 14. **Decomposition of the business sector potential growth**  
1998-2001



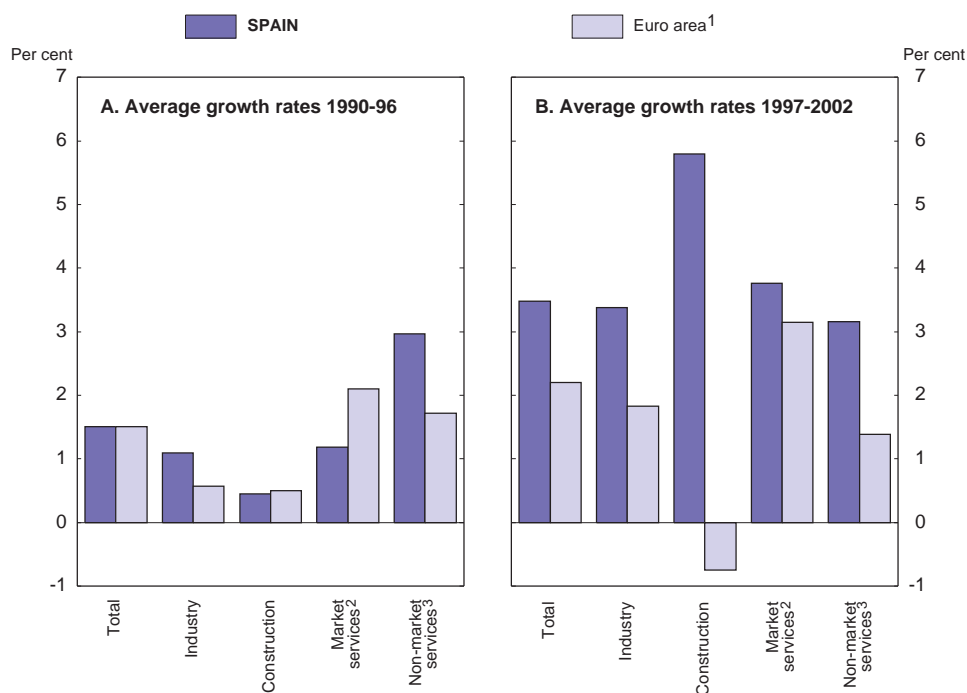
Source: OECD.

helped job creation and is to some extent the result of demand pressures, like buoyant housing demand, which benefits also from tax deductions.

Slow productivity growth might be explained to an unknown extent by statistical factors, since GDP growth could be higher than measured by the National Statistics Institute (INE).<sup>45</sup> The INE will present at the end of 2003 revised National Accounts. Apart from this statistical question, there are other important reasons that explain slow productivity growth relating to the formation of physical and human capital. The education system, apart from pursuing important social goals, has a clear impact on productivity, and in several aspects Spain lags other OECD countries in education outcomes. Recent reforms in different areas show that the authorities are aware of shortcomings and ready to solve them. Investment in physical capital (excluding construction) has diminished in the last two years mainly for conjunctural reasons, but the stock of public capital per head is still only 81 per cent of the EU average and additional investment is required in the coming years to close the gap.<sup>46</sup> Finally, the production and diffusion of R&D and telecommunication technologies – in particular the use of the internet – are two areas which have an obvious impact on productivity and where the gap with the rest of the European Union is large.

An important disequilibrium that poses risks to growth in the coming years – the inflation differential with the euro area – has to a large extent structural

Figure 15. Real GDP growth by sector



1. Period 1990-96: Austria, Belgium, Finland, France, Italy, Netherlands, and Germany from 1992 only. Period 1997-2002: Austria, Belgium, Finland, France, Germany, Italy, Netherlands and Portugal.

2. Whole and retail trade; repairs; hotels and restaurants; transport, storage and communication; financial intermediation; real estate, renting and business activities.

3. Other services not included above.

Source: OECD, *Annual National Accounts*.

roots. As noted in Chapter I, nominal wage rigidity explains about two thirds of this differential. In this respect, the wage bargaining system, which dates from a period when the social and political environment was very different, is in need of reform. But the lack of success of recent reform efforts in this area suggests that there is strong opposition by at least part of the trade unions and employer federations. Part of the inflation differential can also be attributed to rising profit margins in some sectors. Despite progress in liberalisation and the positive role of the competition authorities, there is some evidence that the degree of market power in some network industries is still high, and that entry barriers in distribution channels need to be removed, especially by the regional authorities.

This chapter deals with these structural policy issues, highlighting in particular the recent reform of unemployment benefits and the reform of the education system and its financing. It highlights the need to reform the wage bargaining framework and the housing market. It also reviews recent policy initiatives concerning goods and services markets and the financial sector, where a new law has modified several aspects of financial markets and corporate governance. A synopsis of the recommendations for structural reform is provided in Table 14.

## Labour markets

### *The wage bargaining system is in need of a major reform*

The design of the wage bargaining system is key for the performance of the labour market. A good system should allow for an efficient allocation of labour while ensuring that wage growth moderates when unemployment is high. A *decentralised* bargaining set-up is ideal in this respect, since it allows wages to follow productivity at the firm or individual level and to respond with moderate wage growth when there is excess labour supply. However, in some circumstances *centralised* wage bargaining may help to take into account externalities that are not considered by individual workers and employers.<sup>47</sup> The current Spanish system, based on negotiations at the intermediate level, is usually considered as the least favourable option, as it lacks the advantages of either type of negotiation (Calmfors and Driffill, 1988).<sup>48</sup> The need for a well-functioning system has become more imperative with monetary union, as the loss of the monetary and exchange rate tools have reduced policy options. Moreover, increasing demand for skilled labour linked to growth of the information and communication technology (ICT) sector and diffusion and increasing competition from low-wage countries also require an appropriate wage dispersion that provides job opportunities for the low-skilled, while improving the incentives for human capital investment (Bentolila and Jimeno, 2002).

Despite its important drawbacks, the current bargaining system, which dates from the end-1970s, has resisted serious reform attempts.<sup>49</sup> Wage agreements are mostly sectoral, be it at the national, autonomous community and provincial level. Enterprise agreements only exist in 11 per cent of firms, mainly in large firms and public sector enterprises. Sometimes conditions set at higher levels are re-negotiated at lower levels, but only to raise wages further. Since the 1994 reform, all agreements above the enterprise level must have special provisions that allow individual firms to adopt lower wage increases than those fixed in the agreement (*opt-out* clause), but in practice these clauses have been too restrictive and have not been used by firms. Recent reform attempts have not changed the situation much. In 1997, a voluntary pact among trade unions and entrepreneurs' associations to develop new forms of collective bargaining was

Table 14. **Recommendations for further structural reforms**  
Based on previous and current *Surveys* and actions taken

New (in <i>italics</i> ) and previous recommendations	Actions taken since previous <i>Survey</i>
<b>LABOUR MARKET AND EDUCATION SYSTEM</b>	
Reduce the gap in protection between permanent and temporary workers by lowering further severance payments for permanent contracts and <i>improving controls on the abuse of temporary contracts.</i>	The reform that reduced severance payments for many types of new open-ended contracts has been made permanent. Wage payments during litigation over firing cases were suppressed if the firm accepts that the firing is "unfair". The administration can petition the labour court if an abusive pattern of temporary contracts is detected.
Consider taking into account severance payments when compensating the unemployed for loss of a job.	In general, severance payments exceeding a given amount are taken into account for access to unemployment assistance.
Restrict eligibility conditions of the unemployment subsidy programme for the rural sector to enhance regional labour mobility.	The special unemployment benefits regime for agricultural workers in Andalusia and Extremadura will be reformed for new entrants, with more conditionality and benefits provided only up to a maximum of six years.
Unemployment benefits should be linked to training and/or workfare. Enhance monitoring of the effectiveness of active labour market programmes.	Reform of the unemployment insurance system that clarifies the obligation to participate in active measures and the conditions under which the unemployed is obliged to accept a new job.
Improve efficiency and resources of the INEM on active labour market policies.	The resources for personnel of the INEM have been increased by 14 per cent in the 2003 budget.
Reform the wage bargaining system through decentralisation. <i>Eliminate indexation clauses in wage negotiations.</i>	No action.
<i>Allow more independence to schools, including setting incentives through wage differentiation.</i>	The new law on Education Quality provides for more independence of school directors.
<i>Reform university finance by raising tuition fees while providing more grants or subsidised loans to less well-off students.</i>	A new reform of university education improves the system to choose professors and creates a new agency to evaluate teaching and research standards.
<i>Improve incentives for R&amp;D and eliminate obstacles to the diffusion of new technology.</i>	
<b>HOUSING MARKET</b>	
Simplify the criteria and reduce the waiting period for obtaining building permits.	No action.
<i>Implement tax neutrality between home ownership and rental housing by phasing out tax allowances for home ownership.</i>	A new tax allowance for owners who put residential dwellings to rent has been introduced in the personal income tax.

Table 14. **Recommendations for further structural reforms** (*cont.*)Based on previous and current *Surveys* and actions taken

New (in <i>italics</i> ) and previous recommendations	Actions taken since previous <i>Survey</i>
<b>PRODUCT MARKETS</b>	
Increase the resources of the competition authorities and consider consolidating decision processes by merging the Competition Tribunal and the Competition Service.	Resources for the Competition Tribunal and Service have been significantly raised, while more budgetary independence has been granted to the Competition Tribunal.
Ensure that regional competition tribunals do not add substantially to costs of competition policy. <i>Ensure that they do not favour local firms.</i>	A new law co-ordinates all competition tribunals, discharging the national tribunal from minor cases.
<i>Envisage splitting of production and distribution companies in energy sectors if anti-competitive practices persist.</i>	Choice of provider for small consumers has started in 2003, but price liberalisation has been postponed for this group. A new tariff system has been approved until 2010 that implies annual price increases below projected inflation, but above the price reductions achieved in recent years.
Study options to import electricity.	Agreements have been reached with France and Portugal to increase interconnections by 2005.
Allow competitors to build their own retail network in gas distribution before the current deadline.	No action.
Ensure that access tariffs to the local loop of Telefónica respond to long-term incremental cost. Increase powers of the sectoral regulator (CMT). <i>Withdraw prices for long distance national and international calls and ADSL connections from the price cap for Telefónica.</i>	The CMT depends now on the Ministry of Science and Technology. The price cap for Telefónica remains in the hands of the Ministry of Economy. A new and cost-based Subscriber Loop Offer has been approved by the regulator including a complete overhaul of price settings and procedures.
Define a framework conducive to investment in mobile telephony, by providing a stable framework to UMTS investment.	The radio-spectrum tax for UMTS was lowered in 2001 and fixed for the period 2002-06.
Autonomous communities should not restrain the establishment of new hypermarkets in their territories.	No action. The region of Madrid has approved a new law that liberalises opening hours further.
Further liberalise postal services.	The EC directive has been transposed into Spanish legislation going further in terms of the scope of liberalised services.
Liberalise the rail transport. Consider franchising in railways and urban transport.	A new rail model has been presented by the government, which includes liberalisation of the services (passenger and freight), beyond the standards of the EC legislation.
Lower public support to industry and concentrate on horizontal targets to prevent distortions to competition. Focus national support to agriculture more on restructuring incentives and promote transparency in the distribution of subsidies by the State and the regions.	No action.

Table 14. **Recommendations for further structural reforms** (*cont.*)Based on previous and current *Surveys* and actions taken

New (in <i>italics</i> ) and previous recommendations	Actions taken since previous <i>Survey</i>
<b>FINANCIAL MARKETS</b>	
Ensure a level playing field in banking between commercial and savings banks, and promote ownership forms for savings banks that allow market-driven restructuring of the banking sector.	The new Financial Law clarifies the regime for savings banks to issue special securities (" <i>cuotas participativas</i> ") that are quoted in the stock market, though do not incorporate voting rights.
<i>Implement the Comisión Aldama recommendations on corporate governance through legislation.</i>	The Financial Law also introduces a wide range of reforms on accounting and corporate governance.
<b>PUBLIC SECTOR</b>	
Reform the pension system to make it actuarially neutral.	Incentives to postponing retirement have been strengthened by the personal income tax reform and by legal measures to establish a flexible retirement system.
Speed up implementation of hospital management reforms and adopt global budgets instead of line budgeting.	Only new hospitals have adopted the status of public foundations.
Extend and speed up the authorisation of generics. Introduce means-tested co-payment on pharmaceuticals for pensioners.	Consumption of generics rose to 6.7 per cent by May 2002.
Develop a new financing system for regions that promotes fiscal responsibility of autonomous communities. <i>Enhance co-ordination among regions and increase incentives to raise efficiency of public finance management.</i>	A new permanent financing system has been approved that improves fiscal responsibility of regional governments by increasing taxing powers and reducing revenue guarantees.
<i>Adjust automatically every year the schedule and allowances of the personal income tax to inflation in order to avoid fiscal drag. Suppress the special tax system for small incorporated businesses (sistema de módulos).</i>	The personal income tax reform reduces marginal rates, raises tax allowances for work and family circumstances, and improves incentives to work for the old, mothers of young children and for unemployed workers.
<i>Source:</i> OECD.	

signed, but has not been followed by any concrete steps. Likewise, the government sponsored new talks in 2001 between the social partners to agree on a reform, but no agreement was reached.

Wage moderation has been prevalent during the 1990s, partly reflecting the social partners' support for joining EMU. Still, growth of unit labour costs between 1990 and 2001 has been systematically above the euro area average. In addition, the wage bargaining process has not helped in adapting wages to the imbalances in the labour market, with unemployment rates ranging from less than 6 per cent in Baleares and Navarra to more than 20 per cent in Andalusia and



Extremadura. Even though negotiations at the sectoral and provincial level have been prevalent, which might suggest that wages could adapt to local conditions, wage increases during the 1990s have not varied much across regions, in particular failing to respond to differences in unemployment rates.<sup>50</sup> Labour mobility, which is very low, has not worked either to reduce differences in unemployment rates.

Recent efforts to reform the present system should continue. The draft reform elaborated by the government in 2001, which was not implemented, would be a good starting point. It provided for some areas of negotiation to be settled in national sectoral agreements, leaving wage increases, holidays or working time to be determined at the firm level. Since wage negotiations could be costly in small enterprises, which account for a large share of all firms (over 70 per cent), wage determination could continue to take place at the provincial level, as it does now, in order to reflect local labour market conditions. But in this case the compulsory application of agreed wages to all firms should be suppressed, since this is the element that eliminates wage dispersion across firms, and should be substituted by an *opt-in* system, that allows firms to adhere to the wage agreement if they wish to. In the absence of reform, national wage agreements like the one in 2002 are likely to prevail. In this pact, a recommendation was issued to negotiators at lower levels to take the official inflation target of inflation of 2 per cent as a reference for wage increases, resulting in lower agreed wages since the end of 2001. But wage drift has increased in 2002, partly due to the special clauses in the agreement (*cláusulas de revisión salarial*) that provide for *ex post* wage increases if the inflation outcome is above the reference value. Eliminating such clauses and using inflation projections for the whole euro area or core inflation as the inflation reference would help to reduce nominal wage rigidity in the face of negative price shocks. However, re-modelled national agreements are only a second best solution to a profound reform of the wage bargaining process.

### ***A recent reform has changed several aspects of unemployment benefits...***

An international comparison of unemployment insurance (UI) systems shows that the Spanish replacement rate of 70 per cent of the contribution base (60 per cent after six months) is close to the average (Table 15). Benefit duration depends on time worked and can reach up to 24 months, which is longer than in most OECD countries.<sup>51</sup> After the expiration of UI, or if the worker has not been employed previously during 12 months, unemployment assistance (UA) is in some cases provided at a flat rate, which is at a similar level to that in other countries, although extra benefits for unemployed with a family are lower than elsewhere.<sup>52</sup> The coverage of unemployment benefits is relatively low as compared to other OECD countries at just over 60 per cent of total registered unemployment. This is explained by the high incidence of young unemployed who do not have access to unemployment insurance (UI) if they have never worked, and by the high share of

Table 15. **International comparison of unemployment benefits**  
1999

	Unemployment Insurance (UI)			Unemployment Assistance (UA)	
	Payment rate % of previous gross earnings	Minimum benefit USD PPP/year	Duration Months	Payment rate % or USD PPP/year	Duration Months
<b>Spain</b>	<b>70-60 after 6 months</b>	<b>5 576</b>	<b>24</b>	<b>5 576</b>	<b>18</b>
Austria	56	1 571	10	92% of UI	No limit
Belgium	60-43 after 1 year	7 415	No limit	..	..
Canada	55	..	11	..	..
Denmark	90	..	60	..	..
Finland	90	5 119	25	5 119	No limit
France	75	8 214	60	4 479	No limit
Germany	60	..	12	53% of previous net	No limit
Greece	40	..	12	17% of UI	..
Ireland	Flat rate	5 271	15	5 163	No limit
Italy	80	..	6	..	..
Japan	80	..	10	..	..
Netherlands	70	9 922	60	9 922	24
New Zealand	..	..	..	5 698	No limit
Norway	62.4	..	36	..	..
Portugal	65	5 714	30	4 571	24
Sweden	80	6 383	15	6 383	15
Switzerland	70	..	7	..	..
United Kingdom	Flat rate	..	6	4 084	No limit
United States	50	4 524	6	..	..

Source: OECD, *Benefits and Wages*: OECD Indicators, 2002.

workers with fixed-term contracts (over 30 per cent of all employees) who usually do not fulfil the minimum eligibility requirement. The coverage has nonetheless risen over the last two years, which is explained by cyclical reasons.

At the end of 2002 the government reformed several aspects of the unemployment benefit system, with the objective of enhancing incentives to search for work. The law somewhat modifies a previous decree-law issued in May 2002, which contained more radical measures but was heavily contested by the trade unions. The reform does not touch replacement rates and benefit duration, but it includes other measures that encourage a more active job search while unemployed. *First*, it defines eligibility conditions more clearly, resulting *de facto* in a stricter application. Specifically, after an initial period of 100 days in unemployment, the unemployed will have to accept to follow any ALMP measure proposed to him. An unemployed worker who rejects three suitable job offers by INEM will lose the unemployment benefits. A sanction of benefit suppression for three and six months is imposed on those who reject a first and a second offer, respectively.

Previously, a single rejection led in theory to the loss of benefits, making it the strictest regime in the OECD, but in practice it was the worker who determined whether the job offer was adequate or not. The law now defines the suitability of an offer and it will be up to the INEM to enforce these criteria.

A *second* measure deals with the special non-contributive unemployment regime of seasonal agricultural workers in Andalusia and Extremadura (PER).<sup>53</sup> The system, which provides benefits of 75 per cent of the minimum wage during up to six months if workers have been employed at least for 35 days a year, will be replaced by a new subsidy, but only for new entrants, since current participants in the scheme will continue to receive benefits under the same conditions.<sup>54</sup> The scheme for new entrants is similar to the earlier one, but is conditional on participation in labour market programmes, and will be provided up to a maximum of six times, which in practice will result in a phasing out of the system.<sup>55</sup> At the same time, an unemployment insurance system for temporary agricultural workers based on contributions, that did not exist until now, will be implemented in the whole country.

A *third* aspect of the reform relates to the *salarios de tramitación* – wages paid by firms while waiting for courts to decide if a layoff is justified or unjustified, which carry different severance payments.<sup>56</sup> These are an additional barrier to layoffs, since they are paid by the enterprise on top of severance payments, although the State reimburses the firm for the wages paid in excess of two months if the judicial process is delayed beyond that period. In practice, these two months wages paid by the firm are an additional flat rate firing cost, independent of tenure. The new law allows the firm to pay the higher severance payment immediately and avoid paying wages during litigation, which was not possible under the previous regime. Given the high proportion of “expensive” dismissals – those that are considered as unjustified by the tribunals (90 per cent of all individual dismissals) – the new measure will probably encourage firms to avoid litigating with workers on the nature of the dismissals by disbursing higher severance payments from the start.

*Finally*, the law also includes other measures that improve employment incentives:

- Unemployed workers who become self-employed will be able to capitalise part of their unemployment benefit (up to 20 per cent of benefits rights) for initial investment and to use the remaining rights to pay social security contributions corresponding to their new activity.<sup>57</sup>
- It will be possible to accumulate unemployment benefits with salaried work (during a limited period) for those older than 52 and for those unemployed that are hired to temporarily substitute workers in training courses.
- Help will be provided for moving costs to those unemployed who accept a job in another region.

**... and is a step in the right direction...**

The reform of the special non-contributive unemployment regime of seasonal agricultural workers in Andalusia and Extremadura is an overdue measure, since it reduces incentives to search for a job in more productive activities or upgrade skills. A slow phasing out of these subsidies should allow the reallocation of work to other activities in a gradual manner and to reduce the social impact of the reform. The new regulation on *salarios de tramitación* barely reduces the high employment protection for permanent workers, because firms may avoid paying those wages, but by doing so they will have to accept to pay higher severance payments, whereas in the present situation they have a small probability of paying less. As for the reform of the eligibility conditions of UI, it is a step in the right direction since it improves incentives to search for a job while unemployed. Empirical evidence for Spain shows that exit from unemployment is high after the job loss and in the weeks before the expiration of benefits (Bover *et al.*, 1996; Gonzalo, 2002), suggesting that those who do not find a job rapidly wait until the duration of benefits is finished. Other research across a large number of countries points in the same direction, showing that job search efforts do not seem to be closely linked to the replacement rate of UI, but that they are higher when benefit duration is shorter. By better linking benefits to the propensity of workers to accept job offers, the reform may contribute to reduce long-term unemployment and public spending on UI. Other countries apply similar rules, which in general seem to be effective to shorten the duration of unemployment.

**... but needs to be better co-ordinated with active labour market policies**

The effective application of the reform requires a well performing public employment service, able to provide job offers or adequate training to the unemployed. Public outlays on active and passive labour market policies in terms of GDP are not high in international comparison if the unemployment differential is taken into account. Funding is considerably lower than in some European countries, but higher than in Italy, the United Kingdom or the United States (Table 16). Spending on active labour market policies (ALMP) is also comparatively low (Figure 16). In addition, the allocation of funds among different ALMPs differs from that of other countries. Spending on training for workers and on subsidies to support new permanent contracts, which can carry important dead-weight costs, is relatively high, while funding of the employment service and for training of unemployed workers is very small.

