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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.*

The economic situation and policies of France were reviewed by the Committee on 31 January 2011. 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 18 February 2011.

The Secretariat's draft report was prepared for the Committee by Hervé Boulhol and Balázs Égert under the supervision of Peter Jarrett. Research assistance was provided by Patrizio Sicari.

The previous Survey *of France was issued in April 2009.*

BASIC STATISTICS OF FRANCE

THE LAND

Area (1 000 km^2)	632.8	Major cities (thousand inhabitants), 2005	
Agricultural area, excl. overseas departments		Paris	2 193
(1 000 km^2)	321.8	Marseille	852
		Lyon	472

THE PEOPLE (2008)

Population (thousands)	64 142	Total labour force, excl. overseas departments	
Number of inhabitants per km^2	101	(thousands)	28 415
Average annual increase (thousands) 1991-2006	334	Percentage of employment in:	
		Agriculture	3.2
		Industry and construction	20.1
		Services	76.7

PRODUCTION (2009)

Gross domestic product at market prices		Gross value-added by activity, at basic prices (per cent):	
(Euros billion)	1 907	Agriculture	1.7
Gross domestic product per capita (euros)	29 570	Industry	12.4
Gross fixed investment as a per cent of GDP		Construction	6.4
(current prices)	20.6	Services	79.4

GENERAL GOVERNMENT (2009)

ESA95 concept, as per cent of GDP:	
Total expenditure	56.0
Total revenue	48.4
Gross fixed investment	3.3

FOREIGN TRADE (2009)

Exports of goods and services (% of GDP)	23.0	Imports of goods and services (% of GDP)	25.0
Main exports as a percentage of total exports (SITC):		Main imports as a percentage of total imports (SITC):	
Food, beverages and tobacco (0 + 1)	11.9	Food, beverages and tobacco (0 + 1)	8.7
Chemical products (5)	18.4	Chemical products (5)	14.3
Manufactured products (6 + 8 + 9)	26.2	Manufactured products (6 + 8 + 9)	27.5
Machinery and transport equipment (7)	37.7	Machinery and transport equipment (7)	33.6

THE CURRENCY

Monetary unit: euro	Currency unit per USD	
	Year 2010	0.755
	January 2011	0.751

Executive summary

A moderate recovery is underway, but the recession will leave lasting traces. *France is in an intermediate position amongst OECD countries in terms of the impact of the crisis. Various factors, including an appropriate macroeconomic policy response, enabled the economy to withstand the shock. Yet the financial and global nature of the recession would suggest that the recovery is likely to be moderate, with GDP growth rebounding gradually to reach 2% in 2012. This pace will doubtless be insufficient to bring joblessness down quickly. Export performance improved in 2010, and private investment should take over as the prime engine of growth. Although there is a housing shortage in some strained areas, the property market would probably be vulnerable if rates were to climb back up. Against the backdrop of bond-market turmoil in the euro area, the highest priorities are fiscal consolidation, raising employment rates and spurring productive supply.*

There needs to be a clean break with the deterioration of public accounts *to avoid jeopardising macroeconomic stability. The 2010 pension reform testifies to the authorities' determination in this area. The government's projected pace of consolidation to 2014 is appropriate, but the measures that can make it happen should be spelt out rapidly. In the medium term, the objective should be to reach budget balance. To consolidate this effort and bolster the government's credibility, a stricter budget framework including constitutional authority should be adopted, consisting of a structural deficit rule which could be based on spending caps and revenue floors, multi-year budget planning and an independent fiscal council. Deficit reduction should focus on curbing spending, making government more efficient and doing a better job of controlling ageing-related outlays. As to revenues, it is necessary to keep scaling back inefficient tax expenditures and to consider raising the least harmful taxes, including those on environmental externalities, property and VAT.*

The housing market can be improved significantly. *Public policies should focus more on three axes: means-tested personalised aid; direct and effective support for supply in strained areas, in particular via the social sector, which should refocus on disadvantaged households; and reducing certain impediments to the functioning of markets so as to make supply more responsive, the market more fluid and distortions more limited. To achieve this, social-housing rents for households with above-median income should be brought closer to market values, and the index for adjusting private-sector rents should be revised. Priority should be given to: updating the registry of property values for tax purposes; reducing the tax breaks associated with principal residences; gradually shifting the taxation of transactions to property taxes; making building plots available and raising land-use coefficients; putting landlord/tenant relations back into balance; and cutting the effective costs of taking out a mortgage. Reforming social housing would also entail the consolidation of HLM organisations at a "supra-municipal" level and revising the way social housing is assigned. Lastly, the government should assess France's unique social housing funding mechanism through a cost/benefit analysis that takes into account the probably substantial distortions it is apt to generate.*

Environmental policies should ensure abatement costs are minimised, *with climate change at the forefront. Abatement costs for greenhouse gas emissions should be harmonised across energy sources, although because of the multiplicity of externalities to be corrected no strict equalisation of*

taxes is required. In principle, a carbon tax should be one of the main instruments for cutting greenhouse gas emissions, and it is regrettable that the Constitutional Council rejected an initial attempt by the government to institute such a tax. In any event, it is imperative to lessen the considerable heterogeneity in implicit carbon pricing, which prevents efficient reduction of such emissions. In particular, taxes should be raised on natural gas, coal, home heating oil and diesel fuel, while tax expenditures on fuels for certain heavy users should be reduced, based in particular on abatement costs. The costs of treating nuclear waste should be better accounted for and the management of municipal waste and water pollution improved.

Assessment and recommendations

A moderate recovery is underway

Relatively prudent lending practices, euro area monetary policy, domestic support measures and the size of automatic stabilisers, as well as the structure of output, substantially cushioned the impact of the global financial crisis on the French economy, with private consumption in particular holding up well. The policy of low interest rates was reflected in accommodative financial conditions throughout the economy, with France remaining largely unscathed by mounting risk aversion in some foreign sovereign debt markets. In many respects, France finds itself in an intermediate position amongst OECD countries in terms of the impact of the crisis. Buoyed by exceptionally favourable lending terms and conditions, the real estate market has turned around, as in many other countries, with prices rebounding to their record-high levels of mid-2008. The market would probably be vulnerable if rates were to go back up, but the overall situation is marked by a shortage of available housing in certain parts of the country, and there is a risk that a prolonged period of easy finance could result in a price bubble. While exports were dynamic in 2010, France's foreign-trade performance has been disappointing over the long term, and the current-account deficit has been flat at roughly 2% of GDP.

A moderate recovery is underway, though the major recession is going to leave lasting traces on public finances and employment, despite a less severe rise in unemployment during the crisis than might have been feared. The recession's large financial component and its virtually global scope would suggest that growth might be moderate for some years. Its pace should allow unemployment to fall only slowly, and underlying inflation is set to remain well below 2% per year through 2012. With fiscal policy obliged to become restrictive, an acceleration of activity is predicated on continuation of the rebound in private investment observed since spring 2010. GDP growth is projected to edge up from 1.5% in 2010 to 1.6% in 2011 and 2.0% in 2012. However, while a faster recovery abroad could lead to more robust growth in France, bond-market tensions in Europe's periphery might weigh on investment and consumption prospects. The priorities for economic policy in France are to ensure that the public finances do not jeopardise macroeconomic stability, and to continue implementing structural reforms that spur employment and the economy's productive potential.

Doubts about the European financial system have not completely dissipated

While they had to avail themselves of the government's substantial support, French banks seem more robust than many of their European competitors. Supervision appears to be

relatively effective by international standards and, in addition, was improved in 2010. Yet, as in most EU countries, the banks' heavy exposure to countries at the heart of the current turmoil in Europe remains a source of uncertainty as to the soundness of the banking system and militates for greater vigilance. Therefore, *new, broader stress tests based on transparent methodology would be welcome at the European level, or else nationally. If real estate prices were to continue to rise rapidly, the authorities should implement explicit macro-prudential measures to limit the distribution of credit to households*. Implementation of the Basel III agreements will bolster micro-prudential regulation, and systemic risk will be monitored regularly by the Financial Regulation and Systemic Risk Board against a backdrop of increasing concentration in French banking. For systemic institutions (SIFIs), this could lead to *the imposition of stricter capital-adequacy requirements taking the form of convertible debt, and to the establishment of a mechanism to ensure orderly bank failures*.

Pursuing structural improvements to the labour market

The employment-rate gap with the OECD average is such that the combined shortfall for workers under 25 and over 55 years of age is about 1.5 million jobs. Better employment outcomes would greatly ease the pressure on public finances, and boost social cohesion and living standards. Over the past decade a number of measures have been taken to expand the employment of older workers, notably the 2010 pension reform, which will be helpful in the medium term. *Efforts must be continued to overcome the main job-market weaknesses,* which are highlighted in the OECD's 2011 *Going for Growth*: an onerous level of labour taxation, on top of a high minimum wage; substantial segmentation of employment contracts, which hampers the economy's ability to adapt to shocks and spreads the burden of the necessary adjustments unevenly; the poor quality of labour/management dialogue, impaired by inadequate trade-union representativeness; and active measures to support employment that could be developed further. In this latter respect, *France could continue to draw inspiration from Denmark's experience of "flexicurity"*, which combines generous unemployment benefits and greater access to training and job-search support in exchange for limited employment protection (few barriers to lay-offs) and a strict obligation to accept valid job offers.

Putting the accent on the supply of output

Good labour-market performance is also contingent on structural reforms in product markets as well as in the realms of education and innovation. Abolition of the local business tax, expansion of the powers of the Competition Authority, increased research tax credits, recently granted autonomy for universities and forward-looking expenditure on higher education, training and research are all recent actions attesting to the government's determination to bolster the economy's supply potential. Measures that would take this further are: *continuing to reform higher education and research, in particular by fostering synergies between public and private R&D and pursuing the policy of "competitiveness clusters" more effectively; reducing tax expenditures for businesses so that the standard rate of company tax can be lowered; eliminating administrative barriers to SME growth; and easing entry requirements in the distribution sector and regulated professions*.

Making a clean break with the deterioration of the public accounts

Ever since the mid-1970s, government debt has trended upwards more sharply than national income, and, while the crisis exacerbated the deterioration of public finances, it only accelerated a process with deep-seated causes. After a general-government deficit estimated at 7.4% of GDP in 2010, the new budgetary measures should make it possible to scale this back to 6% in 2011. The government has pledged to pursue further fiscal consolidation, bringing the deficit down to 4.6% of GDP in 2012, 3.0% in 2013 and 2.0% in 2014. This effort is necessary to stabilise debt (Maastricht definition) at roughly 90% of GDP. Beyond that, still greater ambition will be called for: *the objective should be to eliminate the deficit entirely* in order to bring down the debt-to-GDP ratio at an appropriate pace. In any case, *it is now important that the government announce specifically how it intends to achieve its medium-term objectives, and that it follow through with implementation. Moreover, structural reforms are vital to any hope of preserving a high level of social protection,* and the priorities here should be to: strengthen the budgetary framework; enhance government efficiency; keep health-care expenditure in check; persevere with the effort on pension reform that has been underway for many years; broaden tax bases and, if necessary, target increased revenue; and make the tax structure more conducive to better economic performance. Over the long term, the scope for action in France would seem greater on the spending side than for revenue, but in the short term, efforts will almost certainly need to focus on both.

Strengthening the budgetary framework

The operating rules that have been in place for several years, including spending norms for the central government and social security, have improved fiscal policy implementation but have not prevented persistent deficits and a sustained rise in the debt-to-GDP ratio. *The framework needs to be strengthened*, with greater coherency and transparency, first of all by instituting an effective and stable fiscal rule consistent with the outcome of ongoing European talks. While political will is crucial to consolidate public finances, *a general rule, to which operational rules are subordinated, would bolster fiscal discipline and the credibility of political commitment:* compliance with the rule and political support would then be mutually reinforcing. In turn, this credibility would feed through to household and investor confidence, thus lowering adverse effects of budget-tightening on production and employment.

Consequently, the fiscal rule should be formulated so as to achieve the goal of restoring a debt-to-GDP ratio that is below the 60% ceiling in line with European commitments, setting a specific timeframe if necessary. *A minimum structural balance objective for general government would avoid pro-cyclicality and ensure a rapid decline in the debt-to-GDP ratio, and it could apply only as long as the debt ratio exceeds a specific, sufficiently low level.* This solution, which offers the advantage of consistency with the Stability and Growth Pact, poses some technical difficulties in terms of accurate and timely measurement of the economy's cyclical position, although these are less problematic in France's case on account of the economy's relative stability. In order to be more operational, the structural deficit rule could be implemented through spending caps and revenue floors. *Exceptional circumstances allowing a departure from it should be carefully circumscribed. In addition, a multi-year budget along the lines of the multi-annual budget framework law (Loi de programmation des finances publiques) for 2011-14, but more detailed, should be adopted systematically (with annual revisions,*

as needed), in line with the trajectory of the structural balance. The constitution should be amended to require the government to adopt such a multi-year budget framework. The calculation of the underlying structural deficit should be based on a transparent methodology harmonised at the European level. *Finally, an independent fiscal council should be set up to: assess the macroeconomic projections made by the government and underlying the budget; judge the multi-year programme's coherency with the fiscal rule; identify loopholes that might be used to circumvent the rule; and detect slippages during execution.*

Making government more effective

The *Budget Framework Law* (*Loi organique relative aux lois de finances*, LOLF) lays down the objectives of government policies in terms of missions, which enables a more transparent matching of resources. *Its application should be expanded to include State agencies.* The *General Policy Review* (*Révision générale des politiques publiques,* RGPP), launched in 2007 to identify potential efficiency gains, is a useful tool for evaluation, but its returns to date, in terms of savings achieved, have been limited. *The scope of the Review should be expanded to encompass capital-spending programmes and social benefits, as well as all levels of government.* Also, *replacing only one out of every two retiring civil servants should be continued, while at the same time limiting the share of the resultant savings that is passed along.* France is set apart from the other OECD countries by the small size of its numerous municipalities and the overlay of the country's administrative levels. *Consolidation of small municipalities and elimination of the* departments *as territorial administrative entities could generate substantial economies of scale.* Finally, *in its transfers to sub-national authorities the State should include incentives to achieve specific efficiency objectives and to ensure tighter control over spending.* The recommendations regarding sub-national authorities would likely entail a revision of the constitution.

Tightening control over public health-care spending

Controlling the various budgetary costs that stem from population ageing is a major challenge for government finance. Public health care, in particular, accounts for roughly 17% of aggregate government spending. While the quality of the French health-care system is good, savings could be made without impairing that quality. The objective of keeping health-care expenditure in check has almost never been satisfied, although it may have been in 2010. *The warning threshold that triggers corrective measures if costs are growing too quickly should be tightened and the timeframe for implementing those measures shortened, in line with the commitments made by the government. There should be better co-ordination between in- and out-patient care* to reduce hospitalisation, which is used more frequently in France than elsewhere. Moreover, *the efforts undertaken to cut the system's administrative costs*, by consolidating health insurance funds and pooling services, should be continued. Lastly, to contain demand, *consideration should be given to: greater use of capitation-based doctor compensation; higher patient co-payments for care deemed non-essential by the French health authorities; and expanded use of generic drugs.*

Making further progress on pensions after the far-reaching reform of 2010

The 2010 pension reform is a serious step forward, demonstrating the government's commitment to cutting the structural deficit. Nevertheless, the overall system remains complex and fragmented into a multitude of schemes, both primary and complementary, and further changes will need to be sought to ensure the pension schemes' long-term equilibrium. In the spirit of the August 2003 legislation, *the contribution period should be tied automatically to life-expectancy gains*. Moreover, *the harmonisation of pension systems should be continued to improve equity*. Although early-retirement schemes *per se* have been considerably scaled back, *de facto early retirement still exists via the system of unemployment benefits: eligibility requirements must be made stricter, and at the same time the public employment service should bolster its accompanying measures. The discussions on system-wide reform scheduled for 2013 should be taken as an opportunity to give serious consideration to implementing a universal scheme based on points or notional accounts* (provided that this not delay the return to financial equilibrium of the pension system as a whole), which would enhance transparency – the key to better acceptance of reforms.

Targeting revenue increases and making the tax structure more conducive to economic performance

Revenue increases should give priority to environmental taxes and levies that minimise tax-induced distortions, especially taxes on real estate, inheritance and even value added. The first priority should be to raise the reduced VAT rates on eligible goods and services, the net cost of which has been estimated at roughly EUR 15 to 20 billion, even though in some cases these lower rates help reduce black-market work. More generally, *tax bases should be expanded and inefficient tax expenditures scaled back*. Since the institution of ceilings for the volume of central government spending, tax and social expenditures have undergone substantial growth, which the government has begun to restrain. The plethora of such expenditures has undermined tax revenues and has tended to cloud the monitoring of fiscal policy, even if they may have legitimate public-policy objectives. Moreover, budget documents should include systematic evaluation of their effectiveness. Compared to many other European countries, there is a potential for increasing VAT revenue, which could then be used to cut levies on labour and capital, taking care to offset the anti-redistributive repercussions of such a shift. Furthermore, the proposed reform of wealth taxation should be an opportunity to re-examine the appropriateness of tax breaks on savings.

The ramifications of housing policies are substantial

Housing plays a paramount role in the economy and remains at the heart of social debate. Despite the recession, the market is still strained, with the tightness concentrated geographically in areas in which supply has not responded satisfactorily to needs. Notwithstanding substantial government effort, over 5% of the population still lacks adequate housing, and inequalities with regard to housing costs and property ownership have been increasing. While the many imperfections inherent in housing markets and the

"merit good" label frequently attributed to housing justify government intervention, the effectiveness of that intervention depends on the policy choices made. A crucial issue is then to ascertain the extent to which these policies meet their goals. Yet, French housing policy pursues multiple objectives, which are sometimes hard to reconcile, such as the targets of 20% for social housing – in metropolitan areas with growing populations – and 70% for home ownership. This improbable combination would result in a shrinkage of the segment that most fosters residential mobility – private rentals – thereby impairing labour-market performance.

Beyond the stated objectives, the overall framework of government action could be improved by focusing on three lines of approach: means-tested personalised aid – the most effective instrument because it can improve targeting; direct support for supply in strained areas, in particular via the social sector, which should house disadvantaged households alone; and, reducing impediments to market mechanisms, by endeavouring to make supply more responsive, the market more fluid and transparent, and the number of distortions induced by regulations, taxation and subsidies more limited. Many aid schemes are costly for public finances and fall outside this analytical framework. In many respects, the issues raised by geographic concentration of housing for poor households go well beyond housing policies alone, and the 2007 *Economic Survey of France* made suggestions as to how to combat social exclusion and resist spatial hysteresis.

The organisation of social housing needs to be reviewed

The financing of social housing in France relies on channelling the tax-exempt savings collected by the banking system. This funding method is apt to generate severe distortions in the allocation of savings, the financing of the economy and the structure of rents between the public and private housing sectors, which have never been estimated. *The government should conduct cost/benefit analysis of this approach as compared with provision of social housing by the competitive sector and direct assistance to individuals.* The network of social housing providers is highly fragmented, and many HLM organisations lack critical size. *HLM organisations should therefore be encouraged to consolidate at a "supra-municipal" level, which would also protect them from local pressures and let them rationalise conditions for attribution of housing units. Private suppliers should have expanded access to the social housing market, subject to appropriate regulation.*

By law, affected municipalities face a uniform quota requiring them to provide at least 20% of their housing stock as social housing, which is not a very realistic objective. Indeed, targets should do a better job of factoring in the diversity of requirements at the local level. Penalties are imposed on those failing to take measures to meet the target, although they are not very dissuasive. *Penalties should be reviewed so as to enhance the measure's effectiveness. While it is influenced by costs prevailing at the time of construction, the relative rent structure should reflect market values to a greater extent.* In addition, *consideration should be given to focusing social housing eligibility requirements more on households having the most modest means, tightening existing rules (in particular, rent surcharges) if these thresholds are exceeded and ensuring that they are strictly enforced.*

Distortions in the rental market should be reduced and the market made more transparent

Numerous regulations raise obstacles to residential mobility and put the burden of the inevitable adjustment to changing market conditions on the only fully flexible component: new private-sector rents. *Private-sector rent increases over the life of a lease should be indexed to rent trends for new leases rather than, as now, to consumer prices (excluding tobacco and housing)*; this would reduce market segmentation and lock-in, thus increasing mobility. The beneficial effects of such a measure would be enhanced if rent indices were available at a sufficiently localised level. Owners' mobility is also restricted by the heavy burden of transactions costs: *the taxation of transactions should be shifted to property tax*. The cornerstone of the legitimacy of recurrent local property taxation – assessments contained in registries of rateable values – is out of date, because they have not been updated since a 1970 revision. *Reassessing property values for tax purposes is therefore imperative,* and, as is the case in several other OECD countries, *a mechanism must be instituted to allow for periodic reassessment*. Housing supply in France, more than elsewhere, exhibits great inertia, which structural policies could tackle. *The powers of intercommunal alliances could be expanded, in particular with regard to granting building permits and local town planning, in order to avoid opportunistic behaviour that reduces housing supply at the local level, and land-use coefficients should be raised*. In addition, *landlord/tenant relations should be put back into balance by: shortening the time it takes owners to recover their property when tenants cease paying rent; dealing with cases of financial hardship before matters reach the courts in such an event; and initially lessening the strain on the housing market by developing low-cost temporary housing*.

Greater fiscal neutrality with respect to housing would generate efficiency gains

Taxation currently distorts resource allocation in favour of housing, and especially of owner occupation, beyond what might be justified by any positive externalities and thus to the detriment of other goods and services and other assets. Efficiency gains could therefore result if the system were more neutral. Given the practical difficulties arising from the taxation of imputed rent, *the taxation of income from investment for rental purposes could be eliminated, and a supplementary uniform national property tax should be created (based on updated assessments from rateable-value registries) and applicable to all residential property, whatever the purpose, with loan interest being deductible from taxable income. Its level ought to be determined in conjunction with the taxation of income from other assets*. In addition, *the tax breaks and other subsidies on home ownership savings plans and loans to first-time purchasers should be scrapped, or at least granted only on a means-tested basis* (as a way to overcome lending constraints). *Capital gains tax on a principal residence should be implemented though deferred in the event of roll-over until the time of death* so as to prevent excessive lock-in.

Easing credit constraints and expanding competition on related services

Residential lending practices are rather prudent in France, as reflected in a low default rate and a lower volume of loans to households than in other OECD countries. *The market for housing loan sureties needs to be reformed, with a view to: reducing the effective costs of taking out a*

mortgage by eliminating the related tax and regulatory charges and facilitating debt recovery, even with regard to a principal residence; and bolstering competition on the market for guarantees ("cautionnements"), *as was recently done for repayment insurance*. The intensity of competition can also be increased in related areas to improve market outcomes. Maintaining an active direct-sales market is important for exerting pressure on the commissions charged by real estate agents. *Insofar as websites play an increasingly important role, they should be required to accept listings from individual sellers, not just from registered real estate agents. The emoluments received and the services rendered by real estate agents should be made more transparent. Finally, the quota on the number of notaries, as well as their fixed fee schedule, ought to be eliminated.*

France has an ambitious environmental-policy agenda

Environmental policy seeks to correct both negative local externalities (such as pollution, noise, accidents and traffic congestion) and their global counterparts, with global warming representing one of the most pressing market failures. In terms of reducing emissions of greenhouse gasses (GHGs), France has done well in meeting its Kyoto objectives; its plans are also more ambitious than the European Union's, with the aim of cutting emissions by 75% by 2050 through a wide range of measures to guide the transition towards a low-carbon economy. The 2050 target is also ambitious because France is starting from a relatively low level of GHG emissions, thanks to the prominence of its nuclear and hydroelectric energy supplies. While the objective *per se* is laudable, *it is also crucial that cost/benefit and cost/effectiveness analysis be used systematically, excluding situations corresponding to the most difficult-to-quantify externalities, such as those involving biodiversity, to ensure that the various environmental-policy instruments balance costs and benefits at the margin.*

Substantial distortions have to be eliminated

The 2009 ruling of the Constitutional Court that the government's proposed carbon tax was inconsistent with the principle of equal burden-sharing (given that the tax did not cover industries included in the European system of permits, which are issued free of charge) is regrettable in its effects: a carbon tax is a straightforward way both to penalise the consumption of carbon-intensive products and to stimulate investment in alternative low-carbon technologies. *If it cannot be instituted nationally, the government should seek actively to have it implemented at the EU level.*

Urgent action is required to correct numerous policy-induced distortions caused by the considerable heterogeneity in implicit carbon pricing across energy sources and their uses, even when the various types of externalities are taken into account. This heterogeneity prevents cost-effective reduction of GHG emissions. The most extreme example is the zero implicit price of carbon applied to coal and to natural gas for households. *A hike in taxes on some fossil fuels* (natural gas, domestic heating oil and coal) would help harmonise the pricing of negative externalities generated overall by these products. Also, *the preferential treatment of diesel relative to gasoline should be gradually removed*. French GHGs have risen sharply in the transport sector, which accounts for roughly a quarter of aggregate emissions. Thus, *tax expenditures on fuel for agricultural vehicles and fishing vessels should be assessed with a view to their possible reduction, and those for heavy trucks and taxis should be abolished*. Moreover, *the bonus part of the bonus/penalty scheme on car purchases should be*

gradually eliminated, while still preserving the same degree of incentives, as no negative externalities should be subsidised. Lastly, urban tolls would be a reasonable way of combating congestion in large cities, provided they were supported by prior evaluations.

Abatement costs should be harmonised across energy sources and spikes in demand smoothed out

As in most OECD countries, renewable energies are encouraged through both direct and indirect subsidies, including feed-in tariffs. These feed-in tariffs remain particularly high for the photovoltaic sector, despite several successive decreases in 2010. *Subsidies to renewable energies should be reconsidered with a view to harmonising marginal abatement costs across energy sources,* although the multiplicity of externalities to be corrected does not imply that a strict equalisation of feed-in tariffs would be optimal. In particular, with regard to the residential sector, *provisions for GHG emissions should be assessed by analysing each measure according to avoided emissions and abatement costs*. In addition to measures to boost low-carbon electricity supply, daily demand fluctuations, which trigger an emissions-intensive response, should be discouraged by increasing the use of peak-usage pricing and the "capacity withdrawal" made possible by such recent technological advances as smart meters.

Costs related to management of radioactive waste from nuclear power plants should be better accounted for

Maintaining a low-carbon electric power supply requires France to keep its ageing nuclear stock operational. Given the amount of radioactive waste, it is crucial that regulated access prices reflect full production costs – including those related to waste management and decommissioning – rather than historical costs. *Estimates of future decommissioning costs should be determined regularly by independent experts.*

The management of municipal waste and water pollution could be improved

Increasing municipal waste is a virtually universal trend in European countries. In France, the *upstream taxes that producers pay per package or product should be adjusted*, as they are low and not linked sufficiently to actual waste-management costs. To lower the volume of municipal waste, *generalisation of current incentive-based waste pricing should be accelerated*. The quality of surface and ground water is unequal in France, and water pollution generated by agriculture is not being dealt with satisfactorily in all areas. *Either a tax on fertilisers should be introduced and the existing one on pesticides raised to match their true social costs, or a quota system should be put in place for both.*

Chapter 1

Securing a lasting recovery

The Great Recession will leave lasting scars on public finances and on employment. A modest recovery is underway and should allow only a slow retreat in unemployment. Priorities will be to ensure that the public finances do not threaten macroeconomic stability, to improve regulation of the banking system, and to pursue structural reforms that stimulate employment and the productive potential of the economy. Banking supervision seems relatively effective in France and was significantly improved in 2010. However, it is still difficult to assess the real soundness of the financial system. The growth in banking concentration calls for the urgent introduction of a mechanism for monitoring systemic risk. This could lead to stricter capital adequacy requirements in light of the degree of systemic risk posed by each institution, and the development of a mechanism for dealing with failed banks. In the case of a sustained real estate price boom, the authorities should not hesitate to take macro-prudential measures to limit bank lending to households. Turning to the all-important labour market France still has a structural jobs deficit concentrated on younger and older workers. For a decade now, numerous measures have been taken to enhance employment opportunities for older workers, and the 2010 pension reform will help in this regard. Moreover, elimination of the taxe professionnelle, *expanded powers for the competition authority, the research tax credit, greater autonomy for universities, future spending on higher education, training and research – all these recent measures speak to the determination of the authorities to boost the supply potential of the economy. In both areas – the labour market and the supply of output – there will have to be a protracted effort in order to overcome the principal weaknesses of the French economy.*

The economy is gradually recovering from a severe recession

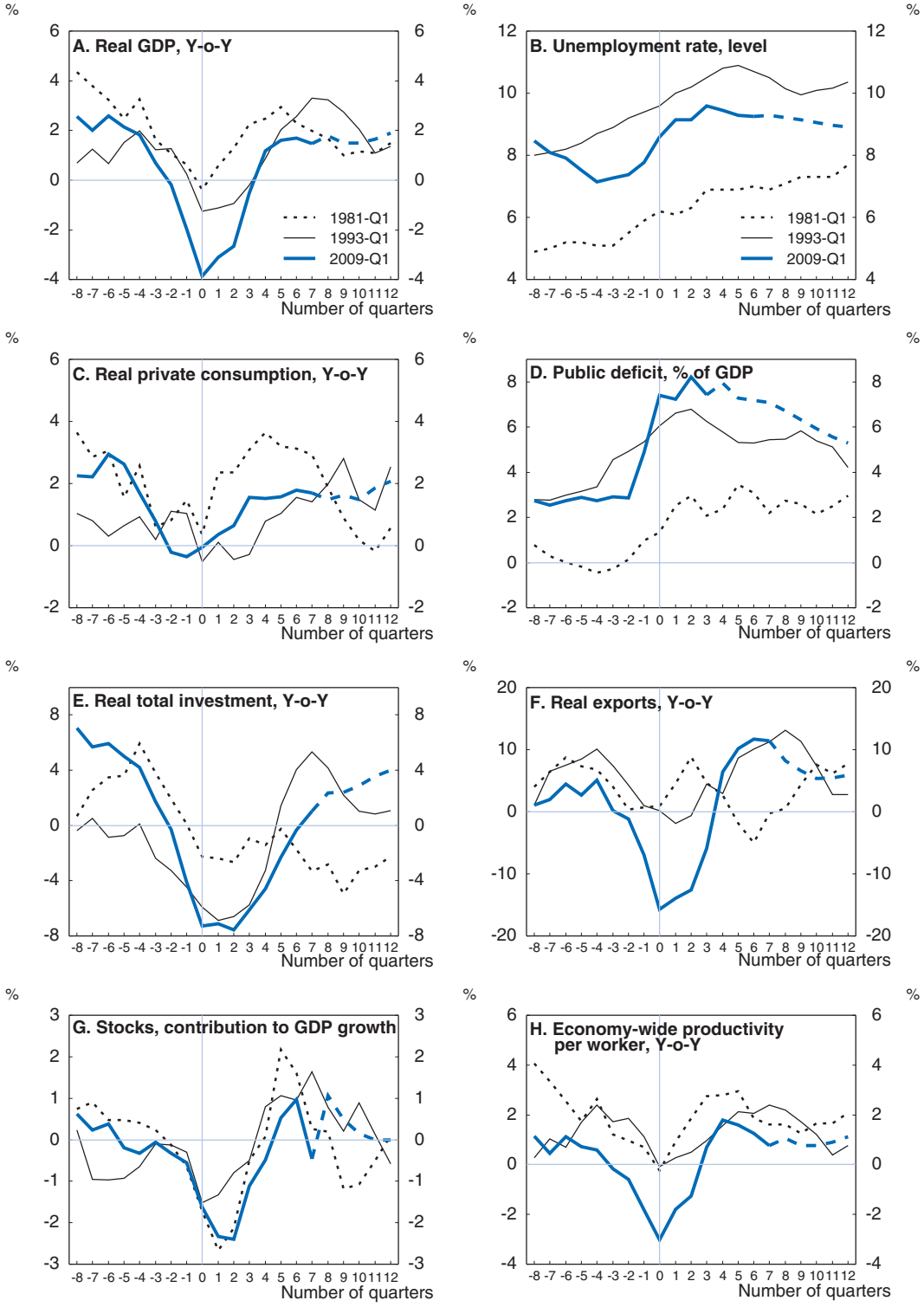
A modest recovery has been underway in France since the second quarter of 2009 (Table 1.1). While its pace is consistent with that observed following earlier downturns, it has been rather anaemic, given the severity of the recession, so that losses in economic activity are being made up only slowly. Harking back to the previous steep recessions in France, those of the early 1980s and 1993, the great recession of 2008-09 combined the degree of de-stocking from the first and disinvestment from the second, while synchronisation at the world level weighed heavily on external demand, sparking a sharp retreat in industrial output and export sales (Figure 1.1). The best news is that private consumption, sustained by budgetary measures, has not flagged. After marking time in the first half of 2010, under the impact of the gradual elimination of the "clunker bonus" (for sending old cars to the wrecker) and withdrawal of temporary income tax cuts targeted at poorer families, private consumption has now resumed its trend growth rate.

Table 1.1. **Recent macroeconomic developments**

	2007	2008	2009	2010	2011	2012
	Current prices in euro billions	Percentage changes, volume (2000 prices)				
Private consumption	1 074.5	0.5	0.6	1.6	1.6	2.2
Government consumption	436.5	1.6	2.8	1.5	0.6	0.0
Gross fixed capital formation	406.9	0.3	–7.0	–1.8	2.8	4.3
Public	62.2	–2.9	0.6	–1.2	0.9	0.4
Private: residential	118.3	–2.3	–8.1	–1.9	1.3	2.4
Private: non residential	226.4	2.6	–8.5	–1.9	4.1	6.3
Stock building[1]	11.6	–0.3	–1.8	0.3	0.4	0.0
Total domestic demand	1 932.6	0.4	–2.3	1.2	2.0	2.1
Exports of goods and services	503.3	–0.8	–12.2	9.8	6.4	6.3
Imports of goods and services	539.8	0.3	–10.6	7.9	7.5	6.2
Net exports[1]	36.6	–0.3	–0.2	0.3	–0.5	–0.1
GDP at market prices	1 896.0	0.1	–2.5	1.5	1.6	2.0
Memorandum items:						
Unemployment rate (national definition)		7.8	9.5	9.7	9.5	9.3
Total payroll		3.1	0.1	2.4	2.5	2.8
Harmonised index of consumer prices		3.2	0.1	1.6	1.1	1.1
Core harmonised index of consumer prices		1.9	1.8	1.2	0.9	1.1
Household gross saving ratio[2]		15.4	16.2	15.9	15.5	14.9
Public debt, Maastricht definition[3]		67.6	78.1	83.2	88.0	91.0
General government financial balance[3]		–3.3	–7.6	–7.4	–6.1	–4.8
Current account balance[3]		–1.9	–2.0	–2.2	–2.3	–2.4

Note: National accounts are based on chain-link data.
1. Contribution to changes in real GDP (percentage of real GDP in previous year).
2. As a percentage of disposable income.
3. As a percentage of GDP.
Source: OECD, *Economic Outlook 88 Database*.

Figure 1.1. **A comparison of the 2008-09 recession in France with its predecessors**[1]



1. 0 corresponds to the quarter in which the troughs in the GDP series occurred; projections from 2011Q1 onwards, excluding Panels B (from 2010Q4) and D (from 2010Q1).