A large number of OECD studies on ALMPs demonstrate that the amount spent on ALMPs does not have a clear impact on reducing unemployment, but that ALMPs are useful if they are very well targeted. In Spain, ALMPs do not seem to have a significant impact on the exit rate of unemployment. Results of a report (Sáez *et al.*, 2001) reveal that the probability of finding a job for participants in

Table 16. **Public expenditure on labour market policies**  
As a percentage of GDP, 2001<sup>1</sup>

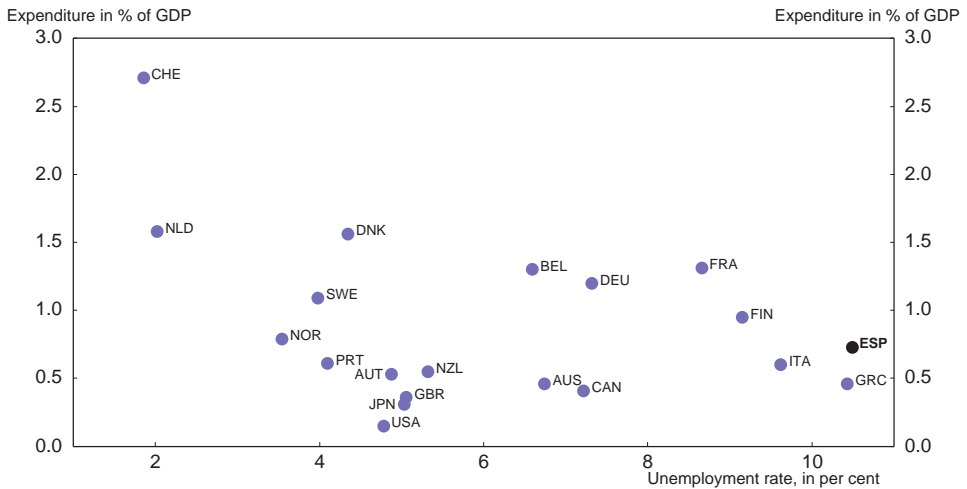
	Total	Passive measures	Active measures					
			Total	<i>of which:</i>				
				Administration PES <sup>2</sup>	Training for unemployed	Training for workers	Subsidies	Other
<b>Spain</b>	<b>2.17</b>	<b>1.33</b>	<b>0.84</b>	<b>0.09</b>	<b>0.11</b>	<b>0.11</b>	<b>0.40</b>	<b>0.13</b>
Australia	1.43	0.98	0.46	0.20	0.02	0	0.11	0.13
Austria	1.60	1.07	0.53	0.14	0.18	0.02	0.11	0.08
Belgium	3.48	2.18	1.30	0.17	0.16	0.08	0.77	0.12
Canada	1.13	0.72	0.41	0.17	0.17	0	0.03	0.04
Denmark	4.56	3.00	1.56	0.12	0.67	0.18	0.17	0.42
Finland	2.96	2.02	0.94	0.12	0.26	0.03	0.29	0.24
France	2.96	1.65	1.31	0.18	0.22	0.03	0.37	0.51
Germany	3.13	1.92	1.21	0.23	0.34	0	0.25	0.39
Greece	0.93	0.47	0.46	0.06	0.12	0.07	0.08	0.13
Japan	0.86	0.55	0.31	0.20	0.03	0	0.08	0
Netherlands	3.44	1.86	1.58	0.26	0.24	0.07	0.38	0.63
New Zealand	1.96	1.41	0.55	0.11	0.16	0	0.09	0.19
Norway	1.23	0.44	0.79	0.12	0.06	0	0.01	0.60
Portugal	1.52	0.90	0.62	0.11	0.07	0.09	0.09	0.26
Sweden	2.28	1.19	1.09	0.23	0.30	0	0.24	0.32
United Kingdom	0.92	0.56	0.36	0.13	0.04	0.01	0.01	0.17
United States	0.45	0.30	0.15	0.04	0.04	0	0.01	0.06
Country mean	2.05	1.25	0.80	0.15	0.17	0.04	0.19	0.25

1. Or latest available data.

2. PES: Public employment service.

Source: OECD, *OECD Employment Outlook*, June 2002.

Figure 16. **Public expenditure on active labour market policies and unemployment rates**  
2001



Source: OECD, *OECD Employment Outlook*, 2002.

these programmes improves in the following six months, but that their effect in the longer term is not statistically significant. In the INEM, personnel resources at the end of 2000 were 7 203 people, one for every 216 registered unemployed worker, though a large part of administrative resources are spent on registering contracts (15 million contracts per year, because of the large number of temporary contracts renewed every few weeks). Their counselling and job matching functions are undermanned, as shown by the fact that the INEM only intermediates in 17 per cent of job findings of unemployed workers. Management has been transferred to autonomous communities, and co-ordination across them is poor and still lacks a functioning information network across regions. Considering these shortcomings, ALMPs should be reformed, including a re-balancing of funds across different policies and an overhaul of the INEM, which should focus more on providing effective support to the unemployed. Regional public employment services could follow the example of Switzerland, where employment agencies receive their resources as a function of their performance, taking into account the socio-economic background of the area (OECD, 2002a). Independent evaluation of different policies should also be carried out and published on a regular basis, and the results should be used to better tailor ALMPs to different groups of workers.

In the area of prevention of work accidents, where Spain has higher rates than the other EU countries, the government has approved several measures that include higher social security contributions for those firms with worse accident records, as recommended in the previous *Survey*. The measures also include higher sanctions in case of firms' responsibility in work accidents and additional resources for work inspections.

### ***Interactions across different labour market policies could be exploited further***

Though structural unemployment has fallen, it still remains high at close to 11 per cent. Despite the labour market reforms of 1997 and 2000, which introduced a new type of permanent contract with lower firing costs (OECD, 2001a), severance payments are still the highest in Europe and much higher than in the countries with low unemployment (the United States or the United Kingdom, for example). As a consequence, the labour market continues to be segmented with two groups of workers co-existing, one with permanent contracts protected by high firing costs, and another consisting of unemployed and temporary workers that suffer from job insecurity and lower wages, creating horizontal inequalities. Human capital formation within the firm is also damaged by segmentation, since workers do not have a career perspective, while firms are encouraged to turn over their labour force in order to chain temporary contracts. However, more substantive reforms in this area, and in other key labour market aspects – like the wage bargaining system – have been difficult to introduce.

This situation should be tackled by taking into account interactions across different policies, so as to make reforms politically feasible. One strategy, already mentioned, would be the combination of improvements in ALMPs with other areas of the labour market reform like that of the wage bargaining system. Another possibility would be to reduce firing costs for permanent workers while implementing stricter controls for temporary contracts, which should be easy to achieve by using the INEM database and the social security registers to control abuses of contracts.<sup>58</sup> A third possibility would be to introduce non-linear severance payments, by lowering protection for those with long employment histories (who receive large lump-sum payments when they are fired), while introducing a small amount of protection for all permanent workers independent of time worked. A package of measures might be easier to introduce and could raise the acceptance by trade unions and employers' federations.

## **Education and R&D**

Human capital formation is a key factor underpinning productivity growth and for achieving convergence in per capita GDP. Currently, the stock of human

Table 17. **Educational attainment by age**  
 Percentage of population that has attained at least upper-secondary education  
 or tertiary education by age group, 2001

Age	25-64	25-34	35-44	45-54	55-64
<b>Upper-secondary</b>					
Spain	40	57	45	29	17
OECD <sup>1</sup>	64	74	68	60	49
<b>Tertiary</b>					
Spain	17	24	18	13	8
OECD <sup>1</sup>	15	18	16	14	10

1. Unweighted country mean.

Source: OECD, *Education at a Glance – OECD Indicators*, 2002.

capital is fairly low, since the proportion of adults with upper-secondary education is only slightly more than half the OECD average, though the share of those holding university degrees is similar to the average (Table 17). Progress in the last 20 years has been remarkable, especially concerning access to tertiary education, where the student to population ratio at age 20 is amongst the highest in the OECD (38 per cent against an OECD average of 31 per cent). However, participation in upper-secondary education remains below that of most OECD countries (Table 18), while the dropout rate is also very high, at around 30 per cent. The quality of secondary education is also below the OECD average. Indeed, the 2000 OECD PISA report, which compares achievements of 15 year old students, ranks Spain well below the average on most scores (Table 19). At the university level, there is also a widespread perception that the increase in the number of graduates in the last two decades has not been accompanied by a parallel increase in the quality of education.<sup>59</sup> Moreover, vocational training has been underdeveloped for a long time, in part because it lacks reputation and is considered as a residual solution for students who drop out of secondary education.

The State is responsible for framework legislation and for ensuring homogeneity of curricula, while financing and managing education is the competence of the autonomous communities. Recently, the government has addressed problems in all parts of the education system with a new series of reforms: the *Law on Qualifications and Vocational Training* aims at homogenising vocational training programmes in schools with those of adult and work-based training, while the *Law on University Reform* and the *Law on Education Quality* aim at raising standards of university education and of compulsory education, respectively. The common goal of these reforms is to improve the quality of education services.



Table 18. **Participation in education at typical ages**  
Net enrolment rates, 2000

	In secondary education at age 16	In tertiary education at age 20
<b>Spain</b>	<b>90</b>	<b>38</b>
Australia	94	33
Austria	91	19
Belgium	99	46
Canada	93	37
Czech Republic	100	23
Denmark	91	11
Finland	95	31
France	96	42
Germany	97	15
Greece	94	56
Hungary	95	26
Iceland	90	14
Ireland	91	35
Italy	83	26
Japan	96	n.a.
Korea	96	57
Luxembourg	87	n.a.
Netherlands	107	32
New Zealand	90	33
Norway	94	28
Poland	92	33
Portugal	87	30
Sweden	89	23
Switzerland	90	14
United Kingdom	84	33
United States	87	38
Country mean	93	31

Source: OECD, *Education at a Glance – OECD Indicators*, 2002.

### ***Pre-primary schooling is well developed***

Education for children aged 3-6 is well developed, with enrolment rates above the OECD average.<sup>60</sup> This is important, since early education is considered a key factor in education achievements later in life (OECD, 2001d) and helps participation of women in the labour market and higher fertility, which are both very low in Spain. It also favours the linguistic and social integration of immigrants (Chapter IV). Education of the 3-6 year olds is free in public schools, while in some private schools it is also financed by autonomous communities. The new *Law on Education Quality* extends free education for these ages to all schools, public or private. For children below three years, where financing is private and little subsidised by local governments, enrolment rates are much lower.<sup>61</sup> The new law provides lower requirements

Table 19. Student performance at age 15

	Reading literacy scale				Mathematical literacy scale			
	Rank	Mean	10th percentile	90th percentile	Rank	Mean	10th percentile	90th percentile
<b>Spain</b>	<b>18</b>	<b>493</b>	<b>379</b>	<b>597</b>	<b>21</b>	<b>476</b>	<b>358</b>	<b>592</b>
Australia	4	528	394	656	5	533	418	647
Austria	10	507	383	621	11	515	392	631
Belgium	10	507	354	634	9	520	367	646
Canada	2	534	410	652	5	533	423	640
Czech Republic	19	492	368	610	17	498	372	623
Denmark	16	497	367	617	12	514	401	621
Finland	1	546	429	654	4	536	433	637
France	13	505	381	619	10	517	399	629
Germany	21	484	335	619	19	490	349	619
Greece	24	474	342	595	25	447	303	586
Hungary	22	480	354	598	20	488	360	615
Iceland	10	507	383	621	12	514	407	622
Ireland	5	527	401	641	15	503	394	606
Italy	20	487	368	601	23	457	338	570
Japan	8	522	407	625	1	557	440	662
Korea	6	525	433	608	2	547	438	650
Luxembourg	26	441	311	564	26	446	328	559
Mexico	27	422	311	535	27	387	281	496
New Zealand	3	529	382	661	3	537	405	659
Norway	13	505	364	631	16	499	379	613
Poland	23	479	343	603	22	470	335	599
Portugal	25	470	337	592	24	454	332	570
Sweden	9	516	392	630	14	510	386	626
Switzerland	17	494	355	621	7	529	398	653
United Kingdom	7	523	391	651	7	529	412	646
United States	15	504	363	636	18	493	361	620
<b>OECD total</b>		<b>499</b>	<b>363</b>	<b>622</b>		<b>498</b>	<b>358</b>	<b>628</b>
<b>OECD average</b>		<b>500</b>	<b>366</b>	<b>623</b>		<b>500</b>	<b>367</b>	<b>625</b>

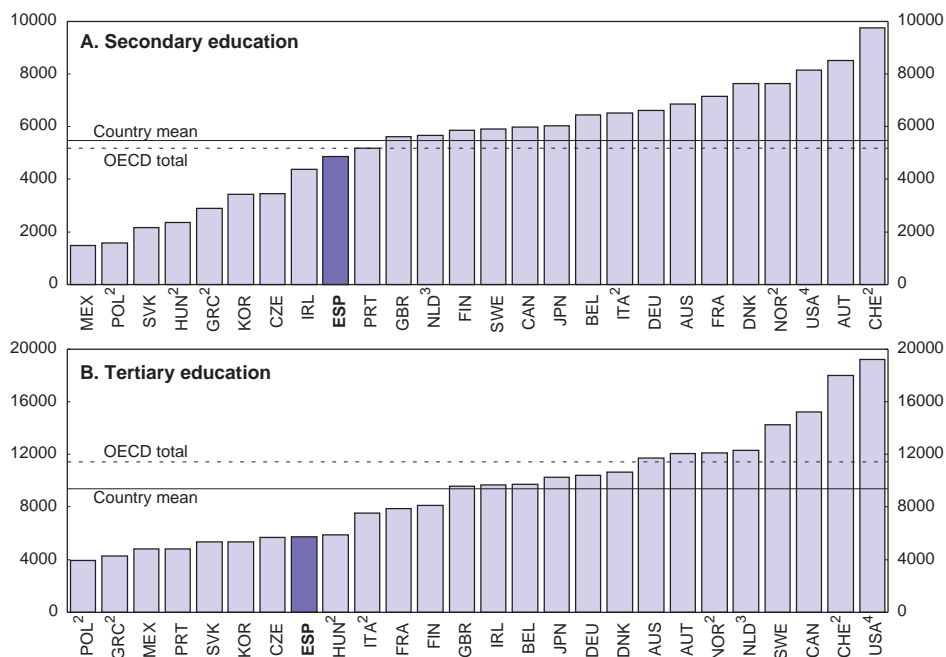
Source: OECD, *Knowledge and Skills for Life: First Results from PISA 2000*.

for educational staff at this level,<sup>62</sup> which might help increasing supply. More public finance in the future would help to expand provision for these age groups, where externalities from education seem to be very high (OECD, 1999).

### **Primary and secondary education has been reformed...**

The reform of primary and secondary education mainly concerns organisational issues, and does not modify financing, which is mostly public, nor does it provide additional funds for education. Expenditure on secondary education as a share of GDP is close to the OECD average, although spending per student is below average (Figure 17). Higher costs due to the reform will have to be paid by

Figure 17. **Annual educational expenditure per student,<sup>1</sup> 1999**  
Expenditure on public and private institutions, based on full-time equivalents



1. In US dollars converted using PPPs.

2. Public institutions only.

3. Public and government-dependent private institutions only.

4. Public and independent private institutions only.

Source: OECD, *Education at a Glance – OECD Indicators*, 2002.

central governments and all the regions. Compulsory education was raised from age 14 to 16 in 1990, and is free for parents. It also covers most students enrolled in private schools (24.5 per cent of all students).<sup>63</sup>

In primary education (age 6-12), the reform has increased the number of weekly hours devoted to core subjects, since the lack of basic skills is one of the main sources of failure later in secondary education. An exam will be implemented at the end of the period, with no curricular value and only for information purposes for the administration and the school. Reform has been deeper in secondary education (age 13-17), where a very high dropout rate accompanies low perceived abilities of students. The PISA report detected a low average level in all three core subjects (mathematics, reading comprehension and scientific knowledge). However, the

dispersion of individual results around the average is not wide, which is a characteristic of those countries with better results, revealing that a high performance is compatible with a low dispersion of results (Finland, Korea, Japan). But, in Spain, low dispersion also implies a lack of outstanding students as compared to other countries. The reform addresses this problem with several measures. *First*, the separation of students into different subject paths is brought forward one year to age 14, with the aim to create a “technical” path for those who will probably go on to vocational training after compulsory education. These paths are voluntary and flexible, so that students are not locked in an early age. To reduce the dropout and increase the opportunities for all, “vocational initiation programs” are defined and introduced at age 16 into the formal system.<sup>64</sup> *Second*, the possibility of course repetitions has been increased, while reinforcing measures will be taken for those students with special difficulties (with separate courses for some subjects). *Third*, national tests will take place at the end of secondary school and will be required to obtain the degree.<sup>65</sup> *Fourth*, more autonomy will be given to schools. New steps are created in the professional career of teachers, and incentives will be given to those that show “special dedication” to the school or those who teach in an innovative way.

***... but further increasing school autonomy would help to avoid failure and maintain equity***

Some of these measures go in the right direction. More autonomy for schools is clearly positive since the main goal of the reform – raising quality – needs to be underpinned by new approaches, which can only be achieved by flexible management. Autonomy is also needed to adapt methods and resources to the needs of schools in areas with very different socio-economic backgrounds. Incentives for teachers – economic and professional – are also welcome, since wage differentiation of Spanish teachers is very low in international comparison. Interestingly, teachers’ starting salaries in upper-secondary school are high – equivalent to 1.58 times per capita GDP, the highest ratio in the OECD, but the ratio of teachers’ wages after 15 years of experience with respect to the starting salary is only 1.17, the lowest in the OECD after Norway and Turkey. This reveals that incentives for improvement are very poor. Allowing schools to manage their own budgets more freely would be useful to strengthen incentives. In this respect, New Zealand provides a good example, since individual school managers there are able to determine additional payments as a function of a wide range of criteria (management responsibilities, teaching students with special needs or outstanding teaching performance).<sup>66</sup> National tests are also a good measure to ensure equal treatment of students in different schools, and may be a powerful tool to obtain information on quality improvements. However, course repetitions are not an option in some of those countries that lead the PISA report, where schools apply all available means to avoid the failure of individual students, and manage to maintain a high performance with little dispersion of results. In the Spanish reform course repetition is considered as a way to promote effort and responsibility, but OECD

experience shows that they may be used by some schools as an easy fix to solve problems associated with “bad” students and may not help to reduce the ratio of dropouts from secondary education. As for separation in paths, countries that separate students at early ages (Germany and Luxembourg) perform below the average in the PISA report, suggesting that these measures do not bring quality *per se*. However, separation of students in Spain is made at a relatively late age, while the flexibility to change between paths is a positive measure.

### ***The reform of vocational training aims at building a bridge to life-long learning***

Vocational training (*Formación Profesional*) for the young is less developed in Spain than in other OECD countries. Only 31.2 per cent of those in upper secondary studies follow vocational training, as compared to an average of 47 per cent in the OECD. After upper secondary studies, 41 per cent of students choose to follow advanced vocational training, against an average of 58 per cent in the European Union, despite the fact that employability of these students just after completion is higher than after graduation at university. The system suffers from a lack of social prestige, as it was considered as a secondary choice for those who could not make it into university. This perception is no longer correct, as now 25 per cent of those who finish advanced vocational school end up in tertiary education. The new law on vocational qualifications co-ordinates vocational training at school with other types of vocational training (for adults and firm-specific) by creating a national qualifications system (a major feature of which is a catalogue of 139 disciplines) common to all three types of training in a module system, favouring life-long learning.

Firm level training is subsidised by public funds (partly financed by the European Union), and is carried out by the FORCEM, an institution managed by trade unions and employers. Past episodes of misuse of funds (whereby firms devoted training funds to other uses) have prompted the government to enter the management of the FORCEM.<sup>67</sup> The annual financing and the number of people trained per year are large,<sup>68</sup> but the efficiency of these measures is unknown. Independent evaluation should address this problem, by comparing outcomes of participants in different courses with a control group of non-participants.

### ***The university system has a large potential for efficiency gains...***

The university system has developed rapidly in the last two decades. The process of transfer of competencies for university education to autonomous communities was recently completed. Regional governments have invested heavily in new universities, in part accompanying the arrival to adulthood of the baby-boom generation (which was born later in Spain than in other countries), but also because universities are considered as a “prestige” investment by regional authorities. As a result, every town with more than 50 000 inhabitants has at least one university. This allows many students to stay in their parents’ home until late

ages, since they are likely to find a university nearby, inducing a very low student mobility (Mora and García, 1999). Together with the relatively low level of fees, this makes for a relatively easy access to tertiary education. The level of current spending on universities is relatively low, however (Figure 17). The spending per student as a per cent of per capita GDP was only 30 per cent in 1998, well below the OECD average of 44 per cent.

The *Law on University Reform* includes two new elements that may affect the quality of university education. *First*, a new system to choose professors and researchers through a national competition will be introduced, substituting competitions at the departmental level which are more prone to manipulation in favour of insiders. This measure addresses the well-known problem of in-breeding in university departments, which translates into a high share of vacancies being filled with internal candidates. *Second*, the law creates a new national agency that will evaluate teaching and research activities of university departments. Both measures are undoubtedly positive. National competitions go in the right direction, since they will improve transparency of the selection process, although the competition tribunals will still be filled with the national experts in each area, which are usually a small group of people. Opening such tribunals to renowned international experts could improve transparency. As for the evaluation agency, it could help university authorities to detect potential problems, and students to choose the best universities. The choice for students has been widened from campuses in the own region of residence to all the national territory, which should reinforce the pressure on universities to provide quality education.

However, other structural problems remain. On the supply side, the public financing of universities does not provide incentives to improve quality. Public money received by universities is independent from their performance. This should be modified by linking funding to transparent criteria.<sup>69</sup> University staff are public servants and therefore it is very difficult to vary remuneration according to teaching or research records. In the long term, the ability to choose among universities could help to direct students to the best ones; but, in practice, low student mobility limits the scope for raising competitive pressure. Extended budgeting autonomy that includes staff salaries should be implemented to give university heads a lever to improve quality. On the demand side, the effective number of years spent at university goes well beyond the official duration of studies (Bricall *et al.*, 2000). Students can take each exam up to six times (though with increasing costs each time they repeat), while fees as a share of the actual cost (between 20 and 25 per cent), together with the fact that many students live with their parents, make the cost of studying relatively low. The opportunity cost is also small, since the probability of finding a job is low with youth unemployment rates at more than 25 per cent for the 16-24 year olds. Overall, long studies result in larger costs for the public sector, but do not result in a greater amount of human capital.

*... which could be seized by raising university fees*

While private costs of education are low, private benefits over the lifetime are high, due to the higher wages received by people with university degrees, together with the lower probabilities of becoming unemployed. Average rates of return of investment in tertiary education are above returns on other assets (including the stock market), since the difference in the discounted stream of revenues between university graduates and those with upper secondary education is much larger than the discounted private cost of education (Box 2). This suggests that public subsidies to tertiary education are paying for benefits that accrue mostly to the individual, and that most students, in the absence of credit market

**Box 2. Private rates of return from non-compulsory education**

The private rate of return on non-compulsory education has been estimated for Spain following the methodology used in Blondal *et al.* (2002) for ten countries (Table 20). The private rate is the discount rate that equates future private economic benefits during lifetime of prolonging education to private costs. Benefits taken into account include higher future wages and lower unemployment probabilities (but not higher pensions), while costs include lost earnings for not working while studying and tuition fees (but not living expenses). Other benefits from education, like non-economic benefits and economic externalities, are excluded in these calculations.

As in other countries, the results show that investment in human capital yields much higher real returns than other forms of investment, including the stock market. Completing upper secondary education yields a real return of 8 per cent for men and nearly 12 per cent for women, the difference being mostly explained by a higher earnings gap for women between those who complete secondary education and those who do not. Returns of enrolling in tertiary education (*vis-à-vis* starting work after secondary education) are also very high at near 11 per cent and very close to those in other countries. Although these are average and not marginal rates of return, they reveal that incentives for an individual to enrol in non-compulsory education are likely to be very significant. Being higher than those of alternative investment forms, they point to some sort of credit market failure that would call for more provision of grants or subsidised loans for less well-off students. They also suggest that private gains from education are high, especially in tertiary education, giving scope for higher university fees. A simulation exercise shows that raising the share of private funding of expenditure in tertiary education from the present 24 per cent (which includes tuition fees in public and private universities) to 100 per cent would reduce private returns from 10.8 to 8.1 per cent for men, and from 11.4 to 7.6 per cent for women, leaving them still well above returns on other forms of investment.

Table 20. Private rates of return on education

	Per cent			
	Upper-secondary education		Tertiary education	
	Men	Women	Men	Women
Spain (1998) <sup>1</sup>				
Return based on pre-tax earnings	12.0	14.1	11.7	13.2
<i>Impact of:</i>				
Taxes	-3.2	-2.1	-2.6	-3.4
Unemployment risk	-0.8	-0.2	3.1	3.9
Tuition fees and student support			-1.4	-2.3
<b>Comprehensive rate</b>	<b>8.0</b>	<b>11.7</b>	<b>10.8</b>	<b>11.4</b>
Comprehensive rate in other countries <sup>2</sup>				
United States (1999)	16.4	11.8	14.9	14.7
Japan (1999)	6.8	9.4	7.9	7.2
Germany (1998)	10.8	7.0	9.1	8.4
France (2000)	13.5	17.9	14.3	15.4
Italy (1998)	11.2	n.a.	7.5	n.a.
United Kingdom (2000)	15.1	n.a.	18.5	16.1
Canada (2000)	13.6	12.7	8.7	9.9
Denmark (1999)	11.3	10.5	11.5	11.1
Netherlands (1997)	7.9	8.4	12.1	12.5
Sweden (1999)	6.4	n.a.	11.4	10.8
<b>Unweighted average</b>	<b>11.3</b>	<b>11.1</b>	<b>11.6</b>	<b>11.8</b>

1. For Spain, data on earnings are taken from the *Encuesta de presupuestos familiares*, for 1998. Unemployment rates by age and education level are taken from the Labour Force Survey. Tuition fees are calculated as the proportion of private expenditures in education times total expenditure in education by education level, and come from OECD (2001d).

2. See Blondal *et al.* (2002) for methodology of calculation and data sources.

Source: OECD.

failure, would be ready to pay more for their education. Moreover, these subsidies are regressive, because they consist of a lump sum (in terms of low fees) paid independently from family revenues, and because they go to medium to high-income families or to students from less wealthy backgrounds who are likely to earn in the future more than the average worker.

Higher fees would liberate resources for more grants and subsidised loans or for other purposes. Greater funding of secondary education could be one alternative, since at this level of education the gap with other countries in terms of completion rates is still important; higher investment in vocational training is another option. Higher fees would also increase the marginal cost of repeating courses and would raise incentives for students to graduate early. They do not necessarily imply a reduction in the number of graduates. Although some authors have mentioned the existence of over-education in Spain (demonstrated by a large number of young graduates working in jobs for which they have excess skills), the calculation of the social benefits of university education for other countries, taking

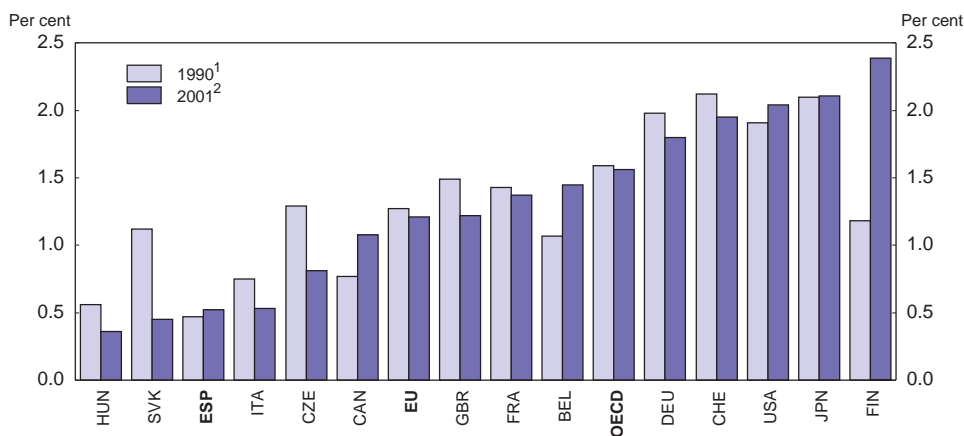


into account the direct cost of education and the opportunity cost of lost output, are still high at over 6 per cent for most countries (Blondal *et al.*, 2002). Moreover, other benefits not taken into account in these calculations (like externalities from having a well educated population, such as lower crime rates, or the fact that educated parents are the most important variable determining the success of children's education), make it advisable to avoid a reduction in the number of graduates. For those individuals desiring to enter university, but facing liquidity constraints, the resources freed by higher fees could be used to expand grant programmes for less well off students, or to subsidise loan programmes, which are almost non-existent in Spain.<sup>70</sup>

### **Spending on research and development should be enhanced and better targeted**

As the education system, production and, especially, the use of new technologies can have a considerable impact on productivity and growth, as highlighted by the OECD Growth Study (OECD, 2002b). Spanish businesses spend comparatively little on R&D (Figure 18), despite having by far the most generous tax credits for R&D outlays in the OECD.<sup>71</sup> R&D spending of public institutions is also comparatively low (0.4 per cent against an EU and OECD average of 0.6 per cent), though other indicators, like the number of researchers in universities and public institutes relative to the labour force, are above the OECD average, while

Figure 18. **Business R&D expenditure**  
As a percentage of GDP

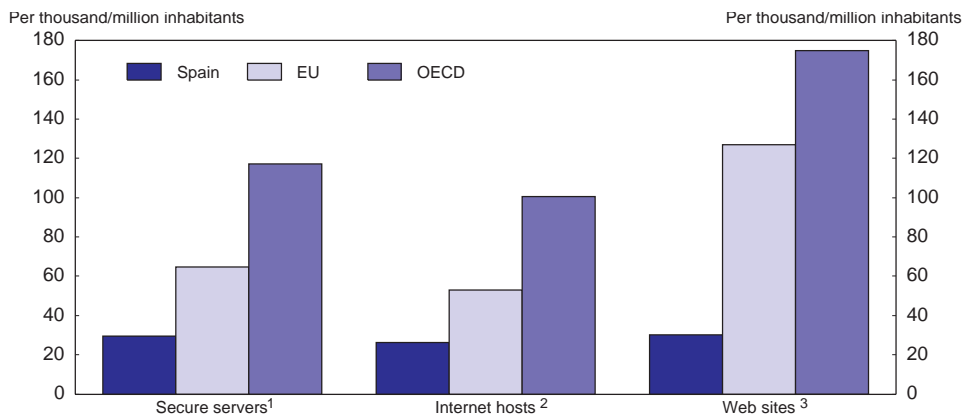


1. Or nearest available data.

2. Or latest available data.

Source: OECD, *OECD Science, Technology and Industry: Outlook 2002*.

Figure 19. **Internet infrastructure**  
July 2001



1. Secure servers per 1 million inhabitants.

2. Internet hosts per 1 000 inhabitants.

3. Web sites per 1 000 inhabitants.

Source: OECD, *OECD Information Technology Outlook: ICTs and the Information Economy*, 2002 ed.

the participation of private funding in public R&D projects is relatively high (OECD, 2001c). Utilisation of new technologies depends, among other factors, on the use of ICT, which can have a positive impact not only on new technology sectors, but also on improving productivity in traditional sectors like industry, health care and some types of services. In this respect, the internet penetration is rather limited (Figure 19), although the number of scientists and engineers working in businesses is rising rapidly.<sup>72</sup>

Given its present low levels, R&D spending and diffusion should be reinforced by inducing a more rapid incorporation of new technologies in businesses through appropriate policy settings. As noted above, labour market segmentation may slow the diffusion of new technologies. Moreover, greater competition in broadband telecommunications is important, as it is likely to raise the use of ICT more quickly. Public support to private R&D should also be rethought. The current very generous tax support could target incremental R&D spending rather than the level of R&D outlays, as is currently the case in the United States. The savings could then be used to channel support via other instruments like grants, which may engender less dead-weight losses (OECD, 2002b). However, the government should continually monitor the costs of such support against the would-be benefits.

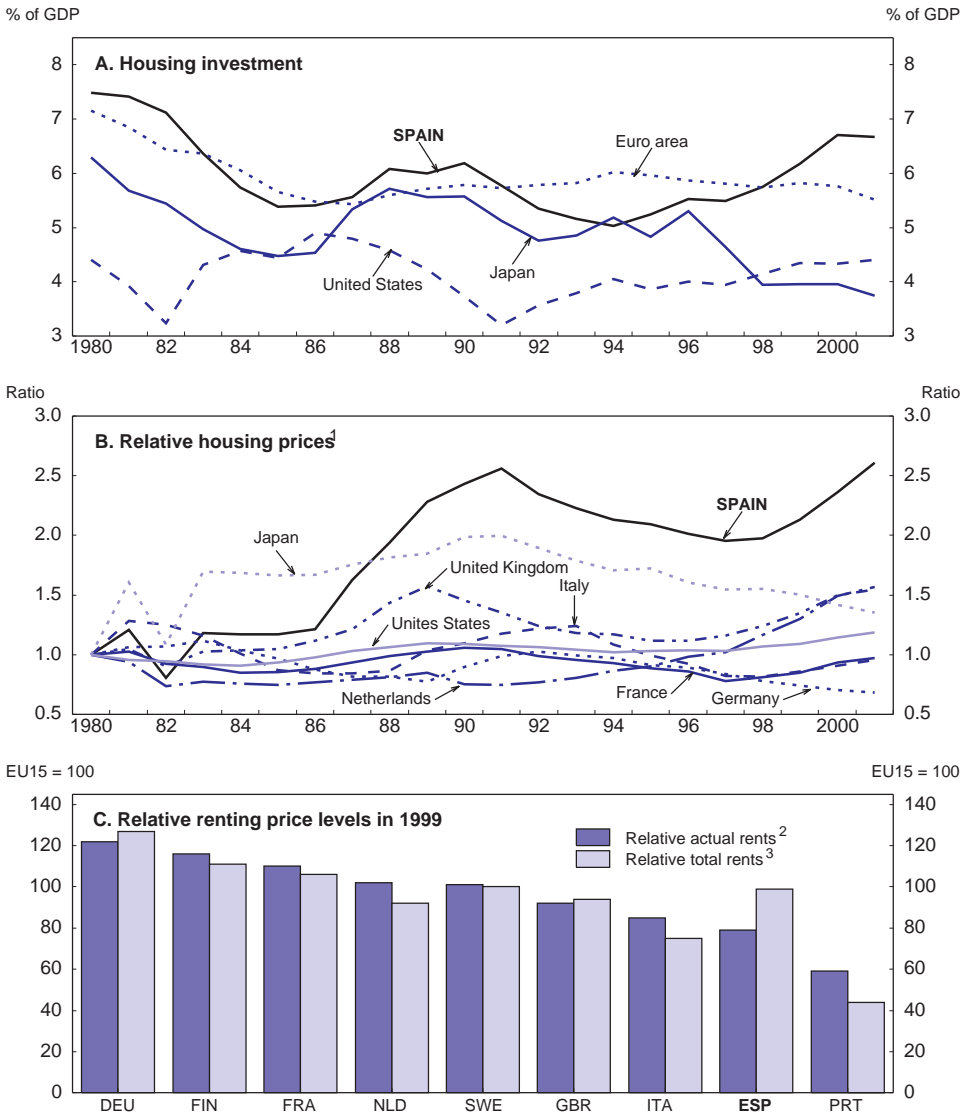
## Housing market

### *Policy undermines the functioning of the housing market*

Several features of the Spanish property market suggest that the sector is not functioning well. Property prices having risen more steeply in real terms since 1985 than in most other OECD countries, this being due in part to distortions affecting both housing demand and housing supply. Underlying demand for dwellings has been very dynamic since the mid-1980s for demographic reasons.<sup>73</sup> More recently, the growing housing demand is explained by the improvement of the general economic conditions which is reflected in a significant expansion of employment, by the fall in real mortgage interest rates and by the evolution of the stock market that has driven savings to other forms of investment. That trend, which is also underpinned by growing demand for second homes by non-residents, has been strengthened by tax incentives encouraging households to purchase their own homes.<sup>74</sup> The pressure exerted by demand has been only partially met because the increase in the supply of land has been limited, although the elasticity of land supply has been higher than in previous episodes of strong demand, while the building of new dwellings has been twice as high as that during previous expansions. However, in big cities land scarcity is due to limited supply, this being one of the main reasons for the rise in property prices: whereas the real cost of construction has fallen since 1980, the cost of land has been accounting for a growing share of house prices.<sup>75</sup> Both the large share of residential investment in GDP compared with other countries (Figure 20) and the share of real estate in households' wealth (Table 21) point to the existence of distortions in resource allocation. These distortions also affect the structure of the market, which is ownership dominated, whereas the supply of private and low-cost rental housing is much below the European average (Table 22). The poor return on rental property investment is due to the very restrictive regulations that governed the sector until 1985,<sup>76</sup> which resulted in a sharp drop in the supply of rental accommodation, particularly on the part of institutional investors, and in the worsening state of repair of this housing segment.<sup>77</sup> Legal problems to recover unpaid rents also explain the lack of attractiveness of this kind of investment for private owners. The inadequate supply of rental housing makes it difficult for population groups in an insecure situation or with modest incomes to find accommodation, and tends to make young adults stay with the family for longer than in neighbouring countries (Holdsworth and Irazoqui Solda, 2002).<sup>78</sup>

Housing policy has had a very strong influence on the way the market is organised. The main effect of that policy has been to encourage households to buy their own homes. Its implementation, which is shared by central government, the autonomous communities and the municipalities, is at present based on two main schemes. First, income tax relief is granted on the purchase of a main

Figure 20. Housing market trends



1. Defined as the nominal housing price over the average production worker gross earnings.

2. Rents paid by tenants over private consumption.

3. Sum of actual rents paid by tenants and imputed rents by owner-occupiers over private consumption price level.

Source: BIS, EUROSTAT and OECD.

Table 21. **Household assets**  
Per cent of total household assets

	Housing assets					Other assets in 1998		
	1970	1980	1990	1995	1998	Equity	Other financial assets	Other tangible assets
<b>Spain<sup>1</sup></b>	..	<b>65</b>	<b>73</b>	<b>71</b>	<b>67</b>	<b>9</b>	<b>20</b>	<b>4</b>
United States	22	27	27	23	21	20	50	8
Japan	10	14	8	10	10	3	44	43
Germany	..	..	34	34	32	3	35	30
France <sup>2</sup>	34	44	43	42	40	3	47	9
Italy	36	40	37	35	31	17	39	13
United Kingdom	..	40	44	33	34	12	47	7
Canada	21	22	23	22	21	17	39	23

1. 1980 data refer to 1984.

2. 1998 data refer to 1997.

Source: OECD *Financial Accounts of OECD countries*; United States, Federal Reserve, *Flow of Funds Accounts of the United States*, September 2000; Japan, Economic Planning Agency, *Annual Report on National Accounts*, 2000; Germany, Deutsche Bundesbank, *Ergebnisse der gesamtwirtschaftlichen Finanzierungsrechnung der Deutschen Bundesbank*; France, INSEE, *25 ans de Comptes de Patrimoine (1969-1993)*, and *Rapport sur les Comptes de la Nation*. (France's estimates for household equity holdings have been corrected to exclude non-quoted shares. Data presented are based on national authorities' estimates of the ratio of quoted to non-quoted shares in household portfolios); Italy, Banca d'Italia, *Supplementi al Bollettino Statistico* and unpublished estimates (the data on equity holdings in Italy include both quoted and unquoted shares); United Kingdom, Central Statistical Office, *United Kingdom National Accounts, Financial Statistics*; Canada, Statistics Canada, *National Balance Sheet Accounts*; Spain, *El balance nacional de la economía española 1984-2000* by J.M. Naredo and O. Carpintero.

residence, without any means test (Chapter II). This reduction in tax, to which must be added a rather favourable capital gains tax regime, would appear generous by comparison with other savings products and in relation to the international average (OECD, 2000). However, the 1998 income tax reform reduced the generosity of the regime. Second, as part of a housing plan that is renewed every four years, assistance (accounting for 0.1 per cent of GDP in 2002) is granted either on a means-tested basis or to specific groups.<sup>79</sup> While this policy of assisting home ownership does make for a well-maintained housing stock, it also has the effect of increasing the share of real estate in households' wealth by reducing the real mortgage rate. It can, moreover, reinforce an imbalance in the economy in the event of an overheating housing market.

Being aware of these distortions, the authorities have sought to expand the supply of rental accommodation. Rental contracts were liberalised in 1985. Although rental leases extend for a minimum of five years since 1994, specific measures to promote low-cost rental investment were also included in the housing plans, but have not so far had the hoped-for effects. The liberalisation of rental leases in fact concerned only contracts dating from after 1985, with the result that a large proportion of rented accommodation still comes under the rules enforcing

Table 22. Tenure and availability of housing

	1999				2000	2000	Vacant dwellings in per cent of total stock
	Per cent of the stock of main residence						
	Owner- occupied	Total	Social	Private	Dwellings per 100 households	Dwellings per 1000 inhabitants	
Spain (1960)	55	45	2	43			
Spain (1980)	79	21	2	19			
<b>Spain</b>	<b>86</b>	<b>14</b>	<b>2</b>	<b>12</b>	<b>147</b>	<b>485</b>	<b>14.8 (1991)</b>
Austria	55	45	23	22	115	465	4.6 (1990)
Belgium	63	37	7	30	110	455	3.9 (1990)
Denmark	55	45	19	26	104	470	3.9 (2000)
Finland	67	33	14	19	109	483	8.3 (1999)
France	54	46	17	29	121	494	6.9 (1999)
Germany (western part for housing tenure)	43	57	10	47	98	452	7.5 (1998)
Ireland	80	20	11	9	100	345	10.2 (1991)
Italy	78	22	6	16	121	434	21.3 (1991)
Netherlands	48	52	35	17	96	416	1.2 (1999)
Portugal	68	32	4	28	135	465	10.5 (1991)
Sweden	62	38	22	16	102	483	0.9 (2001)
United Kingdom	69	31	21	10	98	411	3.6 (2000)
EU average	61	39	18	21	112	452	

Source: Trilla (2001); Euroconstruct (2001); Housing Statistics in the European Union.

low rents and the indefinite extension of contracts.<sup>80</sup> As a result, there is a rental accommodation demand unsatisfied, mainly from medium and low income groups. Yet, from 2003 onwards, the supply of rental accommodation could be increased as a result of the liberalisation of those contracts that were regulated by the transitory regime introduced in 1994. Moreover, increases in rentals actually exposed to market forces are restricted by the limited finance available to low income groups, in the absence of government rent support, which exists in certain OECD countries. Where wealthier households are concerned, rent levels are also restrained by the fact that housing policy makes it possible to purchase accommodation on favourable terms. Average rent levels (excluding imputed rents) are lower in Spain than in the other European countries despite their rapid rise in recent years (Figure 20), which is explained to some extent by the still large proportion of rental contracts that remain under the pre-1985 regulation. Although this difference no doubt partly reflects the inferior quality of this housing segment, the rate of return on rental investment has remained low, and the available housing stock is still under-utilised, as the large proportion of unoccupied homes

shows.<sup>81</sup> Other factors such as an asymmetric VAT treatment that favours construction for purchases rather than for renting, and the legal uncertainty faced by private owners when trying to recover unpaid rental income, reduce the supply of rental housing.

The trend rise in real property prices is both increasing owners' wealth and also encouraging people to buy their homes rather than rent. Despite the government's efforts in recent years, it has not proved possible to stop the rise, which is largely associated to the increase in the price of land for building. Central government has little leeway to change land management, which is under the responsibility of the autonomous communities and municipalities.<sup>82</sup> Nonetheless, the central government has reached an agreement with the autonomous communities in order to rationalise land management. This agreement is expected to be extended to the municipalities through further negotiations. The latter control the supply of building land and lay down town-planning rules whose excessive rigidity explains why supply is rationed. The rules, which vary from region to region, are the reason for the limited effect of the 1998 reform which stipulated that all land should *a priori* be considered to be developable, unless expressly decided otherwise.<sup>83</sup> It is in the interest of the municipalities to keep prices high by using arbitrary criteria to issue building permits. Landowners have to transfer part (10 per cent) of their land to the municipality if they sell, and real estate taxes are the local authorities' main source of tax revenue (nearly 66 per cent in 1999).