Source: OECD, *Economic Outlook 88 Database*.

StatLink http://dx.doi.org/10.1787/888932377124

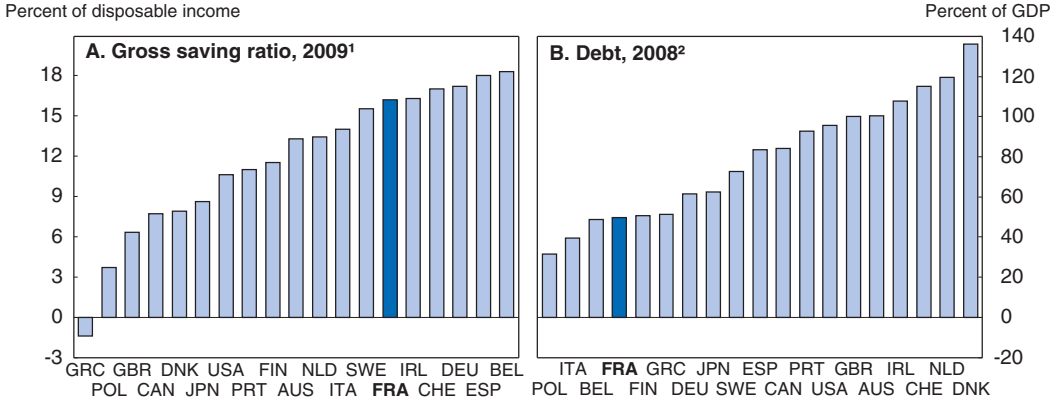
The great recession will have a lasting impact on the economy

The public finances and employment have paid a heavy toll from the crisis and will bear the scars for many years. Unemployment soared during the first stage of the recession (see below), but in the end it was relatively contained compared with the severity of the shock. Consequently, and in comparison to other recessions, the fall in output was reflected more in lower productivity. Beyond the free play of automatic stabilisers, the recovery plan adopted by the government, amounting to around 1.25% of GDP for 2009-10, was proportionate and well designed: it was targeted and temporary, it was implemented quickly, and it thus did much to cushion the shock. The resulting deterioration in the public finances is therefore justified from the viewpoint of macroeconomic policy. However, the current levels of the deficit and debt result largely from a trend that has been at play for several decades, and which calls for a major shift in the conduct of fiscal policy. In this sense, the recession really precipitated public recognition of the fiscal problem: structural reforms, of which the 2010 pension reform constitutes an initial important step, are essential to preserve a high level of social protection. They are discussed in Chapter 2.

France is in an intermediate situation with respect to the impact of the crisis

In the most critical phase of the crisis, up to mid-2009, the French economy showed itself more resilient than other European countries because of a conjunction of factors: strong automatic stabilisers that supported demand; less dependence on hard-hit sectors such as finance, construction and the automotive industry (relative to Germany); household accounts in better balance, with indebtedness under control and a high saving rate (Figure 1.2); and a banking-sector financial situation that had deteriorated less than in many other countries. Overall, according to various economic indicators measuring the impact of the great recession and taking into account the nascent recovery, France is in an intermediate position among OECD countries (Figure 1.3).

Figure 1.2. **Households' savings and debt**



1. 2008 for Greece, Japan, Poland and Switzerland.
2. 2007 for Japan.

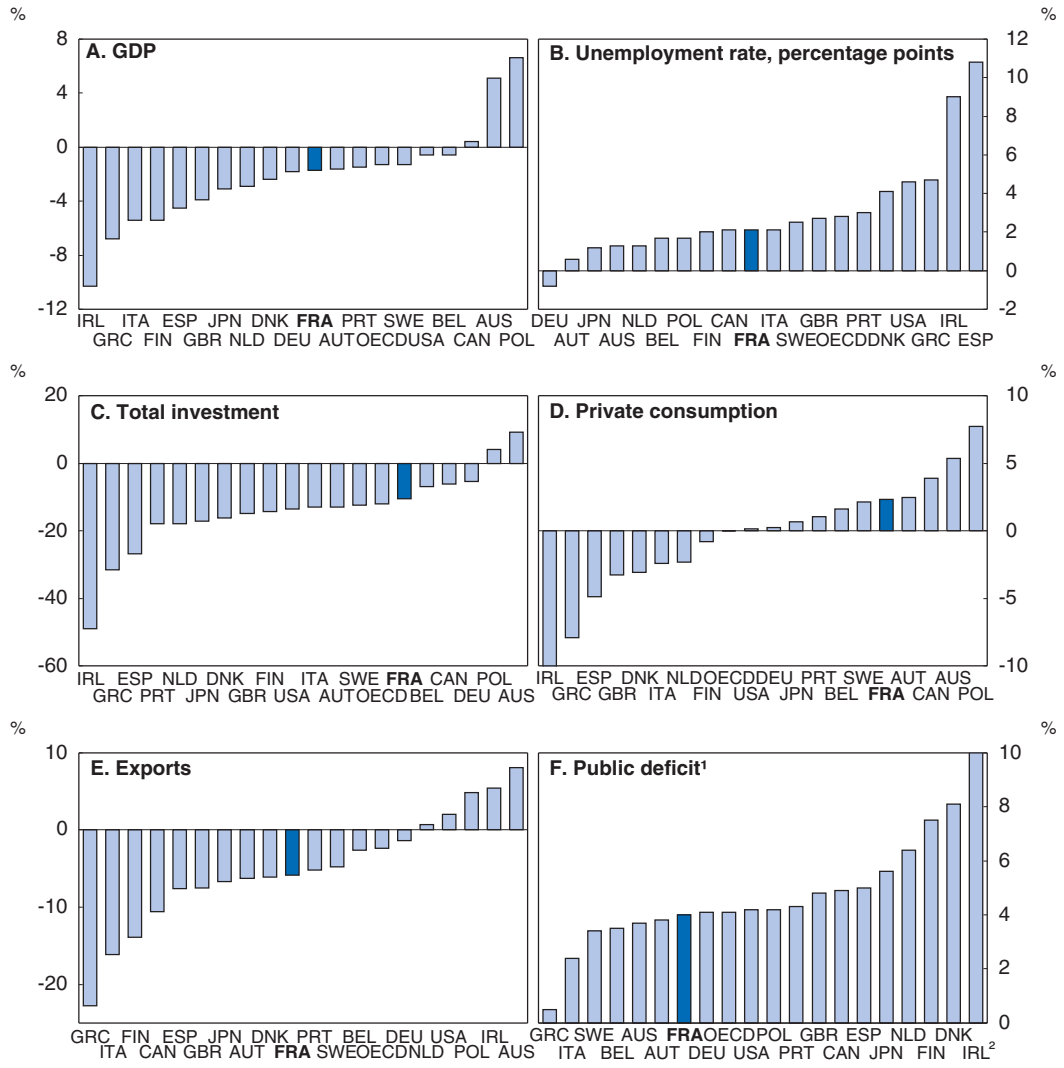
Source: OECD, *National Accounts* and *Economic Outlook 88 Database*.

StatLink http://dx.doi.org/10.1787/888932377143

From its peak in the first quarter of 2008, GDP was down by less than 2% at end-2010, while the unemployment rate was up by two percentage points. Among euro area countries, only Austria and Belgium are doing better in these two dimensions, although

Figure 1.3. **The evolution of OECD countries' macroconditions over the crisis**

Per cent changes if not otherwise indicated, from 2008Q1 to 2010Q3



1. As a percentage of GDP; difference between the 2010 and the 2008 annual levels.
2. The public deficit figure for Ireland is 25.0%.

Source: OECD, *Economic Outlook 88 Database*.

StatLink http://dx.doi.org/10.1787/888932377162

Germany has performed exceptionally well in reducing unemployment. By all evidence, it is in private consumption that France has its strongest card. At the same time residential investment, while down by more than 10%, has not fallen as far as in many OECD countries, thanks no doubt to a prudent pre-crisis approach to household lending, and perhaps also to enhanced government measures to support the real estate sector in 2009 (see Chapter 3). On average, French real housing prices retreated by nearly 10% from their peak in 2007Q4 to their trough in 2009Q3, before rebounding along with the volume of transactions – this is in fact a profile shared by most OECD countries, and it places France, again, in an intermediate position (Table 1.2). Exports, by contrast, dropped more sharply than for the average OECD country, which likely reflects structural weaknesses (see below), even if exports were more dynamic in 2010.

Table 1.2. **Real house prices and the crisis**[1]

	Peak		Trough		Last value[2]
Peak and trough:	Quarter	% increase since 1999Q4	Quarter	% decrease since peak	% increase since trough
France	**2007Q4**	**90.9**	**2009Q3**	**–9.5**	**7.1**
Belgium	2008Q4	58.9	2009Q2	–1.8	3.9
Switzerland	2007Q1	12.8	2008Q1	–2.0	12.7
Korea	2007Q1	26.2	2010Q3	–3.6	0.0
Sweden	2007Q4	81.8	2008Q4	–5.5	8.6
Australia	2008Q1	82.0	2009Q1	–7.4	18.1
Finland	2007Q3	31.3	2009Q1	–8.1	12.6
Norway	2007Q3	66.2	2008Q4	–11.8	13.6
Canada	2007Q4	72.7	2008Q4	–12.0	14.5
New Zealand	2007Q3	90.9	2009Q1	–15.2	4.5
United Kingdom	2007Q4	90.8	2009Q2	–15.4	4.3
No trough yet:[3]					% decrease since peak
Netherlands	2008Q4	34.0	–	–	–6.0
Italy	2007Q4	50.0	–	–	–7.7
United States	2006Q4	44.4	–	–	–15.4
Spain	2007Q3	94.2	–	–	–17.2
Denmark	2007Q1	70.8	–	–	–19.6
Ireland	2006Q4	65.6	–	–	–34.2
No peak:					% decrease since 1999Q4
Japan	–	–	–	–	–18.7
Germany	–	–	–	–	–26.6

1. Deflated by the PCP deflator.
2. 2010Q3, except 2009Q4 for Germany; 2010Q1 for Italy and 2010Q2 for Denmark, Ireland, Netherlands and New Zealand.
3. Includes countries that have not recovered at least a quarter of losses incurred since the peak.

Private investment is starting to lead the way

In this context, the outlook for a recovery of employment is modest. The unemployment rate is likely to fall only slightly, and thus inflation pressures will remain weak, with underlying inflation well below 2%. At this point, business investment should become the driving force for the next phase of recovery, if growth is to be sustainable. While industrial production has seesawed, business confidence has been gaining strength steadily since the beginning of 2009, and business and residential investment returned to growth in the second quarter of 2010. Productivity has rebounded, and a lasting recovery in profit margins will now depend on how well firms can maintain that trend. Inflation in 2010 was high, considering the wide output gap. This is due largely to price spikes for imported raw materials – the year-on-year underlying inflation rate in fact reached a low point of 0.7% in 2010Q3. Thanks to vigorous global economic activity and the gradual rebalancing of German growth in favour of greater domestic demand, private investment and exports should become more dynamic. Since early 2009, French households have taken advantage of favourable credit conditions to finance their residential investments, and they are in a healthy position in terms of solvency: given their low initial level of indebtedness, there should be no need for major de-leveraging, which would depress

household spending. Private consumption should thus recover steadily, with the saving rate returning to its pre-crisis level as lower joblessness and a shrinking public deficit work to restore household confidence. More generally, the heavy financial component of this recession and its virtually global nature suggest that recovery could remain moderate for several years. In the end, according to OECD forecasts made in autumn 2010, real GDP growth should increase from 1.5% in 2010 to 2.0% in 2012 (Table 1.1).[1] The economic environment has since improved, and growth may be a little stronger in the short term, even if rising commodity prices limit its rebound. This implies, however, that the autumn's headline-inflation forecasts are out of date.

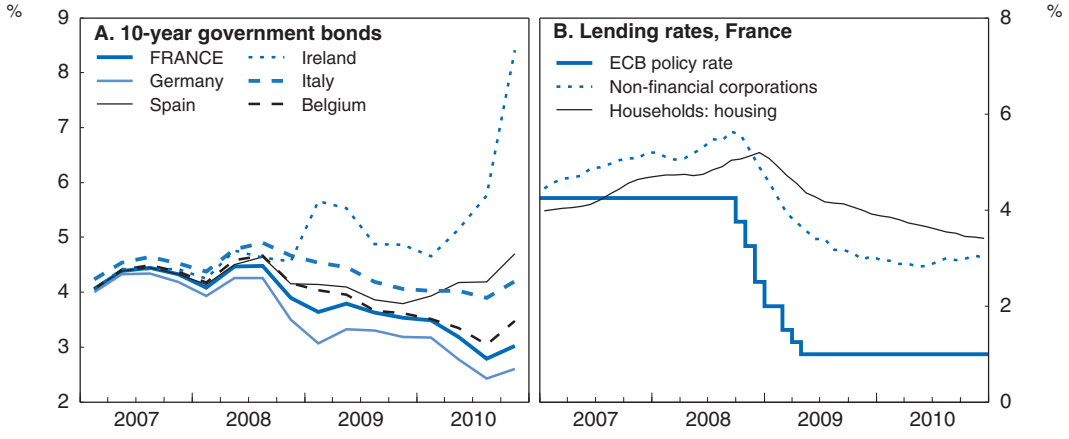
Fiscal policy is tightening, as it must

Fiscal policy was virtually neutral in 2010, but it will have to become restrictive in 2011: the government's target is to reduce the general government deficit from around 7.5% of GDP in 2010 to 6% in 2011. These initial consolidation measures (Chapter 2) have avoided across-the-board tax increases on incomes, profits and consumption, and this will limit their depressing impact on economic activity. France is committed to reducing the deficit gradually to 2% of GDP by 2014, which should make it possible to stabilise the debt/GDP ratio at around 87% in 2012 and then bring it down progressively. Given the pre-crisis level of public debt and its subsequent evolution, this pace of adjustment is appropriate if the public finances are not to threaten macroeconomic stability.

Monetary policy will remain appropriately accommodating

Monetary policy in the euro area continues to support economic activity through historically low official interest rates and non-conventional measures to guarantee the liquidity of the financial system (see OECD, 2010a for more details). It should remain accommodating as long as excess productive capacity persists in the region. This low interest rate policy has been transmitted to financing conditions for the entire economy, and France has been largely spared the rising risk aversion that has affected sovereign debt markets for peripheral countries (Figure 1.4). However, contrasting economic developments in countries of the euro area pose the question of adapting the common

Figure 1.4. **The level of interest rates**



Source: OECD, *Economic Outlook 88 Database*; ECB and Banque de France.

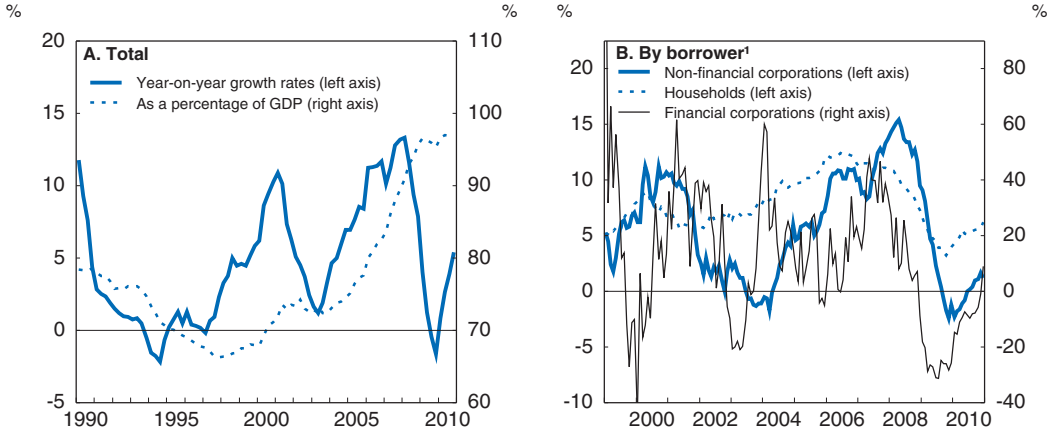
StatLink http://dx.doi.org/10.1787/888932377181

monetary policy to the situation of each country, and of France in particular. On the one hand, heterogeneity in the euro area is relatively narrow in terms of inflation rate, but on the other hand it has widened in terms of unemployment rates. However, as the French unemployment rate and its deviation from the structural rate are close to the average for the euro area, the risk of inappropriate monetary policy seems low for France.

Credit to business is picking up albeit only modestly

Lending to the private sector during the boom years between 2006 and 2008 soared at a pace exceeding 10% a year. Although the cutback was abrupt, it did not lead to a drop in the credit/GDP ratio, as happened during the recession of the 1990s (Figure 1.5). This is due to the relative resilience of credit to households, whereas credit to businesses shrank and interbank credit collapsed. Quarterly surveys of credit distribution suggest that the turnaround can be attributed both to supply and demand factors. More specifically, lending criteria were tight for businesses until 2009Q3, while demand was in retreat until the middle of 2010. Conditions for lending to households were stiffened as well, although to a far lesser degree, until 2009Q1, while demand for housing credit rose again in mid-2009. Over the last twelve months, *new*-credit flows increased by more than 50% for households, while remaining stable for non-financial corporations.

Figure 1.5. **Credit to the private sector**



1. Year-on-year growth rates.

Source: Banque de France, INSEE.

StatLink http://dx.doi.org/10.1787/888932377200

Clouds still hang over the European financial system

French banks benefitted from exceptional measures

As in many OECD countries, massive government support to the banking sector prevented the crisis from having much more severe repercussions. A combination of generally mediocre risk management, under-capitalisation and excessive short-term debt put even the largest banks and some sub-national governments in difficult positions, threatening by contagion the stability of funding for the entire economy. From this viewpoint, the crisis served as a stark reminder of the importance of a resilient banking system. The objective of public aid was to bolster the banks' solvency and boost liquidity, through capital injections, guarantees on bank financing (Box 1.1), and stronger guarantees for bank depositors.

Box 1.1. **Public aid to credit institutions**

In 2008, two agencies were created to inject liquidity and capital into the banks:

- *Société de financement de l'économie française (SFEF)*, owned 34% by the State and 66% by the private banks, raised funds on the market with State guarantees for on-lending to credit institutions. The SFEF ceased its issuance activity in September 2009, after raising EUR 77 billion in loans for 13 credit institutions. Repayment will be spread over the years to 2014, and the default risk seems low.
- *Société de prises de participation de l'État (SPPE)* has been helping to recapitalise the banks. It contributed EUR 21 billion in equity funding to 6 banking groups: 7.0 billion to BPCE, 5.1 billion to BNPP, 3.4 billion to Société Générale, 3 billion to Crédit Agricole, 1.2 billion to Crédit Mutuel and 1 billion to Dexia. After accounting for repayments by the banks (with annualised interest of around 8%) the SPPE's outstanding claims now relate only to Dexia (1 billion).

In addition, Dexia received a capital injection of EUR 2 billion from the Caisse des Dépôts along with a government guarantee for refinancing operations to a ceiling of EUR 36.55 billion. In total, this public assistance will have a negligible impact on the public debt and could even yield a slight budgetary surplus (estimated at EUR 2.4 billion at year-end 2010).

Source: "Les concours publics aux établissements de crédits : Bilan et enseignements à tirer", *Rapport public thématique*, Cour des comptes, May 2010. Data updated for the second half of 2010.

French banks emerged from the crisis in better shape than those from other countries, thanks in large part to a relatively prudent approach to lending and regular supervision of all lending institutions. France falls short of the OECD average in only one of the eight aspects of prudential regulation identified by Ahrend *et al.* (2009), that relating to exit rules and disciplining devices. Bank profits recovered strongly in 2009, thanks largely to generous financing conditions put in place by the European Central Bank. Consequently, the banks have moved promptly to clear their accounts *vis-à-vis* the public support mechanisms. Thus, by retaining profits, issuing shares and cutting risks the banks managed to increase their average "tier 1" capital ratio from 8.7% in 2008 to 10.2% in 2009, above the 9.1% average for the euro area (IMF, 2010). Yet in the event of a real estate price boom, the authorities should not hesitate to implement explicit macro-prudential measures to limit credit to households (setting a lending ceiling in line with borrowers' income or the value of the purchased home).

If the crisis is still being felt today, it is because (apart from the high unemployment rate) the international financial system remains the weakest link of the recovery, particularly in Europe. Although the greatest concern stemmed initially from structured credit products, worries are now being fed by exposure to sovereign debt of the peripheral countries and more generally to bank assets in those countries. Relative to other countries, the French banking system at present appears fairly solid, but it is difficult to assess its strength, despite the French banks' publication of their sovereign risk exposures.[2] The most recent data from the Bank for International Settlements show that they are highly exposed to countries that stand at the core of market tensions (Table 1.3), even if this total exposure is an insufficient indicator of the particular risks stemming, for example, from thin capitalisation and the property market (Buiter and Rahbari, 2010). French banks' CDS (credit default swap) rates have thus increased again since the end of October 2010, despite an apparently satisfactory level of capitalisation. Moreover, because of the strong

Table 1.3. **Claims of foreign banks on selected peripheral EU countries**

A. Foreign exposure to peripheral EU countries by bank nationality[1] (end 2010Q2, as a percentage of GDP)

Exposures to	Type of exposures	Bank nationality									
		FRA	DEU	ESP	ITA	OEA[2]	GBR	JPN	USA	ROW	World
Total	**Total foreign claims**	**12.4**	**12.4**	**6.9**	**2.6**	**10.1**	**12.5**	**0.9**	**0.8**	**0.3**	**2.6**
	Public sector	3.2	1.9	0.7	0.3	1.6	0.8	0.2	0.1	0.0	0.4
	Banks	3.4	4.7	0.8	0.8	2.5	3.1	0.1	0.3	0.1	0.8
	Non-bank private	5.9	5.8	5.5	1.4	5.9	8.5	0.5	0.5	0.1	1.5
Greece	Total foreign claims	2.3	1.2	0.1	0.3	1.1	0.6	0.0	0.0	0.0	0.3
Ireland	Total foreign claims	1.8	4.4	1.0	0.7	2.2	6.1	0.4	0.4	0.1	0.8
Portugal	Total foreign claims	1.7	1.2	5.8	0.2	0.7	1.0	0.0	0.0	0.0	0.3
Spain	Total foreign claims	6.7	5.7		1.3	6.0	4.8	0.4	0.4	0.1	1.2

B. Total foreign claims of French banks on EU peripheral countries (as a percentage of GDP)

	End of 2005	End of 2007	End of 2009	2010Q2
Greece	0.6	2.6	3.2	2.3
Ireland	1.2	3.8	2.1	1.8
Portugal	0.6	1.8	1.8	1.7
Spain	3.7	7.7	8.6	6.7

1. Exposures of banks headquartered in the respective country are not included.
2. Other euro area.

Source: BIS.

interconnection of European banking sectors, a further deterioration in the financial situation in peripheral countries would have a ricochet effect on French banks, as well as on the banks of other large European countries, through their exposure to their partners (including German, Belgian and Dutch banks) (IMF, 2010). Better stress tests, covering a wider scope and based on a transparent methodology, should be implemented at the EU level, or at least in France.

The framework for supervising banks has been improved

Through the Banking and Financial Regulation Act (*Loi de régulation bancaire et financière*) of October 2010, intended to implement G20 decisions in this field, France has equipped itself with a new supervisory structure for the financial system. *First*, supervision of banks and insurance companies as well as consumer protection is now placed with a single oversight and surveillance authority, the Prudential Supervision Authority (ACP). This is an important step for making prudential supervision more coherent and effective, given the strong linkages that exist between banks and insurance companies (IMF, 2010). *Second*, a Financial Regulation and Systemic Risk Board (COREFRIS) has been established, chaired by the Minister of Economy, Finance and Industry, to give warning of systemic risks to financial stability and to make recommendations for dealing with them. This body will be linked to the future European Systemic Risk Board. *Third*, the areas of responsibilities of the Financial Market Authority (AMF) have been expanded, in particular to derivatives and carbon markets, but to consumer protection as well; it has also been given stronger disciplinary powers. *Lastly*, market traders' remuneration is now controlled.

According to their own simulations, French banks will be especially affected by enforcement of the new Basel III prudential rules, which will require them to boost their capitalisation. Under these new rules, the risk-weighted assets of the four traded banks would rise by around 30%, which would affect the tier 1 ratio by about one percentage point

for BNP Paribas, three points for Société Générale and Crédit Agricole, and more than four points for Natixis; other things being equal, this would entail capital increases totalling some EUR 30 billion (*Les Échos*, 2010). Gradual implementation of the Basel III accords would seem an important step for strengthening micro-prudential rules. Yet care must be taken to limit possibilities for circumventing prudential rules and to extend supervision to other financial entities subject to little if any regulation. Effective introduction of counter-cyclical macro-prudential standards, as called for by Basel III, would also be welcome.

Additional measures are needed to reduce systemic risk

In France, as in many countries, the crisis produced a more concentrated banking sector. While BNP took over the Dutch bank Fortis, the problems at Natixis led the authorities to speed the creation of the BPCE group by bringing together *Banque populaire* and *Caisse d'épargne*. Each of the big four banks now has a balance sheet in excess of EUR 1 trillion, and EUR 7 trillion in total, or 350% of GDP, with EUR 2.2 trillion for BNP Paribas alone. While they do not directly target systemic risk, the measures taken in connection with Basel III, by tightening capital adequacy requirements, will also help reduce it.

There are several possible approaches to limiting systemic risk (OECD, 2010b). The resilience of the universal banking model does not seem to call for functional separation of activities, although the importance of economies of scope is a matter for debate. On the other hand, tighter supervision and monitoring focused on systemic risk, as introduced by the Bank and Financial Regulation Act (strengthening ACP powers and establishing COREFRIS), are an initial response to this problem. A tax would in theory be a good way to correct the excessive risk-taking that can be generated by government intervention in favour of financially troubled institutions having systemic importance ("too big to fail") and thus reduce moral hazard. The government has done so in the form of a tax on banks' risk-weighted assets, which should yield EUR 720 million in 2011. Even if that tax is allocated to the general budget, it has the disadvantage that it might be seen as a kind of insurance mechanism which could in the end legitimise excessive risk-taking. In addition, because it is so hard to determine the right level of a tax that is supposed to internalise costs that materialise very exceptionally, together with the fundamental problem posed by the shortage of capital in these extreme situations, the favoured choice is to control capital amounts directly (Weitzman, 1974; King, 2010).

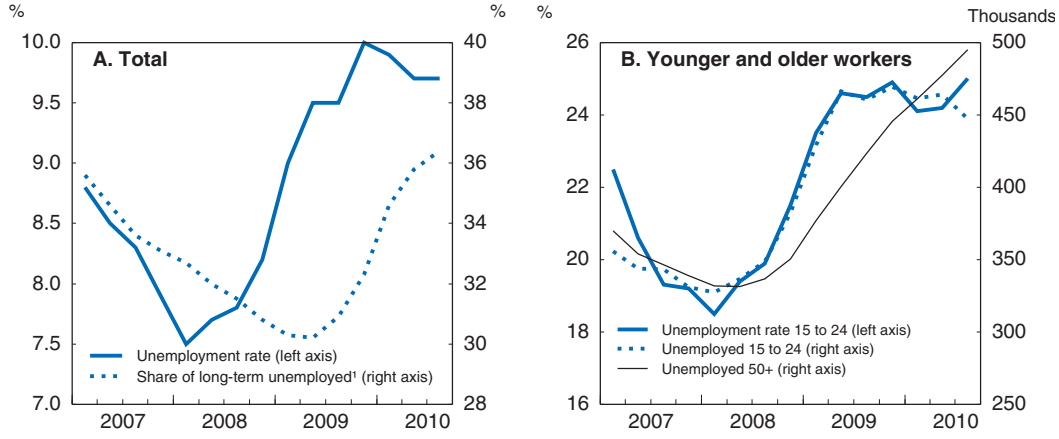
The approach best suited to the French situation could be to institute a bank crisis-resolution mechanism. Such a framework should mobilise creditors in the event of financial distress without threatening the functioning of the economy. Introducing debt-conversion or reduction measures ("bail-in", at the supervisor's discretion or in the form of contingent capital) in this connection, in a context of operational continuity ("going concern"), is one way to ensure higher loss absorbency. Such arrangements should also enable orderly winding-up of any institution whose position is irretrievably compromised. It goes without saying that a measure of this kind would be more feasible if co-ordinated internationally, but the absence of a consensus should not be taken as an excuse for inaction, even if unilateral measures might reduce activity in the financial sector. Discussions on this subject should continue and culminate in 2011 within the Financial Stability Board. At the same time, the European Commission is expected to present a draft directive in 2011.

Labour market reforms have advanced but still have far to go

Sound handling of the recession, and some promising recent results

The unemployment rate has begun a slow retreat from its near 10% peak, but long-term unemployment is still rising (Figure 1.6). Job losses were particularly heavy in the construction sector, as well as for temporary and low-skilled workers. Predictably, young workers were hardest hit by rising unemployment during the first phase of the crisis: having just joined the workforce, they had little experience and were most likely to be on temporary contracts, and they were therefore more exposed to economic fluctuations. In addition, worsening long-term unemployment (Figure 1.6, Panel A) is a particular concern not only because of the social hardship involved but also because it may lead people to drop out of the workforce permanently and thus increase structural unemployment. Nevertheless, since year-end 2009 the labour market has seen an inflexion point, with a rebound in temporary job creation, a slowing of industrial job destruction, the pace of which has returned to its long-term trend, job creation in services and a levelling-off in construction.

Figure 1.6. **Unemployment by age groups, France**



1. Unemployed workers registered at Pole Emploi for more than 1 year as a share of the total number of registered unemployed workers (Categories A, B and C), metropolitan France.

Source: INSEE; DARES.

StatLink http://dx.doi.org/10.1787/888932377219

The labour market policy shifts during the recession helped to limit its impact on employment. Part-time unemployment measures were extended to cover 0.8% of employees in 2009, compared to 0.3% in 2007, in order to avoid layoffs sparked by only short-term factors. This move meant that, in comparison with earlier recessions, the necessary adjustment of the total number of hours worked could be shared more effectively between dismissals and hours reductions, thus preserving some 20 000 jobs in France (OECD, 2010c). Priority was also given to work-study arrangements via various aids and the revival of subsidised work contracts, for which the State's share was raised from 70% to 90% (boosting the number of new workers under subsidised contracts apart from work-study arrangements from around 340 000 in 2008 to 520 000 in 2010, which brought it close to the level reached in 2007). Moreover, the eligibility period for unemployment benefits has been temporarily extended, the conditions for unemployment benefits in cases of recent affiliation relaxed, and job-search support increased for persons not on unemployment benefits. It will be important to withdraw these measures as the recovery

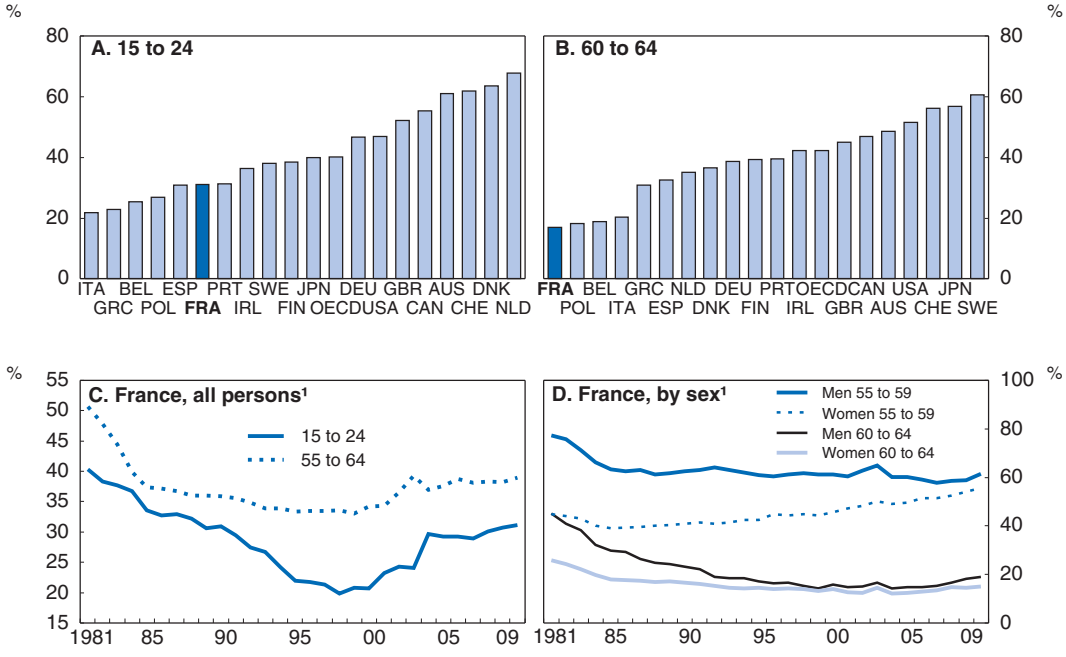
gathers steam, because they are costly and can hinder the reallocations of labour that are necessary in the long-term.

Above all, economic policymakers have avoided past errors by abstaining from measures to encourage early retirement: during 2009, 7 260 private-sector employees took advantage of early retirement provisions in metropolitan France, down by 12% from 2008; this was in fact the lowest number since 1985, and it stands in sharp contrast to an annual average of around 80 000 in the late 1990s (DARES, 2010a).[3] Thus, at the end of 2008, 0.7% of people between the ages of 55 and 64 were drawing public early-retirement pensions, *versus* 2.4% in 2003. Indeed, the growing rate of employment among older age groups (see below) represents a break from past recessions.

Persistent structural weaknesses

Looking beyond the recession, while the pension reform of 2010 is a serious step forward, the problems on the French labour market are still largely structural in nature. A higher employment rate would bring significant benefits in terms of fiscal consolidation, social cohesion and living standards. The diagnosis is well known: poor outcomes derive from low employment rates for young people and older people (Figure 1.7). Taking as a benchmark the OECD-wide average employment rate for each of these age categories, France has a shortfall of around 670 000 jobs for those under 25 years and 800 000 jobs for those over 55, that is 29% and 26% of total employment for those age groups. Therein lies an indication of the ground that must be made up, despite the improving trend since the late 1990s when these rates were unusually low (Figure 1.7, Panels C and D).[4]

Figure 1.7. **Youths' and older workers' employment rates in selected OECD countries and France**



1. Break in series in 2002.

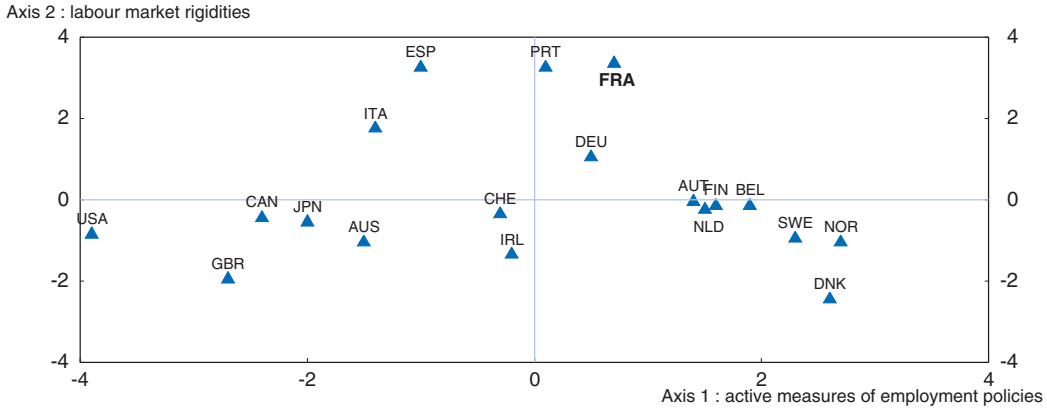
Source: OECD, *Labour Force Statistics*.

StatLink http://dx.doi.org/10.1787/888932377238

The structure of the French labour market resembles that of Germany, but also Portugal and Spain, where labour market performance is also mediocre (Figure 1.8). It is still marked by a deep-rooted duality, important rigidities and poorly developed active labour market measures. The general weaknesses in France include, in particular (Figure 1.9): a high level of taxation on work, combined with a high minimum wage; the poor quality of labour-management relations, attributable in part to unrepresentative labour unions; and sharp segmentation of labour contracts, which, at the same time, constrains the economy's capacity to adapt to shocks, fails to assuage workers' feelings of uncertainty and distributes unfairly the inevitable burden of adjustment between those who are protected and those who are not.[5]

Figure 1.8. **Structure of the labour market**

Principal component analysis[1]



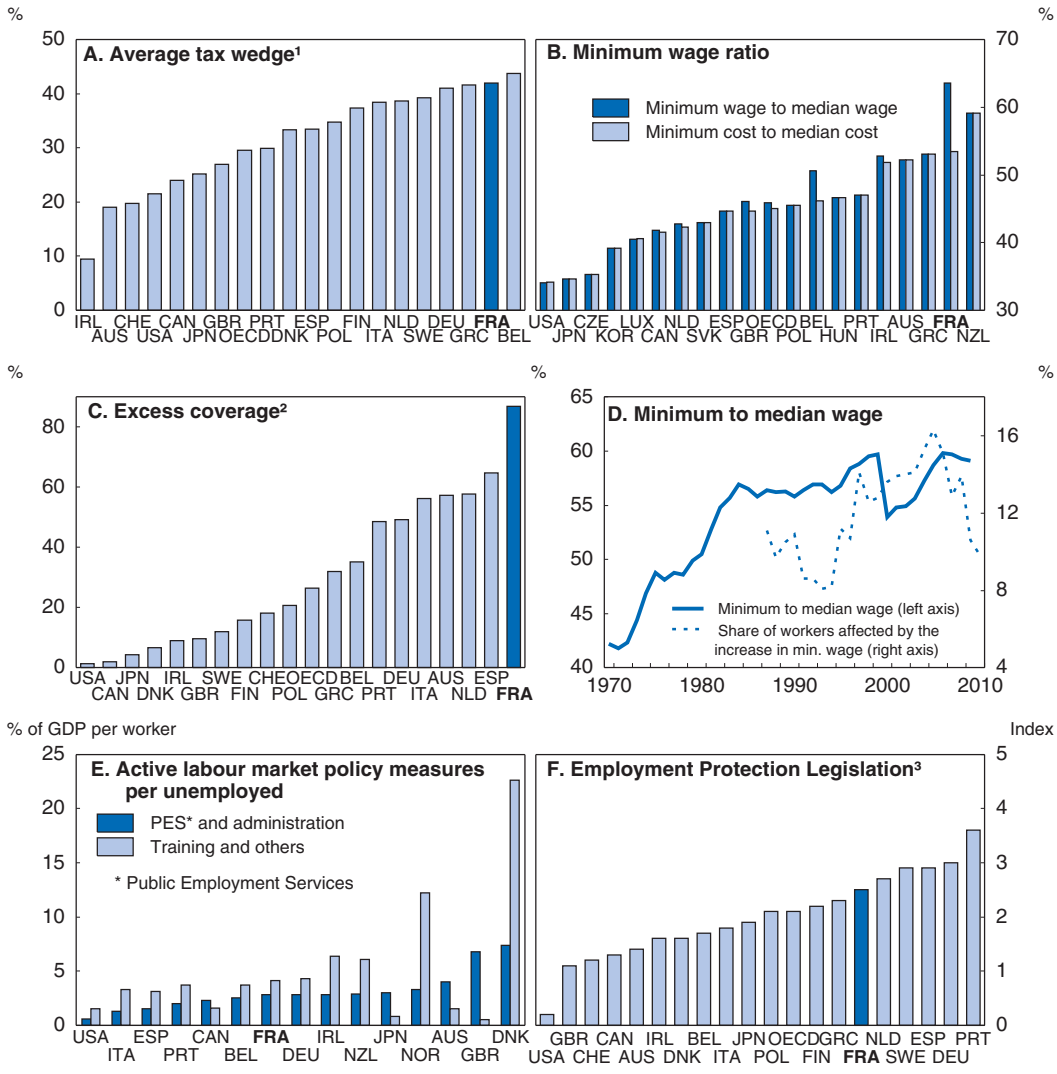
1. The PCA analysis is conducted over 9 policy and 3 outcome variables, using averages over time.

Source: De Serres, A., A. Hijzen and F. Murtin (2011), "The Influence of Labour Market Institutions and Policies on Unemployment Inflows and Outflows in Selected OECD Countries", *OECD Economics Department Working Papers*, forthcoming.

StatLink http://dx.doi.org/10.1787/888932377257

The tax wedge is big in France, and this affects both the supply of and the demand for labour. At a time when fiscal consolidation is a priority, reducing taxes on labour can be achieved only by changing the tax structure or shifting a portion of the financing of social protection to other sources, and Chapter 2 includes proposals of this type. The adverse impact of the tax wedge on employment is in theory compounded by wage rigidities. And in France the minimum wage relative to the median is higher than in any other OECD country. To offset it, targeted relief from social security contributions has been provided up to 1.6 times the level of the Smic (the minimum wage), in an effort to reduce the cost of labour for low-wage earners, and this might have saved between 600 000 and 800 000 jobs (Rapport Tavernier, 2009): this relief should therefore be maintained. Yet despite this support, the cost of labour at the Smic level is high by international comparison (Figure 1.9, Panel B). While the minimum wage helps to smooth out wage inequalities for full-time workers, it is demonstrably ineffective for addressing income inequalities, because it leads to part-time work and unemployment for young and low-skilled workers. Since 2007, discretionary increases beyond those mandated by law have been avoided, and a committee of independent experts was set up in May 2009 to chart a desirable path for the Smic. These efforts are welcome and should be extended for several years in order to initiate a

Figure 1.9. **Main weaknesses of the French labour market**



1. At 100% of average worker earnings, couple with two children.
2. Difference between coverage rates of collective bargaining agreements and trade union density rates. The coverage rate is measured as the percentage of workers who are covered by collective bargaining agreements, regardless of whether or not they belong to a trade union.
3. Regular employment; index scale of 0-6 from least to most restrictive.

Source: OECD, *Going for Growth 2010*.

StatLink http://dx.doi.org/10.1787/888932377276

downtrend. Already they seem to be helping to lower the share of employees affected by Smic adjustments (Figure 1.9, Panel D). Moreover, income support measures (the earned-income tax credit and the low-wage top-up, RSA) have contributed significantly to increasing the purchasing power of workers paid at the Smic over the last 10 years (Smic experts group, 2009; OECD, 2009a), and they are a better tool for combating poverty.

A higher minimum wage also tends to dampen interest in collective bargaining. This is not good for labour relations (Aghion *et al.*, 2008) – in most western countries labour and management attach great importance to the wage bargaining process. The result is that relatively few French workers are unionised (Cahuc *et al.*, 2008). In many sectors, indeed,

the minimum wage for the industry is lower than the Smic, and therefore not applied. Furthermore, the inter-industry differences in the minimum wage are narrower in France than in most other countries, reflecting probably poorly sectoral differences in economic performance.[6] The low level of representation, measured by the gap between the percentage of employees covered by collective bargaining agreements and the percentage of workers belonging to a trade union (Figure 1.9, Panel C), could be an important factor in unemployment (De Serres *et al.*, 2011).

The 2008 reform that tried to make the unions more representative did not go far enough (Cahuc and Zylberberg, 2009). At the same time, the manner of financing labour and management organisations needs to be overhauled, as it lacks transparency and is not sufficiently based on membership dues, characteristics that go far toward explaining the steep drop in union membership and the very poor state of industrial relations (Andolfatto, 2007). Moreover, broadly representative unions are a precondition for the development of labour contract law, which Barthélémy and Cette (2010) have argued should be designed to achieve negotiated flexibility, managed by the social partners themselves, in order to ensure that this law does not penalise "outsiders". If social dialogue is to be improved, as it must in order to resolve workplace disputes peacefully and to smooth the process of labour market reforms, the labour code will have to be shortened – it is now too complex and constraining – and in its place more weight will have to be placed on contract law (Barthélémy and Cette, 2010).

There has been no substantial reduction in the dualism of the labour market between permanent contracts (CDI) and temporary contracts (CDD), the latter representing around 10% of jobs but the majority of new hirings. The most direct way to attack the problem of contract segmentation would be to establish a single contract, more flexible than the current CDI, while internalising the social costs of layoffs (Blanchard and Tirole, 2003; Cahuc and Kramarz, 2005), and making careers more secure. In view of the political difficulties in implementing such a reform, the next best thing would be to broaden the definition of economic redundancy, to further simplify layoff procedures and to reduce firms' redeployment obligations. These measures to enhance flexibility could be conditioned upon achievement of objectives in terms of vocational training, in the spirit of what was proposed by Lemoine and Wasmer (2010). More generally, access to vocational training is very uneven, reflecting in part the dualism between labour contracts. Access to effective training could be improved by developing the assessments of training programmes and by providing better information (Lemoine and Wasmer, 2010).

The new provision for amicable termination of a work contract (*rupture conventionnelle*) instituted in June 2008 gives the contracting parties the ability to terminate a contract other than through resignation or layoff. It has in fact been widely used: there were some 190 000 terminations of this kind in 2009, representing 10% of applicants to the national public employment service (*Pôle emploi*) following termination of a CDI, and 270 000 in 2010.[7] This reform goes in the right direction, as these negotiated arrangements can calm relations in cases of separation and can reduce uncertainty as to the procedure and the amount of compensation due for redundancy. But they could over time produce windfall effects (when payments are made to people who would have left voluntarily) that will burden the social accounts, as the *rupture conventionnelle* conveys the right to unemployment benefits and could thus encourage disguised early retirement.

The pension reform adopted in the fall of 2010 (see Chapter 2) should do much to boost the employment of older workers. By improving their job prospects, it should also help change behaviour on the part of employers and employees *vis-à-vis* work at older ages, especially when it comes to investing in training. The reform should thereby prolong the current upward trend in the employment rate for older workers, which has been encouraged by a series of policies implemented over the last decade: the 2003 pension reform that extended the contribution period in line with life-expectancy gains; introduction of the *surcote* (the premium for pensioners who have contributed for more than the required number of years); relaxation of the rules on combining employment and pension receipt; virtual abolition of early-retirement regimes; elimination of the "Delalande" contribution (a tax on lay-offs of those over 50); expansion, at large enterprises in particular, of mid-career interviews and skills assessments; gradual withdrawal (until their total elimination, scheduled for 2012) of exemptions for the elderly from the job-search requirement (which affected 322 000 individuals at the end of 2009);[8] and abolition of mandatory retirement before age 70 (DARES, 2010b).

However, although most government measures subsidising early retirement have been eliminated, there are still other ways by which older workers can leave the workforce early, such as paid unemployment or disability provisions. As the recovery progresses, access to these provisions should be restricted as far as possible.[9] Since 2009, in a move to encourage the employment of older workers, industry-based associations of employers and employees, and firms with more than 50 employees not members of such groups have been asked to draw up action plans or protocols meeting minimum specifications every three years. A penalty of 1% of the payroll, payable to the old-age pension system, is being considered for firms that have not adopted such a protocol or action plan. However, these industry protocols to promote the hiring and retention of older workers in fact contain very few recruitment measures. Moreover, divergent salary and productivity trends as a function of age can also contribute to the low employment rate of older workers. The authorities could encourage the social partners to put the question of age-related pay patterns at the centre of the wage bargaining agenda, including in the public sector. Lifelong training is another possible lever for increasing the employment of older workers. In November 2009, management and labour concluded an agreement on vocational training, career security and more and better coaching for older workers looking for employment.[10]

In many countries, recent government initiatives have been largely focused on achieving greater "flexicurity". This is a Danish-inspired system of organising the labour market, which combines contractual flexibility (with fewer constraints on hiring and dismissal) with reinforced income security for workers between jobs. The third pillar of this system is an active labour market policy that tries to help laid-off workers find new employment through intensive guidance and retraining services. Flexicurity seeks to protect the incomes and the human capital (employability) of individuals instead of preserving obsolete jobs, and to facilitate adaptation to technical progress and thereby favouring faster growth in productivity and salaries. If flexicurity is to function properly, the government's commitment to guarantee resources for the unemployed and to provide active job-seeking support must be accompanied by an obligation on the part of beneficiaries to accept reasonable job offers, even if this entails employment conditions that are less attractive than they previously enjoyed. What is needed, then, is a back-to-work support strategy that will reinforce the linkages between benefits, job search and participation in active measures based on effective services for all job seekers, including

RSA beneficiaries. A cornerstone of this strategy should be to adopt a working definition of a "reasonable job offer", which determines the obligations of job-seekers receiving unemployment benefits.

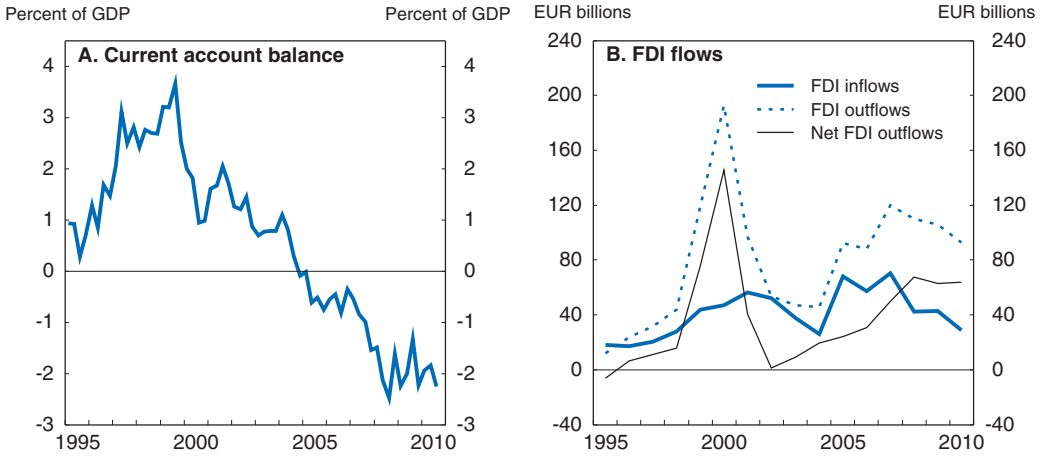
When it comes to significant youth unemployment, the high cost of labour (relative to its productivity) limits the demand for labour, while on the supply side a contributing factor is the low level of skills and the inadequacy (in relation to needs) of employment and training services to help young people find permanent jobs, particularly in low-income neighbourhoods. In its study on "Jobs for Youth" in France, the OECD (2009b) proposed introducing a system of mentoring by private-sector managers for young people of immigrant background. Generally speaking, as the labour market currently operates there is inadequate attention paid to human capital formation, and this denies many young school leavers the opportunity to gain valuable work experience or take an apprenticeship at a crucial stage of their vocational lives: hence the need to reinforce personalised counselling for low-skilled youth (OECD, 2009b). This is especially the case because of the persistence of sharp inequalities in educational outcomes in France, as shown by PISA test results. The government's emergency plan for youth employment is a move in the right direction: it relies on subsidised work-study contracts and includes a provision for "zero social charges for apprentices", which ended in December 2010. However, employers tended to select apprentices who are already relatively qualified, so greater incentives are needed to recruit and train low-skilled young people, placing priority on work-study contracts for low-skilled youth while making the "zero charges" measure dependent on commitments to hire from this group on regular contracts. The government is now preparing a "global recovery plan" dealing with apprenticeship and work-study arrangements.

Putting the emphasis on the supply of output

Since the late 1990s, the current account balance has been deteriorating, from a surplus of more than 3% of GDP in 1999 to a deficit of 2.1% in 2010 (Figure 1.10). A number of complementary explanations have been put forward: declining price competitiveness in the half decade after the year 2000, caused largely by the appreciation of the euro; higher oil prices; wage moderation and weak demand in Germany (Erkel-Rousse and Sylvander, 2006);[11] and less international fragmentation of production processes (Boulhol, 2005; Erkel-Rousse and Garnero, 2008). Policymakers are rightly concerned at the scope and persistence of this trend. The French difficulties are not limited to goods (France's export performance is not as good as Germany's for high-end and technological products), but involve services as well (Fontagné and Gaulier, 2008): France's problem is not so much industrial as an overall structural problem on the supply side (taxation, education, innovation, competition, etc.).

The current account deficit in 2010 was EUR 40 billion (2.1% of GDP) comprising essentially a negative balance of EUR 52 billion in merchandise trade and a EUR 12 billion surplus on services, due in large part to tourism. Besides this deficit the accounts include a still vigorous outflow of foreign direct investment (FDI) of nearly EUR 100 billion, offset in part by incoming FDI of some EUR 45 billion, for a negative balance that contributes the equivalent of 2.8% of GDP to France's capital account deficit (Figure 1.10, Panel B). Although the fairly high level of FDI inflows suggests that France is still attractive, it could actually be the artificial result of intra-group flows.[12] These net outflows of FDI are the highest since 1999-2000, a time when the share value of listed corporations and the number of mergers and acquisitions reached record levels (Banque de France, 2010). Equilibrium on

Figure 1.10. **Current account balance and net FDI inflows and outflows, France**



Source: OECD, *Economic Outlook 88 Database* and Banque de France.

StatLink http://dx.doi.org/10.1787/888932377295

the balance of payments is achieved, then, through massive portfolio investment inflows. Under the impact of cumulative current account deficits, France's external position is estimated to be in deficit by some EUR 200 billion (around 11% of GDP), and the EUR 400 billion credit balance in the stock of FDI is more than offset by the net deficit position in portfolio investment (EUR 300 billion) and other investments (EUR 350 billion).

Table 1.4 illustrates but qualifies the admittedly real decline in the performance of French exports. The country's share of world exports has retreated gradually from 6 to 4%

Table 1.4. **The weight of France in global exports (1997-2009) in value**

	1997	2000	2003	2006	2009	Change[1] (per cent)
Shares of total world exports:						
Germany	10.4	8.9	10.1	9.5	10.1	–7
Italy	4.8	3.9	4.1	3.5	3.6	–24
France	**5.8**	**4.8**	**4.8**	**4.1**	**4.1**	**–31**
Canada	4.4	4.5	3.7	3.3	2.8	–33
United States	14.0	12.6	9.8	8.8	9.4	–35
Japan	8.6	7.7	6.4	5.5	5.2	–36
United Kingdom	5.7	4.6	4.2	3.8	3.1	–42
G7, share of total world exports	53.6	46.9	43.1	38.4	38.4	–29
Share of EA12 total exports:						
Netherlands	11.0	11.7	11.1	11.8	12.7	22
Austria	3.4	3.5	3.8	3.9	3.9	14
Germany	30.4	30.1	31.5	33.0	33.1	8
Belgium	10.3	10.1	10.8	10.9	10.9	6
Spain	6.3	6.2	6.7	6.3	6.5	2
Greece	0.7	0.6	0.6	0.6	0.6	–8
Portugal	1.4	1.3	1.3	1.3	1.3	–8
Italy	14.2	13.1	12.6	12.3	11.9	–11
Finland	2.4	2.5	2.2	2.3	1.8	–14
Ireland	3.2	4.2	3.9	3.2	3.4	–14
France	**16.8**	**16.2**	**15.1**	**14.1**	**13.6**	**–20**

1. Difference between the average shares of the 2007-09 and the 1997-99 periods relative to the 1997-99 average share.
Source: UN, *Comtrade Database*.

in recent years, although this trend is due essentially to welcome gains by large emerging economies. In fact, France has more or less maintained its export position relative to G7 countries, with Germany outperforming all others and the United Kingdom, Japan and the United States doing least well. It is in comparison with other countries of the euro area, where nominal exchange rate effects are neutralised, that the sorry French performance can be best appreciated. Between 1997-99 and 2007-09, the share of French exports in total exports from euro area countries (12 countries) shrank by 20%.

The previous *OECD Economic Survey of France* (OECD, 2009c) devoted a chapter to the deteriorating competitiveness of French firms. Recent economic policy measures demonstrate the French government's determination to improve the economy's potential through action on the supply side: eliminating the *taxe professionnelle*, which penalised investments; increasing the research tax credit (although this provision should be reviewed in order to correct possible abuses); efforts to make the universities more autonomous, which should be go further; investing in higher education, training and research with a view to creating top-ranked universities ("*dépenses d'avenir*" financed by the 2010 National Loan); expanding the powers of the competition authority; and increasing the number of independent entrepreneurs (see Annex 1.A1). These measures taken together point in the right direction, and the priorities in this area must still be to promote research and innovation, competition and better performance in the education system. The OECD (2009c) offered several proposals for going further (see Annex 1.A1).

Box 1.2. **Recommendations on the financial system and the labour market**

Upgrade the supervision and regulation of the financial system

- Design and implement broader stress tests based on a transparent methodology, even if there is no co-ordinated action at the European level.
- Adopt macro-prudential measures restricting households' access to credit in case of a continued surge in house prices.
- Tighten supervision of SIFIs. Establish a bank crisis-resolution mechanism that could both ensure higher loss absorbency in a context of operational continuity ("going concern"), in particular in the form of debt-conversion or reduction measures ("bail-in" at the supervisor's discretion or in the form of contingent capital), and to reduce the cost of bank failures under an orderly winding-up scenario ("gone concern").

Improve labour-market performance

- Promote "flexicurity" and address labour-market dualism by broadening the definition of economic redundancy, simplifying layoff procedures and reducing employer redeployment obligations while enhancing active labour-market policies.
- Extend the return-to-work strategy to reinforce the link between benefits, job search and participation in active measures relying on efficient public employment services.
- Continue to phase out all forms of early retirement, including through the unemployment benefit scheme.
- Reduce the labour tax wedge and continue to allow the minimum cost of labour to fall relative to the average. Make better use of the earned-income tax credit and the RSA to support working households with low income. Encourage the social partners to put the question of age-related pay increases at the centre of wage negotiations.
- Target subsidies in the work-study schemes more on the less skilled, and evaluate their efficiency regularly.

Notes

1. The impact of last autumn's strikes against the government's proposed pension reform should be minor, as they were concentrated in the transportation, fuel distribution and refineries sector. The situation is not at all comparable, then, to the strikes of 1995, which were severe, widespread and lasted for more than 20 days. INSEE estimated that their cost was around 0.2% of quarterly GDP.
2. The four French banks that were tested earned scores showing resilience slightly above the average for the European Union: under the adverse scenario, their tier 1 capital ratio declined only slightly, from 9.9% to 9.3%. The stress-test methodology used has some serious limitations. For one thing, its scope of coverage does not include banking book exposures (Blundell-Wignall and Slovik, 2010), which may have been around four times as high as the trading book exposures of French banks at the time of the tests (ACP, 2010). Second, it does not cover insurance company exposure. With respect to banking book exposures, however, taking this into account would not reduce capital ratios much below 9% for any French bank tested in the unfavourable scenario (Morgan Stanley, 2010).
3. Three-quarters of new early retirees in 2009 were formerly workers in the asbestos industry.
4. The "underlying" employment rate of persons 55-64 years of age, *i.e.* corrected for demographic structure, rose by roughly six percentage points between the first three quarters of 2003 and 2010, in connection, *inter alia*, with the effects of measures taken gradually since the early 2000s to promote the employment of older workers.
5. Beyond the labour market, this segmentation is also unfair in terms of access to housing, and, conversely, sluggishness in the housing market exacerbates labour market rigidity (Chapter 3).
6. "The Minimum Wage in France", *www.cerc.gouv.fr/rapports/summary-cserc6.pdf*.
7. *Versus* 21% for economic layoffs, 51% for other layoffs, and 18% for dismissals.
8. Exemptions from the job-search requirement granted in 2009 stood at 76 000, down by half from 2007.
9. For example, unemployed people under 60 years of age whose benefits have run out but who have made all their quarterly pension contributions are entitled to the "pension-equivalent allowance" (AER) of around EUR 1 000 per month until age 60, and are exempt from the job-search requirement. This is a "solidarity" measure managed by the government. The AER was eliminated but reintroduced by decree for one year in 2009 in the wake of the crisis, and extended again to the end of 2010. The government is committed to making the mechanism permanent. Moreover, for unemployed people 61 years and older, whose benefits have run out but who have not made sufficient quarterly contributions to qualify for a full pension, the benefit period is extended (with continuing contributions to make up for missing quarters) until the legal age for the full rate. This is an insurance mechanism, managed by the social partners, who will in due course have to negotiate a change to the 61-year threshold, in light of the reform.
10. Among other things, this agreement calls for: establishing a "joint career security fund" to boost training for job seekers and the least skilled workers; allowing the unemployed to retain their individual training rights acquired in a previous job; individual training leave that allows employees to take qualifying or diploma-recognised training for up to a year; and an offer of instruction to help build a "foundation of skills" to facilitate transitions between jobs throughout one's working life (team-working skills, IT skills, English proficiency, etc.).
11. On the other hand, beyond this Germany-specific effect, neither the conventional price-competitiveness or cost-competitiveness indicators nor the effects of geographical or sectoral specialisation provide any conclusive clues.
12. Intra-group cross-financing distorts FDI data. When these flows are corrected in accordance with the extended directional principle recommended by the OECD, outward and inward FDI flows are reduced by around EUR 57 billion for 2009, net FDI flows remain negative at EUR 70.4 billion (applying the extended directional principle leaves net FDI flows unchanged) (Banque de France, 2010).

Bibliography

ACP (2010), "Résultats du test de résistance européen : Les banques françaises parmi les plus solides d'Europe", *Communiqué de presse*, 23 July.

Aghion, P., Y. Algan and P. Cahuc (2008), "Can Policy Influence Culture? Minimum Wage and the Quality of Labor Relations", *CEPREMAP Working Paper*, No. 0801.

Ahrend, R., J. Arnold and F. Murtin (2009), "Prudential Regulation and Competition in Financial Markets", *OECD Economics Department Working Paper*, No. 735.

Andolfatto, D. (2007), *Les syndicats en France*, La documentation française, Paris.

Artus, P. et L. Fontagné (2006), "Évolution récente du commerce extérieur français", Conseil d'analyse économique, Report No. 64.

Banque de France (2010), "La balance des paiements et la position extérieure de la France en 2009", *Bulletin de la Banque de France*, No. 181.

Barthélémy, J. and G. Cette (2010), "Refondation du droit social : Concilier protection des travailleurs et efficacité économique", Conseil d'analyse économique, Report No. 88.

Blanchard, O. and J. Tirole (2003), *Protection de l'emploi et procédures de licenciement*, Conseil d'analyse économique, Report No. 44.

Blundell-Wignall, A. and P. Slovik (2010), "The EU Stress Test and Sovereign Debt Exposures", *OECD Working Papers on Finance, Insurance and Private Pensions*, No. 4.

Boulhol, H. (2005), "Le bazar allemand explique-t-il l'écart de performance à l'export par rapport à la France ?", *Flash IXIS-CIB*, No. 243, and supplement to Artus and Fontagné (2006).

Buiter, W. and E. Rahbari (2010), "Is Sovereign Default 'Unnecessary, Undesirable and Unlikely' For All Advanced Economies?", *Citigroup*, 16 September 2010.

Cahuc, P., G. Cette and A. Zylberberg (2008), *Salaire minimum et bas revenus : Comment concilier justice sociale et efficacité économique*, Conseil d'analyse économique, Report No. 79.

Cahuc, P. and F. Kramarz (2005), *De la précarité à la mobilité : Vers une sécurité sociale professionnelle*, La documentation française, Paris.

Cahuc, P. and A. Zylberberg (2009), *Les réformes ratées du Président Sarkozy*, Flammarion, Paris.

Conseil d'analyse stratégique (2010), "La rupture conventionnelle du contrat de travail", *La note d'analyse*, No. 198.

DARES (2010a), "Les préretraites publiques en 2009 : Dix fois moins d'entrées qu'en 1999", *Analyses*, No. 62.

DARES (2010b), "Emploi des seniors : Pratiques d'entreprises et diffusion des politiques publiques", *Analyses*, No. 54.

De Serres, A., A. Hijzen and F. Murtin (2011), "The Influence of Labour Market Institutions and Policies on Unemployment Inflows and Outflows in Selected OECD Countries", *OECD Economics Department Working Papers,* forthcoming.

Erkel-Rousse, H. and M. Sylvander (2006), "Les performances relatives de la France à l'exportation", *L'économie française, comptes et dossiers*.

Erkel-Rousse, H. and M. Garnero (2008), "Externalisation à l'étranger et performances à l'exportation de la France et de l'Allemagne", Supplement to the *Rapport Fontagné et Gaulier (2009)*.

Fontagné, L. and G. Gaulier (2008), *Performances à l'exportation de la France et de l'Allemagne*, Conseil d'analyse économique, Report No. 81.

Groupe d'experts sur le Smic (2009), *Salaire minimum interprofessionnel de croissance*, Rapport du groupe d'experts.

IMF (2010), "France: 2010 Article IV Consultation", *IMF Country Report*, No. 10/240.

King, M. (2010), "Banking: From Bagehot to Basel, and Back Again", *The Second Bagehot Lecture*, Buttonwood Gathering, New York City.

Lemoine, M. and E. Wasmer (2010), *Les mobilités des salariés*, Conseil d'analyse économique, Report No. 90.

Les Échos (2010), "Les banques françaises chiffrent l'impact de Bâle III dans leurs comptes", 23 November.

Morgan, S. (2010), "Robust Recovery in Uncertain Times", *France Economics*, 22 November.

OECD (2009a), "Is Work the Best Antidote to Poverty?", *OECD Employment Outlook*, Chapter 3, OECD Publishing, Paris.

OECD (2009b), *Jobs for Youth*, OECD Publishing, Paris.

OECD (2009c), *OECD Economic Surveys: France*, OECD Publishing, Paris.

OECD (2010a), *OECD Economic Surveys: Euro Area*, OECD Publishing, Paris.

OECD (2010b), *OECD Economic Outlook*, Chapter 1, November.

OECD (2010c), "Moving Beyond the Jobs Crisis", *OECD Employment Outlook*, Chapter 1, OECD Publishing, Paris.

Weitzman, M.L. (1974), "Prices *vs.* Quantities", *Review of Economic Studies*, Vol. 41.

ANNEX 1.A1

Progress with structural reforms

This Annex reviews the measures taken in response to the recommendations from previous *Economic Surveys*. The recommendations that are new to the present *Economic Survey* are contained in the corresponding chapters.

Recommendations	Measures taken since 2009
LABOUR MARKET POLICY	
Ensure that the Smic grows more slowly than the median wage, by at least avoiding discretionary increases.	A committee of independent experts was set up in May 2009 to decide a desirable path for the Smic. Discretionary "nudges" beyond the increases mandated by law have been avoided.
If a single employment contract is precluded, find other ways to ease the legislation on CDI's, such as widening the definition of economic redundancy, simplifying layoff procedures and reducing firms' redeployment obligations.	No measure has been taken since the "*rupture conventionnelle*" was introduced (allowing for termination by mutual consent of employer and employee), which was a first step that has probably had a limited impact on dualism in the labour market.
Give priority to making young people employable, and to on-the-job training opportunities.	The April 2009 emergency plan for youth established subsidised work-study contracts and included a provision for "zero social charges for apprentices", ending in December 2010.
	The Act of 24 November 2009 on lifelong occupational guidance and training set up a Joint Fund for Rendering Career Paths Secure (*Fonds paritaire de sécurisation des parcours professionnels*, FPSPP) to finance skills training and retraining for low-skilled workers and job-seekers.
	The government is preparing a "global recovery plan" dealing with apprenticeship and work-study arrangements.
Gradually eliminate early retirement programmes and ensure that the unemployment insurance system does not subsidise early exit from the labour market. End the active job-search dispensation for the older unemployed.	The government has avoided the errors of promoting early retirement; public subsidies for early retirement have almost all been eliminated. An increasingly small number of other ways for older workers to exit the workforce early, via the unemployment insurance system, still exist. As from 2012, however, the active job-search dispensation will have completely disappeared, which should severely limit "Unédic" early retirement.
	The 2010 pension reform Act did away with gradual withdrawal-from-work plans (*Cessations progressives d'activité*) in the civil service and eliminated the option to leave after 15 years' service for parents of three children.
Encourage the employment of older workers.	Various measures were taken to encourage the employment of older workers, and for persons over 60 in particular: raising of the mandatory retirement age from 65 to 70 years; wider use of the pension premium (*surcote*); greater flexibility for combining earned and pension income. In addition, the law now requires active age management in firms and industries, through negotiation of protocols or action plans for the employment of older workers. There are penalties for non-compliance. However, the protocols signed to date contain little with respect to recruitment measures.

Recommendations	Measures taken since 2009
	In addition, the law provides a bonus for businesses that hire an unemployed person over 55 for more than six months on an indefinite or fixed-term contract, in the form of a one-year subsidy corresponding to 14% of gross salary, up to the Social Security ceiling.
Continue to index the contribution period to life expectancy. Consider extending further the relative length of the contribution period.	The government has confirmed the extension of the contribution period as a function of rising life expectancy, although indexation is not automatic. The reference period for persons born in 1953 and 1954 was set at year-end 2010 at 165 quarters.
	Following the pension reform of November 2010, the minimum legal retirement age will be raised gradually from 60 to 62 years in 2010, and the entitlement age for an un-discounted pension from 65 to 67 years in 2023.
Make pensions actuarially neutral, especially in the retirement age bracket.	In 2009, the premium (*surcote*) rate was standardised at 5%, conditions governing combined employment and pension income were relaxed for those insured at the full rate, and the mandatory retirement age was raised from 65 to 70 years. The premium now applies to the minimum contribution.
Align the civil service schemes fully with the general system.	The 2010 reform contains specific convergence measures (alignment of contribution rates and elimination of the early departure provision for mothers with three children, alignment of procedures for granting the guaranteed minimum). Moreover, the reform provisions, including the raising of age thresholds, apply to all schemes. The pension calculation methods have not been harmonised. The system is still very fragmented: it includes 21 "basic regimes" and numerous "supplementary regimes", which impedes transparency and fairness; accounting for multiple careers is still a complex affair.
EDUCATION POLICY	
Higher education institutions should be given autonomy in both financial and personnel management.	As of 1 January 2011, under the "University freedom and responsibility" law of 2007, 75 universities (90% of the total) will have become autonomous. However, the role of the National Universities Council in distributing premiums has been maintained, and this leaves the universities with little leeway in determining remuneration for teacher/researchers. The 2010 national loan will release EUR 3.6 billion for higher education, training and research in 2011.
Candidates for university entry should be explicitly selected, and students should be offered more effective guidance at the beginning of the last year of the *lycée*.	No measures have been taken with regard to selection. In respect of guidance, 2009 saw generalisation of the use of the "Admission Post-Bac" guidance scheme, under which upper-secondary school students (*lycéens*) are entitled to active guidance (advice from universities, co-ordinated with headmasters and their teaching staff), with a view to choosing a suitable course of study, given both the job opportunities available and secondary-school performance.
Raise university tuition fees to reflect the cost of the various courses.	No measure has been taken. The universities may be granted the status of "large institution" (*grand établissement*) allowing more flexibility in their organisation and operations, particularly with respect to enrolment fees, but this is a "special" status, fixed by regulation. In fact, the list of grands *établissements* is heterogeneous and, strictly speaking, it includes only one university among the 30 publicly licensed education institutions.
Introduce a system of student loans with provisions for income-contingent repayment through the income tax system.	No new measure has been taken since the 2008 introduction of the student loan, repayment of which is not income-contingent.
RESEARCH AND INNOVATION POLICY	
To make the "competitiveness clusters" policy more effective, maintenance of state aid should be contingent on results; establish a sunset date for subsidies while gradually replacing them with private financing.	No measure has been taken. A second triennial evaluation has been scheduled in 2011.