### ***Distortions should be removed***

All told, improving the functioning of the housing market requires on the demand side a re-balancing of incentives to rent and purchase houses and, on the supply side, a re-balancing between the return on rental investment and on alternative investments (Box 3). The authorities' policy of encouraging the supply of rental accommodation, such as the recent reform to reduce the taxation of net rental income by 50 per cent in conjunction with the ability given to municipalities to tax non-occupied homes more (Chapter II) tends to rebalance the market through renewed government intervention. While it does make for better utilisation of the available housing stock, this approach would seem to be less effective than phasing out home ownership assistance, which would restore incentives to rent and build new rental housing. Increasing the supply of such housing is very relevant to the effectiveness of the recent labour market reforms encouraging geographic mobility, and also to the better integration of the fast-growing immigrant population (Chapter IV). A reduction of the tax relief for future house buyers combined with rent support measures for households with modest means would be justified in view of the fall in financial costs resulting from the reduction in mortgage rates.<sup>84</sup> Such a reform has been introduced in other OECD countries in recent years, France being an example. It would also help to slow the trend rise in real

**Box 3. Analysis of rental supply and demand incentives**

The existence of an adequate rental market depends on the incentives affecting household demand, *i.e.* relative rental costs compared with the costs of buying a home, and also on the supply of these housing services, *i.e.* the return on rental investment as compared with alternatives, *e.g.* financial investment. It is important to ensure a balance between these relative prices so that rental demand and supply match.

To show what role these incentives play, a small model has been built to calculate the effect on household saving of a decision to rent rather than buy one's home. The model, outlined in Annex IV, compares the amount of assets accumulated by a household depending on the housing solution it opts for, taking into account the prevailing tax liabilities and allowances, mortgage rates and rates of return on financial investments, the cost of renting as opposed to buying and the trend in inflation and in property prices.

In the case of a typical household buying a home by taking out a fixed-interest rate loan, the value of its wealth in a given year is calculated as the difference between the sales price of the property and the capital still to be repaid. The value of the asset is, moreover, increased by the cumulative amount of tax relief attaching to the purchase. In the case of a household renting a home, its wealth is calculated as its stock of saving, assuming that the household systematically invests on the financial market the surplus being equal to the difference between the rent paid and the loan repayments it would have had to make if it had bought. In this latter case, account is taken of the tax on the lessee's income from saving and the index-linking of rents.

**The model highlights the size of the distortions**

Assuming that inflation and real property prices rise at the same rate (2 per cent per year), buying one's home is a much better option than renting if the average rental price provides a return comparable to that on financial investments.\* The assets built up by the buyer exceed those of the lessee by the third year and are on average 50 per cent greater on a discounted basis (Figure 21).

The higher the rate of inflation, the greater the incentive to buy because of the decline in the real cost of repaying the loan, whereas rents are index-linked. If the cost of the property increases because tax relief is capped, on the other hand, incentives are smaller.

Because of the trend rise in property prices and in tax allowances in favour of owners, a 40 per cent fall in rents is needed to achieve equilibrium between the incentives to rent and to buy one's home. However, that sort of fall in rents would imply a considerable decline in the return on rental investment compared with alternative forms of investment, and this would prevent the expansion of rental supply.

If expectations as to real property prices could be stabilised, the advantage of buying rather than renting accommodation would decline because of the narrowing of the difference between the value of the buyer's cumulative assets and



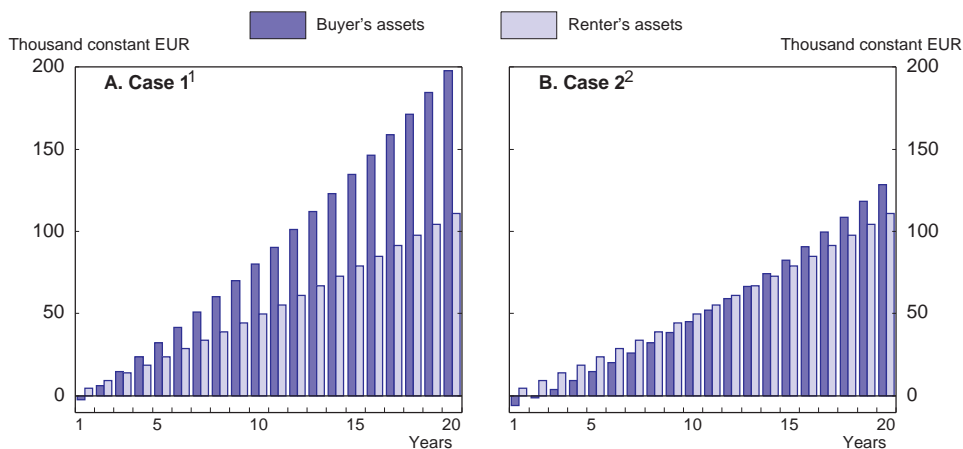
Box 3. **Analysis of rental supply and demand incentives (cont.)**

those of the lessee. In this case, the buyer's assets exceed the lessee's as of the sixth year and the average differential in favour of the buyer is in the region of 20 per cent.

Abolishing tax allowances encouraging the purchase of property, coupled with the stabilisation of expectations as regard real property prices, would balance the incentives to buy and to rent accommodation, while at the same time maintaining attractive returns on rental investment. In this case, the buyer's cumulative assets would not exceed those of the lessee until the fourteenth year and the differential in favour of buying would on average be eliminated over the period as a whole (Figure 21).

\* Average annual rental costs, which are assumed to be between 5 and 5.5 per cent of the price of the property, give a return close to that on public debt. Rents of that order are similar to those observed on the market (San Martín, 2000).

Figure 21. **Wealth developments linked to housing purchase/rental**



1. Tax subsidies for the buyer and an annual appreciation of the property of 2% in real terms.

2. No tax subsidies for the buyer and no appreciation of the property in real terms.

Source: OECD.

property prices by easing demand pressures. The stabilisation of property prices that would be encouraged by more homogeneous, transparent and flexible management of the supply of land by the communities and municipalities would also seem important. In order to reform land management, the central government has

already taken steps to reach an agreement between the different levels of government, and this could be facilitated by reforming the system of municipal financing in a way that increases their financial resources and makes them less dependent on property and real estate taxes.

## **Competition policy**

### ***More resources have been provided for the competition authorities***

As recommended in previous *Surveys*, the resources of the competition authorities have been considerably enhanced between 2001 and 2003, including budgetary allocations for the Competition Tribunal (TDC) that more than doubled during this period. The Competition Service (SDC), which prepares cases for the TDC and depends on the Ministry of the Economy, has also seen its resources increased, and its personnel comprises 95 people (of which are 38 economists, lawyers and other professionals) while its administrative rank has been raised to one of a general directorate. The TDC has also been provided with more administrative autonomy, while 50 per cent of fees paid by firms for the review of mergers has been channelled into its budget.

After a 1999 ruling of the Constitutional Tribunal that attributes competition enforcement competence to autonomous communities in cases that affect only a region, a new law on the co-ordination of regional competition authorities has been approved. Two regions (Madrid and Cataluña) have already started to set up regional tribunals, while other communities have declared their intention to do so.<sup>85</sup> This division of enforcement responsibility should make it possible to discharge the national competition institutions from the need to investigate smaller cases, permitting them to devote more resources to other matters. Institutional mechanisms have also been set up to settle disputes that might arise among different regional institutions in the initial allocation of cases and to ensure uniform interpretation among different tribunals. The authorities should ensure that these mechanisms maintain a consistent national competition policy, and that regional tribunals do not become means for giving advantages to local firms.

### ***Regional entry barriers to retail distribution should be scrapped***

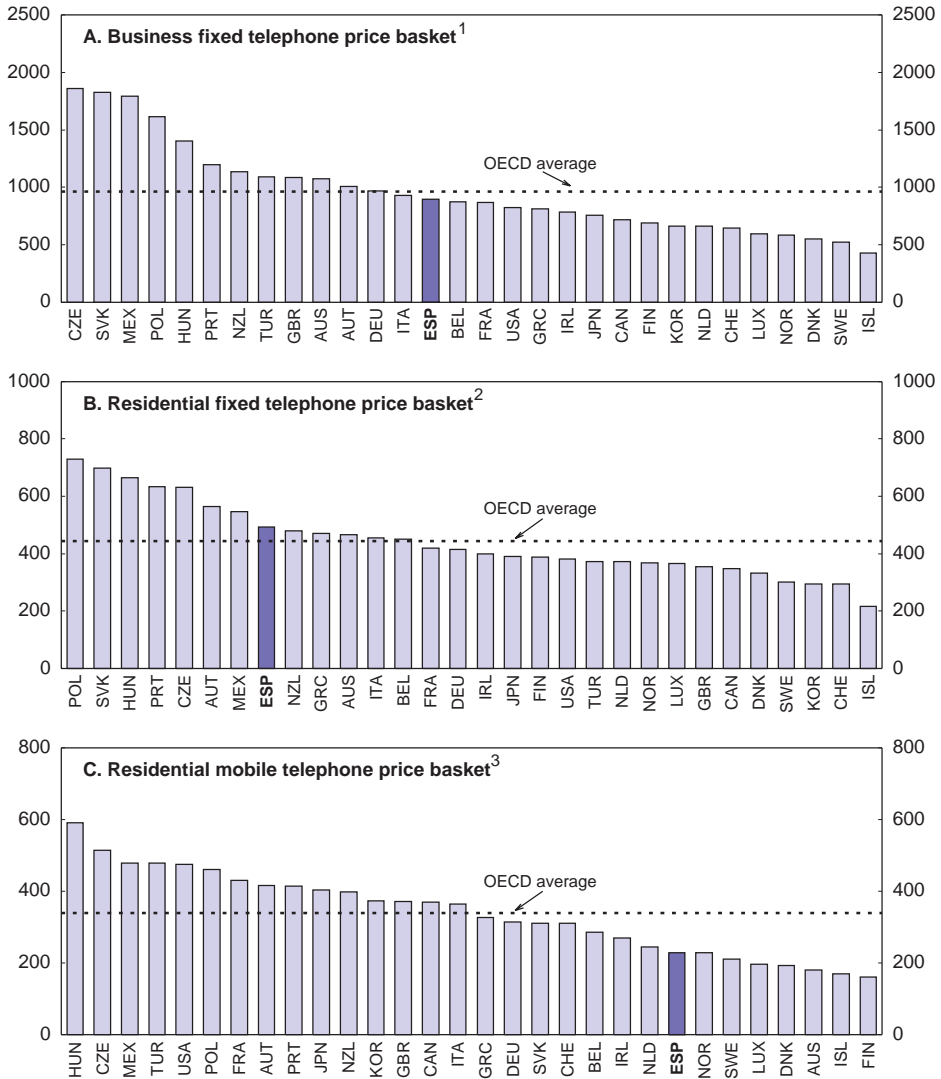
In retail distribution, which is a large sector (14 per cent of total employment), opening hours (90 hours per week) are not particularly restrictive as compared to other EU countries, and in practice they are higher because shops are allowed to open at least 13 Sundays per year (depending on the region, since regional governments can raise that number).<sup>86</sup> Small shops and drugstores are free from restrictions. However, since the 1996 Commerce Law was approved following a ruling of the Constitutional Tribunal, a second permit, in addition to the municipal permit, is needed from regional governments to open a new hypermarket. This has

been used as an entry barrier, since many regional governments have explicitly blocked the issuance of new permits or have delayed concessions.<sup>87</sup> Other regions (Cataluña and Navarra) have approved new taxes applying only to hypermarkets or hard discount retailers. Such entry barriers should be scrapped, since they tend to protect local companies and undermine the functioning of this market, resulting in higher inflation and efficiency losses. In the pharmacy sector, where framework legislation is provided by the central government but regulation is approved by autonomous communities, some price competition has been introduced for para-pharmacy products, but retail margins are fixed for other products and entry barriers still exist in the form of minimum distance between pharmacies and minimum population per pharmacy. These barriers, which are reflected in high prices for the transfer of pharmacy licences in some areas, should be eliminated, while ensuring provision in areas with low population density through other means, such as subsidies.

### ***Reforms in telecommunications are following technological innovation***

Since liberalisation started in 1998, prices of fixed telephony have dropped by more than 50 per cent, and are close to the OECD average (Figure 22). Consumers also benefit from a wider choice of suppliers, with more than five operators for local, long distance and international calls and for direct access. Although new entrants are improving their position, the market share of the incumbent operator has remained high and has decreased less than in other countries after liberalisation.<sup>88</sup> Unbundling of the local loop was implemented in January 2001, but has only started to be used by competitors in the second half of 2002, when the sectoral regulator (CMT) imposed much stricter conditions on Telefónica. The CMT has also improved the Reference Interconnection Offer, which includes the terms of access to the incumbent's network: prices were reduced by 30 per cent in August 2001, and a new pricing system was implemented based on transmission capacity instead of time that has been heavily contested by Telefónica but should benefit its competitors by allowing them to diversify their offers to customers. Prices of Telefónica are still capped by the government, but will be fully liberalised by 2005. For 2003, and in the context of financial difficulties for telecommunications companies, the reduction approved has been much more moderate than in previous years,<sup>89</sup> as margins were already low for other competitors (which are price followers of the incumbent operator). As in other countries, broadband connections have developed rapidly during the past year, with asymmetric digital subscriber line (ADSL) services reaching more than one million customers in January 2003, which represents a high broadband penetration rate in terms of internet users (16 per cent), but is still relatively low with respect to population (3 per cent of households). Prices of ADSL are capped for Telefónica, and followed by other companies that have to negotiate wholesale agreements with the incumbent operator, who controls 78 per cent of the market. Commercial development of

Figure 22. **Telecommunications prices**  
In USD PPP, May 2002



1. Excluding VAT. Calls to mobile networks and international calls are excluded.  
 2. Including VAT. Calls to mobile networks and international calls are excluded.  
 3. Including VAT. The basket includes 50 national minutes and excludes international calls.  
 Source: OECD, *Communications Outlook* database.

cable transmission has also increased strongly during 2002. Cable reaches 5.4 million households and firms, one third of the potential market, and is used by more than 800 000 customers. Given the still high market share of Telefónica in fixed telephony and to a lesser extent in data transmission, the development of cable has started to be a potential alternative for both types of services.<sup>90</sup>

In mobile telecommunications, the market is now mature (29 million users, out of a population of 40 million). Prices have dropped much more slowly in 2001 and 2002 than in previous years, and are close to the OECD average. In 2002 the regulator forced the two incumbent mobile operators (Telefónica and Vodafone) to cut their termination charges by 30 per cent. A similar cut was imposed to the third operator, Amena, some months later. As in other countries, universal mobile telephone systems (UMTS) investment and services have been delayed with respect to original deadlines, but they are expected to be developed during 2003 under pressure from the government.<sup>91</sup> The radio-spectrum tax paid by UMTS suppliers was lowered in 2001, and fixed for the period 2002-06, providing a more stable investment environment for companies.

The authorities should continue to regulate Telefónica's wholesale tariffs as long as the unbundling of the local loop is not extensively used, or until cable networks provide an effective alternative to the incumbent's network, but there is scope for reducing the coverage of the price cap so as not to include national or international long distance calls and ADSL retail services. The sectoral regulator should continue to scrutinise all segments of the market for anti-competitive practices.

### ***The energy sectors are dominated by a small number of firms***

In the energy sector, a number of measures were approved in June 2000 to accelerate liberalisation and strengthen competition, and to facilitate the entrance of new operators (OECD, 2001a). Currently, those activities, which are natural monopolies, are in private hands but regulated, with prices directly determined by the government (electricity and gas) or privately negotiated by market participants (oil sector). Recent measures have gone in the direction of developing the June 2000 decree:

- In *oil distribution*, ownership separation of the transport monopoly (CLH) is almost complete, and the three largest companies (Repsol YPF, Cepsa and British Petroleum) now own less than 50 per cent of CLH, while conditions of storage and transport contracts with distributors are now published by the sector regulator, improving transparency. In retail distribution, the temporary limits on the expansion of the two largest distributors (Repsol YPF and Cepsa), applied since 2000, have not resulted in lower market shares. The limits were defined in terms of distributors and not quantity sold, and both firms have been allowed to

close small stations and open larger ones. The Competition Tribunal has also sanctioned them for imposing restrictive conditions in their long-term contracts with independent retailers. Following the June 2000 measures, several new petrol stations have been opened in hypermarkets pushing prices down somewhat. Prices, which were remarkably uniform across stations, have started to diverge at the end of 2002. However, the entrance of new competitors is still slow, and the number of stations per inhabitant remains far below the EU average.

- In *gas import and distribution*, the process of divestiture of the largest players in the company that manages large pipelines (ENAGAS) has been completed, and now the largest player (Gas Natural) owns less than 35 per cent of the company, which should ensure a fair access to the network of new market entrants. Other measures envisaged in June 2000, like the publication of the formula for calculating transport fees and the auction of part of the contract of Gas Natural for importing gas from Algeria have also been approved. In order to cope with the future demand of gas from electricity plants under construction, at least two new re-gasification plants are being built, while pipelines with France and North Africa are being expanded, which should allow for more competition. Retail distribution, *i.e.* the regulated activity of providing physical access to final customers, is still a local monopoly franchised to Gas Natural until 2005 to encourage new investment in the network, which is still underdeveloped. Moreover, fair access to the distribution network has been granted through a regulated system that establishes fees for its use. Supply of natural gas has been fully liberalised and at present, more than 35 suppliers are registered and may present competitive offers to all consumers.
- In *electricity markets*, an expansion of interconnections with France is planned, and should reach 11.6 per cent of projected demand by 2005, increasing potential competition from imports which are currently low at less than 6 per cent. Choice of provider has been extended to all consumers in 2003. As a result of the liberalisation, consumers will have access to liberalised prices, while the market regulator will continue to publish a reference tariff for those consumers who decide not to buy electricity in the market, which in practice will set a maximum price. This tariff should last until 2007 for large consumers and at least until 2010 for households. A new formula for determining this tariff has been approved at the end of 2002, which implies annual price increases of around 1.4 per cent, with an upper limit of 2 per cent, below projected inflation but above the price reductions achieved in recent years. Payment of stranded costs, including payments arising from the moratorium

on nuclear constructions and subsidies to national coal production will continue to be included in the price calculation.

Liberalisation of the energy sectors has resulted in efficiency gains and important price reductions in recent years, but energy markets are still dominated by a small number of companies. Competition from new entrants has been limited so far, although the legal conditions for entry have improved and interconnections with foreign suppliers are being expanded. The highly concentrated nature of production and distribution of energy products has resulted in some instances of anti-competitive behaviour and a significant increase in profits in part of the energy sector (Figure 9). The authorities should continue to be vigilant and ensure that competition works. They should consider divestitures of assets for the main players or vertical ownership separation of production from distribution.

### ***EU aid to modernise the fishing fleet will be phased out by 2005***

Overfishing has been a serious problem in EU waters, with fish stocks outside safe biological limits in many fishing areas (ICES, 2002). The decline in fish stocks has also contributed to significant over-capacity of the fishing fleet, with the European Commission estimating there are almost twice the number of vessels needed for the capture of a sustainable harvest. In Spain the fishing sector represents 0.5 per cent of GDP, and directly accounts for 0.4 per cent of total employment. Although activity is spread along the coastline, production is more concentrated in areas such as Galicia and Andalusia, where per capita GDP is well below the national average. Being a very large consumer, Spain is also a net importer of fish. Fishing policy is mostly a responsibility of the European Union, which annually determines fishing quotas for different species and provides subsidies for the modernisation of the fleet. Despite a sharp reduction, Spain still has the second largest fishing fleet of the Union (after Denmark), though it is older on average. European subsidies to the Spanish fleet amounted to EUR 128 million in 2001, while the total budget for fishing (including European funds) was EUR 240 billion (about 8 per cent of the sector's value added). At the end of 2002, the European Commission launched a fishing policy reform, in the context of needed catch reductions to avoid over-fishing. The Commission proposed to stop providing help for construction, modernisation and export of vessels so as to halt the expansion of the sector. The final agreement postpones this measure, extending this aid until the end of 2004,<sup>92</sup> improves control measures against illegal fishing and reduces fishing quotas for 2003 though to a higher level than originally proposed. Most urgent quota reductions approved (for instance, for cod fishing in the North Atlantic) will not affect Spain, since until this year Spanish and Portuguese fishermen were not allowed to fish in the northern EU waters. From 2005, the elimination of investment subsidies for improving the fleet and the funding of alternative activities in fishing areas is a welcome

measure that should help to reduce the least efficient part of the fleet, while aid will concentrate on developing alternative activities in affected regions.

## Financial markets

### *A new reform of financial markets has been approved*

A new Finance Law was approved in November 2002 that addresses a wide range of topics. Some of the changes adapt regulations to European legislation, to the increased use of ICT technologies in financial markets and to a more competitive environment after the introduction of the euro.<sup>93</sup> Other changes aim at improving the protection of small investors; for example, through the creation of a new Commissioner for the Defence of Investors that deals with abuses of financial institutions, including those in internet banking.<sup>94</sup> The law also includes some measures to improve access of small and medium-sized enterprises (SMEs) to financial markets, addressing an alleged problem of credit market failure. In particular, the scope of the securitization of mortgage-backed credits has been widened to include those not aimed at financing real estate; factoring of credits with the public sector will be permitted, which should favour SMEs since up to now they found it difficult to participate in public contracts due to the erratic payment patterns of some public administrations. The Financial Law also modifies the tax regime of venture capital entities. Venture capital was reformed in 1999, introducing tax advantages and putting venture capital firms under the supervision of the stock market regulator (CNMV). After a slow start, investment in venture capital rose steeply in 2000, but fell in 2001 following the flight from risk, and has reached cumulated assets equivalent to 0.18 per cent of GDP. This is still well below the level in other European countries,<sup>95</sup> though it is the only one, except for the United Kingdom, that has grown in 2002. The new tax regime extends tax advantages of venture capital investors to the period after their partial sale in the stock market.<sup>96</sup>

The Enron scandal spurred measures that aim to improve the transparency of financial market and auditing obligations of firms. Insider information and market manipulation issues are addressed by adopting the EU Directive on Market Abuse. Any operation of the dominant owner of a firm with other large investors will have to be disclosed. New norms are set for investment counsellors and financial analysts, like the obligation of communicating any potential conflict of interest and the ban on dealing in securities which they analyse. The new regulation on company auditing imposes compulsory rotation of external auditors every nine years (every seven years for large firms or for firms quoted in stock markets), determines sanctions for individual auditors and auditing firms and defines a new incompatibility regime. Extensive supervisory powers are given to the Spanish Institute for Accounting Standards and Auditing (ICAC), an independent body. The



law does not address specific issues of corporate governance, which have been left to an independent Commission (*Comisión Aldama*) which has published a list of recommendations. Given the need to improve confidence in financial markets at the present juncture, it would be advisable that key recommendations of this commission be translated into legislative regulations rather than being left to voluntary codes of good practice.