Recommendations	Measures taken since 2009
Harmonise the diploma-granting and recruitment rules of the *grandes écoles* and the universities.	The establishment of advanced R&D centres (*Pôles de recherche et d'enseignement supérieur*, PRES), which initiated closer co-operation between the *grandes écoles* and the universities in 2007, is continuing: four were created in 2009 and three in 2010, for a total of 18, and others are in the process of organisation. The outlook is reinforced by the establishment of "centres of excellence" (*pôles d'excellences*) as part of "investments for the future" (*investissements d'avenir*).
Assess the effectiveness of the research tax credit regularly so as to optimise its configuration and scope of application.	The research tax credit, with a tax expenditure of EUR 4.5 billion in 2010 and 2.1 billion projected for 2011, is one of the most generous R&D support mechanisms in the world. It was evaluated in September 2010 by the Inspectorate-General of Finance. The report found that it exerted a leverage effect on private expenditure and recommended stability for the scheme, at least until 2013.
Facilitate class-action lawsuits and ensure that they are applicable to damages from anticompetitive practices.	No significant measures have been taken. The bill to remove business law from the purview of the criminal courts, in its current version, makes limited and highly qualified provision for class actions, exclusively under consumer law and not under competition law. It has not been scheduled for debate. The government currently favours the mediation route, which it wants to generalise.
COMPETITION ON GOODS MARKETS, COMPETITIVENESS, AND REGULATORY REFORM	
Repeal the Royer and Raffarin laws on commercial zoning to do away with the requirement for approval formalities other than a building permit.	A draft bill would integrate commercial zoning into urban development law, and the special authorisation regime for retail businesses would disappear.
Assess the impact of measures under the LME regarding the conditions of negotiation between retailers and suppliers and ascertain whether they should be eased further.	The ban on resale below cost is still in force.
Eliminate gradually the quotas (*numerus clausus*) in certain legal services (attorneys before the Council of State and the Court of Cassation) as well as in health-related professions (pharmacists, physiotherapists and veterinarians).	The *numerus clausus* has not been eliminated. The decree of 22 April 2009 on the future of the legal and judicial professions introduced amendments of an essentially administrative nature that are peripheral to the central problem of rationing supply in these professions.
Simplify entry conditions in certain professions, either by reducing the field of activities over which they hold exclusive rights (architects, notaries, bailiffs) or by reconsidering the required years of study (architects, veterinarians, hairdressers).	The decree of 22 September 2009 is a first step, opening up the capital of professional corporations of bailiffs, auctioneers and notaries to other members of the legal or judicial professions. However, non-professionals are still barred from holding shares in these professional structures.
Strengthen competition in mobile telephony by proceeding with the decision to attract a fourth network operator during the next bandwidth allocation and facilitate access for VMNOs and to these three (or four) networks.	A fourth 3G license was granted to the only operator candidate, Iliad (parent corp. of Free), on 18 December 2009 for a price of EUR 240 million. Licenses for 4G are to be awarded in mid-2011.
In the case of electricity, allow the transitional regulated prices (Tartam) to expire in 2010. More generally, reconsider the scope of application of various regulated prices in the retail market, at least as they apply to non-residential customers.	The Tartam was to be gone by June 2010, but it has been extended. The NOME law adopted end-2010 seeks to promote competition in the electricity market, and calls for gradual disappearance of regulated rates.
Lower the corporate tax rate in exchange for a reduction in tax advantages. Reduce the distortions that encourage resort to debt financing over equity.	No measure has been taken.
Carry out the decision to eliminate the *taxe professionnelle* in 2010.	The *taxe professionnelle* was eliminated as of 1 January 2010 and replaced by the *Contribution économique territoriale*, consisting of a corporate property tax on real estate and a tax on corporate value-added, the rate of which is set nation-wide using a progressive scale.
Lighten the regulatory and fiscal burdens associated with the statutory social thresholds for firms with 50 employees and more.	No measure has been taken.

Chapter 2

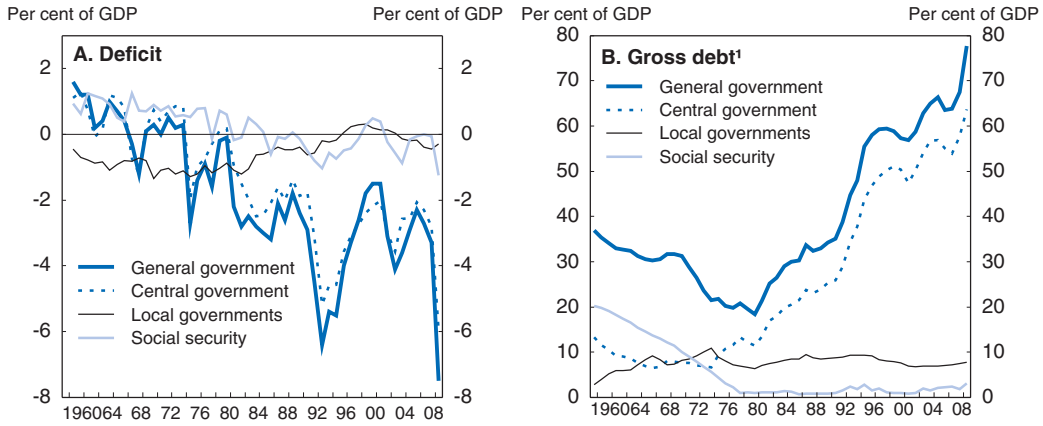
Bringing French public debt down: The options for fiscal consolidation

France has a track record of persistent general government deficits, partly reflecting pro-cyclical fiscal policies in upswings. This has resulted in a quadrupling of its public debt-to-GDP ratio since the 1970s to above 80% of GDP. Reducing public debt is crucial because a high level of public debt may hamper long-term growth and may have a direct impact on fiscal sustainability if long-term interest rates rise. Bringing back public debt to 60% of GDP even by 2030 would require a fiscal effort of 4 to 5 percentage points of GDP (under the assumption of unchanged long-term rates), implying permanent primary general government surpluses, which is very ambitious in view of French fiscal history since 1970. The government's consolidation programme, which is aimed at reducing the general government deficit to 3% of GDP by 2013, represents around two-thirds of this effort. This chapter analyses how fiscal governance could be improved by the creation of a structural deficit rule and looks at ways the public deficit could be lowered. With France already having a very large public sector, most of the effort should be borne by holding down spending. Better control of the public wage bill, increasing public-sector efficiency and tackling age-related costs are the obvious candidates to contain expenditure. On the revenue side, there is significant potential for cutting tax expenditures. Furthermore, eliminating distortions in the tax base would encourage economic growth.

France has a long track record of budget shortfalls…

The last time the general government budget recorded a surplus (+0.4% of GDP) was in 1974 (Figure 2.1, Panel A). As a result, public debt has been trending inexorably upward in relation to GDP (Figure 2.1, Panel B). The main source of budget imbalance is, nominally, the central government. However, deficits elsewhere have been merely hidden by inter-governmental transfers, although imbalances have started to appear recently in the social security system and local governments. Debt accumulation stems from fiscal policy being countercyclical during economic downturns but at best non-cyclical or even pro-cyclical during buoyant times. The implications are that debt accumulated in bad times is not offset in good times, resulting in a permanently higher level of debt in the longer run.

Figure 2.1. **Government deficit and gross debt by sector**



1. Gross public debt for 1958-69 is calculated using general government deficits; gross debt for central and local governments and for social security is derived using deficits for 1958-77.

Source: INSEE; OECD, *Economic Outlook 88 Database*.

StatLink http://dx.doi.org/10.1787/888932377314

The global crisis led to record-high deficits in 2009-10…

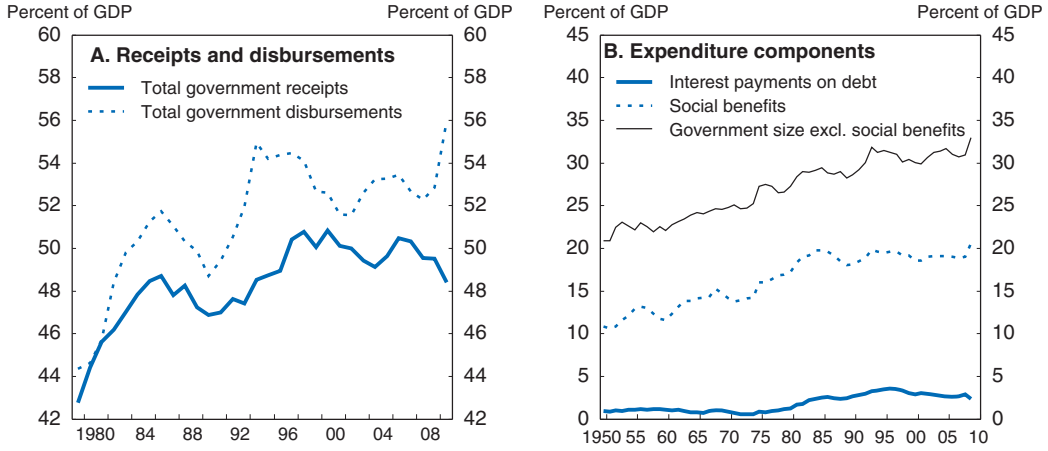
The general government deficit peaked at over 7% of GDP in 2009 and 2010, driven mainly by the play of the automatic stabilisers, but also by discretionary measures taken to cope with the severe economic downturn. The French government reacted early to the economic crisis by launching a recovery plan in December 2008, broadly in line with the TTT (timely, targeted, temporary) principles: *i*) it came in good time; *ii*) it targeted public investment, the labour market, business cash flow and the most vulnerable population groups, so as to increase consumption; and *iii*) it bore costs for the budget only for 2009-10. According to official estimates, total fiscal stimulus amounted to EUR 38.3 billion in 2009 and EUR 9.6 billion in 2010, representing roughly 2.5% of GDP, of which only 1.4 percentage points

showed up in the budget deficit, because a number of measures were cash-flow and financial operations having no impact on the general government balance in national accounts terms.

... in a context where the level of public spending remains high

Government expenditures as a share of GDP have been drifting upwards at a steady pace since the 1950s and by 2009 had almost doubled to 56% of GDP (Figure 2.2). Government revenues followed suit but have fallen short of the sometimes sharp

Figure 2.2. **The evolution of general government receipts and expenditures**

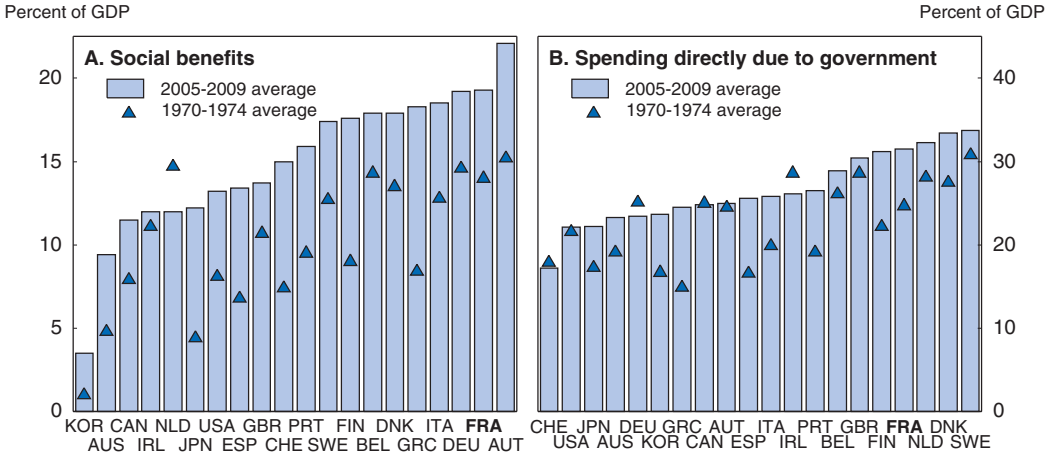


Source: OECD calculations.

StatLink http://dx.doi.org/10.1787/888932377333

expansion in outlays. Direct government spending (including government final consumption expenditure, other current payments by general government and net government investments) can explain much of the trend rise in aggregate spending.[1] While the social transfer component of public expenditures (composed of social security benefits and subsidies paid by the government) rose steadily until the end of the 1970s, it has been

Figure 2.3. **Direct government spending and social benefits in OECD countries**



Note: Direct government spending includes government final consumption expenditure, other current payments by general government and net government fixed capital formation. Social benefits include social security benefits paid by general government and government subsidies.

Source: OECD calculations.

StatLink http://dx.doi.org/10.1787/888932377352

stable ever since. Nonetheless, social benefits are nearly 20% of GDP in France, one of the highest shares among OECD countries (Figure 2.3, Panel B). Similarly, France's direct government spending is high by an OECD-wide comparison (Panel A). A striking feature of the data is that direct government spending in France is considerably higher than in other countries with similar levels of social benefits.

Reducing public debt is crucial

Despite certain drawbacks, a number of studies tend to show that a high level of public debt may hurt long-term growth via an increase in long-term interest rates that crowds out private investment. Uncertainty about future corrective policies may further deter private investment. Reinhart and Rogoff (2010) find an increasingly negative correlation between the public debt-to-GDP ratio and real GDP growth. Debt in excess of 90% of GDP is associated with an average slowdown of GDP of 1 to 3 percentage points for developed countries and 0.5 percentage point for France. Kumar and Woo (2010) estimate that an increase in the debt-GDP ratio of 10 percentage points reduces growth by 0.15 percentage point. For Checherita and Rother (2010), the impact on potential growth is a loss of up to 1 percentage point beyond a debt threshold of 80% to 120% of GDP. France's public debt is fast approaching the 90% threshold, which could begin to hamper long-term growth.

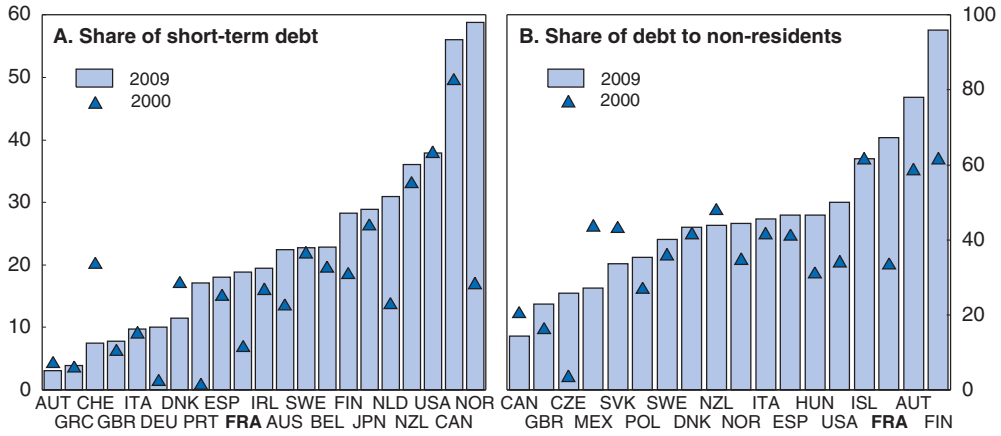
In addition to the adverse effect on long-term growth, an increase in long-term interest rates has a direct impact on public finances. Typically, a one percentage point increase in the public debt-to-GDP ratio is estimated to raise nominal long-term interest rates by up to 10 basis points (OECD, 2010a). Yet history suggests that countries with increasing indebtedness may not face an immediate rise in long-term interest rates if their financial markets are developed and if their fiscal institutions have a solid reputation. This allows the build-up of substantial fiscal imbalances. Then, if market sentiment turns, interest rates may rise sharply, putting public-debt sustainability in danger. Indeed, like the effect on growth, long-term rates may react to an increase in the gross general government debt-to-GDP ratio only if public debt goes beyond a certain ceiling – approximately 75% of GDP, according to Egert (2010).[2] From then on a 10 percentage point rise in the debt ratio is associated with a 40 basis point increase in long-term rates relative to short-term rates.[3] By way of illustration, and given the current level of public debt (a projected EUR 1 620 billion for end-2010 in the latest *OECD Economic Outlook*), a 40 basis point rise in all rates would add roughly EUR 6.5 billion (0.3% of GDP) to general government's long-term annual interest payments.

The structure of France's public debt is fairly healthy compared with other OECD countries. First, the share of short-term debt (with maturity less than 1 year) in total central government debt was slightly below the OECD average in 2009 (Figure 2.4, Panel A). Second, the average maturity of public debt was somewhat above the OECD average of 6.2 years that year. Nonetheless, the fact that non-resident investors hold two-thirds of France's public debt, well above the OECD average, and that short-term debt has risen to 20% of the total, twice as high as in other large European countries, may potentially pose some risk in rolling over debt in the case of a sudden and extreme turn in market sentiment.

A sizeable fiscal retrenchment is needed

The multi-annual budget bill for 2011-14, which aims to reduce the public debt-to-GDP ratio starting in 2012, is welcome. Bringing public debt back to below 60% of GDP will require a large fiscal consolidation effort. Stabilising public debt at its current level would require an immediate fiscal tightening of around 3% of GDP in terms of the primary

Figure 2.4. **Structural of central government debt in OECD countries**



Source: OECD, *Central Government Debt Statistical Yearbook* 2010.

StatLink http://dx.doi.org/10.1787/888932377371

balance (Table 2.1).[4] If public debt is to be decreased to 60% of GDP by 2030 or 2020, additional consolidation measures of 1 to 2% of GDP are needed. Such a consolidation effort implies at least ten years of primary general government surpluses, unheard of in French fiscal history since 1970. Yet the government's consolidation programme aimed at reducing the general government deficit to 3% of GDP by 2013 is around two-thirds of what is needed to achieve a debt target of 60% of GDP by 2030. Assuming an effective interest rate of 3%, the primary deficit of roughly 0.3% of GDP implied by the total deficit of 3% would start to lower the debt ratio, and an additional consolidation of only 1.5% of GDP would be needed to bring debt down to 60% by 2030. The risk stemming from higher long-term interest rates is demonstrated in Table 2.1. For stabilising debt at the current level or decreasing it to 60% of GDP, a rise from 3 to 4% in the effective interest rate would in the long term imply an extra annual fiscal burden of around 0.7 percentage point of GDP.

Table 2.1. **Simulations regarding consolidation needs for different public debt scenarios**

	Effective nominal Interest rate on public debt					
	Starting point: 2010 deficit			Starting point: 2013 deficit		
Per cent of GDP (%)	3	4	6	3	4	6
Scenario 1: debt stabilisation						
Primary balance	–0.6	0.2	1.8	–0.7	0.2	1.9
Total balance	–3.1	–3.2	–3.2	–3.4	–3.5	–3.5
Scenario 2: debt at 60% by 2030						
Primary balance	0.6	1.3	2.7	1.2	1.9	3.4
Total balance in 2030	–1.2	–1.1	–0.9	–0.6	–0.5	–0.2
Scenario 3: debt at 60% by 2020						
Primary balance	1.8	2.5	3.9	3.8	4.5	6.0
Total balance in 2020	0.0	0.1	0.3	2.0	2.1	2.4

Note: The scenarios assume average annual real GDP growth of 2% and 1.8% inflation. A negative (positive) figure indicates a deficit (surplus).
Source: OECD calculations.

Consolidation may hurt economic growth

Fiscal retrenchment is bound to impact negatively on economic growth through Keynesian multiplier effects. For France, a recent OECD report suggests that over a two-year time horizon, the multipliers for government investment, consumption and transfers to households are 1.0, 0.8 and 0.6, respectively, while they are –0.3 and –0.6 for indirect taxes and taxes on personal income (OECD, 2010a). However, the direct negative effect on aggregate demand can be potentially counterbalanced by a positive indirect impact, which can be large if public debt is high and if fiscal consolidation signals lower future public debt and taxes that in turn decrease precautionary savings (Röhn, 2010).

The government intends a smooth path for fiscal consolidation in the coming few years

Against the background of a record-high general government deficit of 7.5% of GDP in 2009, and growing concerns about debt sustainability, the government set out a path of fiscal consolidation in the multi-annual budget framework law (*Loi de programmation des finances publiques pour les années 2011 à 2014*), according to which the budget shortfall as a share of GDP is to decrease to 3% in 2013 and 2% in 2014. These objectives are taken from France's stability programme submitted to the European Commission in early 2010. While the pace of the consolidation seems appropriate, the government should disclose quickly what measures it intends to take to achieve the budget targets beyond 2011.

At the heart of the 2011 budget (and the budget framework law 2011-14) is the intent to contain spending by central government, the social security system and to some extent local governments, as well as to increase revenues. As far as the central government budget is concerned, spending is capped by two different norms, of which the more constraining has to be fulfilled. The two spending norms are: *i*) a zero real growth target for central government expenditure; and *ii*) a zero nominal growth target excluding interest and civil servants' pension payments, both expected to rise rapidly. Another set of measures aims at stabilising the central government payroll by continuing the current policy of filling only every second position freed up by retiring staff, by moderating wage growth in central government (freezing the civil service point value in 2011) and by cutting employment (2 600 positions) in agencies of the central government (ODAC, *Organismes Divers d'Administration Centrale*). Furthermore, the government's operating costs are targeted to decline by 5% in 2011 and by 10% in 2013, thanks in particular to productivity gains triggered by the General Review of Public Policies (*RGPP*). Finally, agencies of the central government are not allowed to contract any loans with maturity beyond one year.

The spending growth target for the basic mandatory social security schemes is 3.4% for 2011 (and an average of 3% for 2012-14). The 3.4% target is supposed to be achieved via a spending norm of 2.9% imposed on health insurance-related spending (ONDAM) in 2011 (2.8% for 2012-14). As a result of the 2010 pension reform, and according to official estimates, the deficit of the pension system will be reduced only slightly in 2011 and 2012 compared with the unchanged-policies scenario, with full savings taking effect by 2018 (Sénat, 2010a).

The State can influence spending by sub-national governments only indirectly, given their constitutional autonomy in budgetary matters. Two key measures are budgeted for 2011: *i*) a nominal freeze on operating transfers from the central to local governments will restrain spending due to the balanced-budget requirement for current spending

applying to local governments; and *ii*) a freeze on nationwide safety and other regulatory norms, the implementation of which can be very costly for local governments.

On the revenue side, the government decided to reduce tax expenditures[5] by EUR 11 billion in 2011, and an additional EUR 3 billion per year for 2012-14, compared to an unchanged-policies scenario. In addition to cuts in tax expenditures, the highest marginal income tax rate was increased from 40 to 41%. Also, the flat rate tax on income and capital gains from securities was raised by one percentage point. And the capital gains tax on property was increased by three percentage points. Finally, the budget framework law for 2011-14 requires that any surplus revenues have to be used for deficit reduction.

Strengthening the fiscal framework by introducing a structural deficit target…

Besides the various fiscal rules imposed by EU membership, operational rules have been in place in France for some time: these include a spending rule for central government since the mid-2000s and for health care spending since the late 1990s, and a golden rule for local governments (Table 2.2). The inability of the spending rules to contain the budget deficit shows the weakness of such rules, which lack an unambiguous and stable link to the budget deficit and public debt sustainability. The beneficial effects of spending rules on the budget balance can be offset by tax cuts on the revenue side and by spending rules that are not consistent with budget deficit targets or are not respected (Joumard and André, 2009). Likewise, although Article 34 of the French constitution prescribes that the multi-year budgeting law guiding public finances should aim at a balanced budget for general government, it is still not very effective because the date by which balance should be reached is not specified.[6] The history of fiscal deficits and a rising debt-GDP ratio, despite the rules in place, therefore calls for stricter rules in France's case.[7]

The general framework needs to be strengthened via enhanced consistency and transparency by introducing a stable and effective budget rule, in line with the outcome of ongoing European talks. To avoid pro-cyclicality and ensure a rapid decline in the debt-GDP ratio, a maximum structural deficit rule for general government would be desirable. The fact that the French central government does not directly control the budgets of local governments and certain social security bodies would, however, require supplementary measures (see below). To become more operational, the structural deficit rule could take the form of spending caps and revenue floors. The exact target to choose is a political issue and will vary with circumstances (notably the size of the national debt and future fiscal liabilities), but a balanced budget target would reduce the debt-GDP ratio to 40 or 50% in a reasonable time (say, 20 years or so) and leave a sufficiently large buffer to accommodate most negative shocks below the 60% Maastricht ceiling. The target could be adjusted, once debt is below a level that is judged sufficiently low and defined in the rule, to one that would stabilise the debt-GDP ratio. In this context, a "sufficiently low" debt would not necessarily mean zero, as a liquid government debt market would provide advantageous portfolio diversification and a market yardstick for interest rates. Yet such a rule is necessary but not sufficient to increase fiscal discipline: strong political commitment to maintaining public debt sustainability is crucial for a well functioning fiscal rule.

Targeting the structural balance purges the effects of the cycle and one-off spending or revenue items and thereby avoids pro-cyclicality and allows the automatic stabilisers to work. However, the implementation of cyclically adjusted balance targeting can be challenging, as it depends on a timely and accurate measure of the output gap (the

Table 2.2. **Fiscal rules in the European Union, 2008 and updated**

Rules	General	Central	Regional	Local	Social security
Debt rule					
Debt ceiling	GBR (prior to the crisis)				
Per cent of GDP	BGR, POL (60%), SVN (40%)				
Per cent revenues	EST		ESP, SVK	ESP, HUN, ROU, SVN	
New debt		LTU		DEU, LVA, PRT, SVK	
Debt growth		HUN			
Spending rule					
Real growth	DNK	FRA, HUN			BEL (4.5%), FRA
Real ceiling	NLD	FIN			
Nominal growth		DEU, FRA	DEU, ITA	ITA	
Nominal ceiling	BGR (40%)	CZE, IRL, SWE, SVK, FRA			SWE
Revenue rule					
Revenue ceiling	DNK				
Windfall revenues	DNK, NLD	LTU, FRA			
Rainy day fund					FIN
Deficit rule					
Set in law		AUT	AUT	AUT	
Balance	EST		BEL	BEL, DEU, FIN, IRL, LTU, PRT, ROU, SWE	BEL, ITA
Balance over the cycle	ESP				
Balance structural	DNK, SWE (1%), GBR	FIN (1%)			
Golden rule			FRA, ITA	FRA, ITA	
Surplus primary	HUN				
Surplus structural					
Deficit and spending	DNK, SWE	FIN	ITA	ITA	BEL
Time frame					
1 year			ESP, FRA, ITA, PRT, SVK	BEL, DEU, ESP, FRA, HUN, IRL, LTU, PRT, LVA, ROU, SWE, SVN	
2 years					
3 years		CZE, HUN			ITA
4 years	NLD, SVN	AUT, FRA	AUT	AUT	BEL, FRA
5 years	GBR	DEU, IRL	BEL, DEU		

Source: European Commission.

deviation of the level of real GDP from its potential level) and of elasticities of government revenues and outlays to the output gap.[8] It is essential that real-time deficit and output gap estimates do not diverge systematically from later revisions. Table 2.3 shows the absence of a major systematic bias for the revisions to France's structural deficit and output gap calculated by the OECD. In fact, the gap in absolute value between the first release of the cyclical deficit in Q1 $t + 1$ for year t and the final figure is 1 percentage point of GDP, as observed for 2006, which is relatively low relative to the long-term effort required. Moreover, this difficulty should not be overstated in the case of France, as it is characterised by a rather stable economy, due to its size, a lower degree of specialisation than in many other countries and strong automatic stabilisers.

The calculation of the structural deficit should be fully transparent and harmonised at the European level following the work undertaken by the Output Gap Working Group, given that this indicator is the cornerstone of France's annual stability programme submitted to

Table 2.3. **Revisions (in *t* + 1 and *t* + 2) compared to the first release (in *t*) in output gap estimates and underlying government balances in France (revision *minus* first release)**

		1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Average
Structural deficit	*t* + 1	–0.5	–0.1	0.7	0.3	–0.2	–0.3	–0.1	0.0	0.1	0.0	–0.7	–0.7	0.5	–0.1
	t + 2	–0.8	0.3	1.1	0.2	–0.5	–0.2	0.0	–0.3	0.3	–0.8	–1.0	–0.2	. .	–0.2
Nominal deficit	*t* + 1	–0.4	0.0	0.7	0.2	0.0	–0.1	–0.1	–0.1	0.0	–0.1	0.2	0.0	0.1	0.0
	t + 2	–0.5	0.5	0.7	0.2	–0.1	–0.1	–0.1	–0.1	0.1	0.0	0.3	–0.1	. .	0.1
Output gap	*t* + 1	0.3	0.2	–0.5	–0.5	0.5	0.4	0.1	–0.1	0.3	–0.1	1.8	1.5	–0.8	0.2
	t + 2	0.6	–0.4	–1.3	0.0	1.0	0.2	–0.2	0.5	0.2	1.4	2.7	0.4	. .	0.4

Source: OECD, *OECD Economic Outlook Database*.

the European Commission. The German structural budget balance rule uses the cyclically adjusted budget balance provided by the European Commission.

To ensure some flexibility, the structural balance rule would need to be suspended temporarily in the case of exceptional circumstances relating to natural disasters, extraordinary recessions, international conflicts resulting in a significant rise in military and other spending or major structural reforms. Such exceptional circumstances should, however, be carefully circumscribed, since otherwise the escape clause may be used excessively to circumvent the restrictions imposed by the rule. This was the case under Germany's previous golden rule when the escape clause with reference to the veil of macroeconomic equilibrium was exploited on a regular basis (Mody and Stehn, 2009). If slippage occurs, either because of exceptional circumstances or bad execution, it is useful to have an explicit and enforceable mechanism to correct *ex post* deviations from the target. For instance, the fiscal rule in Germany requires not only past slippages to be recorded on a notional adjustment account and, if accumulated deficits reach 1.5% of GDP, to be corrected during years when the economy is expanding, but also extraordinary spending to be amortised over an (unspecified) medium-term horizon (Koske, 2010). Switzerland's fiscal framework is more explicit about the timing of correcting slippages. If the accumulated slippage exceeds 6% of spending of the previous year (roughly half a percentage point of GDP), the government has the obligation to reduce the excessive deficit over three years (Bodmer, 2006). In other countries, including Sweden, there are no formal adjustment mechanisms to deal with budgetary overruns (Boije and Fischer, 2007).

A multi-year budget in the spirit of the multi-annual budget framework law, but providing more details, would complement the rule and bolster its credibility by making clear, in concrete terms, how the deficit target is to be reached. Typically, such budgets run for three or more years. Camdessus (2010) recommended that a multi-year budget framework programme be voted by each new parliament, as in the case of the Dutch spending rule, where the new government lays down the fiscal programme in a very detailed manner in its coalition agreement. The annual budget bills, which would have to be consistent with the multi-year budget programme,[9] would still be formulated and passed, as now, and could be used to adjust the multi-year framework to changing circumstances – for example to compensate for past slippages. Establishing a constitutional requirement that the government produce a multi-year budget that is consistent with the deficit rule (in effect, strengthening Article 34 of the current constitution) would bolster the credibility of the framework and would raise the political cost of deviating from the rule.

... and by creating an independent fiscal council

An independent fiscal council including high-profile fiscal policy experts would also strengthen the framework by assessing the official inputs at various stages of the budgeting process. The fiscal council would be mandated to verify the consistency of the multi-year budget programme and the annual budget bills with the structural balance rule. Expert review of official forecasts by a politically independent body and a systematic comparison with consensus forecasts would also increase credibility by eliminating politically motivated and overly optimistic macroeconomic and budgetary forecasts that tend to be associated with fiscal slippages because overestimating (potential) GDP growth or inflation is tantamount to *ex post* active expansionary fiscal policy (Hagemann, 2010; Lebrun, 2007). Indeed, the Task Force on Economic Governance in the European Union set up by the European Council, along with the OECD (2010d), recommend that euro area countries delegate the preparation of macroeconomic forecasts to an independent budget council at the national level. Official GDP growth forecasts have been almost systematically upwardly biased in France compared to forecasts by the European Commission, the OECD or the market consensus, and have therefore been even higher than *ex post* GDP growth. Table 2.4 shows that the nearly 0.3-point optimistic bias is significant and that it has remained fairly constant over time. In Austria, Belgium, Canada, the Netherlands and more recently the United Kingdom, the government does not produce its own forecasts but uses those published by independent research institutions (Austria), market forecasts (Canada) or fiscal councils (the other three countries).

Table 2.4. **Optimistic biais of official GDP growth rate forecasts relative to independent and market forecasts**

Difference relative to forecasts	Average for			Estimated bias
	1984-2011	1990-2011	2000-11	Entire period
OECD	0.29	0.32	0.35	**0.32****
European Commission	0.31	0.32	0.36	**0.28****
Consensus forecast		0.25	0.23	**0.24****
Historical growth rate	0.51	0.81	0.86	**0.51****

Note: The difference is calculated as the absolute difference between the French government forecasts and the reference forecasts. The estimated bias is obtained by regressing the differentce on a constant. ** indicates that the bias is significantly different from zero at the 5% level.
Source: Jonung and Larch (2004, *Improving Fiscal Policy in the EU: The Case for Independent Forecasts*, *European Economy Economic Papers*, No. 210) for the official forecasts, those of the European Commission and the market until 2004, updated through 2011 by the OECD.

A council would monitor the risk of slippages during execution in real time and would advocate prompt corrective action in a timely manner to limit large *ex post* deviations. Another task for an independent council would be to strengthen the existing spending rules by continuously monitoring loopholes used to circumvent spending targets via shifting spending and revenue items across sectors and via not respecting the pay-as-you-go principle to be applied to tax expenditures. Offsetting new tax expenditures can be achieved either through new revenue measures or through a decrease of the expenditure ceiling (Boije and Fischer, 2007). This principle was in fact reaffirmed in the budget framework law for 2011-14. Finally, the council would check whether the mandatory safety buffers are respected. Safety buffers are necessary to account for local governments, whose

budgets are not fully controlled by the central government in France, or for unforeseen negative shocks and possible revenue shortfalls.