The new law also introduces some regulatory changes for savings banks. These banks are defined as foundations, with no capital, and have been gaining market share after a process of regional consolidation and expansion outside their region of origin (OECD, 2001a). To avoid increased political interference, the voting rights of any public entity have been limited to 50 per cent, while the nomination of board representatives has been made irrevocable during their official mandate. Furthermore, in order to increase their own resources, the regulatory framework of special securities (*cuotas participativas*, whose remuneration is linked to profits though they do not incorporate voting rights) has been improved. These securities, which were previously allowed but were scarcely used due to restrictive issuance conditions, will provide more resources for further expansion and therefore could accentuate market share gains *vis-à-vis* commercial banks. Currently, savings banks may buy commercial banks but not the opposite (since savings banks have no equity). If this asymmetry creates an excessive competitive advantage for savings banks, it should be addressed by limiting their expansion through acquisitions or by allowing the reconstitutions of savings banks as share companies.<sup>97</sup>

### **Bank solvency remains high despite losses in Argentina**

Bank profitability has been eroded by the squeeze of intermediation margins due to lower interest rates and the stock market crisis, and by losses due to the Argentinean crisis. After-tax net consolidated profits fell by 6.4 per cent in the first half of 2002, while the return on equity was 12.9 per cent in mid-2002 as compared to 13.4 per cent in 2001; however, this reduction of profits has been milder than that of other European banks (Bank of Spain, 2002c).<sup>98</sup> Credit risk levels have increased in part because of a rise in bad loans, many of them in Argentina, while market risk in the area is still important.<sup>99</sup> But solvency ratios for Latin American affiliates, which the Bank of Spain follows closely, are very high (at close to 20 per cent), while overall solvency for Spanish banks is well above the statutory BIS minimum of 8 per cent.<sup>100</sup> In the domestic market, the ratio of bad loans (1 per cent) is still very low, and credit risk has fallen since the end of 2000 due to more moderate credit growth. However, mortgage loans, which account for half of total credit and were growing at 18.5 per cent in the first half of 2002, should continue to be closely monitored by the Bank of Spain, since they are weighted as low risk assets in standard risk measures but would be damaged if a sharp fall in housing prices occurs.

Since June 2000, the Bank of Spain has implemented a regulation that obliges banks to provision loans from the moment when a loan is granted, taking into account the average risk associated with that type of loan during the business cycle instead of the risk perceived when the loan is made. This implies that provisions increase when credit rises (expansions), instead of when risks increase (usually in downturns). Banks can use their own models for evaluating the risks by type of loans over the cycle, though a standard model has been developed by the Bank of Spain to be applied by those banks that do not have the technical capacity to develop their own model. The system is welcome, since it improves protection against banking crises, which usually appear when risks are re-assessed during downturns. It may also contribute, to some extent, to limiting excessive credit growth during expansions, since provisions have a cost that is now higher when the loan is granted.

### **The benefits from deepening structural reforms**

The deepening of structural reforms in labour and product markets would bring important macroeconomic benefits. A reform of the wage bargaining framework, together with more competition in some protected sectors would contribute to closing the inflation gap with the euro area, which erodes competitiveness. Further progress in market liberalisation, including a reduction in the segmentation of the labour market, would underpin a more rapid diffusion of new technologies in the production process and invigorate productivity growth, which would also be favoured by improvements in R&D investment and in education outcomes. In addition, a more balanced housing market that would favour a better allocation of resources and greater geographic labour mobility would contribute to reducing structural unemployment.

The OECD medium-term baseline scenario, which extends short-term projections until 2008, already incorporates a structural improvement of the economy due to earlier reforms. This baseline scenario, which is similar to the Spanish Stability Programme, which extends to 2006, shows a slight budget surplus and GDP growth of 3 per cent between 2004 and 2008. In this scenario, a decline in the unemployment rate to 9½ per cent at the end of the period would be compatible with a reduction of inflation, which would stabilise at around 2 per cent in 2007-08. The further reduction of the natural rate of unemployment (NAIRU), together with a negative gap at the beginning of the projection period, would allow activity to be sustained above potential growth, which is on average 2.8 per cent even under the assumption of trend productivity growth not accelerating with respect to the recent past. The Spanish economy would continue to perform better than the euro area average, although less markedly due to some exceptional factors, like the reduction in real interest rates coming to an end. Between 2003 and 2008, the favourable growth differential with the euro area could be about ¾ percentage

point, while the inflation differential would stabilise slightly above  $\frac{1}{2}$  per cent by 2007-08.

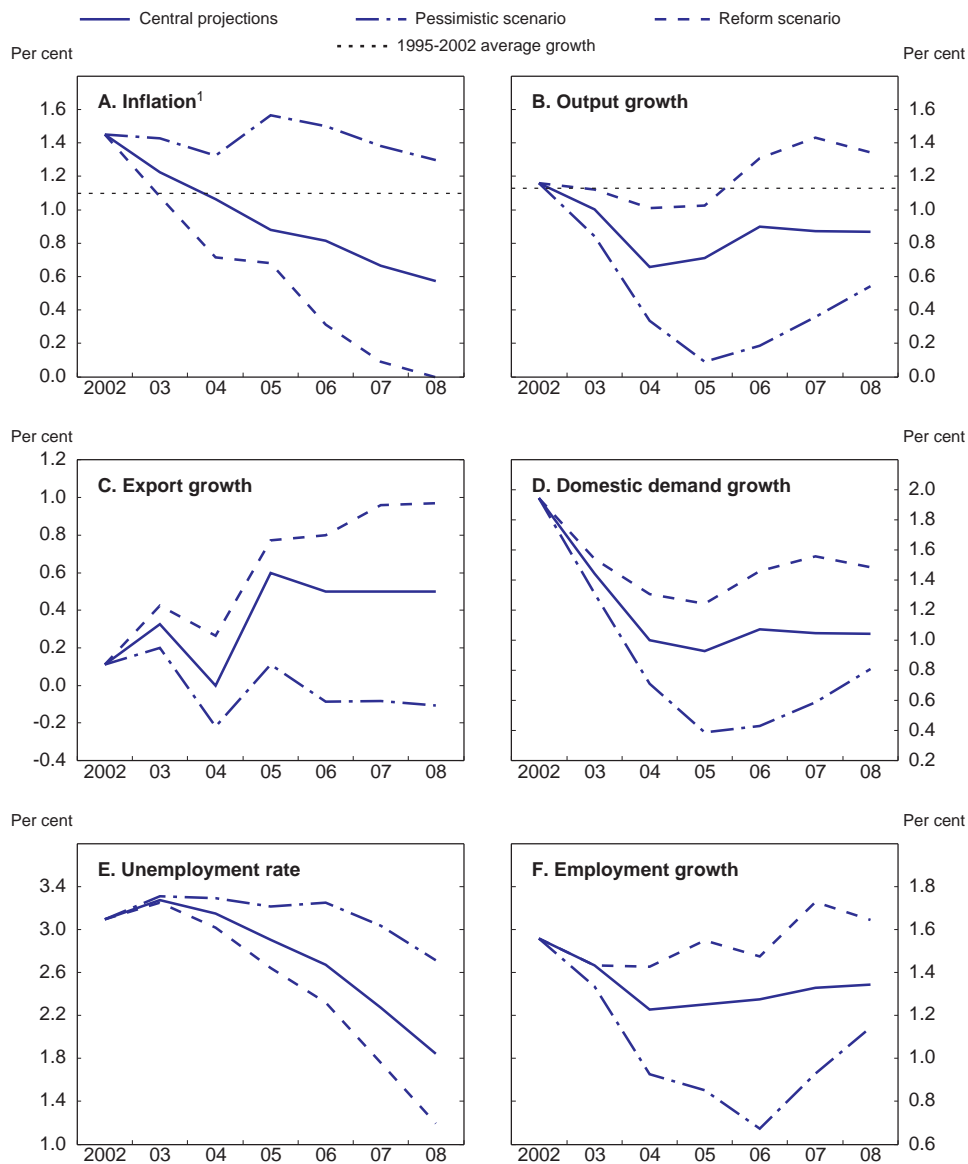
Two alternative scenarios have been simulated, using the OECD Interlink model. They illustrate, on the one hand, the potential positive effect of implementing the ambitious structural reforms suggested in this chapter and, on the other, the possible consequences of the lack of flexibility of labour and goods markets, and of excessive nominal rigidity of wages and prices, that would hinder the reduction of the inflation differential with the euro area. The main results of these simulations are presented in Figure 23 in terms of differences with respect to the performance of the euro area.<sup>101</sup> In the pessimistic scenario (unchanged inflation differential with the euro area), it is also assumed that the lower flexibility of the labour market would translate into a smaller reduction of the NAIRU than in the baseline scenario. Indeed, the structural unemployment rate, estimated at  $11\frac{1}{2}$  per cent in 2002, would not fall below  $10\frac{3}{4}$  per cent by 2008, instead of  $9\frac{1}{2}$  per cent in the baseline scenario, which would reduce the growth potential to  $2\frac{1}{2}$  per cent between 2003 and 2008. In that case, the growth gap with the euro area would narrow considerably, to at most  $\frac{1}{4}$  percentage point between 2003 and 2008, mainly reflecting a less favourable export performance resulting from competitiveness losses. Lower growth would also affect the labour market, while the public accounts would be worse, with a deficit of  $\frac{3}{4}$  per cent of GDP by 2008.

Conversely, the scenario of intensified structural reforms assumes that the inflation differential with the euro area disappears by 2006. In addition, the positive effect of reforms on productivity and structural unemployment is assumed to improve potential GDP growth by  $\frac{1}{4}$  points on average between 2003 and 2008 with respect to the baseline scenario, to reach  $3\frac{1}{4}$  per cent at the end of the period. In this case, growth would be above potential from 2003 onwards without generating inflationary pressures. The favourable effect of disinflation on competitiveness and wage growth induced by efficiency gains would favour higher exports and internal demand growth despite the higher real interest rates with respect to the baseline scenario. Higher growth would improve the budget balance, which could reach a surplus of 1 per cent of GDP in 2008. In this scenario, the growth difference with the euro area could reach 1 percentage point.<sup>102</sup> If such a differential were to persist, the gap in per capita GDP with the European average ( $14\frac{1}{2}$  per cent in 2002) would be closed by 2014, ten years earlier than in the baseline scenario.

### **Sustainable development**

There is growing concern that long-run sustainable development may be compromised unless measures are taken to achieve balance between economic, environmental, and social outcomes. This section looks at three issues at the

Figure 23. **Medium-term effects of structural reforms**  
Performance differential with the euro area



1. Change of the private consumption deflator over the previous year.  
Source: OECD.

interface of the environmental and economic dimensions of sustainable development, drawing out the social implications when relevant, that are of particular importance for Spain. In each case, indicators are presented to measure progress and the evolution of potential problems, and an assessment is made of government policies that affect the issue. The section also considers whether institutional arrangements are in place to integrate policy-making across the different elements of sustainable development (Box 4). The section considers first Spanish policies in the realm of *climate change*. It then looks at *waste management* policies. Finally, the section examines developments in ensuring the *sustainable use of natural resources*.

**Box 4. The integration of environmental concerns into government policy\***

Sustainable development has risen in importance in Spain. One of the major motivations for environmental policy initiatives are the requirement to transpose EC directives into national law and Spanish international commitments, often reinforced at the EU level. The Ministry of the Environment takes the lead in drafting national policies for specific areas. These plans are either integrated into existing regional plans or form the basis for future regional legislation. The main institutional mechanisms for ensuring co-ordination are regular sectoral conferences, which consist of representatives from both central and regional government. Several specialised advisory bodies also provide advice on major legislation and plans. Furthermore, environmental impact assessments and cost-benefit analysis are often used for larger projects and policies.

Policy integration is being developed at present. Due to the ongoing evolution of the allocation of competencies and financing between levels of government, the new demands of sustainable development policies can create implementation difficulties. For example, while autonomous communities currently have major responsibility for environmental protection, when more than one autonomous community is involved central government intervention is required. Conflicts over proposed legislation between the regions and central government can result in policies being challenged in the constitutional court, leading to delays in implementation. Strategic environmental analysis will become a systematic requirement for major public plans in Infrastructures when the European Directive 2001/42 will be transposed, before July 2004. Regarding environmental impact assessment, it is required for major projects since 1986.

\* The sections of this report dealing with climate change, waste management and the sustainable use of natural resources are inputs into the Organisation's follow up on Sustainable Development as mandated by the Ministerial Council in May 2001.

## Climate change

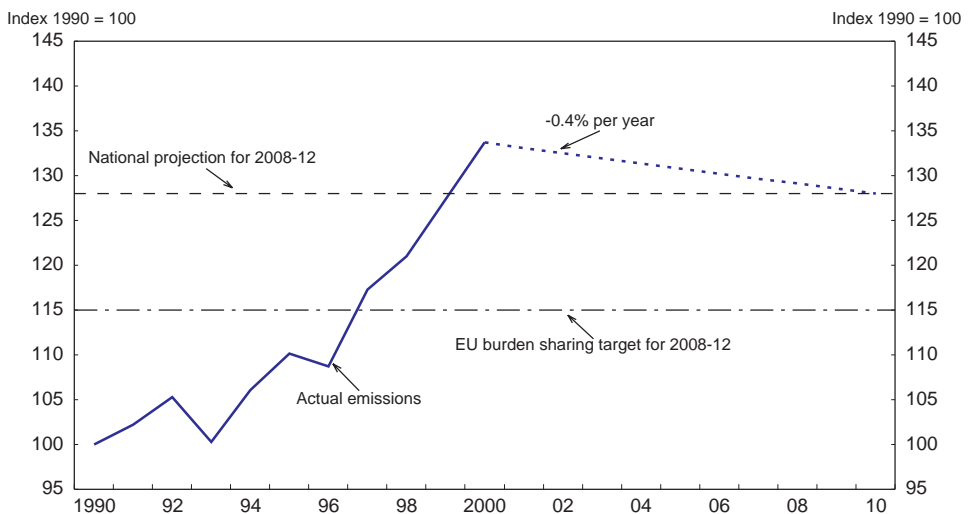
### Main issues

Anthropogenic emissions of greenhouse gases (GHGs) are widely agreed to have been the principal cause of the increase in global average temperatures over the past century. With global emissions continuing to grow, climate change may impose significant costs on countries, including OECD and non-OECD countries. Spain has a target of limiting the growth of GHG emissions to 15 per cent above their 1990 level, as part of the EU's so-called "Burden Sharing Agreement".<sup>103</sup> However, rapid economic growth during the 1990s has contributed to raising emissions significantly above this limit. In consequence, the main issue for Spain is to push down emissions to its international commitments without imposing an excessive burden on the economy.

### Performance

Emissions of GHGs in Spain have risen considerably faster during the 1990s than in almost all other OECD countries (Table A3, Annex I). By 2000, GHG emissions were more than 30 per cent above their 1990 level (Figure 24), with emissions per unit of GDP rising in contrast to the fall in virtually all other

Figure 24. **Greenhouse gas emissions**



Source: UNFCCC.

**Table 23. Main indicators: climate change**  
 Indicators of greenhouse gas (GHG) emission intensity,  
 gram of CO<sub>2</sub> equivalent per USD<sup>1</sup> of GDP, in 1995 prices

	Level of emissions, 1999				Average annual percentage change 1990-99			
	Total	CO <sub>2</sub> from electricity	CO <sub>2</sub> from transport	Other	Total	CO <sub>2</sub> from electricity	CO <sub>2</sub> from transport	Other
<b>Spain</b>	<b>537</b>	<b>127</b>	<b>130</b>	<b>280</b>	<b>0.41</b>	<b>1.12</b>	<b>1.28</b>	<b>-0.26</b>
France	416	32	103	280	-1.69	-2.04	0.16	-2.26
Germany	536	169	96	271	-4.00	-3.86	-0.57	-5.05
Greece	813	275	130	408	-0.24	0.07	0.74	-0.73
Italy	439	105	92	242	-1.05	-0.82	0.37	-1.64
Portugal	540	149	106	285	0.41	2.58	3.37	-1.39
United Kingdom	526	132	108	287	-3.66	-5.30	-1.38	-3.61
United States	792	278	196	318	-1.89	-0.60	-1.18	-3.28
OECD total	649	196	140	312	-1.80	-0.98	-0.38	-2.83
EU	506	120	103	283	-2.36	-2.60	-0.16	-2.95

1. National currencies converted to USD using purchasing power parities.

Source: Greenhouse gas emissions from national submissions to the United Nations Framework Convention on Climate Change (UNFCCC) and national publications; carbon dioxide emissions for electricity and transport from the International Energy Agency and GDP from OECD, National Accounts database.

OECD countries (Table 23). Despite the overall increases, there was some de-coupling of emissions from output trends in the manufacturing sector. However, the carbon intensity of electricity generation and road transportation remained broadly stable in the 1990s, thus failing to offset the impact of strong increases in electricity and vehicle use on emissions. In the residential sector, rising emission intensities compounded the effects of the strong rise in private consumption.

### *Policies*

The rapid rise in carbon emissions partially reflects the absence of an integrated national strategy in this area. Nonetheless, a number of policies include carbon abatement among their objectives. Such policies include the promotion of renewable sources of energy and co-generation, and the improvement of energy efficiency as part of the national energy strategy (Ministry of Environment, 2002a). Renewable energy and co-generation was supported through obliging electricity companies to purchase electricity from renewable sources at a higher price, leading to a six-fold increase of the share of co-generation and renewables to 13 per cent of total electricity supply during the 1990s.<sup>104</sup> As these policies have also targeted other objectives, the support has been very uneven across different types of energy supplies, with abatement cost varying between EUR 97 and 1300 per ton of carbon abated.<sup>105</sup> Policies in the 1990s were also aimed at improving energy efficiency, including through the granting of subsidies

and preferential loans specified under voluntary agreements.<sup>106</sup> However, although targets set in the Energy Savings and Efficiency Plan of 1992 were almost met in the industrial sector, little progress was recorded in energy savings from transport and buildings. Moreover, measures were not systematically assessed on the basis of cost effectiveness (IEA, 2001). In all these cases, a more cost-efficient policy would have been to use a uniform carbon tax or an emission trading scheme. In the particular case of renewable energy, market-based systems (such as green certificates) have been used in other countries to ensure that the most efficient use is made of subsidies. Nonetheless, the policies pursued during the 1990s appear to have slowed the growth of emissions of GHGs somewhat, as emissions had been projected in the early 1990s to rise 42 per cent by 2000 against the actual increase of 30 per cent.

Other policies have reduced, or at least restrained, the amount of emission abatement. There has been a moratorium on nuclear construction that was confirmed in 1994.<sup>107</sup> Moreover, it was not until 1996 that the main gas distribution company started expanding its domestic pipeline network and by 1999 there were still only 4 million natural gas customers. Moreover, hardly any electricity was generated from gas, though gas made inroads in the industrial sector amongst firms that produced power for their own use. Even so, only 9 per cent of electricity was generated from gas by 1999. Furthermore, natural gas imports were probably constrained by a law that imposed geographic diversification in natural gas imports, so that supplies from any one country were less than 60 per cent of not just overall Spanish imports but also the total imports of each individual gas distributor. The overall impact of these policies in the gas sector may have been one of the factors behind the failure of emission intensities to fall in the electricity sector, as occurred in the rest of the European Union.

Past policies in the coal sector have probably delayed progress towards abatement.<sup>108</sup> A number of restructuring plans have lowered coal output during the 1990s. However, each power station has a commitment to purchase a minimum quantity of domestically-produced coal, even if this quantity is set to fall by 28 per cent in the period 1998 to 2005 (IEA, 2001). Recent changes have meant that electricity generators no longer pay a high price for this coal but now pay the world market price with the government subsidising the coal producers in order to keep them competitive. Whether this system adversely affects carbon emissions depends on the choices that electricity producers would make if freed from these commitments. In any case, a continued quota system would work against any EU-wide cap and trade scheme for carbon emissions by preventing substitution.<sup>109</sup>

A national strategy for addressing climate change has been in preparation for over a decade, and is scheduled to be completed in 2003 but a number of policies have already been put in place. The plan should not include sectoral targets for domestic abatement. There is a danger that the marginal abatement costs



between sectors could diverge, leading to meeting the overall abatement target at a higher cost than necessary.<sup>110</sup> Indeed, wide divergences in energy efficiency across sectors exist, implying that care is needed to ensure an equalisation of marginal abatement costs (Feijóo *et al.*, 2002). Without waiting for an overall abatement strategy, Spain aims at doubling the contribution of renewable energy to total energy supply to 12 per cent by 2010, in line with the EC White Paper on Renewable Energy.<sup>111</sup> With the liberalisation of the natural gas and electricity markets, natural gas is likely to make rapid inroads into the electricity generation market, especially if international pipeline and regasification capacity is expanded. Indeed, current plans envisage a further 75 per cent increase in natural gas's share in energy supply by 2010.<sup>112</sup> To this end, the government is implementing the Gas and Electricity Infrastructure Plan. Forestation is also being promoted in order to absorb GHGs, with the ancillary benefit of helping to combat soil erosion and deforestation (see below).

The Spanish government supports the use of international instruments to reduce the required abatement at home. These include the use of a tradable emission allowance scheme at the EU level that is likely to be opened to project-based flexible mechanisms allowed in the Kyoto Protocol. Indeed, trading of emission permits among those countries that ratify the Kyoto protocol in combination with the EU emission allowance trading scheme for companies may offer Spain the most cost-effective way of meeting its target. In addition, investments abroad that lead to abatements in GHG emissions – the so-called clean development and joint implementation projects – could also contribute to meeting targets. However, the international trading scheme will not come into place until 2008, though the EU emission allowance trading scheme will most likely start in 2005. Carbon taxation would also be a cost-efficient abatement policy and could focus on those sectors and installations not covered by the EC trading scheme.<sup>113</sup>

### *Conclusions*

Spain has experienced one of the most rapid increases in GHG emissions in the OECD area in the 1990s. In part this was due to rapid economic growth, but it also reflected delay in formulating a climate change strategy and an initial resource endowment that left it with a very low ability to switch to less emission-intensive fuels in the electricity and residential sectors. However, the delay in overcoming this deficiency through the operation of market forces in the electricity and natural gas sectors, and the curtailment of the nuclear programme, has undoubtedly boosted emissions. The electricity and energy markets have been liberalised but there are still restrictions on natural gas imports and power stations are committed to purchasing a minimum quantity of domestic coal. Such policies need to be revised. The planned expansion of the natural gas network will help ensure a larger penetration of natural gas in power generation. The soon to

be announced national climate strategy should put greater emphasis on using the flexible mechanisms allowed under the Kyoto protocol and the EU emission trading system as well as intensifying domestic efforts to meet targets at least cost. A green certificate market for supporting renewable energy production could help achieve the target of increasing this source of electricity generation in the most cost-efficient manner. The strategy should acknowledge that carbon taxation offers a way to ensure optimal investment in abatement and should be preferred to sectoral targets.