Still other roles could be assigned to the fiscal council and have been in other OECD countries. First, it could be mandated to provide a non-partisan analysis of the costs of new spending or revenue measures and the consequences of current and planned fiscal policies on long-term debt sustainability. The US Congressional Budget Office (CBO) is a typical example of a fiscal council that evaluates budget proposals using its own projections and conducts analysis on their costs. The Central Planning Bureau (CPB) of the Netherlands evaluates the fiscal implications of the electoral programmes of the major political parties and takes a position with regard to the impact of new coalition agreements. Second, it could also provide recommendations on fiscal policies and corrective actions to be implemented if needed. Sweden's Fiscal Policy Council takes a view on fiscal sustainability issues in addition to assessing compliance with the surplus target and the quality of government. The Economic Council of Denmark and Belgium's High Council of Finance are also mandated to issue recommendations if they judge it necessary (Debrun *et al.*, 2008; IMF, 2009).

Reducing budget deficits by cutting public expenditures

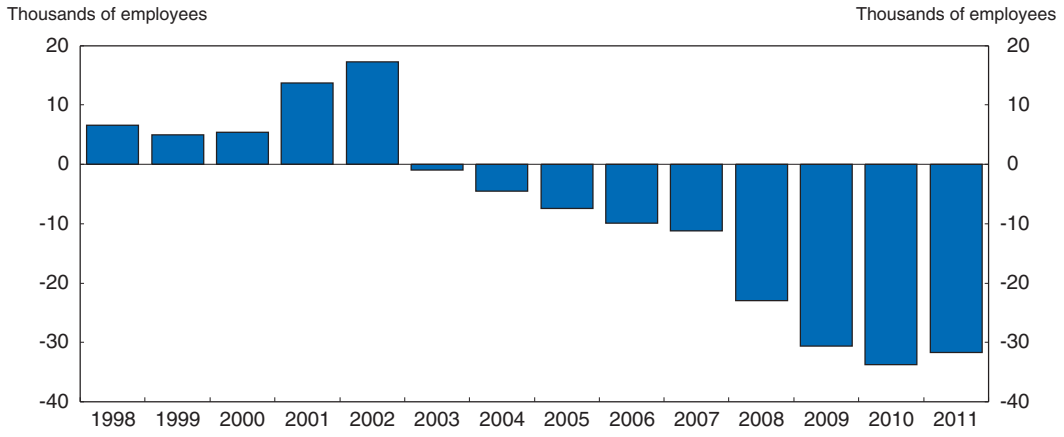
The public wage bill

Compliance with the central government's zero volume and zero value spending norms requires a stabilisation of the public payroll, given its weight of more than 30% in central government spending. While pension contributions paid by the State and directly linked to civil servant pensions can be tackled in the framework of the pension reform, described later in this chapter, government employment and wage policies have a direct impact on gross salaries, which represent 60% of the public payroll (including social contributions) and in turn drive non-pension overhead costs, another 10% of public payroll.

Gross salaries can be decomposed into base salary (79%), general benefits (6%) and ministry-specific special bonuses (15%). Salary increases depend on the change in an index reflecting the payment grid (*le point*) to which base salary and other components are linked not only in central government but also in local governments and hospitals. A 1% change in this index is estimated to cost around EUR 1 billion for central government and a total of roughly EUR 2 billion for the general government wage bill. This index, used to maintain the purchasing power of all civil servants until 2008, was disconnected from inflation in February 2008 by the introduction of an individual guarantee of purchasing power, which was intended to offset possible negative real salary changes. Other drivers of public wage increases are the annual uprating in the payment grid and special increases for particular occupations. Civil servants who were employed in two consecutive years benefit from all three components. The overall average nominal salary increases of 3.6% per annum from 1999 to 2009 were mitigated by the fact that civil servants leaving the public sector were replaced by persons entering the payment grid at lower levels, resulting in an annual average salary increase of only 2.2% per employee (Cour des comptes, 2010d).

Since 2003, the central government has been implementing a policy of replacing only one half of retiring civil servants. Since then employment in the central government has been declining (Figure 2.5), with the accumulated full-time-equivalent job reduction reaching 150 000, though part of that reflects transfers from central to local government in the decentralisation process. According to government policy, half of the gains from job cuts are recycled to compensate for the costs of reorganisation and overtime worked

Figure 2.5. **Total change in full-time equivalent central government employment**



Source: Projet de loi de finances 2011.

StatLink http://dx.doi.org/10.1787/888932377390

resulting from the non-replacement of retiring staff. Yet a recent report suggests that this so-called retrocession has considerably exceeded the stipulated share of 50% (Cour des comptes, 2010d).

In the medium term, a nominal stabilisation of central government payroll could be achieved by a freeze on the pay grid, capping the occupational benefits and revising some of them that are not easily justified. In the longer run, introducing additional steps in the pay grid could slow down rises in salaries. A further reduction in the recycling of cost savings due to the partial replacement of retiring staff would also help moderate public payroll. Importantly, the RGPP may help identify room for further job reductions.

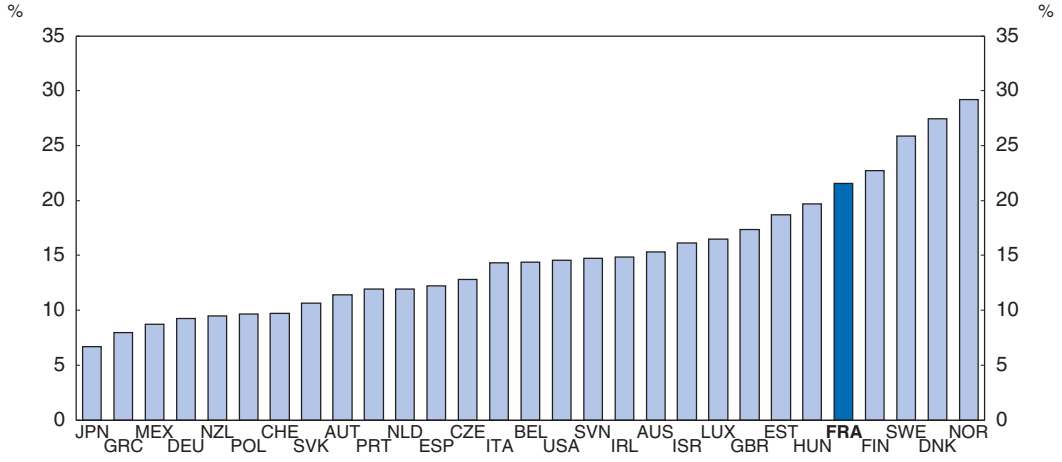
Increasing public-sector efficiency

Beyond the stabilisation of public payroll, government spending could be curbed by improving public-sector efficiency. France has one of the OECD's largest public sectors in terms of general government expenditures expressed in relation to GDP and when measured as the share of general government employment in total labour force (Figure 2.6). Yet its perceived effectiveness, measured by the World Bank Worldwide Governance Indicator, is poor. Among major industrialised OECD countries, only Italy, Japan and the United States fare less well. Successive French governments, recognising the ample scope for bolstering public-sector efficiency, launched two major initiatives to remedy this problem: the organic law of public finances (*Loi organique relative aux lois de finances, LOLF*) and the RGPP.

By introducing performance measurements in the budgeting process…

The LOLF, passed in 2001 and first applied for the 2006 budget bill, represents a change in paradigm in the allocation of budget resources. Rather than allocating funds to government units and by types of spending (current or capital), with no apparent link to policy objectives, it defines goals for public policy areas concerning, for instance, education, health care and defence (the so-called assignments or missions) and allocates the necessary money to the programmes, themselves composed of programmes and tasks. This increases transparency significantly by linking policy objectives to resources.

Figure 2.6. **The share of general government employment in the labour force in 2008**



Source: World Bank, *Worldwide Governance Indicators* 2010, and ILO.

StatLink http://dx.doi.org/10.1787/888932377409

Programme managers have flexibility to achieve the objectives by shifting funding across tasks. Whether the objectives, defined in annexes to the budget bill, are met is monitored via performance indicators measuring socio-economic outcomes, the quality of service and management performance, all published in annual performance reports. Before 2005, the parliament had limited power to change the budget proposed by the government and could vote only on new measures. By contrast, the new framework given by the LOLF makes it possible for the parliament to modify each mission, thus requiring the government to justify the level and not only the increase in spending. Finally, the Court of Audit has to certify the government's accounts following each fiscal year and assess the budgetary execution. In an extension of the LOLF, the organic law of public finances of social security (*LOLFSS*) came into force in 2006: among its aims was to make social security accounts more transparent, and it enabled the introduction of multi-year budget planning (Cour des comptes, 2010b).

While substantial progress has been made with regard to the implementation of performance budgeting, there are some areas where further improvements could be achieved. First, the information system underlying the evaluation and the full costs of programmes needs to be enhanced. Available information is not always reliable, and there are sometimes a large number of performance indicators, which may change over time, rendering *ex post* evaluations difficult. Second, performance indicators are not linked to budgetary execution and supervision. Finally, performance cannot always be analysed because some spending transits via tax expenditures and through State operators (public establishments and companies) that are outside the purview of the LOLF (Cour des comptes, 2010e).

… by reviewing systematically the efficiency of public policies…

The RGPP, launched in 2007, aspired to review systematically all public policies in order to identify the least efficient and least useful spending categories. Unfortunately, the initial ambition of questioning the very existence of some policies was scaled back to one of achieving cost-efficiency gains via organisational restructuring. Cost savings identified

in more than 300 areas were estimated by the government to result in almost EUR 3 billion per annum for the period 2009-11. Half of the estimated gains are related to the policy of replacing only every second position freed up by retirees, of which half is transferred back to public employees, as discussed earlier, reducing net gains to below EUR 7 billion. This may still be an overstatement, because in fact more than half has actually been given back, as mentioned above. A set of 150 new measures is to be implemented for 2011-13, reducing government spending by an estimated EUR 10 billion, which can be split into three major parts (RGPP, 2010). First, the central government's wage bill will be reduced by continuing the non-replacement policy (EUR 3 billion). Second, central government operating costs will be lowered by EUR 2 billion through three channels: *i*) the establishment in 2009 of a central procurement agency covering all ministries; *ii*) a decrease in real estate-related expenditures via reducing office space occupied by central government and capping rental prices that the government is prepared to pay; and *iii*) streamlining support functions. Third, so-called "intervention" expenditures (essentially subsidies) will be cut by 10% (EUR 5 billion) over that time frame. The global savings of around EUR 13 billion from 2009-13[10] are not negligible but are lower than the potential spending cuts of around EUR 50 billion identified by independent analysts (as reported in OECD, 2010c).

A remarkable achievement of the RGPP is to have cut red tape for formal administrative procedures. Simpler and faster public services increase quality and help free up resources in public administration. A key measure is the creation of a physical network of one-stop shops for tax declaration, job seekers and private enterprises, accompanied by an expansion of "e-government": Internet services making feasible on-line completion of a large number of administrative procedures (OECD, 2010f). The waiting and processing times are to be diminished by one third in key public institutions including prefectures, courts, tax authorities, embassies and family benefits offices. Simultaneously, the government has decided to set up and regularly publish indicators concerning the quality of public services.

The RGPP in its present form could nevertheless be improved in several respects. A general criticism concerns the lack of transparency regarding the time horizon and the amount of savings achieved in specific areas. Official documents do not permit readers to link cost savings resulting from reforms due to RGPP to their impact on the overall budget (Cour des comptes, 2010c). While the RGPP and LOLF should be complementary in seeking efficiency gains, they are not always fully consistent with each other, given that the RGPP is in some cases focused on government units rather than on missions (Cour des comptes, 2010e). More generally, the gain would be greater if the coverage of the RGPP were extended beyond the government wage bill and operational costs, namely to social benefits and investment programmes. For instance, reducing social benefits deemed not useful or not meeting their policy objectives could result in much larger savings than any organisational restructuring of the administration of underlying social transfers could possibly bring about (OECD, 2010c; Cour des comptes, 2009). The efficiency gains would be more substantial if reorganisation of government entities and the review of government policies were to be extended to social security and local governments as well, even though amendments to the constitution might be required for the latter.

… and by reorganising local governments

Having expanded strongly over the last 20 years, local government expenditures now amount to roughly 11% of GDP.[11] The sharp increase, driven to some extent by political and

administrative decentralisation, did not translate into major budgetary shortfalls (Figure 2.1), given the existence of a golden rule that requires *ex ante* balanced operating budgets. Despite the absence of major imbalances, the expenses of local governments could be reduced by: *i*) simplifying the complexity of the multi-layered structure of local governments; *ii*) decreasing the number of municipalities; and *iii*) creating incentives for local governments to achieve cost savings.

The two main waves of decentralisation, launched in 1983 and 2003, resulted in the transfer of many tasks from the central government to the three levels of local government (regions, departments and communes). Among others, regions became responsible for managing upper secondary schools and vocational training of the unemployed. Departments were assigned the task of operating social and selected health-care programmes and lower secondary schools, while management of urban public transport, kindergartens, primary schools, libraries and museums was given to communes. Decentralisation is thought to have improved allocative efficiency via a better match between public-goods provision and local preferences, an increase in accountability and a reduction in supervision costs (Greffe, 2005). Realised efficiency gains hinge upon labour mobility across different levels of governments. In France, the imperfect reallocation of civil servants from the central to local governments raised the costs of decentralisation. Furthermore, decentralisation may have resulted in a loss of economies of scale. For instance, the assignment of secondary schools to regions and lower secondary schools to departments may have lowered quality or raised outlays if the two schools are located on the same geographical site, due to co-ordination problems between the region and the department. In a similar vein, the fact that the training of unemployed people and those living on subsistence benefits (*minima sociaux*) on the one hand and that of employees on the other hand are assigned to different levels of local government may generate sub-optimal outcomes, as a result of coordination problems (de la Rochefoucauld and Colin, 2008). The partial overlap in policy tasks, generating redundant administrative capacities, coupled with the lack of any hierarchical structure among levels of local governments results in less transparency for citizens, leads to a dilution of responsibilities and inflates public spending (Council of European Municipalities and Regions, 2009). Doing away with one of the levels of local government would help clarify tasks and responsibilities and produce substantial cost savings (Commission pour la libération de la croissance française, 2008).

An important source of inefficiency is the very small size of French communes. France's nearly 37 000 municipalities, a heritage of history, account for 40% of the total number of municipalities within the EU27. An average French commune has around 1 800 inhabitants: 32 000 have fewer than 2 000, while only 103 have more than 50 000. This contrasts sharply with the European average of 5 500 and the Danish average, post reform, of 55 000 inhabitants. In many European countries, mergers have reduced the number of municipalities by a factor of 2 to 10 since the 1950s. France has opted for inter-municipal co-operation: in 2007, roughly 2 600 inter-municipal co-operation structures (*intercommunalités*) covered 90% of communes and 80% of the population, achieved via financial incentives (Council of European Municipalities and Regions, 2009; OECD, 2010c). A new law on sub-national governments foresees that all communes should be part of such a structure by 2013. Inter-municipal groupings may help them to provide sewerage, water, transportation and waste-collection services more efficiently. Parallel administrative structures at the communal level induce important inefficiencies both in

terms of staff and local representatives. But potential efficiency gains will depend largely on the number of shared services.

Central government grants, representing roughly half of local government revenues, can give rise to the common pool problem: they reduce tax-raising efforts and inflate spending and deficits (Blöchliger and Petzold, 2009). In addition, they tend to amplify the pro-cyclical volatility of local government revenues (Blöchliger and Petzold, 2009). Another important source of revenue for local governments is earmarked central government tax receipts, which are used to cover the costs of tasks and responsibilities that have been transferred from the central government. The last component of revenues is own tax revenues. Local governments have little room for manoeuvre in setting the base and the rate of their own taxes, as the State tries to hinder tax competition among communes. The already limited tax autonomy of French local governments was further reduced by the reform of the *taxe professionnelle* in January 2010, especially for regions and departments (Carrez and Thénault, 2010). Things are particularly constraining for departments, as they also have limited autonomy on the spending side: 80% of their expenditures are mandated by national rules. This backs the case for merging departments with regions. Narrow tax autonomy and the lack of transparency with regard to the real tax burden on local electors due to the multitude (around 50) of local taxes reduces the accountability of local governments and thus provides little incentive for cost savings and tax restraint. Increasing tax autonomy would be a straightforward way to make local governments more accountable to their electors. Own taxes should have a greater weight in local government revenues, with more flexibility over the tax base and rates in the context of fewer and more visible taxes.

Insofar as they stem in part from exogenous factors, the increased per capita income disparity among local governments, induced by differences in tax potential and higher tax autonomy, could be limited by a horizontal equalisation mechanism that redistributes revenues across municipalities, rather than by central government subsidies. This is aimed at by the 2011 budget law, which endorses the creation of a national tax revenue equalisation fund for communes and intercommunal co-operation establishments (*établissements publics de coopération intercommunaux*, EPCIs) – and a separate equalisation mechanism for the Île-de-France region – by 2012. The revenue raised from communes and EPCIs whose per capita tax potential is 50% greater than the national average will be redistributed to communes and EPCIs whose per capita tax potential is below the national average. The amounts collected annually should rise to 2% of the tax revenue of communes and EPCIs in 2015. Details on the implementation will be discussed in a report to parliament in 2011.

Incentives for cost savings could also come from the spending side. A largely involuntary constraint on local government spending occurs if earmarked taxes financing the transfer of competences grow less rapidly than the costs of the new tasks devolved to local governments. The freeze on government grants in nominal terms implemented from 2011 to 2014 is a more direct step in the direction of imposing efficiency gains. In the longer run, the government could consider introducing a more institutionalised framework to encourage cost savings. Following a thorough analysis of saving potential related, for instance, to deeper inter-communal cooperation, the government could set a predefined path of grants to local governments based on achievable productivity gains.

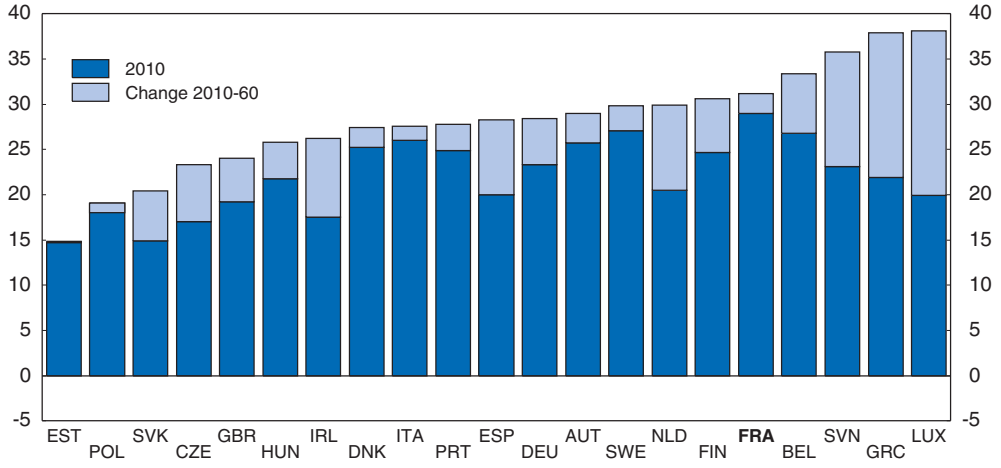
The ageing problem is a serious threat to France's public finances in the medium and long run

France's population is projected to age rapidly. The European Commission (2009) projects a near doubling of the number of elderly people and a 50% increase in very old persons by 2060, driven by the ageing of the baby boom generation of the 1950s and 1960s and extensions of life expectancy at birth. Population ageing is mitigated by comparatively high levels and modest increases in fertility rates since the mid-1990s, in sharp contrast with other OECD countries, where very low fertility rates are exacerbating the ageing problem.

Population ageing will put considerable strain on the public finances. The increasing number of elderly people triggers the need for more public spending via two main channels: *i*) age-related health and long-term care[12] and *ii*) public pension spending, mostly due to old-age pensions but also to survivors' pensions, early retirement and disability benefits. At the same time, some of the costs are offset by lower outlays on education and unemployment benefits. According to European Commission (2009) projections, population ageing will add an extra 2% of GDP to public spending in France between 2010 and 2060, much less than in other European countries (Figure 2.7). Nevertheless, France's starting point is higher as it spends considerably more public money on pensions and health care as a share of GDP than any other European country. Without policy actions to counterbalance the increasing burden of population ageing (including the positive impact of the 2010 pension reform discussed below), France's public debt would rise to very high levels in 2050 (European Commission, 2009).

Figure 2.7. **Ageing-related public expenditures as a share of GDP**

Excluding the effect of the 2010 pension reform



Source: European Commission (2009), *Sustainability Report 2009, European Economy 9.*

StatLink http://dx.doi.org/10.1787/888932377428

Health-care expenditures

Total health-care expenditures in France, at 11% of GDP, are the second highest in the OECD. France even occupies first place on the podium if only public funds spent on health care are considered. Health-care spending has been rising over the last 30 years and is projected to continue to do so in the future. The main reasons for the trend rise are

constant technological progress that makes new and costly treatments available, population ageing, epidemiological factors (including more obese people), and a rise in per capita income coupled with at least a unitary income elasticity of demand for health care (CCSS, 2010). A case in point is cardiovascular disease: screening, early detection and more efficient treatments raise the number of long-term patients, around 2 million in France; treating them is extremely costly – EUR 18 billion in 2007 (CCSS, 2010). Studies comparing the efficiency and performance of health care in OECD countries generally find that the overall performance of the French health-care system in terms of results and efficiency is among the best in the OECD. Nevertheless, there exist areas where significant improvements could be obtained, which, given the high share of health-related public expenditures, could help resolve France's fiscal problems (Joumard *et al*., 2010; OECD, 2010c).

Strengthening the spending rule on health-care expenditures

A spending rule on health-care expenditures (*Objectif national de dépenses d'assurance maladie*, ONDAM), defined in terms of nominal growth rates, was introduced in 1996 in an attempt to keep spending under control.[13] An early-alert council, created in 2004, issues a warning to the parliament, the government and the Union of National Health-Insurance Funds, which are required to take remedial action, if there is a risk of spending exceeding the objective by 0.75% or more. In 2005, transparency about the ONDAM was reinforced. The annual social security budget bill compares the outcome with the earlier plan, gives details on the components of spending and presents projections for outlays for the next four years in an annex.

In 2010, the ONDAM may have been fulfilled, for the first time since 1998. The main reasons for the systematic non-compliance are overly optimistic policy assumptions or unanticipated outlays that the functioning of the early-alert system manages to correct only imperfectly over the course of the year. In fact, the alert has been activated only once since 2004, and even in that case, it could not prevent a major slippage. This is due *inter alia* to the long lag with which the first corrective measures are put in place. A first set of new information influencing ONDAM, namely accounting data on the previous year's execution, becomes available only in early April. The early-alert council does not systematically issue an opinion on the causes of the excess spending growth until 1 June. As the social security funds have one month to elaborate corrective measures and the council another month to analyse the impact of the proposed measures, adjustment measures can be implemented only for the last few months of the budget year (Cour des comptes, 2010f). Hence, it seems necessary to lower the threshold for the alert and speed up the implementation of the corrective measures. The Briet commission (Rapport Briet, 2010) recommended automatically putting in reserve part of the annual budget at the beginning of the year in order to increase the resistance of ONDAM to slippages. Reserves were already set aside for the 2010 execution year, and the social security budget law for 2011 continues this practice in accordance with the multi-annual budget framework law for 2011-14, which requires such set-asides on a systematic basis. Also according to the recommendations of the Briet commission, the warning threshold will be lowered gradually to 0.5% by 2012-13. In addition, the role of the early-alert council has been expanded. From now on it will issue a prior opinion on the setting of ONDAM. It will also perform an ongoing monitoring function and by 15 April will present ministers with an initial opinion on achievement of the previous year's ONDAM.

Exploiting cost-saving options

Joumard *et al.* (2010) identify several sources of inefficiency in the French health-care system. Heavy administrative costs stem from the complex web and multitude of social security and supplementary insurance funds. Within compulsory health insurance, the ongoing consolidation of insurance funds and pool schemes, with regard to information-sharing in particular, should be pursued. Administrative costs are also boosted by an unusually high level of absenteeism among workers in the health-care sector and employees of the social security system (Cour des comptes, 2010f). Absenteeism is higher in France than in other European countries, and sickness-related work stoppages are especially frequent in social security administration when compared with the private sector or other parts of the public administration.[14]

Hospitals

Another source of inefficiency relates to the frequency and length of stays in hospitals, which are especially high in international comparison (Joumard *et al.*, 2010). Recognising this, the government has been gradually changing tariffs paid to hospitals to encourage short-term stays and ambulatory treatments. This has increased the relative profitability of certain ambulatory treatments and triggered a rise in hospitals' ambulatory capacities relative to the number of hospital beds. Alongside this policy, the spread of home hospitalisation (HH), deemed less costly, has increased substantially in the past ten years and grown sharply since 2009 (with activity up by 119%). Although it accounts for less than 1% of hospital output (Inspection Générale des Affaires Sociales, 2010), the spread of HH is contributing to the quest for greater efficiency in delivering hospital care.

While costs decreased only slightly in 2010, extending incentive tariffs to all treatments may yield benefits in the longer run (CCSS, 2010). Public hospitals receive a flat fee per hospital stay. This fee also covers special treatments such as medical imaging and thus gives the right incentives to avoid unnecessary medical acts. By contrast, private hospitals can invoice those acts at the price of what a private practitioner would be allowed to charge to the social security, on top of the hospital stay. This disparity needs to be corrected. Also, the tariffs paid to private practitioners are excessive (Cour des comptes, 2010f), and the Court of Audit recommends aligning tariffs with doctors' equipment costs.

User fees, doctor pay, generics and drug consumption

In France, patient user fees account for an average of only 7% of the final price of health-care services (OECD, 2010g), which may result in excessive demand. In principle, gatekeeping could reduce demand for specialist care, which has recorded a certain expansion in recent years. It is also possible that French GPs, since they are paid by the act, tend to prescribe the best possible and thus most expensive treatments to retain patients, unlike doctors whose incomes are less strongly linked to the number of consultations. This may be reflected in France's very high per capita prescription drug consumption (OECD, 2010c).[15] Therefore, consideration should be given to greater use of capitation-based doctor compensation.

The costs of high drug consumption can be lowered by cutting use and by lowering the price of drugs. Excessive drug consumption could be reduced if the access to doctors is restricted by limiting the number of highly reimbursed consultations or raising patients' co-payments. Many countries rely on generics to reduce the prices of drugs. Yet, the saving potential in generic drugs remains under-exploited in France. In 2009, their market share

in volume was 20% in France, compared to about 60% in Denmark, Germany, the Netherlands and the United Kingdom (OECD, 2010e). French policies to promote generics rely on allowing pharmacists to substitute generics for the brand name drug. The choice is made neutral by the alignment of the absolute margin of generics with that of branded drugs. Since 2003, some drugs are reimbursed on the basis of the cheapest generic drug, *i.e.* reference pricing. In 2009, the government launched a campaign to encourage GPs to prescribe a certain amount of generics: they receive a bonus if they fulfil an optional objective of generics use to which they may sign up contractually (CCSS, 2010). There are several ways to increase substitutability. First, the contract could be made obligatory for all GPs, as in other countries. Second, in France, substitutability is based on the same molecular content, whereas the same therapeutic value could be used as a criterion for substituting for generics. Third, a policy of fully reimbursing generics if the price difference with the branded drug is large enough would further encourage the shift towards generics. Fourth, reference prices could be used more systematically. Fifth, the health insurance fund should not pay higher prices for branded drugs after patent expiry than for their generic equivalents. Finally, and more generally, more guidance should be provided for doctors regarding appropriate prescription practises. While the doctors' main source of information is the pharmaceutical industry, the French National Authority for Health (*Haute autorité de santé*) could give more systematic guidance for prescribing the cheapest drug with the same therapeutic value.

The sustainability of the pension system

The government's pension reform proves commitment to future reforms

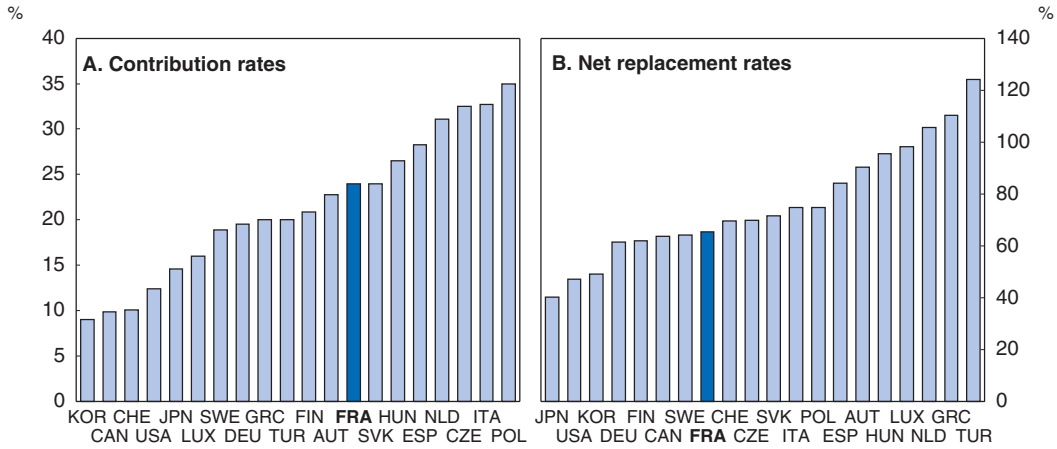
The imbalances of the French pension system can be tackled by changing its main parameters: *i*) raising pension contributions through a higher rate of pension contributions and/or higher participation and employment rates; *ii*) extending the effective retirement age; and *iii*) lowering the replacement rate. The estimates of the government's pension advisory board (*Conseil d'orientation des retraites,* COR), summarised in Table 2.5, indicate the enormous efforts needed to rebalance the system (COR, 2010). The pre-reform effective retirement age would need to be raised by five years if balance is to be re-established by 2020, and by ten years if the pension system's accounts are to be balanced in 2050. Similar large adjustments would be necessary to any of the other parameters, if all the adjustments were effected using just one. Increasing pension contribution rates, which are already relatively high, or reducing net replacement rates, which are slightly below average for the OECD countries, are not promising solutions (Figure 2.8). Higher pension contributions would be bound to hurt long-term economic growth by increasing labour costs, while lower pension benefits may face stiff political and social resistance. There is more room for manoeuvre for increasing the employment rate, which is below the OECD average and particularly low for those over 60 (see Chapter 1).[16] The average age at which people stop working, which was slightly below

Table 2.5. **Adjustments needed to rebalance the pension system**

	2020	2030	2050
Balance to be reached by using only one of the three measures listed below:			
Raising pension contributions by	5.2 p.p.	7.6 p.p.	9.8 p.p.
Lowering replacement rate by	22%	30%	36%
Extending the effective retirement age by (relative to the situation in 2008)	5 years	7½ years	10 years

Source: COR (2010), *Retraites : Perspectives actualisées à moyen et long terme en vue du rendez-vous de 2010.*

Figure 2.8. **Pension contribution and net replacement rates, 2007**



Source: OECD (2009), *Pensions at a Glance 2009: Retirement-Income Systems in OECD Countries*; OECD *Labour Statistics Database*.

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60 years, and the minimum legal retirement age prior to the recent reform, are among the lowest in the OECD, whereas life expectancy of French people at the time of exiting the labour market is higher than in any other OECD country.

The parliament passed a law on pension reform in autumn 2010 aimed at relieving pension spending obligations. At the heart of the reform is the progressive two-year increase in the minimum legal retirement age by 2018[17] and the age criterion to receive a full pension. Once fully phased in, the legal retirement age will be 62 years. Under the 2003 Fillon reform, scheme participants who have not contributed long enough to have a full pension are to be penalised by 1.25% per missing quarter on the pension payment. However, whatever the number of years worked, everybody will receive a full pension when retiring at 67, without any penalty but still proportional to the contribution period. The minimum contribution period will rise gradually from 40.5 years for those born in 1950 to 41.5 years for those born in 1960, in accordance with the Fillon reform. Age criteria for early-retirement schemes related to physical disability or long working life have been raised the same as other age limits. Entitlement to early retirement for civil servants with three or more children has been abolished. To facilitate employing people close to retirement, a subsidy of up to 14% of gross salary is being offered for hiring unemployed persons who are older than 55 for a sustained amount of time. Lastly, there are forms of early retirement that persist, notably via the unemployment benefit scheme, most of which should be eliminated when the planned withdrawal of the job-search exemption takes effect in 2012.

On the revenue side, apart from the increased contributions collected as a result of the various measures to defer the receipt of pensions, new measures are likely to increase revenues by nearly EUR 8 billion in 2018. In 2018, virtually a third of this increase will come from a gradual hike in the contribution rate on civil servants' salaries from 7.85 to 10.55% spread over 10 years, which will not only raise revenues but will also be a step towards harmonising conditions for public- and private-sector employees. Over half of the revenue increases by 2018 is due to tax hikes: annualisation of the calculation of relief on social security contributions on low wages, increases of 1 percentage point in the highest marginal rate of the personal income tax and the tax on capital gains on sales of financial assets, 3 points in the capital gains tax on real estate sales, accompanied by higher special

social contribution rates on stock options or purchases and shares given for free and on special management pensions, which in all would represent a total of EUR 4.4 billion in 2018. Furthermore, it is being assumed that unemployment should drop sharply by 2015. The outlays freed up from unemployment benefits would then be transferred to the pension system's accounts, bringing in EUR 1 billion in 2018. Finally, the pension reserve fund, which was supposed to be used only after 2020, will be depleted progressively to cushion the deficit of the system over the period during which it takes full effect.

The pension reform was crucial to maintaining long-term debt sustainability…

Notwithstanding the numerous and ambitious reform attempts between 1993 and 2003, the French pension system, a defined-benefit, pay-as-you-go (PAYG) scheme, has been recording steadily widening deficits since 2004, when it was last in surplus. In 2010, prior to the pension reform adopted at year-end, the deficit reached EUR 15 billion (EUR 11 billion for all basic schemes and EUR 4.3 billion for the *Fonds de solidarité vieillesse*),[18] nearly 1% of GDP (LFSS, 21011). The ongoing process of population ageing will put additional pressure on public pension-related expenditures. In 2008, these accounted for almost 13% of GDP, the third-highest in the OECD after Austria and Italy, and represented one quarter of general government expenditures. Without the 2010 reform, the number of pensioners would have increased to 23 million in 2050 from 15 million in 2008, and, as a consequence, the number of working-age people per retiree would have declined from 3.5 in 2010 to 2 in 2050. The ratio of pension contributors to pensioners was only 1.8 in 2010 and would have dropped to 1.2 by 2050 (OECD, 2009a; COR, 2010). The additional pension spending that would have resulted was estimated at 0.6 to 1.2% of GDP by the European Commission. The *Conseil d'orientation des retraites* (COR, 2010) evaluates the pre-reform funding requirements of the pension system in 2050 at 1.7 to 3% of GDP, depending on whether the recent crisis will have a temporary or lasting effect on potential output and unemployment. This would suggest that, if left untreated, the cumulative funding requirements of the pension system in 2050 would have amounted to roughly 100 percentage points of GDP by 2050 (COR, 2010).