## **Waste management**

### *Main issues*

If badly managed, the disposal of waste can cause long-lasting damage to ecosystems and to human health. Waste treatment facilities may also involve serious disamenity costs that can destroy property values in addition to spoiling the environment. Waste management policy within the European Union has set increasingly demanding targets for individual member states in an attempt to increase significantly the recovery of waste and reduce as much as possible the environmental impacts of waste management. The main issues facing Spain are designing policies that comply with these requirements while achieving the targets at least cost to society.

### *Performance*

The volume of municipal waste has grown very fast during the 1990s, both in absolute terms and relative to private consumption, partially due to high rates of economic growth (Table 24).<sup>14</sup> The majority of municipal waste has been disposed of in landfills (Table 25). At the beginning of the 1990s over one-third of land-filled waste went to uncontrolled sites, but this declined to under one-fifth by 1999. Nonetheless, there is still a substantial number of landfill sites that fail to meet Community legislation on waste management.<sup>15</sup> Spain has committed itself to close a large number of uncontrolled landfills, but still faces significant challenges in adapting existing sites to the requirements of the new Directive on the landfilling of waste. The share of recycling of municipal solid waste is below the EU average. After falling in the early 1990s, the share of biodegradable waste composted started to grow once again from the mid-1990s (Table 25). Finally, incineration accounts for a growing but still small share of municipal waste treatment. while the incineration of waste is increasingly coupled with energy recovery.

### *Policies*

Waste management policy has changed markedly in recent years with the transposition of several EC directives into Spanish law, embodying the polluter-pays

Table 24. Performance indicators: waste

	Municipal waste						Composting and recycling				
	Kg per capita		Annual growth		Relative to private consumption, annual growth		Level			Of which: recycling	
	Year	Level	Period	Percentage	Latest year	Percentage	Year	1 000 tonnes	Percentage of total	1 000 tonnes	Percentage of total
<b>Spain</b>	<b>1999</b>	<b>464</b>	<b>1990-99</b>	<b>4.3</b>	<b>18 377</b>	<b>2.0</b>	<b>1999</b>	<b>4 056<sup>1</sup></b>	<b>22</b>	873	5
France	1999	524	1993-99	1.7	30 744	0.0	1999	5 788	19	3 198	10
Germany	1998	549	1991-98	-1.5	44 995	-2.8	1998	..	..	16 318	41
Greece	1997	371	1990-97	3.8	3 900	1.8	1997	339	9	307	8
Italy	1999	497	1990-99	4.0	28 364	2.3	1997	4 416	17	1 874	7
Portugal	2000	437	1992-99	4.2	4 364	1.5	1999	418	10	190	4
United Kingdom	1999	558	1990-99	2.3	33 200	-0.2	1999	3 640	11	2 880	9
United States	1999	764	1990-99	1.3	208 520	-1.9	1999	57 961	28	46 068	22
OECD average		501		1.3	20 666	-1.2		4 269	22	3 731	17
EU average		526		1.9	13 056	0.0		2 438	22	2 349	18

1. Total recycling including composting and industrial glass and paper. If it only included separate collection of recyclable materials and composting, the figures would be 1 315 and 7, respectively.

Source: OECD and Eurostat.

Table 25. Treatment systems for waste in Spain

	1990	1995	1999
Level (1990 = 100)	100.0	120.0	146.0
Municipal waste management treatment			
Uncontrolled landfill	26.2	17.4	12.8
Controlled landfill	48.1	62.9	58.8
Incineration with energy recovery	2.9	4.2	5.3
Incineration without energy recovery	1.9	0.4	0.3
Composting facilities	20.3	13.8	18.0
Separate collection of paper	0.0	0.0	2.0
Separate collection of glass	0.5	1.3	1.8
Separate collection of other materials	0.0	0.0	0.9
Total	100.0	100.0	100.0

Source: Ministry of the Environment.

principle.<sup>116</sup> The 2000 National Plan for Urban Waste and the Law on Packaging and Packaging Waste call for: a reduction of waste and packaging waste of 6 and 10 per cent respectively by 2006;<sup>117</sup> gradually expanding separate collection; increasing re-use, recycling, and energy recovery; eliminating all uncontrolled landfills by 2006; and improving the technical standards of landfills in operation.

The packaging waste law introduced the principle of extended producer responsibility (EPR) for such waste. Packagers are required to take responsibility for the collection and disposal of waste, including meeting targets for re-use and recycling. In practice, most packagers have opted to delegate this responsibility to third party not-for-profit organisations, with several organisations specialising in different types of packaging materials.<sup>118</sup> In comparison with other EPR schemes in Europe, the costs incurred by these organisations, reflected in their fees for different materials, are low (Table 26). In contrast to some countries, the EPR system only pays the extra costs that local authorities incur in the collection and treatment of recyclable waste, thereby offering economies of scale through integration with normal waste collection facilities of local authorities. Separate collection of packaging by local authorities has been expanding but it was not obligatory until recently. Indeed, the principal method for collecting recyclable glass and paper was voluntary bring systems. This method restricts the recycling effort to the quantity that consumers bring to collection points, so bearing a large part of the extra collection and transport costs on a voluntary basis.<sup>119</sup> Costs were also contained as municipal authorities can choose to use the EPR organisation, which contracts with recyclers on a competitive tender basis, or an alternative contractor if that is cheaper. As the recycling targets were realistic, the overall costs of recycling, with the exception of plastics, appeared to be competitive with incineration.

Table 26. Fees<sup>1</sup> for extended producer responsibility schemes in Europe

	Spain	Austria	Belgium	France	Germany	Luxembourg	Portugal	
	Kg							
	Fees in € per thousand containers							
Glass bottle (1 litre)	0.35	<b>2.40</b>	30.52	6.77	0.75	28.46	5.99	0.52
Tetrabrick (1 litre)	0.027	<b>2.25</b>	5.47	6.14	2.99 <sup>2</sup>	25.28	5.69	0.27 <sup>2</sup>
PET bottle (1 litre)	0.03	<b>3.53</b>	32.90	10.44	3.47	45.12	8.59	1.20
Aluminium can (33 cl)	0.014	<b>0.76</b>	6.92	2.40	0.45	13.65	2.00	0.52
Steel can (33 cl)	0.03	<b>0.93</b>	11.97	1.74	0.42	11.61	1.24	0.52
Cardboard box	1	<b>15.47</b>	202.76	37.68	74.09 <sup>3</sup>	190.64	31.23	9.98
	Fees in € per tonne of material							
Glass bottle	<b>7</b>	87	19	2	81	17	1	
Tetrabrick	<b>83</b>	203	227	111	936	211	10	
PET bottle	<b>118</b>	1 097	348	116	1 504	286	40	
Aluminium can	<b>54</b>	494	171	32	975	143	37	
Steel can	<b>31</b>	399	58	14	387	41	17	
Cardboard box	<b>15</b>	203	38	74	191	31	10	

1. These fees are valid for the year 2000. They are exclusive of VAT.

2. A paper-cardboard tariff is applied (main material).

3. A 10 per cent rebate is awarded to cardboard packaging containing more than 50 per cent recycled material.

Source: European Commission, *European Packaging Waste Management Systems – Final Report* by ARGUS, February 2001.

By 2001, through the implementation of waste management policies, the targets set by the 1997 law were successfully met. Yet costs could rise quite substantially in the future. Since January 2001, separate collection of packaging is obligatory for municipalities with a population higher than 5000 inhabitants, that account for 85 per cent of total population. Also, the National Plan for Urban Waste sets demanding targets for 2006. In particular, the targets for plastic recycling, which can be particularly costly, are twice those required by the corresponding EC directive on packaging and packaging waste, which itself will be costly to achieve (Table 27). Efforts to increase the separate collection of different materials are already complicated by contamination of materials in collection containers.

Cost increases may result from more stringent requirements in EC directives to divert waste streams from landfills, which will entail considerable investment in separate collection and building of sorting, recycling, composting, and energy recovery plants. Planned investment in such facilities will amount to almost EUR 1.5 billion between 2000-06, accounting for 70 per cent of all public investment in the waste sector. Part of the remaining expenditure is necessary to ensure that landfills conform to environmental regulations that limit externalities. Indeed, the cost of improving landfills will have large impacts in many regions that rely heavily on landfill as the main disposal option. Once landfill sites are controlled, have methane recapture facilities in place and no longer pollute nearby

Table 27. **Recovery and recycling rates and targets**

	Commission proposals	National urban waste targets	Actual 1999
Overall recovery target	60-75	>70	42
Overall recycling target	55-70	>50	38
Material specific targets			
Glass	60	75	38
Paper/board	55	75	54
Metals	50	90	24
Plastics	20	40	14

Source: European Commission, Ministry of the Environment.

water sources, there will be less justification for the extremely ambitious targets that have been set for increasing the amount of biodegradable material being composted instead of going to landfill. In such cases, the external benefits of composting such waste can be quite small (Eunomia Research and Consulting, 2002). They could also be offset by the increased costs of the required separate collection. Past costs for composting in some parts of Spain have been comparatively high in relation to other countries (Table 28). In this context, the government should undertake a cost-benefit analysis, taking into account the likely evolution of the costs of different waste treatment options, external benefits, and the value of compost, which can be used as soil improver in land suffering from severe erosion problems. Such an approach would also help to meet efficiently the targets set in the EC Directive on the Landfill of Waste.

Past neglect of the conditions under which landfills were operated has generated considerable soil contamination. Almost 5 000 cases of soil contamination were identified in an extensive assessment of the scale of the problem, many of which were the result of land-filling (Ferguson, 1999). Central government is paying half the costs for improving contaminated soils, as the costs of remedial action are prohibitively expensive for the autonomous communities on their own. Due to the high cost for each acre of land treated, funds are targeted at sites that threaten water supply or human health.<sup>120</sup>

### *Conclusions*

In the field of waste management policy, Spain has made progress in a relatively short time and at a comparatively low cost. Nonetheless, a significant portion of landfill sites still does not comply with environmental regulations and should be rapidly brought into conformity. However, new targets to reduce the use of landfills will require more effort and may be more costly to achieve. In this light, policies should be designed to reach these targets in a least-cost manner. Indeed,

Table 28. **Costs of composting in selected European countries<sup>1</sup>**

		Capacity, tonnes	Set-up costs, '000 euros	Operating costs, euros per tonne	Total financial costs, euros per tonne	Cost per household, euros
<b>Spain</b>	<b>Baix</b>	<b>4 000</b>	<b>6 000</b>	<b>45.0</b>	<b>220.9</b>	<b>110.4</b>
	<b>Barcelona</b>	<b>10 700</b>	<b>5 400</b>	<b>108.0</b>	<b>179.9</b>	<b>35.0</b>
	<b>Montejurra</b>	<b>10 000</b>	<b>4 000</b>	<b>222.0</b>	<b>279.0</b>	<b>121.3</b>
France	Gironde	36 000	175	20.0	20.7	37.2
	Niort	8 500	520	30.5	39.2	27.8
	SIVOM	6 000	3 300	37.0	115.3	58.6
Ireland	Cork	1 000	42	21.0	27.0	0.2
	Kerry	500	193	209.0	264.0	74.7
	Limerick	950	766	16.0	130.8	44.4
Italy	Cupello <sup>2</sup>	315	0	380.0	380.0	57.0
	Monza <sup>2</sup>	10 000	0	6.3	6.3	1.1
	Padova	16 500	2 200	400.0	419.0	67.4
Portugal	Amtres	250 000	58	17.5	17.5	29.2
	Lipor	30 000	5 400	8.5	34.1	41.0
United Kingdom	Castle Morpeth	5 000	225	20.5	26.9	6.6
	Wyecycle	250	18	89.0	99.3	24.8

1. Assuming that the set-up costs bear an opportunity cost of 7 per cent per annum.

2. Monza and Cupello use same equipment as normal collection and claim it is therefore costless.

Source: European Commission (2000), *Success Stories on Composting and Separate Collection*.

once the principal external costs of landfills have been internalised through environmental regulations, policy should remain conservative in setting targets for recycling. It would appear better to set a cap on the allowable packaging levies reflecting the marginal alternative methods of waste treatment and allow the amount of recycling to be determined by the market, rather than setting quantitative targets irrespective of costs. Significant progress has been made in identifying sites suffering from soil contamination. Due to the large costs involved in remedying contaminated soil, the government should continue to prioritise areas that present the greatest threat to health and the environment.

### **Sustainable use of natural resources**

#### *Main issues*

Climatic and geographic conditions place considerable pressures on Spain's water and land resources. And, as in the other Mediterranean countries, water-intensive activities are relatively important. The main issues in the sustainable use of land-based natural resources is altering policies so as to reflect their cost, including environmental externalities in order to protect scarce water resources and prevent

future land degradation. It is also important to ensure that sea-based resources are harvested in a sustainable fashion, an issue that is considered above in the discussion of fisheries in the product market section of this *Survey*.

### Performance

The pressure on water resources in Spain is second only to Belgium in the OECD area (Table 29). In over 70 per cent of the country, abstractions of water are over 40 per cent of the flow of available water, while in the less dry area abstraction rates are below 25 per cent. Agriculture is the biggest end user of water, and the area under irrigation has almost doubled over the past four decades. The south and south-east (particularly, Murcia and Almería) are the areas experiencing the greatest stress on water resources. As these regions typically rely heavily on groundwater, local aquifers suffer from over-exploitation and saltwater intrusion is already a serious problem (Revenga *et al.*, 2000). During periods of drought, water supply has to be rationed for some users. Pressure on water resources is expected to intensify over the next 20 years with demand rising by over one-quarter (Ministry of Environment, 2002b). Soil erosion is also an important problem and has grown in severity over time, though some successes in containing erosion may have occurred more recently.

Table 29. **Main indicators for water withdrawal and land degradation**

	Water withdrawals		Irrigation coverage, per cent of farmland	Land degradation	
	Per cent of available resources	Relative to GDP (1980 = 100)		Per cent of total area	Per cent due to agriculture
<b>Spain</b>	<b>36.8</b>	<b>65</b>	<b>19</b>	<b>38</b>	<b>16</b>
France	23.9		10	9	0
Germany	24.4	69	3	31	67
Greece	12.1		36	48	5
Italy	32.2		24	28	12
Portugal	15.0		24	21	100
United Kingdom	14.6		2	19	100
United States	19.9	55	12	30	75

Source: OECD; International Commission on Irrigation and Drainage; Food and Agricultural Organisation.

### Policies

The publication of the White Paper on Water in 1998 recognised the need for an improvement in water management and a better pricing mechanism in order to create the conditions for an efficient use of this critical resource. Following this analysis, several reforms have been adopted, although their practical implementation



is still limited. All water supplies are publicly owned, with water basin authorities managing major infrastructure and determining water abstraction quantities. Water users hold rights for abstractions and are organised in user associations, which have the responsibility for distribution amongst individual irrigators, dispute settlement, and the collection of irrigation tariffs. The operation of this system is flawed in some respects:

- Unclear abstraction rights covering almost half the irrigated acreage have prevented the affected basin authorities charging at all for abstracted water (Garrido, 2001). This situation derives from the existence of private property rights before the passage of the 1985 Water Law. The authorities are working towards completing the clarification of the abstraction rights within the next five years.
- Water prices for all users have been below full cost recovery, because a share of capital costs (and in some cases even operational costs) were not covered (OECD, 1997b; Garrido, 2001).<sup>121</sup> However, with the adoption of the National Hydrologic Plan, the principle of full-cost recovery has been established.
- Non-payment of water charges was a serious problem, accounting for around 50 per cent of the value of (already subsidised) invoices (Ministry of Environment, 1998). However, payment discipline has recently improved with an invoice recovery rate ranging between 65 and 95 per cent.
- The cost of environmental externalities (such as remedial action to restore depleted aquifers) are estimated to be up to EUR 0.5 per cubic metre of water (Garrido, 2001) in contrast to prices for irrigation water that vary between EUR 0.03 and EUR 0.15 per cubic meter.<sup>122</sup>
- Incentives for water conservation in agriculture, the main user, are frequently absent due to irrigation pricing based on land area rather than consumption.<sup>123</sup>

In 1999, two policy innovations partially addressed some of the shortcomings in water management practices. The first innovation was to require existing irrigators to install metering equipment so that the price of water can be adjusted if past water use is above or below an estimated need, based on the characteristics of the land and crops grown (Garrido, 2001).<sup>124</sup> Such a needs-based system does not reflect effectively the value of the water to the individual farmer. It would be more efficient to adjust prices until there was no excess demand for water when quotas would no longer be necessary. However, existing quotas could be equated to property rights and some form of compensation would be needed and would have to be based on the current allocations.<sup>125</sup> The second innovation was the adoption of framework legislation for a secondary market for water. Such a system has the potential to reveal more accurately the opportunity costs of water use and hence increase water use efficiency. However, further supporting legislation

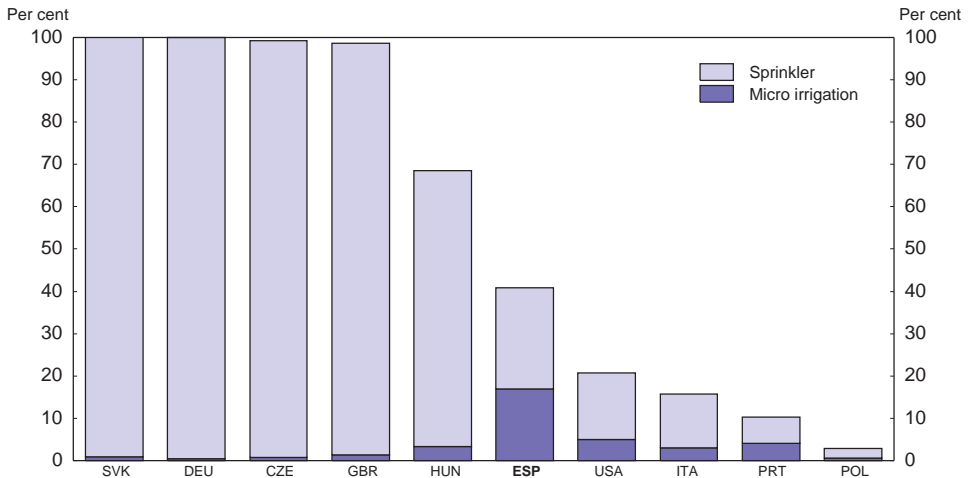
is needed to ensure that this system contributes to efficient water use, through revealing the value of water in each location.

Having in mind Spain's rainfall pattern with unequal distribution among regions, an important component of national policy is the transfer of water between different water basins, thus balancing resource availability. This policy is also designed to preserve agriculture employment in areas where irrigation is important. One of the key initiatives is the transfer of water from the Ebro river in the north-east to the south and south-east over a distance of 850 km, at an estimated cost of over EUR 3 billion. The objective of the government is that the price of transferred water should bear the full cost of infrastructure investment and an environmental fee to cover externalities in the donor water basin. This seems an unlikely outcome. The National Hydrological Plan puts the average cost of the water transfer as EUR 0.32 per m<sup>3</sup> assuming that all the water transferred is used.<sup>126</sup> However, the cost is likely to be much higher in some areas due to the greater transport and construction costs. One study of water supply and demand in the southern area puts the cost of water from this project at EUR 0.45 per m<sup>3</sup> against the current price of EUR 0.03 per m<sup>3</sup> for irrigation water (Albiac-Murillo *et al.*, 2002). Should demand be less than anticipated, due to the difference between the price for transferred water (based on full cost recovery) and current tariffs for irrigation water, unit costs could potentially rise to the levels of desalination costs.<sup>127</sup> If instead, aquifer abstraction were to be limited to a sustainable rate, supply and demand could be balanced by raising prices to EUR 0.18 per m<sup>3</sup> (*op. cit.*), still much less than the cost of the Ebro scheme that has been approved by Parliament.

A second major component of national water policy is encouraging the modernisation of agricultural irrigation, in order to reduce the waste of the resource. At present around 40 per cent of the irrigated area uses efficient irrigation techniques, such as drip irrigation (Figure 25).<sup>128</sup> Losses from the distribution network are substantial at around one-fifth (INE, 2001). To expand more efficient irrigation and reduce losses, public and private funds will be used to modernise irrigation systems.<sup>129</sup> To this end, public investment between 1998 and 2008 will total EUR 3 billion, with additional private investment estimated at EUR 2 billion, for modernising irrigation systems covering almost 40 per cent of irrigated land.

Soil degradation is an important problem in Spain, principally affecting arid regions along the Mediterranean coast. Soil erosion is a potential problem in cases where vegetation is removed. In regions with scarce income alternatives various type of agricultural production has been expanded. This may have been a consequence of price incentives under past European agriculture policy (Beaufoy, 2000). Due to the erratic rainfall pattern in this region production has been intensified through drip irrigation. On these intensified plantations the vegetative cover has been removed in order to allow modern tilling practices not appropriate for the ecological conditions. These practices have in turn contributed to soil erosion. However

Figure 25. **Application of efficient irrigation methods**  
As a percentage of total irrigated area



Source: ICID.

a significant part of the land affected by erosion is non-irrigated grassland and to a lesser extent areas of permanent crops (OECD, 2001e). Recent reforms have made production subsidies conditional on the development of good farming practices, which should contribute improving environmental outcomes. Further beneficial effects on the environment could probably be achieved by decoupling subsidies for these crops from production and moving completely to acreage payments. In addition, a reforestation programme, such as the 2002 National Forest Plan, could also address some soil erosion concerns and act as a sink for greenhouse gases. Improvements in the state of local aquifers would also help reduce soil degradation in some areas. In recent years, new policy measures have controlled the rate of abstraction from overexploited aquifers in some of the most affected areas. Moreover, in December 2002, further water legislation introduced new measures on the depth of water abstraction from aquifers. In addition, the central government is identifying areas affected by soil erosion and works with regional governments and private landowners.

### Conclusions

Water and land management policies are important issues, and must be reinforced to face serious pressure. Water policy needs to strengthen the use of pricing to increase the efficiency of water use. As a start, payment discipline has to

be enforced to give all users some incentive to husband resources. The overall quantity of water to be used should be determined with regard to the sustainability of aquifers and the minimum environmental flows. Water allocations based on a needs-based system does not reflect effectively the value of the water to the individual farmer. By adjusting water prices properly and further liberalising the nascent market in water trading by clarifying water rights, a more efficient use of water resources could be achieved. Getting the framework right for water management rapidly should complement the decision to invest in water transfer schemes to ensure this resource is used efficiently. Finally, soil erosion is a serious concern and while some successes in improving farming practices can help reduce the extent of the problem, government action will probably be needed to internalise the external costs of erosion. The government must, however, weigh carefully the various policies options promoted to ensure that erosion is limited in the most cost-effective manner.