… but additional measures will be needed in the longer term

According to official projections, the reform set out above will re-balance the pension system by 2018. Nevertheless, there is a risk regarding maintaining the PAYG system on a sustainable path beyond 2018, or even earlier if the projections before 2018 turn out to be too optimistic,[19] which could require additional long-term efforts. However, this has resulted in a decree accompanying the pension reform that calls for discussions to start in 2013 about the conditions under which a universal pension system based on a point system or with individual notional accounts could be put in place.

Germany, Italy and Sweden now have pension systems based on notional accounts or point systems.[20] In these systems, each person's pension contributions are reflected in accumulated points or units of account in the pension account balance, on the basis of which pension payments are calculated in an actuarially neutral way using a conversion coefficient, which accounts for life expectancy at the time of retirement, demographic projections and projected receipts and outlays of the pension system. The conversion coefficient is set in a way to balance, in a permanent scheme, outlays with receipts. In such a system, future pensioners can choose their own retirement age freely: either they retire at a young age with a low pension or they enjoy a higher pension after a longer working

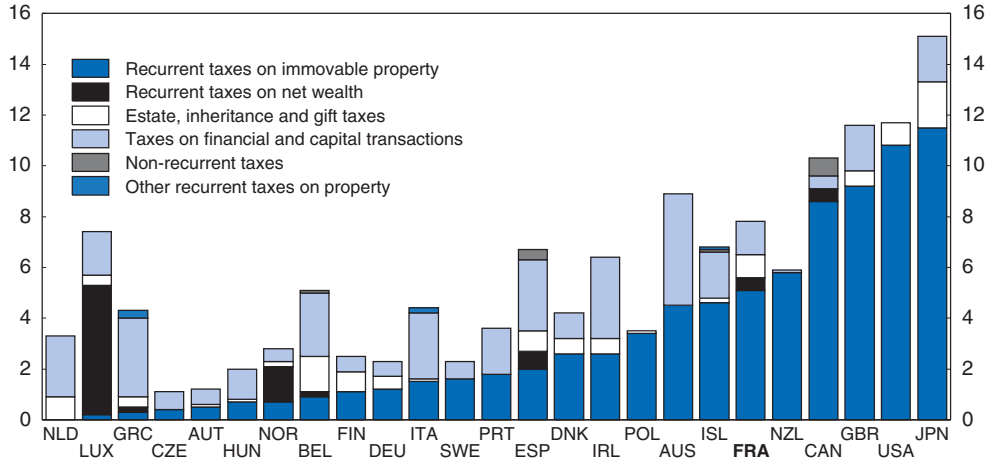
life.[21] The simplification of the currently highly complex structure of the French pension system (with 38 compulsory schemes and numerous supplemental schemes with their different eligibility conditions and replacement rates) is a prerequisite to a shift towards a self-balancing system with points or notional accounts. Transparency would make reform easier because everyone would be able to see the individual impact of any reform, while now everybody thinks they lose more than most from any reform. Employees who change sectors and are covered by different regimes over their careers would gain from enhanced transparency with regard to their future pension payouts. Care should be taken, however, to ensure that a reform aiming to improve equity between pensioners not delay progress towards restoring financial balance to the pension system as a whole.

Lowering budget deficits by raising revenues

Eliminating distortions in the tax base

In France, recurrent taxes on property accounted for 2% of GDP and 5% of tax revenue in 2008, which is higher than in many European countries but less than what has been observed in other OECD countries such as the United States, the United Kingdom and Japan (Figure 2.9). This suggests some potential to raise taxes on property, which are widely acknowledged as the least distorting of major taxes. Doubling the share of those taxes in total government revenues, to reach levels observed for Japan and the United States, would yield extra receipts of around EUR 40 billion. The extra revenues generated by greater taxation of immovable property (widening the base or raising the rates of recurrent taxes on immovable property and inheritance taxes) could be used to reduce the taxes that are the most distortionary and least conducive to economic growth, including transactions taxes (such as transfer duties), which, by limiting transactions, hamper geographical mobility. At the same time, rateable values, which were last updated in 1970, should be aligned on market values and updated regularly in the future. The tax breaks arising from owner-occupancy should be scrapped (Chapter 3).

Figure 2.9. **The share of immovable property-related taxes in total fiscal revenues, 2008**[1]



1. 2007 for Australia, Greece, the Netherlands and Poland.

Source: OECD calculations based on OECD *Revenue Statistics* 2010.

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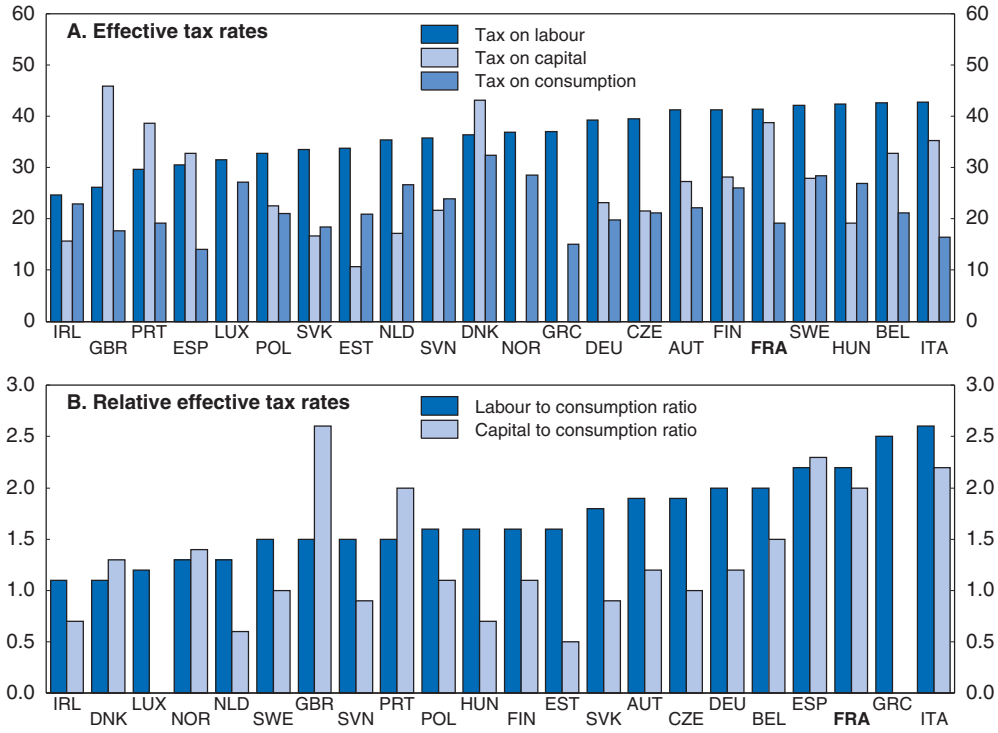
Raising inheritance and gift taxes, not only on immovable property but on all net assets, could offer an alternative to the taxation of lifelong saving and can be considered a way of taxing, for example, income or capital gains that were tax-exempt during a person's lifetime. Such taxes have the advantage of generating less distortion than annual wealth taxes, because inheritance is less planned. Insofar as gifts can be used to escape inheritance tax, the taxation of gifts should be brought more closely in line with that of inheritance so as to limit possibilities for tax avoidance (Owens and Brys, 2011).

Broadening consumption taxes would also improve the tax structure. The effective tax rates on labour and capital (calculated as receipts over the base) in France are each among the highest in OECD countries (Figure 2.10, Panel A), while consumption is taxed (including VAT and excise tax) at or below the European average (arithmetic or weighted by the GDP of each country, which is 22% and 19.7% respectively). In relative terms, this implies that, as in Italy and Spain, the tax burden on capital and labour is twice as high as on consumption (Figure 2.10, Panel B).

Figure 2.10. **Relative effective tax rates in Europe, 2000-08**



Source: OECD calculations based on *Eurostat Data*.

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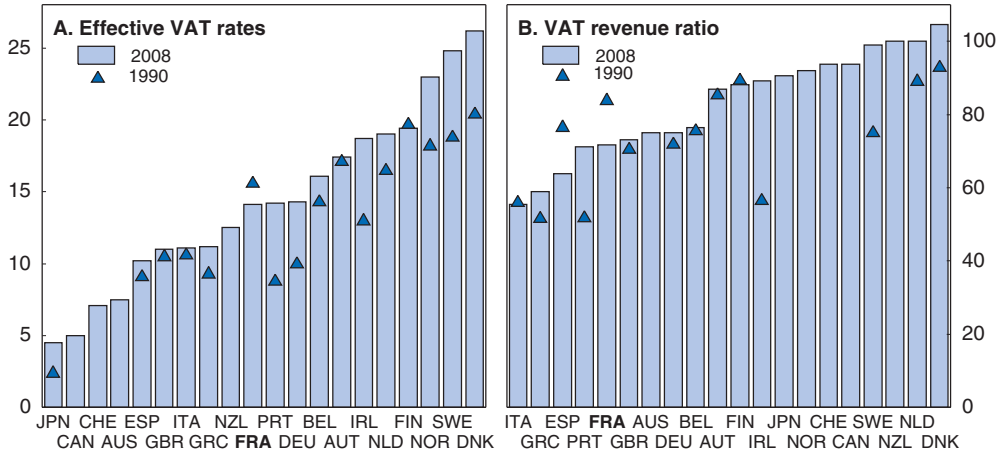
The effective rate of VAT, computed as the ratio of VAT revenues to net private consumption, which was roughly 14% in 2008, is well below the standard statutory rate of 19.6% but falls within the European average, at the same level as Germany and ahead of Spain, Italy and the United Kingdom (Figure 2.11, Panel A). The difference between the statutory and effective rates stems in part from the fact that not all private consumption is subject to VAT. Excluding services not subject to VAT, such as notional rent (owner-occupiers), financial intermediation, domestic services and non-market educational, health-

Figure 2.11. **The effective VAT rate and the VAT revenue ratio, 1990-2008**



Source: OECD calculations based on OECD *Revenue Statistics*.

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care and social welfare services, which in 2008 accounted for between 14 and 16% of private consumption, the effective VAT rate increases from 14% to almost 17%. The residual difference between the statutory rate of 19.6% and the effective rate of 17% is due to the widespread use of reduced rates. The reduced rates on essential goods and services are sometimes justified on equity grounds, because low-income households' consumption falls to a larger extent on these items. Yet the effectiveness of reduced rates is debatable, because they are not often well targeted at the needy. Means-tested lump-sum payments or targeted transfers may reduce inequality at a lower cost (Koske, 2010). Reduced rates are also used to support employment in specific sectors such as hotels, restaurants or home repair work (in addition to other measures, such as reduced social contributions) or to cut back on undocumented labour. But in doing so, this generates distortions in the allocation of labour.

Replacing the reduced VAT rates by the standard rate would mechanically increase government receipts by roughly EUR 30 billion[22] (all things being equal). An additional increase of one percentage point in the VAT rate would generate roughly EUR 9 billion in revenues, implying that raising the rate from 19.6 to 25% would result in additional revenues of about EUR 50 billion.[23] Thus, the revenue potential due to higher VAT rates is huge: even if a leakage of 50% is assumed,[24] roughly EUR 40 billion, representing 2% of GDP, could be raised in this way. This sum could be used to reduce the budget deficit or, in the spirit of the so-called "social VAT", to improve the tax structure by reducing levies on labour and capital in a revenue-neutral way, even if accompanied by compensation for the regressive effects induced by a VAT rate increase.

In 2010, the French government cancelled the local business tax (*taxe professionnelle*) levied on firms and replaced it by a new tax, the *Contribution économique territoriale*. The old tax base had rested on the rateable value of assets used by firms and subject to property tax (17%), their turnover (3%) and their capital stock (80%). The new tax is composed of two elements: *i*) a tax levied on the rateable value of assets used by firms and subject to property tax (the property levy on firms); and *ii*) a progressive tax on firms' value added. In addition, a flat tax on network industries was introduced. The reform cut the overall tax burden of firms by 0.5% of GDP in 2010 and by 0.3% thereafter. This welcome measure is an

important step towards rebalancing the tax structure to promote capital investment and activity (more property taxation and lower taxes on labour and capital).

The scope for increasing environmental taxes

In France, revenues from environmental taxes accounted for 2.2% of GDP in 2007, one of the lowest in Europe: only Belgium, Greece and Spain levied less environment-related tax as a percentage of GDP. Moreover, those revenues had fallen sharply between 1995 and 2007. This can be partly explained by the decline in energy-related tax revenues due to a major shift from petrol to diesel cars. The ensuing shift in consumption from highly taxed petrol to diesel that is taxed less than petrol is reflected in lower revenues (Callonnec, 2009).

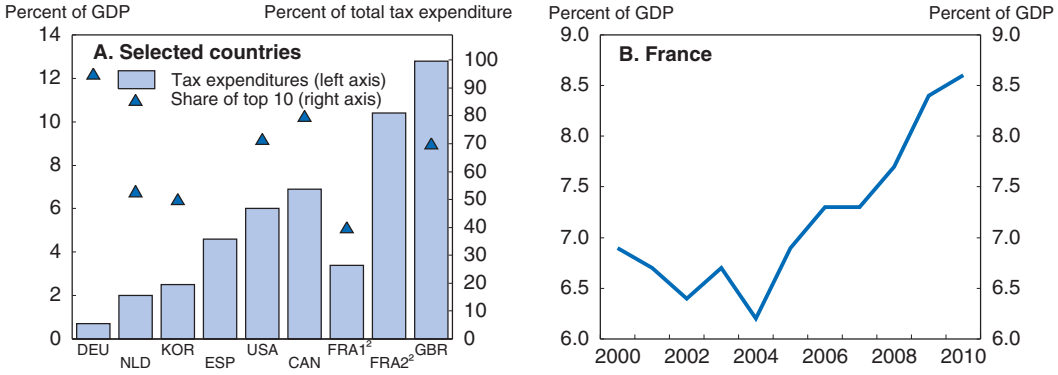
As argued in Chapter 4 of this *Survey*, in France, negative local and global externalities are not fully incorporated in the prices of goods and services, the production and consumption of which inflict damage on the environment. Much could be done to equalise taxes on energy products and to tackle the sources of atmospheric and water pollution. At the same time, additional revenues from environmental taxes could contribute to the reduction of the budget deficit and/or the tax burden on labour and capital. As a matter of fact, the potential for levying higher environmental taxes is substantial: raising the share from 2.2% in 2007 to around 6%, as is the case in Denmark, would yield extra budgetary receipts of some EUR 70 billion, all things being equal. Even assuming a leakage of, say, 30% due to reduced consumption of environmentally harmful goods and services (quantity effect), counter-balancing the price effect, such a hike in the volume of these taxes would still result in revenue gains of around EUR 50 billion.

A large potential for reducing tax expenditures

Tax expenditures, which can take the form of tax allowances, exemptions, rate relief (reduced rates), deferrals and credits, play an important role in the French tax system. According to the 2011 budget bill, there are 504 tax expenditures, *versus* some 400 between 2000 and 2004, despite the government's withdrawal, between 1997 and 2010, of some 140 provisions from the official list of tax expenditures (Cour des comptes, 2010a). This is very high in an international comparison. As shown in the left-hand Panel of Figure 2.12, Germany and the Netherlands had only a handful of such provisions (if such a comparison can be taken at face value). Across OECD countries the majority of tax expenditures generally concern income tax, though France is an exception. In terms of magnitude, the revenue cost of tax expenditures is estimated to be as high as 12% of GDP in the United Kingdom, whereas it barely accounted for 1% of GDP in Germany (Figure 2.12, Panel A). For France, government estimates suggest foregone revenue of 3.4% of GDP in 2008. In contrast to other countries, tax expenditures in France are less concentrated: the ten largest items account for only 40% of total tax expenditures.

According to a recent report of the Court of Audit (Cour des comptes, 2010a), which is based on a broader definition of tax expenditure than the one currently used by the government, the "revenue shortfall" is twice as great. If the tax expenditures in the social security budget are added in, the overall figure comes to some 10% of GDP.[25] Moreover, this figure itself takes no account of the interaction between the basis for calculating taxes and social contributions, nor of the tax expenditures granted by sub-national governments. Germany and Japan are examples of countries that have tried to quantify the scope of local government tax expenditures (Cour des comptes, 2010b; CPO, 2010).

Figure 2.12. **Tax expenditures in selected OECD countries and in France**[1]



Note: The second chart is based on data from the Court of Audit, which uses a wider definition of tax expenditures for the central government budget.

1. 2008 for France, Spain and the United States; 2006-07 for the Great Britain; 2006 for Germany, Korea and the Netherlands; 2004 for Canada. The figures cannot be fully compared across countries due to cross-country differences in the definition of tax expenditures.
2. FRA1 refers to the French government's estimate in *Projet de loi de finances pour 2010* (*Évaluation des voies et moyens, dépenses fiscales*, tome n° 2); FRA2 is based on the estimate of the Court of Audit on tax and quasi-tax expenditures for central government and social security.

Source: OECD (2010), *Tax Expenditures in OECD Countries*; Cour des comptes (2010), *Rapport sur la situation et les perspectives des finances publiques*.

StatLink http://dx.doi.org/10.1787/888932377523

The difference between the figures put forward by the government and the Court of Audit stems primarily from differing definitions of tax expenditures. The government excludes structural relief measures, which are considered technical aspects of tax calculation. Moreover, tax reliefs intended as incentives (such as the tax shield, which deploys a general principle of tax limitation), capital-gains exemptions and application of an international commitment (such as the tax exemption for aircraft fuel) are not classified as tax expenditures. The same holds true for measures having general scope and arising directly from a tax-redistribution approach (such as the tax brackets and the family tax-splitting quotient or certain reduced VAT rates intended to provide universal access to certain basic necessities such as food, medicine or books). In contrast, for the Court of Audit, "tax expenditures are [measures] derogating from a tax norm [...], the application of which results in a loss of public revenue, *i.e.* a tax cut for the beneficiaries" (Cour des comptes, 2010a). While the government's estimates seem too low, given the narrowness of the definition it has adopted, those of the Court of Audit are probably too high insofar as the net cost of the measures may be lower than their gross cost, which is computed mechanically, especially for extremely mobile tax bases and when tax expenditures lead to additional budget revenue elsewhere. Thus the actual magnitude of the revenue shortfall lies probably somewhere between these two estimates.

Figure 2.12 (Panel B) shows that tax expenditures for central government increased by more than two percentage points of GDP from 2004 to 2010, probably related to the strict spending norm of zero real growth introduced in 2005 (Cour des comptes, 2010). Recognising the ramping up of tax expenditures, the government sought to contain their evolution in the budget framework law 2009-12 through three measures: *i*) introducing a guarantee that the costs of new or extended tax expenditures be offset by changes in other tax expenditures; *ii*) limiting the duration of new and extended tax expenditures to four years; and *iii*) setting annual goals for changes in the costs of tax expenditures (CPO, 2010).

For the Court of Audit (Cour des comptes, 2010a, 2010b and 2010c), the guarantee to offset new measures was not respected by the government even in 2009, given that the compensation from the costs arising from the new measures were spread over a multi-year period rather than focused on the year when the extra costs were incurred. Even if the government interprets the guarantee rule over the entire lifetime of new tax expenditures, the fact that they are not offset immediately contributes inevitably to the worsening of the budget deficit in the short term. The budget framework law 2011-14 did not renew the two first measures, partly because it set explicit net revenue targets for savings on tax expenditures for 2011-14. However, an important problem is that the budget framework law has the same legal status as the budget law and the social security budget law and does not apply to the other budget-related laws.

Even if it is difficult to quantify precisely the shortfall for general government, tax expenditures could be reduced substantially. The many changes in and the high number of tax expenditures induce instability and render the tax system very complex. Fully understanding and exploiting the benefits of the system requires extensive expertise and resources. Hence, small enterprises and less well-off households may be handicapped *vis-à-vis* large firms and high-income households. Beyond the inequality induced by complexity and the fact that high-income taxpayers are more likely to benefit, multiple objectives assigned to some tax expenditures may contradict one another (OECD, 2010b). A case in point is, for instance, the reduced VAT rate for fertilisers, which is in contradiction with the goal to reduce fertiliser-induced environmental pollution. Moreover, the effectiveness of a number of measures in achieving the policy objectives is questionable in many cases. For example, encouraging overtime work through tax incentives does not seem to have yielded a significant increase in the number of hours worked and may have prompted fraudulent reporting in order to exploit the measure's benefits (Cahuc and Carcillo, 2010). In addition, green growth-related tax expenditures probably induce abatement costs for CO_2 emissions that are far higher than the price of carbon proposed by the Quinet report (see Chapter 4). Furthermore, while the R&D tax credit is a good measure in theory, its rising cost to public finances due to its 2008 extension warrants a thorough evaluation of its effectiveness.

But even if the policy objectives are achieved, they can cause distortions in the economy, as illustrated by the following example. A recent Senate report (Sénat, 2010b) concludes that reducing VAT rates for specific sectors (hotels, restaurants, renovation works and personal aid services) achieved the objectives of lowering prices, increasing turnover and creating new low-skilled jobs. However, this measure creates distortions in consumption and investment behaviour. It would be preferable to achieve these objectives through measures that are neutral to the whole economy (*e.g.* via an additional general decrease in social levies targeting low salaries). In order to scale back inefficient tax expenditures or those that create the most distortion, items No. 1, 2, 4, 6, 13 and 16 from the budget bill and No. 2 and 8 from the social security budget bill in Table 2.6, amounting to an annual total of EUR 20 billion, are candidates for abolition or at least a thorough reconsideration.

Eliminating costly and inefficient tax expenditures would help increase government revenues. The government has committed to a EUR 11 billion cut in tax expenditures for 2011 and annual cuts of EUR 3 billion for 2012-14. It will prepare a thorough evaluation of tax expenditures annexed to the budget bill by mid-2011. This should be translated into more reductions.

Table 2.6. **The largest "official" tax expenditures cited in the budget bill and the social security budget bill for 2011**

	Budget bill	EUR billion	Social security budget bill	EUR billion
1	Reduced VAT rate for repair works in housing	5.05	Reduction in employers' social contributions	21.18
2	Reduced VAT rate for restaurants	3.13	Exemption of overtime work	3.23
3	Employment allowance for low-income taxpayers in work (*prime pour l'emploi*)	2.98	Firms and independent entrepreneurs in overseas departments	1.07
4	10% rebate on pensions	2.70	Exemption on apprenticeship contracts	0.95
5	Tax credit for R&D	2.10	Exemption for home help for and paid by fragile persons	0.86
6	Tax credit for equipment for renewable energy in primary residence	1.95	Employment assistance contract	0.78
7	Tax credit on interest payments related to housing loans for the principal residence[1]	1.90	Exemption for home help for fragile persons paid by an association or firm	0.76
8	Tax credit on home work (cleaning, babysitting) for professionally active and unemployed persons	1.75	Exemption for seasonal workers in agriculture	0.41
9	Tax exoneration for personal aid	1.60	Exemption for unemployed persons starting or taking over a firm	0.33
10	Income-splitting half-share (*demi-part de quotient*) for single parents	1.44	Exemption for self-employed persons	0.25
11	Exemption on profits, profit-sharing and revenue on company-aided savings received by employees	1.40	Exemption for job creation in "*zones franches urbaines*"	0.19
12	Exemption for elderly, handicapped or low-income persons	1.38		
13	Tax exemption for overtime work	1.36		
14	Tax reduction for employment at home	1.30		
15	Reduced VAT rate on refundable drugs	1.17		
16	Reduced excise tax on heating oil used as fuel	1.10		
17	Extra reduced VAT rates for overseas departments	1.09		

1. This provision was rescinded in the initial 2011 budget bill.
Source: Projet de loi de finances 2011 et Projet de loi de financement de la sécurité sociale 2011.

The information provided by the government on tax expenditures has improved considerably since 2003 when an organic law first required detailed information annexed to the budget bill. Currently, the government produces total cost estimates for tax expenditures and indicates the reliability of the estimates for individual tax expenditures. Tax expenditures are classified in accordance with spending programmes, the type of tax and the type of taxpayer. The annex gives details on new, extended, cancelled and reduced tax expenditures compared to the previous year's budget and on those withdrawn since 2007 that still bear costs for the budget. Since 2008, the government has also quantified tax expenditures on social contributions in an annex to the social security budget bill (CPO, 2010).

Yet, further progress is needed to have a clear view on the extent of tax expenditures, including those on social contributions, and their ability to meet policy objectives. First, the gross and net costs generated by tax expenditures should be quantified, and not only for central government and social security, but for local governments as well. Second, a concomitant and long-term guarantee for revenue offsets should be implemented when introducing new or extending existing tax expenditures to ensure that spending rules cannot be circumvented. Finally, a systematic and regular *ex ante* and *ex post* assessment of the effectiveness of existing and new tax expenditures needs to be undertaken by an independent body of experts, and the results should be translated into concrete policy action. More specifically, measures that do not bring the intended goals or do so at a high cost compared to alternative policy instruments, should be abolished. It is in this spirit that *ex ante* evaluation of any new tax provisions, by means of impact studies to be submitted

systematically to parliament, is recommended. With regard to *ex post* evaluation, Article 12 of the budget framework law of 9 February 2009 stipulates that a report evaluating all tax expenditures be submitted to parliament by 30 June 2011.

Box 2.1. **Recommendations to improve the sustainability of the public finances**

Fiscal framework

- Create a stable general fiscal rule to strengthen the existing fiscal framework. Define the new fiscal rule in terms of a structural deficit for general government which could take the form of expenditure ceilings and revenue floors. The calculation of the structural deficit should be transparent and harmonised at the European level.
- Introduce a multi-annual fiscal framework along the lines of the budget framework law for 2011-14, but more detailed, that is consistent with and implements the rule, and a constitutional requirement that the government adhere to the framework.
- Create an independent fiscal council that would assess the macroeconomic projections used in the budgeting process, evaluate the multi-year fiscal framework's compatibility with the fiscal rule, identify loopholes that might be used to circumvent spending rules and monitor slippages during execution.

Public-sector efficiency

- Facilitate *ex post* evaluations of budgetary programmes in accordance with the LOLF by defining a narrow set of performance indicators that do not change over time. Budgetary execution and supervision should be linked explicitly to these performance indicators.
- Extend the coverage of the RGPP to social benefits and investment programmes and to social security and local governments as well. Use the RGPP to reconsider public policies that are not efficient or useful. Make the RGPP and LOLF more mutually consistent.
- Seek economies of scale in local governments by merging municipalities and by reducing the three levels of sub-national government to two. Increase regional and functional mobility of civil servants to reap the benefits of decentralisation.
- Increase incentives for local governments to reduce spending. Granting more fiscal autonomy would make them more responsible and accountable for their spending programmes. Introduce an incentive element into central government grants by setting efficiency targets for local governments and rewarding those outperforming the target.
- Lower the retrocession of gains from partial replacement of retiring staff in central government.
- Cut administrative costs in social security by simplifying the complex web of health insurance and pension funds.

Health care

- Decrease the threshold for ONDAM's early warning and shorten the lag necessary to correct slippages during execution.
- Continue policies aimed at shortening hospital stays. Raise user costs for medical care deemed non-essential by the French health authorities. Facilitate wider use of capitation payments for doctors.
- Continue efforts to shift drug consumption towards (cheaper) generic drugs.

Box 2.1. **Recommendations to improve the sustainability of the public finances** *(cont.)*

Public pension system

- Link effectively the contribution period to changes in life expectancy in a continuous and automatic way.
- Reduce the complexity of the pension system by harmonising the multitude of retirement schemes.
- Continue eliminating all forms of early retirement, including those using the unemployment benefit system.
- Start considering the introduction of a notional accounts or point-based pension system, in which adjustment can be smooth and offset emerging deficits.

Tax structure

- Broaden the tax base by reducing tax expenditures. Introduce a long-term pay-as-you-go guarantee for revenue offsets when introducing new or extending existing tax expenditures. Assess the effectiveness of new and existing tax expenditures, including social security, *ex ante* and *ex post* on a systematic and regular basis. Expand the scope of the evaluation of revenue losses to tax expenditures granted by local governments.
- Lower the distortion for taxes on labour and capital by increasing consumption taxes, through narrowing the applicability of reduced VAT rates and raising the standard VAT, while taking care to neutralise the regressive effects of such a shift. Increase property taxes and put more emphasis on environmental taxes that fully internalise global and local externalities.

Notes

1. Government final consumption expenditure and other current payments increased steadily while net government investment declined as a share of GDP.
2. The threshold of 75% of GDP was estimated by applying a threshold model to a sample of six G7 countries (excluding Japan) covering the period from 2007Q1 to 2009Q4.
3. The spread on French 10-year government bond rates over corresponding German rates widened from zero at the start of the financial crisis to around 40 basis points since December 2010.
4. Compared to the underlying primary deficit of 3.3% in 2010, corrected for cyclical effects and one-offs.
5. The term "tax expenditure" in this review is used to translate either *dépense fiscale* or *niche fiscale*, which are considered to be synonymous.
6. In early 2010, the French president, Nicolas Sarkozy, announced his wish to modify the constitution in order to establish an enforceable budget rule. How to anchor a fiscal rule in the constitution was examined by a commission of experts and members of parliament, chaired by Michel Camdessus (Camdessus, 2010).
7. Public debt reduction was particularly sizeable and long lasting in countries where budget balance and spending rules were implemented jointly (IMF, 2009).
8. For the Swiss deficit rule, trend output rather than potential output is used to derive the output gap. For this purpose, trend output is obtained using a modified Hodrick-Prescott filter that accounts for the well known end-point problem by under-weighting the last observation (Bodmer, 2006).
9. France achieved considerable progress in improving the fiscal framework by introducing multi-year fiscal budgeting, initially in 2008 for 2009-12.
10. The figure of EUR 13 billion is calculated as the sum of EUR 2 billion per year for 2009 and 2010, and EUR 3 billion per year for 2011 to 2013.

11. In 2008, communes, departments and regions accounted for respectively 56, 31 and 13% of total local government expenditures.

12. Board and lodging costs in nursing homes, mostly borne by individuals, represent the main part of long-term care costs (OECD, 2011).

13. ONDAM also includes part of long-term care expenditures for old and disabled persons.

14. Sick leaves are concentrated strongly in the initial six-month period during which employees receive 100% of their salary but drop sharply with the later decline in compensation rates (Cour des comptes, 2010f). The Court of Audit estimates that cutting full-salary compensation to the three months applied in central government would reduce absenteeism by the equivalent of 1 200 full-time employees per year. Bonuses conditional on the number of days worked per year and more stringent controls on the causes of sick leaves could reinforce this effect (Cour des comptes, 2010f).

15. The development of fixed remuneration must, however, factor in the fact that to pay doctors per act constitutes a useful incentive to activity, given the expected slowdown in medical demographics in the years ahead.

16. Labour market reforms would help lower public debt in a sustainable way – see Chapter 1.

17. By four-month tranches for each birth-year cohort: the first cohort affected will be those born in 1951: the increase will be completed for those born in 1956.

18. COR estimates that the overall deficit of all pension schemes was EUR 32.3 billion in 2010 before the reform. The roughly EUR 17 billion difference as compared to the EUR 15 billion deficit stated in the 2011 PLFSS stems primarily from the fact that the COR balance factors in the implicit employer contributions of the central government (EUR 15.6 billion in 2010), which ensure that the central government civil service pension scheme is in balance.

19. The 2010 reform called for creation of a Steering Committee (*Comité de pilotage*, Copilor) to assess annually "the financial position of pension schemes, conditions for restoring balance to the pension system by 2018 and the financial outlook beyond that date".

20. In the German pension system, future pensioners accumulate pension points, while in Italy and Sweden, which implemented pension reforms in 1995 and 1998, respectively, future pension payments are determined as functions of pension wealth accumulated on notional pension accounts and life expectancy.

21. What really matters for future pensions is the pension contributions accumulated over one's career, rather than the age of retirement. Furthermore, the notion of a full pension loses its meaning.

22. This figure is obtained by multiplying OECD-projected private consumption for 2011 (EUR 1 171 billion), adjusted by VAT revenue and exempt services, by the difference between the statutory and effective rates.

23. Roughly EUR 10 billion in additional revenue is obtained for each 1-point rise in the VAT rate on the basis of OECD-projected private consumption for 2011, adjusted for exempt services and assuming total elimination of reduced rates. Thus an increase in the statutory rate from 19.6 to 25% would yield EUR 54 billion in additional revenue.

24. The 50% leakage rate factors in the aggregate tax revenue loss due to the contractionary impact of higher taxes. Adding to this effect is the increased risk of VAT fraud at higher rates.

25. Another Court of Audit report (Cour des comptes, 2010b) estimates the amount of tax expenditures on social contributions at some EUR 67 billion for 2009, considerably higher that the estimate given by the government in the annex to the social security funding bill (EUR 41.1 billion) because of perimeter differences (the PLFSS annex is limited to tax expenditures relating to private-sector activity and disregards tax breaks offset by central government transfers).

Bibliography

Bichot, J. (2009), "Réforme des retraites : Vers un big-bang ?", Institut Montaigne, *Étude*, May.

Blöchliger, H. and O. Petzold (2009), "Taxes or Grants: What Revenue Source for Sub-Central Governments?", *OECD Economics Department Working Paper*, No. 706.

Bodmer, F. (2006), "The Swiss Debt Brake: How it Works and What can Go Wrong", *Schweizerische Zeitschrift für Volkswirtschaft and Statistik*, Vol. 142, No. 3, 307-30.

Boije, R. and J. Fischer (2007), "The Swedish Budget 'Model': A Genuine Beauty or in Need of a Face Lift?", *European Economy Economic Papers*, No. 275, 297-335.

Cahuc, P. and S. Carcillo (2010), "La défiscalisation des heures supplémentaires : Les enseignements de l'expérience française", 8 October.

Camdessus, M. (2010), "Réaliser l'objectif constitutionnel d'équilibre des finances publiques", *Rapport du groupe de travail présidé par Michel Camdessus*, 21 June.

Carrez, G. and M. Thénault (2010), "Rapport du groupe de travail sur la maîtrise des dépenses locales", *Conférence sur les déficits publics*, 20 May.

Checherita, C. and P. Rother (2010), "The Impact of High and Growing Government Debt on Economic Growth: An Empirical Investigation for the Euro Area", *ECB Working Paper*, No. 1237.

Commission des comptes de la sécurité sociale (2010), *Les comptes de la sécurité sociale : Résultats 2009, prévisions 2010*, June.

Commission pour la libération de la croissance française (2008), *Rapport de la Commission pour la libération de la croissance française* (Commission Attali), Paris.

Conseil d'orientation des retraites (2010), "Retraites : Perspectives actualisées à moyen et long terme en vue du rendez-vous de 2010", *Eighth Report*, adopted on 14 April.

Conseil des prélèvements obligatoires (2010), *Entreprises et « niches » fiscales et sociales : Des dispositifs dérogatoires nombreux*, October.

Council of European Municipalities and Regions (2009), *Balancing Democracy, Identity and Efficiency: Changes in Local and Regional Structures in Europe*.

Cour des comptes (2009), *Rapport sur la situation et les perspectives des finances publiques*, June.

Cour des comptes (2010a), *Rapport sur la situation et les perspectives des finances publiques*, June.

Cour des comptes (2010b), *Rapport annuel sur l'application des lois de financement de la sécurité sociale*, September.

Cour des comptes (2010c), *Rapport public annuel 2010*, February.

Cour des comptes (2010d), *Les conditions d'une stabilisation en valeur de la masse salarial de l'État*, Enquête demandée par la commission des fiances de l'Assemblée nationale, September.