## Notes

1. As in the rest of the euro area, the introduction of the fiduciary euro resulted in a fall in demand for notes during the course of 2001, households being compelled to clear their cash reserves. That saving, put at 2½ per cent of GDP by the BBVA (2002a), seems to have been partly spent on consumer durables and housing in late 2001. This may have stimulated consumption by between ¼ and ½ percentage point in 2001, which would partly explain why it grew more slowly in early 2002 (Laborda, 2002).
2. According to Farré and Raymond (2002), the wealth effect on household behaviour is significant and of the same order of magnitude in Spain as in the other main OECD countries: a rise in total wealth by one euro results in a fall in the saving ratio by nearly 4 cents. These authors claim that the bulk of the reduction (by 4 percentage points) in the household saving ratio between 1995 and 2000 was due to the increase in wealth (over 40 per cent in real terms), itself stemming from the rise in the relative prices of financial assets and real estate. Since 2000, the continuing rise in house prices has offset the stock market fall.
3. The number of dwellings has increased on average by nearly 500 000 over the last four years, whereas the number of new households has risen by only 200 000 (Bank of Spain, 2002a).
4. According to Tinsa Real Estate Appraisals, approximately one-third of real estate purchases in autumn 2002 were for investment purposes. This investment, which takes the form of purchases of second homes or of property for children, is one of households' favourite ways of saving to protect themselves against the risk of inflation.
5. The proportion of households with both members working rose between 1992 and 2000 by 12 percentage points to 43 per cent, though this remains well below the European average (60 per cent). Measured against household income, the effort required to finance an average mortgage loan remains fairly moderate from an historical point of view, despite the recent rise in real estate prices (Bank of Spain, 2002a). A discussion of the risks of a speculative bubble is also provided by Balmaseda *et al.* (2002).
6. In the Balearic Islands, moreover, the introduction of a special green tax on tourism may have had an effect.
7. Prices of hotel and tourism services have climbed by an annual average of 9½ per cent since 1997, which is 6½ per cent more than in France and 4½ per cent more than in Italy.
8. For example, lower wage costs in countries such as the Slovak Republic prompted the car manufacturer Seat to transfer part of its production to that country during autumn 2002. According to Muñoz (2002a), foreign firms have been cutting back on their net investment in the industrial sector in Spain, though not in services. This

author argues, however, that this process has more to do with the restructuring by multinationals throughout Europe than with Spain losing its comparative advantage in terms of wage costs.

9. Temporary employment accounted for only 13.2 per cent of total employment in the EU in 2001. The reduced use made of temporary contracts in the private sector in Spain was partly offset by an increase in the public sector.
10. The capital-labour ratio has fallen in recent years and the share of salaries in value added, which went from 52.2 per cent in 1993 to 49.8 per cent in 1996, rose slightly to 50.1 per cent in 2001.
11. At end-2003, the National Statistical Institute (INE) will present the revised ESA 95 national accounts figures, calculated for the base year 2000. There are a number of indicators, such as the buoyancy of tax receipts and the steeper-than-expected population rise (revealed by the 2001 census) resulting from increased immigration, which suggest that GDP might be revised upwards.
12. Between 1995 and 1999 (the period for which detailed data are available), 70 per cent of jobs (measured in full-time equivalent) were created in sectors where productivity was lower than the national average. Over 50 per cent of jobs were created in sectors where apparent labour productivity was less than 75 per cent of the national average. See also Estrada and López-Salido (2001) on this subject.
13. According to a study carried out by the Bank of Spain (Estrada *et al.*, 2001a) for the period 1996-99, nearly three-quarters of Spain's productivity gap with the EU is due to a different production structure, whereas only a quarter of the gap derives from a lower level of sectoral productivity.
14. The statistical changes that the INE introduced in the labour force survey with effect from the first quarter of 2002 brought some major revisions in labour market statistics. As reported in the previous survey (OECD, 2001a), there have been three main changes: *i*) a revision of the labour force to take account of new immigration figures; *ii*) an adjustment in the system of reweighting the sample deriving from the labour force survey; *iii*) the way unemployment is calculated has been made consistent with Eurostat norms. For 2001, these changes meant revising employment upwards by 8 per cent and the labour force by 5 per cent, while the unemployment rate was reduced by 2½ percentage points.
15. According to the INE, the total cost of work, per worker and per month, has risen by some 5 per cent on average across the whole economy since early 2001. This is 1½ percentage points higher than in the euro area for which Eurostat publishes homogeneous statistics. In the case of Spain, the sharp rise in labour costs partly reflects a bigger increase in non-wage costs than in the other countries, this being due to the raising of the ceiling on social security contributions for the least skilled workers, which is now the same for all job categories. The rise in non-wage costs may also be partly attributable to the suspension of the subsidies, which certain contracts had hitherto benefited from.
16. Rogers (2001), for example, draws attention to the existence of a price convergence phenomenon in the case of Spain. The empirical findings presented in this study depend, however, on the specification of the equation estimated.
17. As indicated in the previous OECD survey (OECD, 2001a), for example, it is hardly likely that price convergence between Spain and the euro area is the result of rising wages in the service sector due to a catch-up in industrial productivity, as described by Balassa and Samuelson. Productivity growth has been lower in Spain than in the

other countries in recent years and the increase in prices of services is closely linked with the trend in profit margins in the latter sector.

18. According to the Spanish Government, the effect of the introduction of the euro on inflation in 2002 may have been slightly more marked than in the other countries because of the special difficulty of converting pesetas into euros.
19. Taylor rules typically relate short-term interest rates to the output gap and inflation developments relative to inflation target. Such rules, estimated on the basis of underlying inflation for the euro area but used for Spain, suggest that short-term interest rates should be around 5¼ per cent if a 1½ inflation target is assumed and around 4½ per cent in the case of a 2 per cent target. The three-month interest rate averaged only 2.85 per cent in early January 2003.
20. As in 2001, activity in 2002 turned out lower than forecast. The 2001 budget was initially based on an assumption of real GDP growth of 3.6 per cent, and of 2.9 per cent for the 2002 budget. In 2001, growth finally reached 2.7 per cent and was around 2 per cent in 2002.
21. In 2002, with inflation overshooting the initial target by nearly 2 percentage points, pensions expenditure again had to be increased by a total of EUR 2.1 billion, or 0.3 per cent of GDP, which is spread evenly over the 2002 and 2003 budgets.
22. Monitoring of the budget out-turn was also difficult in 2002 because of the ongoing process of decentralisation and the lack of information at the regional level. Discussions concerning the quarterly publication of government (including regional) accounts are under way with a view to improving the monitoring of the budget outturn. A new Eurostat regulation will effectively be in force as from 2003 whereby all levels of government will be obliged to report quarterly budget outturns. One of the obstacles to the implementation of this regulation is the difficulty of applying the ESA 95 methodology to lower levels of government.
23. The agreement in the public service also provides for a 3.2 per cent increase in 2004, of which 0.5 per cent represents a deferred wage increase in the form of a pension fund set up for civil servants.
24. Over the past 15 years, the number of civil servants has risen by 800 000, which is 3 per cent per year (Caixa, 2002). This sharp increase is attributable in particular to decentralisation and the development of the autonomous communities, where over 80 per cent of these jobs were created, whereas the number of central government public servants has declined. Despite having risen so rapidly, the proportion of government jobs, at 14.5 per cent of total employment, was not high in international comparison (OECD, 2001a). Recently, the restrictions on recruitment to the civil service have resulted in an appreciable increase in temporary jobs, especially at the regional and local level. The share of temporary employment in the public sector, for example, rose from 16.6 to 22 per cent between 1997 and 2002, whereas it fell from 38.8 to 34 per cent in the private sector.
25. Sometimes information on general government is presented with reference to the forecast end-2002 outturn, which is useful, but is usually made in comparison with the initial 2002 Budget, which is inadequate.
26. The projections are based on the following assumptions: oil prices are assumed to stay at USD 31 per barrel in the first half of 2003 before falling to USD 25 in the second half and remain there until the end of the projection period; exchange rates are fixed at their level of 7 February 2003 (1 EUR = 1.08 USD), implying an appreciation of the euro *vis-à-vis* the US dollar of 20 per cent since the first half of 2002.

27. The basket also includes the tax on electricity and on car registration and devolved taxes (on wealth, inheritance and donations, gambling and stamp duty).
28. The previous income tax reform lowered the top rate from 56 to 48 per cent, and the minimum rate from 20 to 18 per cent.
29. Revenues from mutual funds are considered as capital gains by the 1999 law, not capital income, so that they are taxed at a flat 15 per cent rate (instead of the marginal rate), if generated in more than one year.
30. Tax exemption for rental income, though good for the development of the market of rental housing and labour mobility will also subsidise the numerous holiday rentals.
31. Those businesses whose activity falls outside the geographic application of the tax (like exporters and importers) will not be allowed to pay tax under this regime.
32. After the 1999 reform, the tax brackets were modified in 2000 but not in 2001 and 2002.
33. According to the 1998 law, local authorities can only resort to fees if a direct link can be established with the cost of the service to be financed. According to Martinez (2000), the municipalities' lack of information in this area partly explains why little use is made of this source of finance.
34. Spending efficiency will be enhanced by management improvements. A recent example is the extension to the whole of Spain of a control system developed in Andalusia for prescriptions of anti-inflammatory drugs. More generally, the indicators could gauge the budgetary management of the regions and the central government. The publication of such information in other federal countries, coupled with the existence of local referenda, represents a powerful incentive to take account of the aspirations of the population and keep tighter control over public finance (OECD, 2002a).
35. Hospital reform has also been slowed by the completion of the decentralisation of health spending to the 10 communities that did not as yet have that responsibility in 2002. In late 2000, the government had suspended the reform process, pending the transfers of responsibility.
36. A 1998 Court of Auditors study on hospital activity showed that some hospitals were paying up to twice as much as others for the same drug. According to the body that managed non-decentralised health services up until 2002 (INSALUD), the rules governing tenders for procurement contracts relating to advertising and competition, as laid down by law, were not applied in half of these contracts.
37. Despite the budgetary restrictions, the number of doctors has increased since the mid-1990s, suggesting wage restraint.
38. According to official estimates, these measures had the effect of slowing the growth of public spending on prescription drugs by 7 percentage points between 1999 and 2002. However, over 40 per cent of this reduction was due to the narrowing of margins on drugs, the effect of which is temporary. Consumption of generic products rose to 3.4 per cent of pharmacy spending in value terms and was put at 6.7 per cent in real terms in May 2002.
39. In 2003, minimum pensions will be raised by 5½ per cent, *i.e.* 1½ per cent more than the inflation-linked adjustment, whilst survivors' pensions will be increased by some 8 per cent. The budgetary cost of these measures amounts to EUR 335 million.
40. The bulk of the 28-page report on Spain's national strategy by the Ministry for Social Affairs concerning the future of the pension system deals with the period 2000-15, whereas the pressures liable to emerge after that period are discussed in only three lines. An annex to the report contains an extrapolation of pension expenditure projections up



to 2040, *i.e.* 10 years before the demographic pressures peak. Also, the projected 3¼ per cent of GDP increase in pension payments between 2020 and 2040 seems very optimistic. The assumptions underlying this projection are, first, a decrease in the number of pensions for the population aged 65 and over – despite the rise in female labour force participation and the possibilities of combining retirement and survivors' pensions without means-testing – and, second, a decrease in pensions relative to productivity (and real wages), contrary to the trend during recent years. The Stability Programme 2002-06 (Ministry of Economy, 2002) includes also unofficial projections similar to those of the Ministry of Social Affairs until 2040. These projections are extended until 2050 and project an increase of public pension spending by 4½ per cent of GDP between 2020 and 2050.

41. The INE will publish at the end of 2003 new demographic projections based on the results of the 2001 census.
42. The uncertainties, which chiefly concern economic and demographic developments, are both positive and negative, and their implications are frequently subjected to sensitivity analyses (OECD, 2001a).
43. Since 1980 pensions have been growing on average by 1½ percentage points more than wages. Were this trend to continue, there would also be problems of income distribution, especially since, according to the authorities, the elderly are less subject to poverty than labour force participants and the unemployed in particular (Ministry of Labour and Social Affairs, 2002).
44. It would seem reasonable for persons who will be retiring at age 65 in 2015-20 to know at least by age 55, how their pensions will be calculated. This means that the reform has to be adopted between 2005 and 2010, *i.e.* during the next parliamentary term.
45. The INE will present at the end of 2003 revised national accounts, which will take into account, among other things, the new census for 2001.
46. The Bank of Spain periodically publishes several indicators of convergence with the European Union. For those on the stock of public and private capital, see Bank of Spain (2002b).
47. For an exhaustive account of such externalities, see OECD (1999) that follows Calmfors (1993).
48. However, the empirical evidence in favour of this hypothesis is not conclusive (OECD, 1997a).
49. For a background for these attempts, see Bentolila and Jimeno (2002).
50. Wage increases have been more moderate at the enterprise level than at the sectoral (provincial or national) level, although this is partly due to the fact that they are usually signed in larger firms, where wage levels are higher to start with, and workers receive higher non-wage benefits (Fina *et al.*, 2001).
51. Out of 18 OECD countries, it is longer only in the Netherlands, Denmark, France and Norway.
52. Countries like the United States and the United Kingdom do not have unemployment assistance after unemployment benefits have expired, while Australia and New Zealand do not have a UI system.
53. Out of 800 000 temporary workers in agriculture, 600 000 live in Andalusia and Extremadura.

54. Abuses of the system were reported in the past. In particular, some enterprises issued false certificates of days worked, while some municipalities did the same in public works. This type of abuse seems to have almost disappeared in recent years.
55. The May 2002 decree suppressed the PER completely for new entrants, *i.e.*, for those who have not received the subsidy during the last three years. The new, temporary subsidy for new entrants in the PER system will be limited to those who have been resident in the area for at least ten years, which will exclude most immigrant workers.
56. Individual dismissals may be “justified” by the law depending on different criteria, including economic reasons. In practice, most dismissals are declared “unjustified” by courts, carrying higher severance payments.
57. Those unemployed workers who take up co-operative work and handicapped workers who set up as self employed were already able to capitalise their benefits as initial investment and will now be able to use part of their benefits to pay social security contributions.
58. Such a measure should probably be accompanied by a simplification of the different types of temporary contracts. There are too many, which makes contract management difficult.
59. Quality of university education is very difficult to pin down and measure, though the literature on this subject points to several weaknesses. The Bricall *et al.* (2000) report, written by a group of experts prior to the most recent reform, points out that the structure of university institutions is somewhat old fashioned and teaching is focused to knowledge transmission rather than learning processes. Mora *et al.* (2000) stress that high unemployment rates among the young with university degrees reflects, among other factors, the lack of preparation of Spanish graduates to changing professions and skilled requirements, as the education system is too focused on professional education. Mora and García (1999) show that the cost per student of university education is relatively low because the number of services offered other than lectures is also limited.
60. 100 per cent of children aged 5 go to school, 98 per cent at age 4, and 75 per cent at age 3. Only France, Italy and Belgium have higher rates.
61. Enrolment rates are 1.3 per cent for under one-year-olds, 5.7 per cent for those aged 1 and 13.7 per cent for those aged 2.
62. In particular, schooling at this stage will be considered “assistential” as well as educational, implying that not all pedagogic staff will be required to hold university degrees.
63. Most private schools are financed by the State through special agreements (*conciertos*) covering current expenses. Investment in private education is paid by the school, which can receive extra finance from students through fees. Private schools that receive public funds are obliged to follow official guidelines in their curricula and the same admission criteria apply as in public schools.
64. That is another flexible way to obtain the compulsory secondary education certificate and provides a link with the other post-compulsory formal education paths.
65. The new national tests (*Prueba General de Bachillerato*) will substitute a previous exam that was required only for those who wanted to access university.
66. See OECD (2002c).
67. The FORCEM has been renamed after the entry of the government in its management, as the *Tripartite Foundation for Training for Employment*.

68. The number of demands for training covered 4.7 million workers in 2000; about 80 per cent were approved and implemented.
69. Good indicators of university performance are not easy to find. One possible good indicator is a low drop-out rate (although, in this case, provisions would have to be made so as to ensure that universities do not minimise drop-out rates by accepting only the best students).
70. Spending on grants is 11 per cent of total public expenditure in tertiary education (against 12 per cent in the OECD), covering mostly fees, and in some cases some help for books and transport. The fact that grants do not cover the actual cost of living is also a factor behind the low mobility of students.
71. The OECD index of tax advantages for R&D expenditures reveals that, for each unit spent by large firms on R&D, one third is recovered in lower tax payments. This is the highest ratio out of 24 OECD countries reviewed, and almost double that of the second country ranked, Canada.
72. Annual employment growth for scientists and engineers was 8 per cent between 1995 and 1999, much higher than average employment growth and one of the highest in the OECD.
73. The rise in the birth rate between 1960 and 1975 increased households' residential investment owing to the higher rate of acquisition of housing by those aged 22 to 32 years (Eguía and Echevarría, 2001), *i.e.* at the time of getting married (Namkee, 2001).
74. House purchases by non-residents have increased sharply since 1993. The pressure exerted by foreign demand in tourist areas is also causing property price disparities to widen across the country. Up to 1991, tax incentives also encouraged Spanish residents to buy second homes.
75. Land prices have more or less doubled in Madrid since 1997 (Bank of Spain, 2002a).
76. These restrictions on the rental housing market were removed by the 1985 reform.
77. Leases dating from before 1985 could be extended indefinitely. Rents relating to contracts signed before 1964 were frozen, whereas those signed between 1964 and 1985 could be linked to inflation.
78. A study of the Economic and Social Council (CES, 2002) indicates that the proportion of youngsters between 20 and 34 that have left their parents' home has decreased from 44 to 33 per cent between 1977 and 2001. This phenomenon, which reflects longer time spent at studying and problems of unemployment and unstable employment for the young, seems to be more intense than in other countries, and has probably contributed to reducing fertility rates.
79. The object of this assistance is to facilitate the purchase of a home at reduced prices by means of loans at preferential rates and subsidies.
80. In Barcelona, for example, some 50 per cent of rental accommodation comes under rules imposing low rents and the renewal of contracts until the death of the tenant or the tenant's spouse (or until their children are 25 years old) (Trilla and Carreras, 2001).
81. According to Pareja and San Martín (2002), the rate of return on rental investment has been lower than that on public debt since 1984, although the gap has narrowed since 1998.
82. The competence of the municipalities and autonomous communities as regards land management was confirmed by the decision of the Constitutional Court to rescind the

measures taken by central government in June 2000 with the objective of restricting the communities' discretionary powers as regards issuing building permits.

83. Since the Act of 1998, an urban plot of land, *i.e.* land complying with certain technical characteristics, has been considered *a priori* to be developable, unless a decision to the contrary is taken and is properly argued. Under the communities' town planning rules, however, other conditions have been imposed which *de facto* prevent owners from exercising their right to build until they have obtained formal permission from the municipal or regional authorities. The process for disposing of land for construction are long (three years on average, sometimes much more), complex and uncertain.
84. Income from principal homes occupied by their owners (imputed rents) ceased to be taxed in 1999.
85. Comunidad Valenciana, Andalusia and the Basque Country.
86. In practice, most regional governments stick to the national minimum of 13 Sundays. The autonomous community of Madrid allows the largest number of Sunday openings, namely 21.
87. The association of hypermarkets claims that about 50 new shopping centres are on the waiting list for opening permits.
88. Telefónica's share of access lines was 95 per cent at the end of 2001, 82 per cent in the national long distance market (share of minutes) and 83 per cent in international traffic minutes.
89. The approved price cut was 2 per cent, as it was foreseen in the original price cap system, although the connection fee has been taken out of the price cap system and has been increased by 8 per cent, ending the tariff re-balancing process. Simultaneously, the regulator adopted some other measures to foster competition, like a new single invoicing mechanism for pre-assigned customers, and reinforced rules for public procurement of telecommunication services.
90. Telefónica lowered its investment in cable networks in 2000 when it focused its broadband strategy towards ADSL technologies. The main company in the cable business is Auna, which also owns Retevisión (the second fixed telephony operator) and Amena (the third mobile operator).
91. The government has pressed operators to accelerate its development, and could withdraw the deposits paid by the operators when the licences were given, since investments have been delayed. The government has recently liberated cable and radio-telephony operators from their investment agreements, but not UMTS operators.
92. Modernisation measures will only apply to older vessels (5 or more years old) and only for improving security, not efficiency of catches; construction will be linked to somewhat stricter decommissioning rules for old vessels; and exports to third countries in joint venture agreements will only be possible with those countries that have signed a fishing agreements with the European Union.
93. For instance, the legislation has allowed the recent merger of the clearing and settlement systems of all secondary markets, which has taken place as a result of this initiative. Although a *de facto* monopoly system, the law leaves the door open for other competing systems.
94. New regulations on the take over bid (OPA) regime in stock markets are also being prepared, following some episodes of sales of controlling stakes which were just at the limit that obliges the launch of an OPA, although they will depend on the corresponding European directive on the issue.

95. Venture capital investment is equivalent to 0.25 per cent in Italy, 0.38 per cent of GDP in France, 0.48 per cent in the Netherlands and 0.85 per cent of GDP in the United Kingdom.
96. To protect the initial stability of stock values, stock market regulations oblige the main owner of a firm to keep a participation for some time when it is publicly offered. Up to now, this resulted in the loss of any tax advantages for the venture capital entity, which prevented them from offering the participated firms in the stock markets. The new regime addresses this problem by extending tax advantages for two years after admission to trading on a regulated market.
97. In fact, saving banks have acquired very few and very small commercial banks. On the other hand saving banks reinforce competition in the market. The possibility of privatising saving banks is not on the politic agenda.
98. In a comparison by the Bank of Spain for the period June 2001 – June 2002, profits of Spanish banks fell by 10 per cent, whereas those of French banks fell by 20 per cent and those of German and Italian banks by more than 35 per cent.
99. The two largest Spanish banks, BBVA and Santander, invested heavily in Latin America in past years. Consolidated foreign claims of Spanish institutions in the area (which exclude loans of affiliates of Spanish banks in domestic currencies, that are less prone to devaluation risks) amounted to USD 48 billion in December 2001. Of these, 32 per cent originated in Argentina, 30 per cent in Mexico, 10 per cent in Brazil and 9 per cent in Chile. Claims on Argentina fell strongly during the first half of 2002 due to devaluation and to the partial reduction of positions in the country by Spanish banks.
100. In part because the Bank of Spain imposes stricter solvency ratios for Spanish banks.
101. These two alternative scenarios assume the same exchange and nominal interest rates as the baseline scenario. Furthermore, public spending is maintained stable in real terms with respect to the reference scenario.
102. Potential growth in the euro area, which is estimated at about 2 per cent between 2005 and 2008, tends to decline slightly due to the negative effect of ageing.
103. Council Decision (2002/358/EC) of 25 April 2002 concerning the approval, on behalf of the European Community, of the Kyoto Protocol to the United Nations Framework Convention on Climate Change and the joint fulfilment of commitments thereunder.
104. Some co-generation facilities are ineligible for support as they fail to meet efficiency criteria.
105. In 2001, for example, the premium per kilowatt hour for renewable energy varied from EUR 0.03 for electricity generated from biomass to EUR 0.36 for small-scale solar energy electricity production (National Commission for Energy, 2002). Energy recovery from the incineration of waste also receives a feed-in premium. From 2007 this system will end support for larger co-generation facilities.
106. Support was granted for energy saving projects, the installation of co-generation capacity, and promoting the use of natural gas and renewable energy sources.
107. Some expansion of existing plants has been allowed.
108. Not only are emissions of carbon dioxide in this sector the highest per kilowatt hour of electricity generated, but the externalities due to other conventional pollutants are also substantially higher than for other major electricity generating sectors (CIEMAT, 1997). For example, the sulphur content of domestically produced coal is high (IEA, 2001).

109. The domestic coal industry is regionally concentrated and so appropriate, temporary assistance might be required for these regions. However, concerns over the security of supply of coal are less important (IEA, 2001).
110. For example, Capros and Mantzos (2000) estimate that marginal abatement costs of a sectoral approach with identical reduction targets would rise to EUR 348 per tonne of carbon from EUR 103 in the case of an optimal allocation of abatement efforts in Spain alone.
111. Almost three-quarters of the financing is expected to come from the European Community.
112. The expansion of gas powered electricity generation will also allow a further downsizing of support to the coal industry.
113. For emitters not participating in the EU trading scheme, carbon taxation could be usefully applied, if the implicit tax on carbon embedded in fuel taxation does not exceed the price of allowances. In particular, carbon taxation on the fuels used by small-scale combustion plants that will fall outside the EC emission trading scheme could help reduce the overall cost to the economy of achieving greenhouse gas targets.
114. Waste statistics in Spain have recently been reviewed. Reporting methodologies across autonomous communities have differed substantially over time making the determination of trends extremely difficult.
115. In particular, Directives 75/442/EEC on waste and 99/31/EC on the landfilling of waste. For this reason the European Commission has opened infringement proceedings against Spain on the grounds of several actions of illegal dumping with the view of bringing the Kingdom of Spain to the European Court of Justice.
116. *Normativa e instrumentos de gestion en materia de residuos.*
117. In reducing the amount of waste generated the government has required larger firms to prepare waste reduction strategies. In the case of packaging waste, the reduction is expressed in terms of packaging weight relative to the weight of the product.
118. These include Ecoembes (for general packaging waste), Ecovidrio (glass), and Sigre (pharmaceutical packaging). If companies do not join such a system, they are required to implement a deposit-refund scheme. Industrial packaging must be sent to an authorised operator for disposal.
119. The packaging law (following the EC directive) required that between 25 and 45 per cent of all packaging must be recycled, but that recycling of an individual packaging material need only reach 15 per cent.
120. Annual outlays have been above EUR 10 million in recent years, with remedial action taking place at 275 contaminated sites.
121. The EC Water Framework Directive will require full-cost recovery by 2011.
122. These prices refer to those charged in the Jucar and Almeria counties (Albiac-Murillo *et al.*, 2002).
123. Agricultural support policies may also be indirectly contributing to demand for irrigation water. See also Chapter IV.
124. These changes were introduced in the 1999 amendments to the Water Act. New irrigators would pay half the capital costs for new infrastructure and be required to cover operation and maintenance costs.
125. Such a policy would be equivalent to grand-fathering existing rights and allowing trading.
126. The national analysis uses a 50 year timeframe for the cost analysis with a real discount rate of 4 per cent.

127. Desalination costs vary considerably according to the size of plant and the amount of electricity that can be sold. A range of cost of between EUR 0.3 and 0.4 per m<sup>3</sup> is suggested by Uche *et al.* (2001).
128. Almost a third of the land under irrigation is based on systems over a century old (Ministry of Agriculture, Fishery and Food, 2002).
129. Public investment is limited to existing and uncompleted irrigation systems, though new irrigation schemes of a “social nature” may also receive funding.
130. Foreigners referred to in this chapter are foreign citizens, as Spain bases its statistics on nationality rather than place of birth.
131. For an analysis of ageing in Spain see OECD (2001a).
132. Up to 2003 EU citizens were obliged in principle to obtain a residence card. As from March 2003 this obligation no longer applies to those working or studying in Spain, following the implementation of the 28 July 2000 Marseille Declaration, although EU citizens must apply for a number of identification of foreigner (N.I.E), which is necessary for bank operation, etc.
133. The total number of undocumented foreigners is uncertain. In June 2001, Enrique Fernández-Miranda, the Delegate of the Government for Immigration, declared that Spain had about 1.2 million immigrants on its territory (*El Mundo*, 10 June 2001); the number of foreign residents officially-registered by the Ministry of the Interior on 31 December 2000 was around 896 000 and 1.1 million at end 2001.
134. There are no statistics on the return of foreigners to their country of origin or to any other country.
135. Besides, income distribution is generally wider in these countries, and has often worsened since the 1980s, which makes the incentives to migrate all the greater for low-income people.
136. This figure is in addition probably underestimated, since, as in most developing countries, informal activity is high and under-employment too.
137. See OECD (2002d).
138. The countries covered in this survey are the 22 members of the League of Arab States, which includes North African countries and Arab Middle-Eastern countries, with a population of 280 million in 2000.
139. Up to 1985, Spanish legislation characterised immigration-related issues as matters of “public order” (and therefore the exclusive responsibility of the Ministry of Interior) and issues related to settlement of foreign nationals in Spain were very weakly regulated. For a review of Spanish migration policy until 1999, see Moreno Fuentes (2000).
140. Rights to meeting and association were limited, although these aspects were softened on a number of occasions by the courts; family reunification rights were not recognised.
141. The Immigration Act is the result of two laws. The “*Ley de extranjería 2000/4*” was adopted in December 1999, after two years of negotiation between all political parties in a parliamentary commission, and put a strong focus on integration issues. It was reformed a few months later by the “*Ley de extranjería 2000/8*”, that put more emphasis on the control of immigration flows. One of the main points of disagreement was the introduction of a permanent possibility for undocumented foreigners to obtain a temporary residence permit if they could prove that they had stayed two years in Spain and had sufficient means of subsistence, which was denounced as providing incentives for immigrants to come illegally. The new Act extends the period of stay to five years.

142. Undocumented foreigners do not have the rights of meeting, association, unionisation and strike. Being in Spain without authorisation is a serious offence that can be punished by expulsion instead of a fine. Documented foreigners committing offences that can be punished by one to six years of jail can also be expelled.
143. The decision was published in early January, at the same time as the quota was announced, to restrict individual applications to specific categories of people, such as those for which looking at the national employment situation is not required (*e.g.* family members of foreign residents, students, Chilean and Peruvian nationals due to preferential international agreements).
144. The publication of the number of work permits granted has been recently interrupted, and figures are not available for the whole year of 2001.
145. The persons whose application was rejected (whose number is probably inferior to 210 000 because some may have applied in the two subsequent processes) were not expelled and are likely to remain on the territory.
146. This is under the assumption that all the persons whose application was rejected in the 2000 process did apply in the 2001 process.
147. See *El País*, 14 October 2001.
148. The government has proposed a 2003 budget for expulsions of EUR 8 million, almost three times higher than in 2002.
149. France, Italy, Portugal, Bulgaria, Poland, Slovakia, Estonia, Letonia, Lithuania and Rumania.
150. 90 000 is a minimum as it is the number of persons whose application was rejected in the 2001 process. 70 000 applications were also rejected in the 2000 process, but part of those rejected in the first process have certainly participated in the second. Those who did not apply, those who entered after the processes, and those who fell into illegality because their permit expired and could not be renewed since then due to lack of a work contract should also be added.
151. The government has also announced its intention to eliminate the permanent mechanism of regularisation "*por arraigo*" (*i.e.* for settlement reasons) included in the Immigration Act, which is allowing foreigners able to prove that they have been living in Spain for five years to obtain papers.
152. Besides, migration decisions of natives may also respond to labour immigration (Brücker *et al.*, 2001). For a critical analysis of this type of studies suggesting that immigration effects on the labour market may be underestimated see Borjas (2002).
153. Dolado *et al.* (1996) consider the number of work permits granted from 1990 to 1992. In 1991 and 1992 they are dominated by the regularisation process, so that it is not the effects of immigration on the labour market *per se* that are captured, but rather the effects of the legalisation of immigrants.
154. According to the labour force survey, non-OECD immigrants as a whole are better educated than Spanish nationals. Although the share of the second and third groups of workers referred to here cannot be exactly established (due to lack of data), the third group (*i.e.* low-skill jobs) is more important than the second (high-skilled jobs). To some extent, the fact that non-OECD workers are on average better educated than Spanish nationals may reflect under-utilisation of immigrants' human capital. However, this may also reflect the non-accuracy of the figures: as noted above, the labour force survey is not completely representative for foreigners, especially for non-OECD immi-



- grants, who are more likely to live in collective housing (not covered) and have temporary visas.
155. See Colectivo IOÉ (1998) for the construction sector, Colectivo IOÉ (1999) for hotels and restaurants, and Carrasco (1999). Mendoza (1997) provides information on African employment in agriculture and construction, and Martínez Veiga (1999) for employment in domestic services, agriculture and construction.
  156. 24 per cent of the immigrants surveyed by Carrasco (1999) were without contracts; in the construction sector, 62 per cent of the Poles and 19 per cent of the Moroccans surveyed by Colectivo IOÉ (1998) had no contracts, against 1.5 per cent of the Spaniards; in restaurants, 42 per cent of the Peruvians, 23 per cent of the Dominicans and Chinese, 12 per cent of the Moroccans and 6 per cent of the Philipinos and the Spanish had no contract.
  157. In the construction sector, 52 per cent of the Moroccans were working more than 40 hours a week, against 39 per cent of Spanish; overtime hours are more often paid at the normal rate for Moroccans than for Spanish and Polish workers (Colectivo IOÉ, 1998). Foreigners also tend to work longer hours in hotels and restaurants; more than two thirds of the Dominicans and Filipinos were not paid for extra-hours, against one third for Spanish and Moroccan workers (Colectivo IOÉ, 1999).
  158. At end-1997, it was one of the lowest in the European Union in PPP terms (OECD, 1998).
  159. For example, domestic employees can be fired without notice and do not have access to unemployment benefits.
  160. Comparing the situation of young natives and young non-EU immigrants both in Belgium and Spain at labour market entry based on the EU Labour Force Survey, Kalter and Kogan (2002) find that while differences in education levels explain the disadvantage that non-EU youth face compared with natives, it is not the case in Spain.
  161. It is also likely that there is more variability in their unemployment rate than for natives, *i.e.* that they play the role of cushioning the variations in activity. It is however not possible to verify this based on the labour force survey since data for foreigners are published only annually.
  162. EU foreigners, on the other hand, include a large number of pensioners.
  163. Employment data used here is the affiliation with the social security system, available for foreigners starting in December 1999.
  164. About 55 000 foreigners were registered under the domestic employee social security regime in June 2002. It is a sector where undeclared employment is common, so that overall domestic employment is higher.
  165. See OECD (2001f).
  166. See Álvarez-Llorente (2002) and Muñoz (2002b).
  167. The important increase in temporary jobs for natives may also have played a role. Unemployment dropped from about 18 per cent in 1995 to about 11 per cent in 2002, with new employment largely situated at the low-skilled, low-productivity end.
  168. Productivity here is measured as GDP divided by the number of workers affiliated with the social security system. The number of non-EU foreigners affiliated with the social security system is not available for 1995, so that the number of existing work permits was used instead, after checking that they were quite similar to the number of affiliations in the period where both are available.

169. In Almeria, income per capita was equivalent to 82 per cent of the national average in 1999, against 73 per cent in 1991. In Huelva, the Rioja and Castellon, income per capita was equivalent to 73, 119 and 117 per cent of the national average, respectively, against 69, 110 and 108 in 1991.
170. According to the 2000 Census, one out of three EU residents were aged more than 55.
171. Revenues from the VAT on consumption are not included.
172. According to de Ayala Cañón *et al.* (2001), 70 000 households or 180 000 individuals (0.5 per cent of total population) were benefiting from a minimum income.
173. According to the OECD database on social transfers, in 1998, the benefits provided to compensate for low income represented 0.07 per cent of GDP, family benefits and services to families 0.4 per cent of GDP, and housing benefits 0.07 per cent of GDP (excluding income tax relief granted for purchasing a main residence).
174. Aparicio and Tornos (2000) estimated that they were inferior to 2.8 per cent of the expenditure they estimated at the central level in 1998. They may have somewhat increased recently.
175. See Collado *et al.* (2002).
176. As shown by Samuelson (1958), in the steady-state the system's internal rate of return must be less than or equal to the real rate of output growth in order to keep the pension regime in equilibrium. Given the effect of immigration and under the assumption of a stable annual growth of 1¼ per cent of productivity, real output could rise on average by 1¼ per cent a year over the 2000-50 period, a rate much below the estimated level of the internal rate of return of the pension system.
177. Moroccan and Peruvian immigrants surveyed in the Madrid area by Aparicio and Tornos (2000) were sending on average one to two months of their salaries in remittances to their origin country in 1999.
178. The fruit and vegetable sector, which employs many immigrants, is not benefiting from direct subsidies from the CAP, but benefit from trade protection; other sectors including the olive oil sector enjoy both trade protection and production subsidies. The regime of EU subsidies to olive oil was significantly modified in November 1998. The main modification entailed replacing the intervention price system by a private storage aid, abolishing aid to consumption and introducing an overall cash ceiling on the amount of production subsidies (these changes are not definitive; they have been extended up to 2004/05). This ceiling is distributed across countries according to the national guaranteed production level. In the event that national production exceeds the quota, the subsidy per tonne is reduced proportionately.
179. The demand from Latin American countries for reduced protection of EU markets, in particular for agricultural products, was one of the most contentious points in the last Ibero-American summit in November 2002. In March 2002, the Spanish Secretary of State for Foreign Affairs defended (during a meeting of entrepreneurs from Spain and Maghreb countries on investment opportunities in the Maghreb) the view that free trade between the EU and Maghreb, including in agricultural products, should be sought by 2010 so as to help the development of these countries and slow immigration flows. The president of Catalonia also supported this view (see *Noticias Infoagro*, 22/03/2002). For an analysis of the impact of liberalisation of Euro-Mediterranean trade in agricultural products, see Lorca Corrons (2002).
180. According to a report by the Defensor del Pueblo Andaluz (2001), in western Almeria, at least 65 per cent of the immigrants did not live in decent housing. More than 50 per

cent had no access to drinkable water, and 25 per cent to electricity, and most had no sewage.

181. For example, in Madrid, rents can vary between EUR 150 and 240 per month for a bed in shared rooms. The immigrants are also often asked to provide a bank guarantee or are required to pay a number of monthly rents in advance, while the norm is one month (*El País*, 9 April 2002).
182. According to Trilla (2001), social housing accounts for 2 per cent of the housing stock, against 18 per cent on average in the EU.
183. See *El País*, 23 January 2003.

## Glossary of acronyms

<b>ADSL</b>	Asymmetric digital subscriber line
<b>ALMP</b>	Active labour market policy
<b>BBVA</b>	<i>Banco Bilbao Vizcaya Argentaria</i>
<b>BIS</b>	Bank for International Settlements
<b>CAP</b>	Common agricultural policy
<b>CES</b>	<i>Consejo Económico y Social</i> (Economic and social council)
<b>CLH</b>	Transportation monopoly
<b>CMT</b>	<i>Comisión del Mercado de las Telecomunicaciones</i> (telecommunications sector regulator)
<b>CPI</b>	Consumer price index
<b>EC</b>	European Commission
<b>ECB</b>	European Central Bank
<b>EMU</b>	European Monetary Union
<b>EPA</b>	Labour force survey
<b>ESA</b>	European System of Integrated Economic Accounts
<b>EU</b>	European Union
<b>EUR</b>	Euro
<b>Eurostat</b>	European Union Statistical Institute
<b>FAO</b>	Food and Agricultural Organisation
<b>FORCEM</b>	Foundation for the training of workers
<b>GDP</b>	Gross domestic product
<b>GHG</b>	Greenhouse gas
<b>GRECO</b>	<i>Programa Global de Regulación y Coordinación de la Extranjería y la Inmigración en España</i> (Global Programme to Regulate and Co-ordinate Foreign Residents' Affairs and Immigration in Spain)
<b>IAE</b>	<i>Impuesto de actividades económicas</i> (tax on business activities)
<b>IEA</b>	International Energy Agency
<b>IBI</b>	<i>Impuesto sobre bienes inmuebles</i> (real estate tax)
<b>ICAC</b>	<i>Instituto de Contabilidad y Auditoría de Cuentas</i> (Institute for Accounting and Auditing)
<b>ICES</b>	International Council for the Exploration of the Sea
<b>ICID</b>	International Commission on Irrigation and Drainage
<b>ICT</b>	Information and Communication Technology
<b>IMF</b>	International Monetary Fund
<b>IMSERSO</b>	<i>Instituto de Inmigración y Servicios Sociales</i> (national agency for migration and social services)
<b>INE</b>	<i>Instituto Nacional de Estadística</i> (National Statistics Institute)
<b>INEM</b>	<i>Instituto Nacional de Empleo</i> (National Agency for Employment)

<b>INSALUD</b>	<i>Instituto Nacional de la Salud</i> (National Health Institute)
<b>NAIRU</b>	Non-accelerating inflation rate of unemployment
<b>NGO</b>	Non-governmental organisation
<b>OPA</b>	<i>Oferta pública de adquisición</i> (take-over bid)
<b>PER</b>	<i>Plan de Empleo Rural</i> (special unemployment and investment regime for seasonal agricultural workers in Andalusia and Extremadura)
<b>PES</b>	Public employment service
<b>PISA</b>	Programme for International Student Assessment
<b>PPP</b>	Purchasing power parity
<b>R&amp;D</b>	Research and Development
<b>SCP</b>	Stability and Convergence Programmes
<b>SDC</b>	<i>Servicio de Defensa de la Competencia</i> (Competition Service)
<b>SME</b>	Small and medium-sized enterprise
<b>TDC</b>	<i>Tribunal de Defensa de la Competencia</i> (Competition Tribunal)
<b>UA</b>	Unemployment assistance
<b>UI</b>	Unemployment insurance
<b>UMTS</b>	Universal Mobile Telephone Systems (third generation mobile telephone systems)
<b>UNDP</b>	United Nations Development Programme
<b>UNFCCC</b>	United Nations Framework Convention on Climate Change
<b>USD</b>	United States dollar
<b>VAT</b>	Value added tax

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## BASIC STATISTICS OF SPAIN (2002)

### THE LAND

Area (1 000 km <sup>2</sup> ):		Major cities (thousand inhabitants):	
Total	506.0	Madrid	3 017
Cultivated (1998)	185.1	Barcelona	1 527
		Valencia	762
		Seville	704

### THE PEOPLE

In thousands:		Employment (thousands)	16 258
Population	41 838	Employment by sector (% of total):	
Net natural increase (2001)	45	Agriculture	5.9
Net migration (2001)	247	Industry	19.4
Number of inhabitants per km <sup>2</sup>	82.7	Construction	11.8
		Services	62.9

### PRODUCTION

Gross domestic product (GDP):		Gross fixed capital investment:	
Billion EUR	694	% of GDP	25.4
Per head (US\$)	15 631	Per head (US\$)	3 973

### THE GOVERNMENT

% of GDP:		Composition of Parliament	
Consumption	17.6	(No. of seats, March 2000):	350
Revenue	38.5	Popular Party (PP)	182
Deficit	-0.1	Spanish Labour Socialist Party (PSOE)	125
Fixed investment (% of gross fixed capital formation)	13.1	Convergence and Union (CIU)	15
		Izquierda Unida (IU)	8
		Basque Nationalist Party (PNV)	7
		Other	13
		Next general elections: March 2004	

### FOREIGN TRADE

Exports of goods and services (% of GDP)	28.5	Imports of goods and services (% of GDP)	30.0
Exports as a % of total goods exports:		Imports as a % of total goods imports:	
Foodstuffs	12.5	Foodstuffs	6.6
Other consumer goods	28.8	Other consumer goods	20.9
Energy	2.0	Energy	10.7
Other intermediate goods	44.6	Other intermediate goods	46.0
Capital goods	12.2	Capital goods	15.8

### THE CURRENCY

Monetary unit: Euro		Currency units per US\$, average of daily figures:	
		Year 2002	1.0611
		February 2003	0.9276

*Note:* An international comparison of certain basic statistics is given in an annex table.

*This Survey is published on the responsibility of the Economic and Development Review Committee of the OECD, which is charged with the examination of the economic situation of member countries.*

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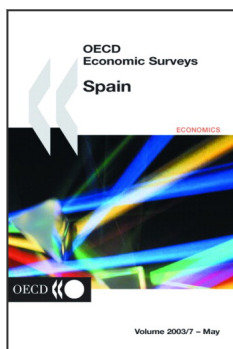
*The economic situation and policies of Spain were reviewed by the Committee on 24 February 2003. The draft report was then revised in the light of the discussions and given final approval as the agreed report of the whole Committee on 27 March 2003.*

•

*The Secretariat's draft report was prepared for the Committee by Claude Giorno, Miguel Jimenez, Douglas Sutherland and Ann Vourc'h under the supervision of Peter Hoeller.*

•

*The previous Survey of Spain was issued in June 2001.*



**From:**  
**OECD Economic Surveys: Spain 2003**

**Access the complete publication at:**  
[https://doi.org/10.1787/eco\\_surveys-esp-2003-en](https://doi.org/10.1787/eco_surveys-esp-2003-en)

**Please cite this chapter as:**

OECD (2003), "Structural Reforms to Sustain a Strong Performance", in *OECD Economic Surveys: Spain 2003*, OECD Publishing, Paris.

DOI: [https://doi.org/10.1787/eco\\_surveys-esp-2003-5-en](https://doi.org/10.1787/eco_surveys-esp-2003-5-en)

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