Cour des comptes (2010e), *Résultats et gestion budgétaire de l'État exercice 2009*, May.

Cour des comptes (2010f), *La sécurité sociale*, September.

De la Rochefoucauld, B. and N. Colin (2008), *Collectivités territoriales : Pour une obligation de rendre des comptes*, Amicus Curiae, La contribution au débat public de l'Institut Montaigne, December.

Debrun, X., D. Hauner and M. Kumar (2008), "Independent Fiscal Agencies", *Journal of Economic Surveys*, 23(1), 44-81.

Egert, B. (2010), "Fiscal Policy Reaction to the Cycle in the OECD: Pro- or Counter-Cyclical?", *OECD Economics Department Working Paper*, No. 763.

European Commission (2009), "Sustainability Report 2009", *European Economy* 9.

Girouard, N. and R. Price (2004), "Asset Price Cycles, 'One-Off' Factors and Structural Balances", *OECD Economics Department Working Paper*, No. 391.

Greffe, X. (2005), *La décentralisation*, La Découverte, Paris.

Hagemann, R. (2010), "Improving Fiscal Performance through Fiscal Councils", *OECD Economics Department Working Paper, No.* 829.

Inspection générale des affaires sociales (2010), *Hospitalisation à domicile*, November.

International Monetary Fund (2009), "Fiscal Rules – Anchoring Expectations for Sustainable Public Finances", December.

Jonung, L.B. and M. Larch, (2004), "Improving Fiscal Policy in the EU: The Case for Independent Forecasts", *European Economy Economic Papers*, No. 210.

Joumard, I. and C. André (2009), "Revenue Buoyancy and its Fiscal Policy Implications", *OECD Economics Department Working Paper*, No. 598.

Joumard, I., C. André and C. Nicq (2010), "Health Care Systems: Efficiency and Institutions", *OECD Economics Department Working Paper*, No. 769.

Koske, I. (2010), "After the Crisis – Bringing German Public Finances Back to a Sustainable Path", *OECD Economics Department Working Paper*, No. 766.

Kumar, M.S. and J. Woo (2010), "Public Debt and Growth", *IMF Working Paper*, No. 10/174.

LFSS (2011), *Loi de financement de la sécurité sociale 2011*, *www.securite-sociale.fr/chiffres/lfss/lfss2011/LFSS_2011_en_chiffres.pdf*

Lebrun, I. (2007), "Fiscal Councils, Independent Forecasts and the Budgetary Process: Lessons from the Belgian Case", *European Economy Economic Papers*, No. 275, 337-61.

Mody, A. and S.J. Stehn (2009), "Germany's New Fiscal Rule: A Responsible Approach to Fiscal Sustainability", *VOX EU*, 11 August.

OECD (2009a), *Pensions at a Glance 2009: Retirement-Income Systems in OECD Countries*, OECD Publishing, Paris.

OECD (2009b), *OECD Economic Surveys: France 2009*, OECD Publishing, Paris.

OECD (2010a), "Fiscal Consolidation: Requirements, Timing, Instruments and Institutional Arrangements", *OECD Economic Outlook 87*, Vol. 2010/2, OECD Publishing, Paris.

OECD (2010b), *Tax expenditures in OECD countries*, OECD Publishing, Paris.

OECD (2010c), *Pour une croissance forte et soutenable. Contribution de l'OCDE à la Commission pour la libération de la croissance française*, OECD Publishing, Paris.

OECD (2010d), *OECD Economic Survey: Euro Area*, OECD Publishing, Paris.

OECD (2010e), *Value for Money in Health Spending*, OECD Publishing, Paris.

OECD (2010f), *Better Regulation in Europe: France*, OECD Publishing, Paris.

OECD (2010g), *Health at a Glance*, OECD Publishing, Paris.

OECD (2011), *Health Wanted? Providing and Paying for Long-Term Care*, OECD Publishing, Paris.

Owens, J. and B. Brys (2011), *Impôts sur le patrimoine en France et dans d'autres pays membres de l'Union européenne*, OECD, *mimeo*.

Rapport Briet (2010), *Rapport du groupe de travail sur le pilotage des dépenses d'assurance-maladie*, April.

Reinhart, C. and K. Rogoff (2010), "Growth in a Time of Debt", *NBER Working Paper*, No. 15639.

RGPP (2010), *RGPP : Conseil de modernisation des politiques publiques*, June.

Röhn, O. (2010), "New Evidence on the Private Saving Offset and Ricardian Equivalence", *OECD Economics Department Working Paper*, No. 762.

Sénat (2010a), *Projet de loi portant réforme des retraites : Rapport*, 2 September.

Sénat (2010b), *Rapport du groupe d'études « Artisanat et services » sur le bilan du taux réduit de TVA dans la restauration*, 25 October.

Chapter 3

Making the housing market work better

Housing plays a key role in the economy, because of its weight in household expenditures and assets, its importance for social well-being, and its impact on educational outcomes and employment as well as on the business cycle. Over the past half century, the bulk of the population has benefited significantly from improved housing conditions. Yet perhaps 5% of families are still poorly-housed, and inequalities in access to housing have widened since the mid-1990s, as soaring real estate prices have produced strong distributional effects. Although the severity of the economic crisis seemed to portend a sharp downward correction, the market has in fact turned around and recovered vigorously in France as in many OECD countries, supported by exceptional financing conditions and policies to stimulate demand. While the risk that prices will fall is non negligible, particularly if credit conditions tighten, the situation in France seems to reflect a shortage of housing supply, concentrated in certain "strained" *geographic areas.*

The key role that housing plays in ensuring the social inclusion of individuals and the many imperfections inherent in the housing market justify government intervention. A crucial question is whether the policies being implemented are helping to correct these imperfections efficiently or whether, on the contrary, they are amplifying them, with possible negative spillovers on employment, economic growth or equity. The general principles underlying government housing policies should embrace three aspects: income-tested assistance to individuals, the most effective instrument because it allows for better targeting; direct support for housing supply in areas of excess demand, especially through the social sector, which should focus on disadvantaged households; and the removal of obstacles that work against market mechanisms, so as to make supply more responsive and the market more fluid and transparent, and to limit the many distortions induced by regulation, taxation and subsidies.

Housing plays a key role in the economy. It represents households' largest item of expenditure and their most important asset, while the performance of the housing market has a great influence both on the macroeconomic cycle and structural employment. Housing is a prime necessity, and its consumption cannot be readily modified because of the high costs related to residential mobility. It is also a central consideration in the problems related to equality of opportunity, in part because of the impact of housing quality on health and schooling outcomes. Moreover, changes in property prices, fundamental or policy-induced, can have significant distributional effects between generations and between owners and renters.

The reasons for government intervention in the housing market relate to the role played by housing in social inclusion and the many imperfections in the market, including neighbourhood externalities, information asymmetry and significant frictions. Moreover, housing is often regarded as a "merit good", *i.e.* as a good, like health or culture, that individuals, if left to their own devices, would not consume in sufficient quantities, to their own disadvantage; this situation is then deemed to justify paternalistic intervention by the state in order to guarantee a minimum level, regardless of households' financial capacity. Some housing policies also include redistribution objectives in favour of poor households, although in theory the income tax and means-tested social assistance can play this role. In practice, targeted construction subsidies can be justified, as the private sector apparently finds it unprofitable to build low-income housing. In fact, housing policies in France, as in many other OECD countries, blend elements of rent control, construction subsidies, direct transfers to individuals, regulations (*e.g.* urban planning and mortgage financing) and taxation. A crucial question, then, is whether these policies are efficiently achieving their objectives. When it comes to housing, the road to hell is paved with good intentions (Laferrère, 2006), and some public programmes may actually be exacerbating imperfections in the market and thus impede its functioning and negatively affect economic performance.

The macroeconomic importance of housing

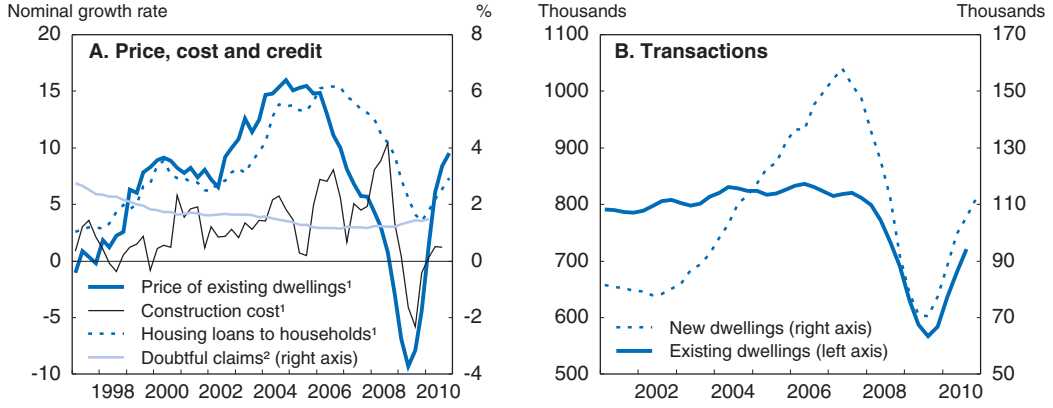
A few key figures show the importance of housing for the French economy. Over the last 10 years, average current household spending on housing, net of housing benefit, represented 21% of households' disposable income, while residential investment accounted for 27% of total domestic investment. At end-2009, households owned housing capital worth approximately EUR 3 300 billion, excluding developed land, and developed land, housing and other buildings represented approximately 60% of total household financial and non-financial assets, which are worth EUR 10 600 billion or about five years' GDP (Couleaud and Delamarre, 2010).

As in many OECD countries, French property prices rose sharply during the 10 years before the global financial crisis, more than doubling in nominal terms. This surge contributed to the macroeconomic cycle, with the capacity utilisation rate in the construction sector peaking at 95%. Although prices initially rose quickly to make up ground

lost during the property slump of the 1990s, in the view of some analysts, the acceleration observed since 2002 had many bubble-like features. Besides real factors underpinning housing demand, this acceleration was also probably influenced by herd behaviour and irrational investor expectations. The downturn on global property markets at the heart of the recent recession raised fears of a sudden drop in property prices in France.

At the height of the crisis, prices fell by nearly 10%, and transactions on the existing housing stock slid by about 25% in the space of a year. However, the market has picked up again since then, and prices are back to their previous record level (Figure 3.1), a pattern common to many OECD countries (Chapter 1). Lending practices in France, discussed in detail below, prevented the excesses that destabilised some countries' financial system, and delinquencies have been contained. From that standpoint, in contrast with other countries, the way in which the French housing market is financed is likely to limit both the transmission of monetary policy to the economic cycle and the wealth effects resulting from fluctuating property prices. Moreover, in contrast to countries where the bubble burst and prices are not recovering (such as Spain, the United States, Ireland and Italy), few observers would suggest that there is an aggregate excess supply of housing in France. Most studies actually conclude that the rise in households' disposable income, interest rate trends, demographic and social changes such as ageing, generations living apart and divorce, etc., which have led to a larger number of households, and longer mortgages provide a relatively complete explanation for property price trends in France (Miles and Pillonca, 2008; André, 2010; de Bandt *et al.*, 2010).

Figure 3.1. **Year-on-year housing market trends**



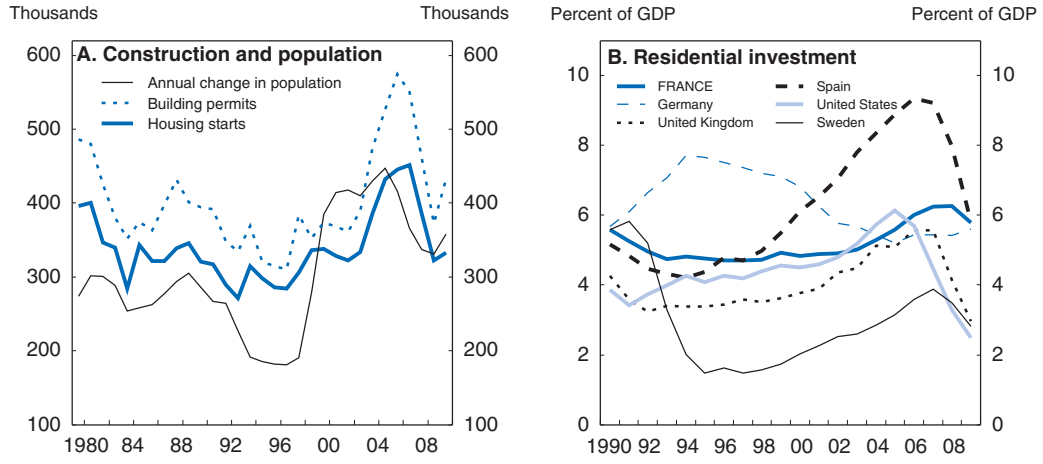
1. Nominal growth rate.
2. Rate of doubtful claims on all credit extended to households.

Source: Banque de France; *CGEDD and Notarial Databases*; INSEE; MEEDDM.

StatLink http://dx.doi.org/10.1787/888932377542

Although these empirical studies play down the likelihood of a major disconnect between prices and their fundamentals, they do not imply that housing supply is satisfactory, since, for example, supply being slow to react to the positive demand shocks may be part of these fundamentals. Housing construction and residential investment seem to have responded with a lag of at least five years to the increase in demographic growth since the late 1990s (Figure 3.2). Moreover, France is one of the countries where residential investment reacted least to rising prices during the last cycle, although the lack of

Figure 3.2. **Housing construction and residential investment**

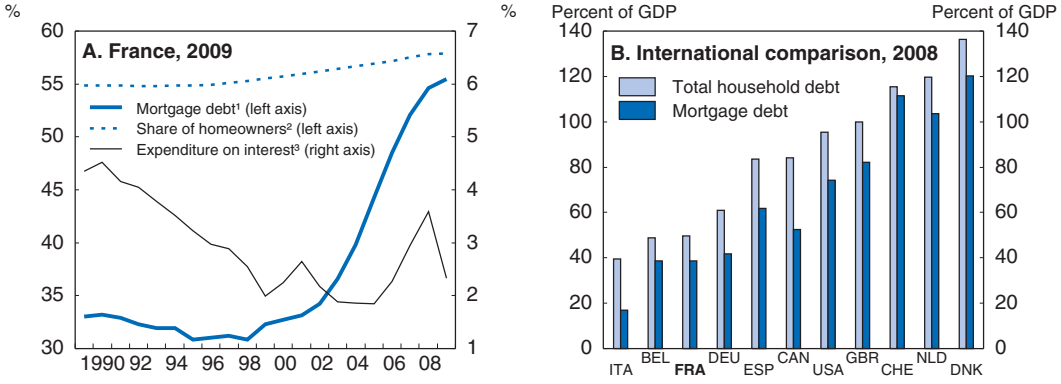


Source: INSEE; OECD, *Economic Outlook 88 Database*.

StatLink http://dx.doi.org/10.1787/888932377561

responsiveness seems to have been even more pronounced in the United Kingdom and the Netherlands (André, 2010, chart 8). While it is difficult to extrapolate past trends, which were fuelled by rising household debt levels (albeit from a low level in relation to most OECD countries), interest costs are still moderate (Figure 3.3). Thus, it is still too early to rule out the risk of a major price correction since favourable borrowing terms tend to blur the analysis, as the market probably remains vulnerable to a sharp rise in the cost of borrowing. In the shorter term, however, there is a rising risk of a prolonged period of loose credit conditions resulting in an unjustified increase in prices, which generally serves as a warning against untargeted measures supporting demand.

Figure 3.3. **Household mortgage debt**



1. As a percentage of household disposable income.
2. As a percentage of primary residences.
3. Interest paid on total household debt, as a percentage of household disposable income.

Source: Banque de France, *Household Debt Observatory*; MEEDDM, *Housing Accounts*, 2008 (Panel A); OECD, *Financial Statistics* and *Economic Outlook 88 Database*; national central banks (Panel B).

StatLink http://dx.doi.org/10.1787/888932377580

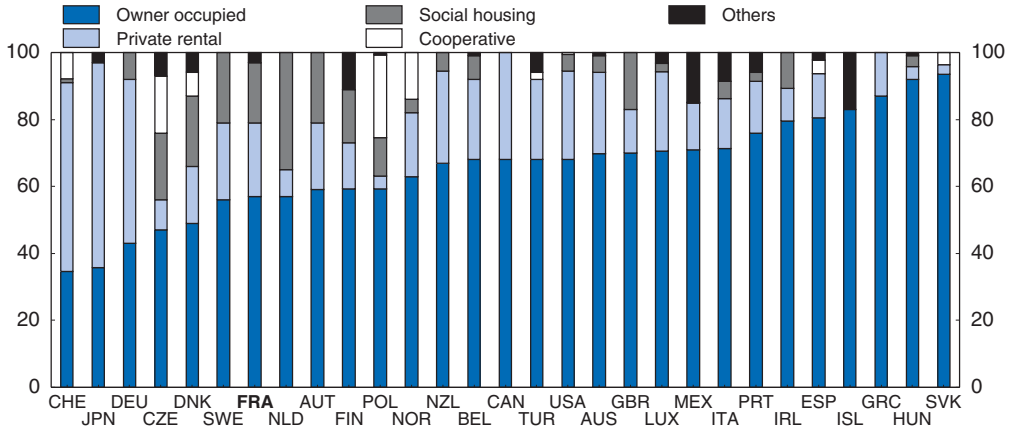
Is there a housing crisis?

An intermediate situation in terms of tenure structure

There were 27.9 million principal dwellings in France in 2009, 58% of them owner-occupied, 24% in private rental, 16% in public rental and 2% in other forms (hotels, accommodation, etc.), plus 3.2 million second homes and between 2 and 3 million vacant housing units depending on the source. In this respect France is in an intermediate situation among OECD countries (Figure 3.4), with a relatively low proportion of owner-occupation and a substantial share of social housing in the rental sector, albeit lower than in a number of other EU countries (Czech Republic, Netherlands, Austria, the Nordic countries, the United Kingdom, Ireland and Poland). Moreover, the private rental stock, almost entirely owned by individuals, is highly fragmented (Driant, 2008). Part of social housing, especially units built in the 1960s and 1970s, now has a negative image in terms of the urban forms that housing has assumed over the period.

Figure 3.4. **Tenure structure across countries**

Per cent of dwelling stock, 2009



Source: Andrews, D., A. Caldera-Sánchez and Å. Johansson (2011), "Housing Markets and Structural Policies in OECD Countries", *OECD Economics Department Working Papers*, No. 836.

StatLink http://dx.doi.org/10.1787/888932377599

A trend to improved housing conditions and rising prices

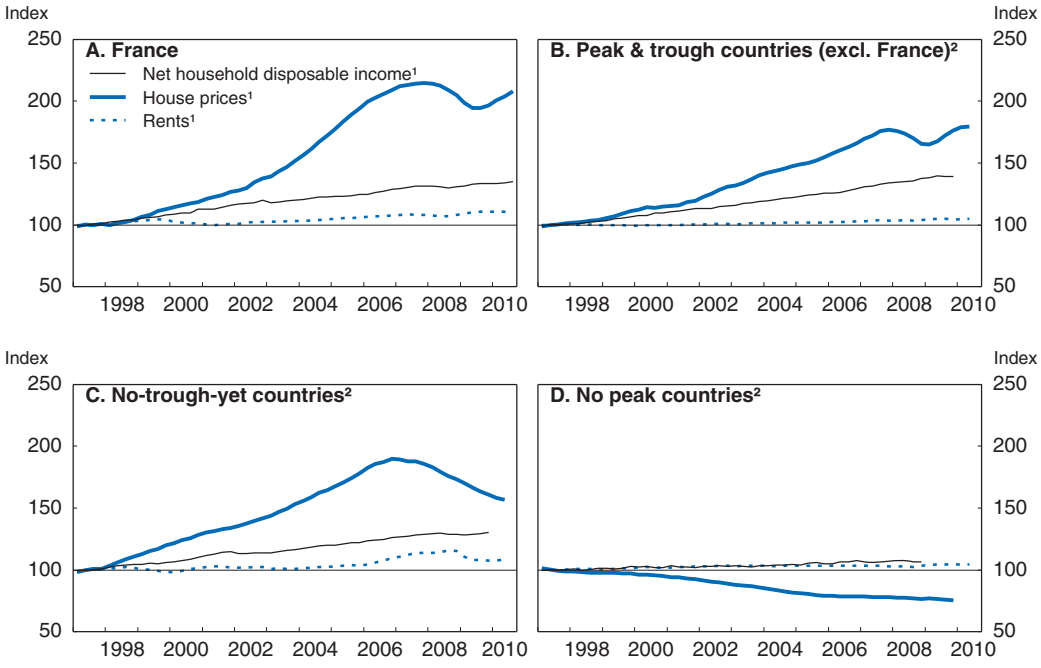
After more than half a century of steady improvement for the vast majority of households, general housing conditions have never been better. In 1954, over four dwellings in ten did not have running water, only a quarter had an indoor lavatory and 10% a shower or bath. In 1984, 16% of dwellings still lacked one of those three items, compared with less than 2.5% in 2004 (Jacquot, 2005). The number of rooms per person has risen from 1.0 in 1954 to 1.4 in 1984 and 1.8 in 2006, and the average surface area per person has increased similarly. At the same time, over-crowding (under-utilisation), as defined by INSEE, has decreased (increased) dramatically, at least until the early 1990s. The higher quality of housing is an important factor in the increasing share of gross disposable income that households devote to current housing expenditure, net of housing benefit (the so-called "effort ratio" – *taux d'effort*).[1] As well, prices are being driven upward by the costs associated with changing lifestyles (population ageing, generations living apart and marital separations, etc.), which are partly a reflection of choices and rigidities (leading, for

example, to the well documented under-utilisation of dwellings occupied by the elderly). The rate of ownership for principal residences has also risen by 7 percentage points in the past 20 years.

However, dearer access to housing contributes to the widespread impression of a housing crisis in France. The analysis of price and rent trends by region suggests that there is not a general housing crisis in France, but rather difficult situations concentrated in a few large urban centres marked by a strong imbalance between supply and demand. Property prices have risen significantly faster than both rents and average disposable income (Figure 3.5), with rents themselves increasing in real terms. That impression seems to be borne out by a sharp increase in the average effort ratio, from about 10% in the 1960s to 17% in 1984 and almost 23% in 2006 (Jacquot, 2005; Briant and Rougerie, 2008), a trend also found in most other OECD countries (Figure 3.6). Both tenants and first-time buyers are affected by this increased burden, despite longer mortgage maturities.[2]

Figure 3.5. **Property prices, rents and household disposable income in real terms**

1997 = 100



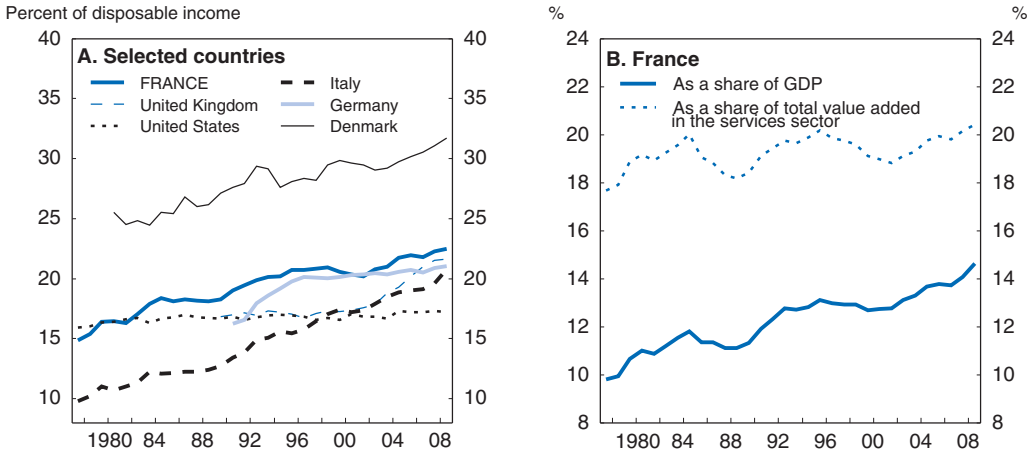
1. Adjusted by the personal consumption expenditure deflator.
2. Simple average of the categories displayed in Table 1.2.

Source: OECD, *Main Economic Indicators* and *Economic Outlook 88 Databases*.

StatLink http://dx.doi.org/10.1787/888932377618

The rise in the ratio of property prices to rents is not sufficient to prove that house prices are overvalued. In theory (see *e.g.* Poterba, 1992), the price-to-rent ratio is equal to the inverse of the user cost of housing, which depends on interest rates, taxation, and depreciation and property maintenance costs. A decrease in the user cost can therefore provide an explanation for a rational increase in the price-to-rent ratio. In 2010, the ratio was 41% higher than the average since 1985, but the deviation from the average is "only" 10-20% when it is adjusted to take account of the estimated user cost trend (Box 3.1). One

Figure 3.6. **Household housing expenditure, 1978-2009**



Source: OECD, *National Accounts*, STAN and *Economic Outlook 88 Databases*.

StatLink http://dx.doi.org/10.1787/888932377637

limitation of this indicator, whether adjusted or not, is that it gives an idea of the price-to-rent ratio only in relation to a reference date or period and not in the absolute. If the equilibrium interest rate is close to the growth rate of potential output, the gross rental return on a property investment, measured by the annual rent relative to the purchase price, is theoretically close to the sum of taxes, depreciation and maintenance costs and the risk premium (expressed as z, see Box 3.1). According to Table 3.1, the gross rental return in a sample of 37 French cities lay between 3.6% and 7.5% (as of April 2010); the variation is less among big cities, where the yield ranged between 5 and 6%, which is consistent with reasonable orders of magnitude for z. Of course, any increase in real

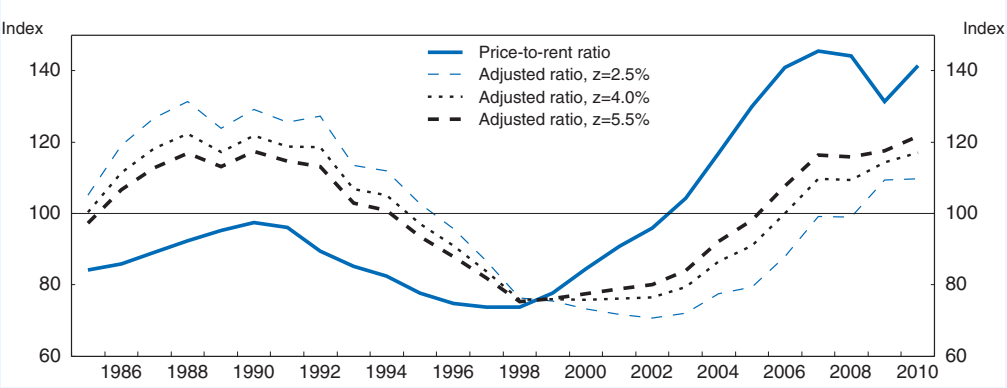
Box 3.1. **The price-to-rent ratio adjusted for the user cost of housing**

The user cost of housing, R, is determined by the nominal interest rate (i), property taxes (t), the risk premium for property investment (ρ), depreciation and maintenance costs (δ) and expectations of nominal property price growth (π), such that $R = i + t + \rho + \delta + \pi$. Over the last 40 years, French property prices have risen on average more or less at the same pace as nominal GDP.* Extrapolating, the user cost can be expressed as $R = x + z - g$, where x is the expected real interest rate, $z = t + \rho + \delta$ and g is the real GDP growth rate. Orders of magnitude for z can be obtained as follows. The depreciation and maintenance rate is of the order of 2-3% per year. The risk premium is a thornier matter. Although a 2% rate is generally used to offset natural risk aversion, the acquisition of a principal dwelling may be an opportunity to protect against the risk of future rent increases, which are included in the household's inter-temporal liabilities. From this standpoint, home ownership reduces that risk. Consequently, a risk premium ranging between 0 and 2% seems reasonable. Because of adaptive expectations in particular, the safe-investment role sometimes attributed to property investment has been intensified in some OECD countries, including France, by the poor performance of equity markets over the past decade. The order of magnitude for property taxes is obtained by dividing tax revenues (land tax, residence tax, transfer duties, wealth tax) by the value of the property asset, *i.e.* approx. 0.6%, giving a range of 2.5-5.5% for z. Figure 3.7 shows the price-to-rent ratio adjusted for various levels of user cost.

Box 3.1. **The price-to-rent ratio adjusted for the user cost of housing** *(cont.)*

Figure 3.7. **Price-to-rent ratio adjusted for the user cost of housing**

Annual data, average 1985-2010 = 100



1. The interest rate and the growth rate of potential GDP are calculated as three-year moving averages. The interest rate is the yield on 10-year government bonds plus 50 basis points.

Source: OECD, *OECD Economic Outlook 88 Database*.

StatLink http://dx.doi.org/10.1787/888932377656

* The link between the rise in residential property prices and nominal GDP growth is also apparent in a cross-section analysis of OECD countries, omitting Korea. For countries whose series are available between 1970 and 2009, the average annual rise in property prices and nominal GDP growth displays a linear correlation coefficient of 94% (which falls to 43% when Korea is included), with an almost unitary relationship.

interest rates that does not reflect the outlook for output growth (as a long-term proxy for increases in property prices) would expose the property market to a risk of a more or less severe correction.

Table 3.1. **Gross rate of return**

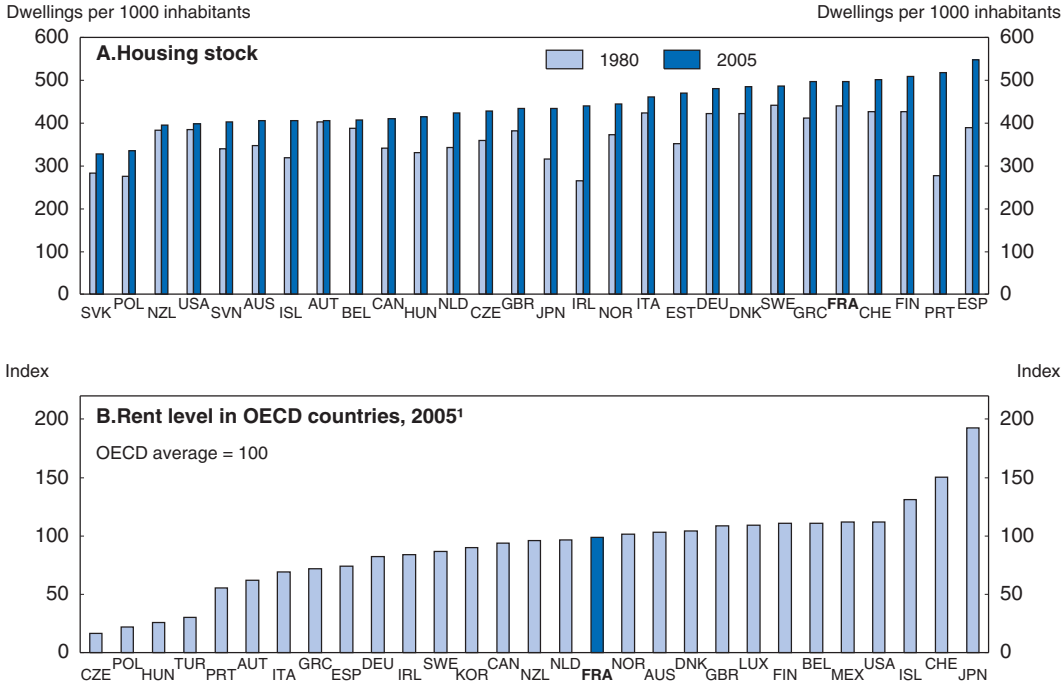
	Sale price	Rent (per year)	Gross rate of return[1]
	EUR/m^2	EUR/m^2	(%)
Paris	6 061	304	5.0
Marseille	2 739	154	5.6
Lyon	2 924	153	5.2
Toulouse	2 527	149	5.9
Nice	3 670	171	4.7
Strasbourg	2 534	144	5.7
Montpellier	2 308	137	5.9
Bordeaux	2 830	148	5.2
Average[2]			**5.7**

1. Ratio of rent price to sale price.
2. Average for the 37 cities for which data are available.

Source: FNAIM, April 2010.

A comparison with other OECD countries does not seem to support the idea that there is an aggregate shortage of housing in France or that rents are excessive (Figure 3.8), even though this conclusion does not exclude the possibility that housing supply and demand are poorly matched at the local level. Moreover, it is not certain that the increase in housing

Figure 3.8. **Descriptive statistics of housing**



1. Rent levels are compared in purchasing power parities. They show the value of the same volume of housing services expressed in the same currency of purchase. The rent levels take into account the differences in quality in terms of the size of units, the number of rooms and the availability of central heating.

Source: Andrews, D., A. Caldera-Sánchez and Å. Johansson (2011), "Housing Markets and Structural Policies in OECD Countries", *OECD Economics Department Working Papers, No. 836*.

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expenditure relative to disposable income or GDP is an appropriate yardstick. This increase implies that other components of demand, like spending on food and clothing, are reduced in relative terms. In a context where developed countries continue their secular trend towards de-industrialisation, fuelled to a considerable extent by productivity gains that are structurally more dynamic in manufacturing than in services, and thus automatically drive up the real price of services, it is probably sounder to measure housing expenditure against value added in the services sector. On that basis, Panel B of Figure 3.6 sheds a very different light, showing the ratio to have been almost stable since the mid-1980s.

The problem of poor housing remains, and inequalities with respect to housing costs are increasing

Although patchy, all the available data indicate that a significant share of the population – about 5.5%, or 3.4 million people – is still housed in unsatisfactory conditions (Fondation Abbé Pierre, 2010), using a relatively broad definition of poor housing. The marked improvement for the majority makes poor housing all the less acceptable, the situation of the homeless (who number approximately 130 000 according to Briant and Donzeau, 2011) being the most glaring manifestation of social exclusion. Although poor housing covers a variety of situations, from substandard residences to emergency accommodation and homelessness, the spread of new forms like year-round camping is recent.

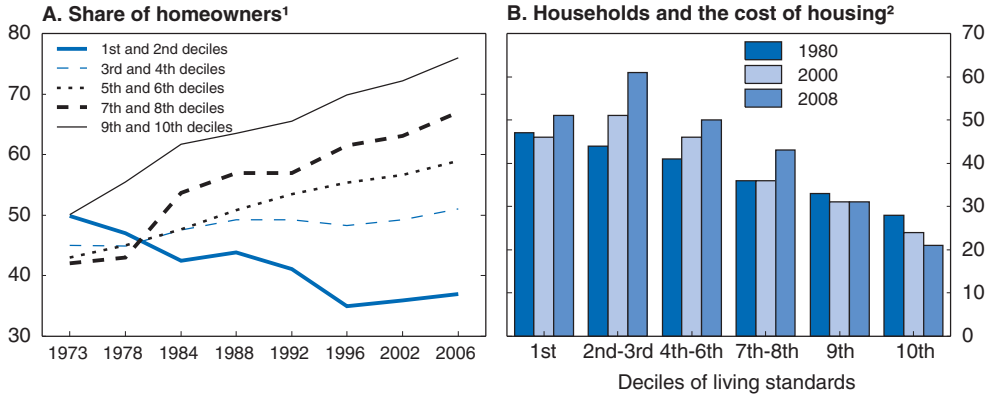
In many respects, the issues raised by the geographical concentration of housing for poor households go well beyond housing policies alone. A previous *OECD Economic Survey of France* (OECD, 2007) devoted a chapter to social exclusion and made the following recommendations regarding the means of resisting the geographic concentration of poverty and spatial hysteresis, which are relevant to the issue of housing:

- Continue policies designed to develop social housing in areas with adequate employment opportunities. Increase targeting of this housing on the poor, but maintain the goal of social diversity. Assess housing policy, giving consideration to its many different impacts, not only on financial resources. Continue efforts to support evicted families without counterproductive constraints on landlords.
- Simplify existing zoning systems, focus them more tightly, regularly assess their effectiveness, and drop them when they are ineffective. Direct aid to the individuals concerned.
- Ensure that mechanisms for allocating resources between different geographic areas give sub-national authorities the means to fight poverty according to their needs and that they do so efficiently.

Housing is thus at the heart of the social debate, especially given the difficulties of access to housing encountered by certain categories of the population (Jacquot, 2005). According to Driant (2008), a twin disparity has emerged following the rise in the cost of housing. The vast majority of households have benefited from the improvement of the housing stock, with homeowners also benefiting from increased wealth. But for those categories living in discomfort and unsanitary conditions, the situation seems to be getting worse. In addition, even among those who enjoy better housing conditions, the gap seems to have widened between those who can choose all the features of their dwelling, especially their location, and those whose financial resources restrict them to a partial choice, causing urban sprawl and concentrations of poverty. The sharp decline in mobility in the social sector, reflected in a fall in the annual tenant turnover rate from 12.6% in 1999 to 9.5% in 2008, highlights both the limited prospects of access to social housing for the most disadvantaged households and the rigidities weighing upon the residential mobility of the occupants of social housing.

Differences in tenure status according to income have likewise increased significantly (Figure 3.9). According to Fack (2008) and Briant (2010), more and more low-income households live in rented accommodation and find it increasingly difficult to get onto the housing ladder, even though the proportion of homeowners in the first two income deciles has stabilised since the mid-1990s (Figure 3.9). In fact, for 30 years now housing costs have represented an increasing burden for households with a modest standard of living, and over the last decade even the upper middle classes have begun to feel the pinch. Moreover, the pressure on the housing market is concentrated geographically: the housing ministry has identified 13 *départements* where the market is tight, which are located in the Paris region, the Côte d'Azur and along the Swiss border. In these areas, the anxiety inherent in apartment search is compounded by extreme selectivity on the part of landlords.

Figure 3.9. **Growing inequality**



1. Share of homeowners by income decile per unit of consumption, per cent of all households.
2. Share of individuals reporting that their housing costs are a burden, a heavy burden or a burden with which they cannot cope.

Source: Fack (2005, 2008), Panel A; CREDOC, enquêtes Conditions de vie et aspirations des Français, Panel B.

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Housing policies in France[3]

Housing markets depend to a considerable extent on the historical and institutional context of each country. Nevertheless, most housing policies in OECD countries have the same goal: ensuring decent housing for all according to their means. Other aims are associated with that core objective, such as promoting social mixing or making it easier for first-time buyers to get a foot on the property ladder. To achieve them, government policy includes a wide range of housing benefits, building subsidies, tax breaks, soft loans and regulations. In 2008, total direct public aid amounted to EUR 37 billion, or 1.9% of GDP (Table 3.2 and Figure 3.10). In any case, a prolonged rise in spending on housing as a proportion of GDP might generate something of a dilemma with respect to public policy,

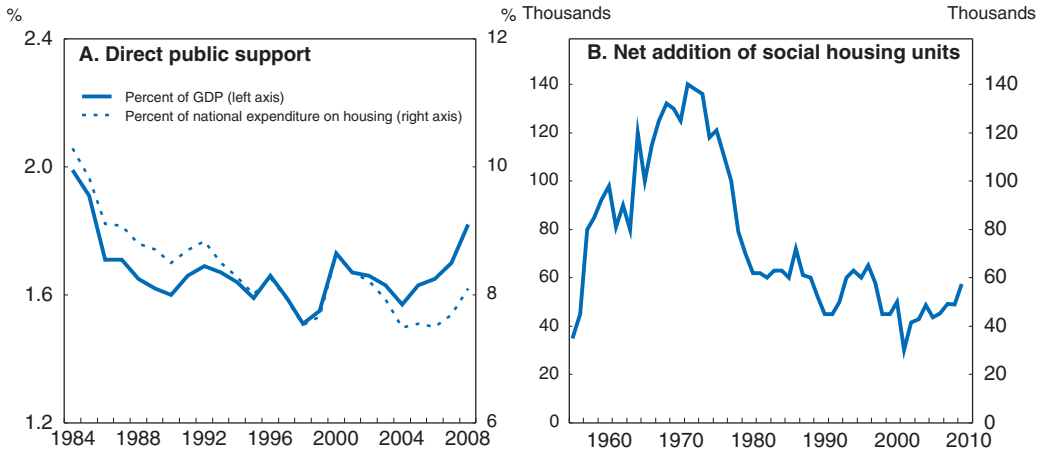
Table 3.2. **Government support to housing, 2008**

	EUR billion		EUR billion
Total	**37.1**	Exemption from residence tax	1.2
Individual housing allowances	***15.7***	Specific tax breaks for owner-occupiers	2.4
of which: First-time buyers	1.0	*Tax reduction for interest on loans*[1]	*0.2*
Tenants	14.2	*Tax credits for owner-occupiers' capital expenditure*	*2.2*
Subsidies and soft loans	***5.2***	Specific tax breaks for private landlords	2.1
Social housing construction	2.0	*Measures to encourage buy-to-let*	*0.7*
Rehabilitation	0.8	*Tax credit for improvements or capital expenditure for rental housing*	*1.3*
Zero-interest loans to first-time buyers	1.5	Specific tax breaks for social housing	2.2
Housing Action Loans	0.8	*Reduced VAT for investment in social rental housing*	*1.8*
Others, *of which* home savings loans	0.1	*Exemption from corporate tax*	*0.4*
Tax breaks	***16.2***	Exemption from undeveloped land tax	0.5
5.5% VAT rate for renovation	5.4	Reduction in transfer duties (compensation by central government since the 1998 reform)	1.6
Exemption from developed property tax	0.9		

1. The cost of this measure could rise to EUR 1.9 billion in 2011; even if it is likely to be suppressed in 2011, this measure will still affect public finances up to 2015.

Source: MEEDDM, *Housing Accounts* 2008.

Figure 3.10. **Government support for housing**



Source: MEEDDM, *Housing Accounts 2008* (Panel A); MEEDDAT/SESP (Panel B).

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since even devoting a constant share of GDP to public assistance would imply a dwindling level of support in relation to such spending and thus lower effectiveness.

The range of policy aims raises the question of their coherence and how they fit together. Promoting social mixing, for example, may conflict with the objective of ensuring housing for all according to their means, since poor households may be refused access to social housing for lack of space whereas households that could find housing in the private sector are admitted. Likewise, encouraging social housing (*e.g.* through the 2000 Urban Solidarity and Renewal Act) is compatible with encouraging first-time home ownership only at the cost of limiting the size of the private rental sector, even though it is the most fluid market segment.

Ensuring decent housing for all according to their means

The right to housing is the main thrust of Act 90-449 of 31 May 1990, which states that "guaranteeing the right to housing is a duty of solidarity for the nation as a whole". Act 2007-290 of 5 March 2007 on the right to housing (a right that can be asserted before the courts) reinforces the requirement on the government to provide decent housing for all according to their needs and means, moving from a best-efforts obligation to an obligation of results, guaranteed by legal remedies before the administrative courts if a household is not rehoused despite a favourable decision by a mediation commission. Over 170 000 applications to obtain housing have been filed since 2008 (the applications of some 50 000 households have been given priority status, and over 30 000 of them have been rehoused), and the monitoring committee regularly alerts the authorities to the growing number of households that have been given priority status but have not been rehoused within the statutory time limit.[4]

In the 1950s France launched a huge effort to make up for the housing shortage left by World War 2 and the accumulated lag in construction between the two wars, which could be attributed primarily to the rent freeze, now seen as a classic example of a well intentioned idea with disastrous consequences (Laferrère, 2004). In the mid-1970s, the government's decision to stop intervening directly and to allow the market to work more freely was a major turning point in housing policy. Residential construction subsidies gave

way to individual housing allowances (worth EUR 15.7 billion in 2008), which better target low-income households and were paid to 20% of all households in 2008. At first glance, it can be argued that the housing benefit has reduced the average share of disposable income devoted to rent for the poorest social housing tenants from 33 to 10% (Driant and Rieg, 2004). However, the effectiveness of these allowances has been limited by the slow response on the supply side: a substantial proportion of the benefit has merely fuelled rent increases, an effect that has persisted over the medium term (Fack, 2005).

Social housing, fragmented and with a low turnover rate, remains a major area of government intervention in the housing market, and the number of new social housing units made available seems to have rebounded since the trough of the early 2000s (see Figure 3.10, Panel B). Social housing operators may be from the public or the private sector; most of them operate locally and on a non-profit basis. Social housing is financed by soft loans funded by tax-free household saving schemes and is supported by a range of subsidies and tax exemptions.[5] The wide variety of subsidised loans causes a high degree of segmentation in the social housing sector, because the associated rent ceilings differ and are therefore not directed at the same category of households. The low rate at which tenants move out of social housing is due at least in part to the fact that rents are considerably lower than in the private sector and to tenants' right of security of tenure. Under certain conditions, for example, social housing units can be passed on directly to a member of the previous occupant's close family.[6] To counter the low turnover rate (9.5% in 2008, as against 18% in the private rental sector), since 2008 the rent supplement – *supplément de loyer de solidarité* or SLS – has been payable by tenants whose income exceeds the ceilings for social housing entitlement by 20% (the threshold used to be 40%), and the amount increases as household incomes rise. The Housing Act of 25 March 2009 also introduced measures to end the entitlement for tenants whose income exceeds twice the ceiling for two years. However, social housing providers have balked at implementing these measures, as to do so would deprive them of a stable source of revenue.

In order to encourage private investment in rental property, since 1984 governments have introduced a series of incentive measures, the most recent of which, the so-called Scellier scheme, is based on a tax reduction calculated proportionately to the property investment made, and which is open to landlords provided that they comply with certain conditions, such as rent caps and means-tested income limits for tenants. The measures encouraged the construction of 570 000 housing units between 1995 and 2009. The system has evolved in conjunction with the economic recovery plan, with better targeting linked to more generous tax incentives. Since its creation in 2009, the Scellier scheme, under which owners can initially claim a tax reduction equivalent to 25% of the value of their property (up to EUR 300 000), has been restricted to areas where the market is tight. The lessons of the previous system, criticised for leading to the construction of new housing in already saturated areas, have been learned. Housing improvement has been another area of ambitious government action, costing nearly EUR 7 billion in 2008, the main subsidy being the tax incentive of a 5.5% rate of VAT on renovations. Another objective of this measure was to boost activity and employment in a labour-intensive sector and to combat undocumented employment.[7] However, the use of such an instrument is questionable for it distorts the allocation of labour between sectors (Chapter 2).

Encouraging social mixing

The notion of social mixing has emerged in response to the growing concentration of poor people in disadvantaged areas, especially neighbourhoods with a great deal of social housing, where the proportion of tenants with incomes lower than the median had risen from 41% in 1973 to 68% in 2002 (Driant and Rieg, 2004). When poverty is concentrated in the same place it tends to persist, because people who live in poor areas do not have access to the social networks that could help their economic integration. In addition, the fact that some communes have resorted to free riding due to "NIMBY" (not in my backyard) attitudes shifts the effort required to supply low-cost housing elsewhere. These externalities lie behind government intervention to encourage social mixing. Introduced into law in the 1991 Urban Development Act, the social-mixing objective was confirmed in the 2000 Solidarity and Urban Regeneration Act, which institutes a 20% social housing requirement for all municipalities with more than 3 500 inhabitants. Municipalities that fail to comply are subject to a levy on their fiscal resources, but some prefer to pay the relatively mild penalties imposed by the Act rather than meet the requirement.[8]

However, achieving this objective in practice, a core policy concern, comes up against the need to house the least well-off households according to their means, which the housing ministry has to meet. For example, the introduction and subsequent toughening of the rent supplement scheme (SLS), which helps to increase mobility out of social housing, also makes it less attractive to the better-off. In addition, many players are involved in its allocation. In exchange for their financial assistance, central and local authorities and the social partners are allowed to reserve social housing and to select their priority candidates, who are not necessarily those who have the greatest need for social housing. In fact, social mixing remains limited, with a clear geographical separation between social housing for the poor and social housing for the better-off. The problems that flow from the spatial concentration of housing for the poor clearly go beyond the purview of housing policies alone. Besides, trying to combat urban segregation is challenging because it results from rational and independent social choices made by individuals (Fitoussi *et al*., 2004).

A proactive policy to promote home ownership

The government's resolve to promote home ownership is reflected in a wide range of subsidies and tax incentives. Individual housing allowances, received by about 11% of first-time home buyers, are granted either on a means-tested basis or to accompany a regulated loan. Before its reform in 2010, the zero-interest loan (PTZ), another means-tested measure, was the most costly in budget terms, the government assuming the interest payments.[9] As well, since 2007 taxpayers have been able to deduct part of the interest on loans taken out to acquire a principal residence from their income tax for five years. The measure is likely to cost EUR 1.9 billion in 2011 as the full effect works through. The fact that in addition capital gains on principal residences are tax-exempt and that imputed rent is not taxed also favour owner-occupation.[10] In 2010, the government decided to abolish the tax relief on mortgage interest and to extend the zero-interest loan scheme instead, removing the means test while restricting the scheme to first-time buyers. The revised scheme (PTZ+) is more heavily subsidised for low-earners, housing-shortage areas and purchases of new dwellings. The advantage accorded to new properties creates distortions between new and existing housing stock, but it may be justified in light of the sluggish response on the supply side (see below). On the other hand, an evaluation of the PTZ

showed that, while it does encourage property ownership, it also has a significant windfall affect drastically limiting the multiplier effect on residential investment (Gobillon and Le Blanc, 2005). These results suggest that the mechanism should be accompanied by an income cap, with general demand support even being potentially dangerous in the current context of rising property prices. It would have been desirable to have taken advantage of the reform to abolish state-subsidised loans linked to prior saving as well, as this distorts credit to housing (see below). More generally, it would be useful for the government to systematically produce studies on the effectiveness of housing policies and to present these to parliament on a regular basis.

Residential property taxation is a significant source of government revenue

Residential property is a significant source of tax revenue: actual revenue (*i.e.* without taking account of any compensation paid by central government to local authorities) linked directly to housing amounted to EUR 66 billion in 2008, approximately 7% of total tax revenue (Table 3.3). Three local taxes are based on rateable values. Residence tax (EUR 15.5 billion) is payable by the occupant of residential premises and is highly individualised, since it is subject to numerous allowances and exemptions linked to the taxpayer's income and family situation, with central government in some cases compensating local authorities. Taxes on developed and undeveloped property are payable by the owner (EUR 21.5 billion). Landlords' income from property rental is also taxed, yielding EUR 3.4 billion in revenue. Real property is also included in the assets on which wealth tax is levied. Transfer duties (a total of EUR 7 billion for both residential and commercial property) are payable on sales of property assets, and include cadastral tax, registration duties, and mortgage registry fees (see below). VAT on housing raises EUR 17 billion per year.

Table 3.3. **Housing-related tax revenues, 2008**

	EUR billion		EUR billion
Total housing-related revenue	**66.0**	**Revenue related to property transactions**	**7.2**
As percentage of total tax revenue	7.8	Cadastral tax (including mortgage registration)	0.6
Revenue from housing as a service	**41.4**	Mortgage registry fees	0.2
Residence tax	15.0	Registration duties	5.8
Developed property tax	20.0	Levy for assessment and collection costs	0.1
Undeveloped property tax	0.8	Capital gains tax on property assets	0.5
Portion of wealth tax levied on property assets[1]	2.1	**Value added tax**[2]	**17.0**
Tax on property-related income, *of which*:		On land	2.8
General social security contribution	3.3	On new residential properties	11.2
Contribution on rental income	0.1	On notary fees	0.4
Tax on vacant dwellings	0.02	On agency fees	0.5
Construction-related revenue (local development tax, etc.)	**0.5**	On improvements and major maintenance	1.9

Note: This table shows actual revenue. It does not include central government compensation to local authorities.
1. Estimate based on the property-related portion of the assets of households in the upper decile (50%).
2. VAT on energy and charges (EUR 10 billion) is not included.
Source: Compte du Logement and Rapport de l'Observatoire des Finances Locales, 2009.

Limiting distortions

The French housing market is affected by many policy-induced distortions, the scale of which is difficult to justify on the grounds of seeking to correct market imperfections. In particular, they concern segmentation of the rental market, private-sector rent controls,

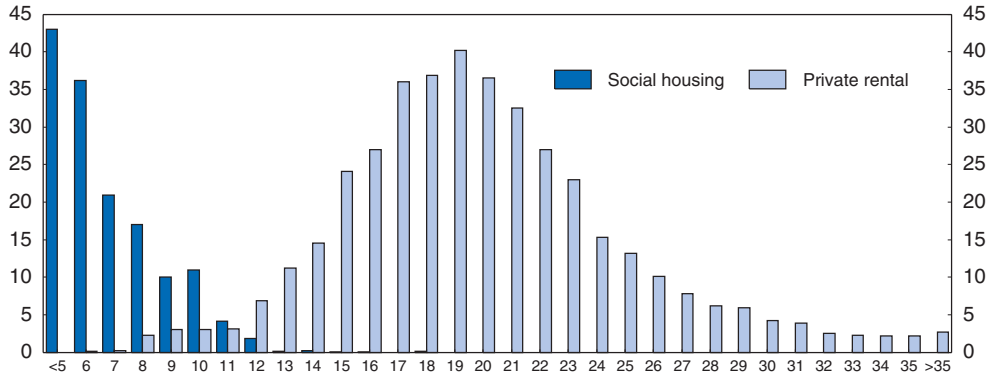
the unsuitability of rateable values and the tax treatment of different types of housing. Social housing, another source of distortions, is discussed later in the chapter.

Reducing the heavy segmentation of the rental market

The French rental market is split into two. Social housing accounts for 45% of the rental stock, with significantly lower rents than in the private sector, causing a high degree of segmentation. Average social housing rents are 60% lower than in the private sector, though the discount falls to 40% when differences in location and quality are factored in (Gilli, 2006; Trevien, 2008). That means that social sector rents receive an implicit subsidy of about EUR 11 billion a year, or 0.6% of GDP.[11] Figure 3.11 illustrates the resulting segmentation in Paris, where there is a glaring shortage of mid-priced rental units. That shortage appeared after institutional investors withdrew from the property market in the mid-1990s and could be the object of a re-focusing of subsidies for private investment in rental accommodation, in the spirit of the "social version" of the Scellier law, which has the lowest rent caps in the Scellier scheme.

Figure 3.11. **Distribution of rents in Paris, 2008**

Thousands of dwellings by monthly rent per square meter,[1] EUR



1. Classes of rent per square meter are simplified: class 10, for example, corresponds to the price range "more than EUR 9" and "less than EUR 10" per square meter.

Source: CREDOC (2010), *Les difficultés de logement des classes moyennes et les besoins de mobilité résidentielle*.

StatLink http://dx.doi.org/10.1787/888932377732

What are the consequences of this segmentation? On the basis of theoretical predictions confirmed by past experience of rent control, imposing artificially low rents reduces the quantity and quality of available housing. It creates excessive demand on such advantageous terms, discourages new construction, delays necessary maintenance of the existing stock, reduces residential and labour mobility, creates a mismatch between what there is and what people want, exacerbates discrimination, encourages under-the-table transactions, favours corruption and more generally short-circuits market-driven housing mechanisms (Arnott, 1995). Although rent control in one segment of the housing stock reduces total average rents, it tends to push rents up in the uncontrolled sector and restricts overall supply. Many of these consequences are probably to be found in France, except perhaps for the one relating to the number of available housing units, given the subsidies for social housing production that go together with rent control. A back-of-the-envelope calculation indicates that rent control in the social sector pushes private-sector rents up by 5%, reduces the total average rent by 1.3% and reduces the total number of available housing units by 1.3% (see Box 3.2).

Box 3.2. **Consequences of the segmentation of the rental market**

This box presents a stylized model for estimating the impact of rent control in the social sector on the level of rents in the private sector and on the total housing supply. The conceptual framework is that proposed by Marks (1984). Its main hypotheses are the following. The housing market comprises two sectors, one that is subject to rent control (social housing, in the present case), while the other is the free sector. In the absence of controls, the market rent level would be R_0, and total supply would be $S = S^c + S^u$, where S^c and S^u are supply in the regulated and free sector, respectively. The elasticity of supply with respect to rent is assumed to be identical in the two sectors and is represented by ε. Rent control has the effect of lowering rents from R_0 to $R_1{}^c$ in the social sector, which generates excess demand in this sector and raises rents from R_0 to $R_1{}^u$ in the free sector. By expressing rent changes, $\overline{R}^k = (R_1{}^k - R_0)/R_0$ for $k = c, u$, the total effect on supply becomes: $dS/S = S^c/S^*(\overline{R}^c + S^u)/S^*\overline{R}^u = \varepsilon[c\overline{R}^c + (1-c)\overline{R}^u] = \varepsilon\overline{R}^u$, where c is the proportion of social housing and $\overline{R}$ is the average change in rents due to regulation. Marks (1984) shows that $\overline{R}^u = -c\overline{R}^c/(1-c) + \eta\overline{R}^c > 0$, hence $\overline{R} = c\eta\overline{R}^c/(1-c) + \eta\overline{R}^c < 0$ and $dS/S = \varepsilon\overline{R} < 0$, where η is the elasticity of demand for housing: rent control boosts rents in the free sector and lowers average rents, at the cost of restricting supply. The increase in free-sector rents will be greater if the proportion of social housing is high, if rents in the social sector are low and if the elasticity of demand is weak. Table 3.4 provides orders of magnitude for the impact of rent control as a function of different levels of elasticity, empirically estimated. The estimates are obtained by calibrating the model on the basis of a gap between housing rentals in the social and the free sectors (correcting for quality) of $\overline{R}^u - \overline{R}^c = 40\%$ (*cf.* text). In the first three columns, the proportion of social housing c is equal to that observed, or 16 % of all housing units (assuming that the relationship between free-sector prices and rents is consistent) while in the last column it is set at 40%, which represents the share of social housing in the rental market.

Table 3.4. **Effect of rent controls in the social sector on rents in the private sector and on total housing supply**

	$R^u - R^c = 40\%$			
	$c = 16\%$			$c = 40\%$
	$\varepsilon = 1$ $\eta = -0.75$	$\varepsilon = 0.5$ $\eta = -0.75$	$\varepsilon = 1$ $\eta = -1.5$	$\varepsilon = 1$ $\eta = -0.75$
Social sector rents	**–34.9%**	–34.9%	–35.8%	–26.7%
Free sector rents	**+5.1%**	+5.1%	+4.2%	+13.3%
Average rents	**–1.3%**	–1.3%	–2.2%	–2.7%
Total supply	**–1.3%**	–0.7%	–2.2%	–2.7%

There are two forms of public support for social housing in France, *i.e.* production subsidies and means-tested individual allowances. The respective balance between these two types of intervention should be re-examined, for a vast amount of empirical research shows that the former is a source of both inefficiency and unfairness in comparison with the latter (Olsen, 2002 and 2009). Studies put the excess cost of the subsidised production approach at between 10 and 90%, implying that many more households could benefit from housing allowances for the same amount of money. This cost-inefficiency arises because the incentives for builders of social housing to be more efficient are insufficient, because

there is a mismatch between supply and demand, because the existing stock is inadequately maintained, etc. Acting on the price of housing services seems to be an expensive way of achieving the social objectives of housing policy.

Moreover, whereas a means-tested personal benefit system appears to be fair and gives recipients greater freedom of choice, the way social housing currently works and rental regulations in the private sector are doubly unfair. First, because they are not properly targeted they do not necessarily benefit those most in need. Indeed, it is estimated that the supply of low-rent housing is approximately 3.2 million units, broken down into 2.5 million units in the social rental sector and 700 000 in the private rental sector. This supply should be quantitatively sufficient given 2.8 million poor tenant households, *i.e.* those whose income is 60% below the median income. However, this housing is not necessarily occupied by poor households, for the 2006 National Housing Survey showed that in the social sector, only 900 000 households out of the 1.4 million poor tenants were in the 2.5 million low-rent housing units, and that in the private sector, only 200 000 households out of the 1.4 million poor tenants lived in the 700 000 low-rent housing units. Second, the segmentation of rents encourages excess demand while creating an artificial gulf between those who get social housing and others. The financial advantage to the beneficiaries is considerable: for a household that stays in its unit for 15 years, the discounted implied benefit amounts on average to about EUR 24 000, or 15 months' median net salary. However, in areas where the market is very tight, construction subsidies combined with rent caps may be preferable in order to prevent the individual subsidies from being captured by landlords through rent increases.

Revising the rent index

There are no restrictions on rents for new leases in the private rental market. In contrast, rents under current leases may not be increased by more than the rise in the benchmark rent index (IRL), published by INSEE, which corresponds to consumer price inflation excluding tobacco and rents over the latest 12 months. Having replaced the cost of construction index in January 2006, the IRL has the twin aim of moderating rent increases at the annual rent review and limiting their volatility. This method of rent regulation is often called "second-generation control" (Arnott, 1995), and its effects are very different from those caused by a stricter control of all rents as was applied in France, for example, between 1914 and 1948. This less strict regulation of rents is usually justified by the wish to protect tenants from sudden sharp variations in their housing costs. Such variations may either be "natural", *i.e.* dependent on economic conditions, or result from a market imperfection caused by the high level of mobility-related costs, which gives landlords a monopolistic market power that they could exploit if there were no controls.

However, while judicious regulation may be useful, it should not contribute to the segmentation of the rental market. With the benchmark rent index as currently defined, a structural shift in relative prices reflected in a real rise in rents is not passed on to rents under current leases. There are provisions for adjusting rents to market trends when the lease is renewed, but they are difficult to apply.[12] Altogether, according to recent OECD estimates, the degree of private-sector rent control is relatively high in France (Andrews *et al.*, 2011). Consequently, at a time of structural shift in rents relative to consumer prices for goods and services, which is the underlying trend at present, index-linking rents restricts the residential mobility of tenants with a current lease, puts the burden of the natural rise on the new leases, probably limits the supply of housing and increases the

overall level of rents (see Basu and Emerson, 2000). When landlords internalise these constraints, they tend to set rents under new leases at a higher level in order to make up for the potential revenue shortfall from slower rent increases during the lease. In this case, tenants who have to move, for professional reasons for example, suffer the consequences of the distortions generated by this index. The situation may therefore lead to weaker adjustment in the labour market and a higher level of structural unemployment. The recommendation is therefore to opt for an index based on the trend of new rents, smoothing it in order to avoid sudden sharp variations.[13] The beneficial effects of such a measure would be enhanced if rent indices were available at a sufficiently localised level.

Updating rateable values

Updating property values for tax purposes should be a policy priority for reasons of both fairness and efficiency. Land taxes and the residence tax are currently assessed on elements of comparison derived from the reassessment of property values carried out in 1970 for developed land and in 1961 for undeveloped land. Rateable values are just updated each year by applying a uniform coefficient that fails to take account of spatial variations. Yet in some cases the values of the assets have evolved very differently within the same jurisdiction, leading to substantial gaps with the relative levels of taxation, and hence to substantial transfers of liabilities between taxpayers that are sources of injustice and distortions.[14] Tax bases more in line with the real value of property also create healthy incentives for local authorities to develop appropriate infrastructure and amenities. A general revision of rateable values was prepared in 1990 but was not applied because of strong opposition from insiders, *i.e.* those who would have faced a sharp rise in their tax bills. The simulations carried out at the time indicated that the introduction of new bases would result in most cases in a redistribution from the best-off taxpayers to the less well-off (Conseil des prélèvements obligatoires, 2010). From this standpoint, the current system based on out-of-date rateable values is regressive.

In France, methods for estimating rateable values are based on a cumbersome procedure and obsolete criteria, meaning that a switch to regular revaluation would require a simplification of the process. Many countries manage to overcome the obstacles to regular updating linked to property market trends: for example, Denmark, Iceland, Japan, Korea, New Zealand, the Netherlands, Norway and Sweden revise their rateable values at less than three-yearly intervals (Andrews *et al.*, 2011). In order to avoid excessive revenue volatility, a tax base more closely linked to current market values should be smoothed over a few years.

Moving towards fiscal neutrality

In France, as in most OECD countries, taxation favours the housing sector inefficiently, and principal residences in particular (non-taxation of imputed rents, no capital gain tax), *i.e.* to the detriment of other sectors and assets and hence of national income. It may, for example, contribute to excessive consumption of housing services and weaken non-residential investment, thus potentially fuelling property asset inflation until bubbles appear. Renovation and maintenance work benefits from an unjustifiable tax expenditure with a 5.5% reduced rate of VAT, one of the objectives of which is to support the building industry. In contrast, most new housing is liable to the 19.6% standard rate of VAT (though it is not subject to registration duty), but the detail of the taxation arrangement highlights the fact that the same property may be taxed several times. In some cases, if the property is resold less than five years after completion, it is again liable to VAT (with a reduced rate

of registration duty), meaning that the same property may be taxed several times. Next, the five-year threshold encourages owners to wait for the deadline before selling their property and may thus curb residential mobility. A preferable solution would be to charge VAT on the property once only, on first sale, whatever the date. If the intent in the current measure is to discourage short-term speculation, it would be better to eliminate the liability for VAT progressively over time so as to avoid the five-year ratchet effect.

The non-taxation of imputed rents in France also induces distortions because it influences investment decisions in favour of owner-occupation, to the detriment of buy-to-let, for which rents are taxed. Only Belgium, the Netherlands, Norway and Sweden (with a ceiling) tax imputed rents, and even there the tax base tends to underestimate the value of implicit rents. Non-taxation should imply doing away with tax relief on mortgage interest for owner-occupied properties, and from this standpoint the French government's decision to scrap the tax credit on mortgage interest from 2011 is welcome. Although there are arguments based on the positive externalities induced by owner-occupation that could justify subsidising it in relation to buying to let, they are hardly compelling (Andrews *et al.*, 2011). The distortion is considerable, since imputed rents represent more than 6% of GDP in the national accounts. The implicit tax subsidy at the marginal rate of taxation is therefore substantial. The two types of residential investment should be treated more similarly by imputing to owner-occupiers the implicit rent they pay themselves, perhaps applying a discount (20%, for example) to take account of the uncertainty connected with calculating the imputed rent and possible externalities.

How should the parameters of the taxation of imputed rents be determined? They should be defined neutrally in relation to investments in financial assets (Box 3.3), provided that the tax is levied on the net yield of the property asset, *i.e.* the received (or implicit) rent minus financing, maintenance and depreciation costs. The problem of fiscal neutrality between asset classes is complicated in France by the heterogeneity in the taxation of savings, which raises the broader issue of its reform (and also, as in many other countries, by the dispersion in property taxation inherent in its local nature). Indeed, tax measures exist that make it possible to significantly reduce the tax liability on long-term savings. The ideal solution would be to tax income from capital and capital gains in the same way across all assets.

However, implementing a system for taxing imputed rents raises a number of thorny practical issues.[15] Where a country has a sound system for assessing rental values, the simplest solution would be to convert the taxation of rental income into an ownership tax, whether the owner is landlord only or occupant as well, and to scrap the taxation of rental income. Thus, as an example, taking as a basis a gross rental yield of 5% of the value of the asset and aggregate depreciation and maintenance costs of 3%, the tax base would be 2% of the value of the property (or 40% of the annual rental value, since 40%*5% = 2%) minus interest charges, which would be taxed at the going rate (*e.g.* 28% for the withholding tax). This new layer of the property tax should be uniform nationwide.

Similar reasoning could be applied to capital gains, but taxing capital gains on the principal residence may discourage mobility, creating lock-in effects. To avoid this pitfall, capital gains on the principal residence are deferred in Portugal, Spain and Sweden, provided that they are invested in another principal residence, but only up to a certain threshold in Sweden, beyond which they are taxed immediately. However, a scheme of this sort may encourage overconsumption of housing in relation to needs that tend to diminish

Box 3.3. **Optimal taxation with housing**

Fiscal optimality seeks to maximise social utility for a desired level of tax revenues. The aim is therefore to strike a balance between efficiency and equity, taking account of any distortions induced by taxation. Ramsey taxes meet the efficiency criterion in a framework limited to the taxation of commodities and that ignores differences between individuals. The optimal solution in that case is to tax at a higher level commodities that have weak demand and supply elasticities, thus introducing into the optimum an element of fiscal non-neutrality between commodities. That is the standpoint from which taxes on real property and successions are generally regarded as "good", weighing little on economic growth, insofar as the tax base is relatively inelastic to tax rates.

However, when equity criteria are taken into account and the government has other instruments at its disposal, like income tax, it becomes optimal to use income tax for redistribution purposes and to tax commodities homogeneously (Atkinson and Stiglitz, 1976). In addition, the customary prescription is to not tax physical capital because it discourages investment, introduces through time growing distortion between present and future consumption and is pernicious, given the high sensitivity of the tax base to rates (Mankiw *et al*., 2009). Recent research taking account of the life cycle of agents and credit restrictions give less clear-cut results concerning the non-taxation of physical capital (see, for example, Conesa *et al*., 2009). Moreover, these discussions take no account of housing, still less its specific character as a consumer good and medium of investment.

As far as housing is concerned, the first source of distortion generated by the tax systems of most OECD countries concerns the non-taxation of imputed rents (sometimes coupled with tax relief on mortgage interest), whereas rental income is taxed. Gervais (2002) and Nakajima (2010) show that this omission has a substantial negative impact on well-being. The second source of inefficiency may arise from differences in the taxation of property, consumer goods and other assets. This is an important problem since property represents a substantial proportion of the capital stock (about 40% in the United States, for example; in France, immovable property represents 60% of household assets). Tax neutrality between consumption of housing services and consumption of other goods, and between income from property and income from other assets therefore seems desirable (Eerola and Määttänen, 2009).* Given that it is difficult in practice to levy VAT on rents (paid or imputed), the best solution is to charge the standard rate of VAT on new buildings and maintenance and renovation expenditure, as is the case for many durable goods (Metcalf, 2006).

* More specifically, this result is established for a Ramsey-type approach and a model class including a Cobb-Douglas utility function between housing and other consumer goods. In a more general framework, the optimal rate for the taxation of housing consumption is highly sensitive to substitution elasticities between housing, other commodities and leisure.

with age. To improve matters, taxes on capital gains would have to be payable on death, as is the case in Canada, for example.

Making the housing market more fluid and transparent

Enhancing fluidity in the housing market ought to be an important public policy goal in order to promote a more smoothly functioning market and also to enable a better allocation of the labour force in line with economic developments. To this end, the priorities for France should be to reduce transactions costs and improve the supply response, as well as to foster the appropriate degree of residential mobility, rebalance landlord-tenant relations and improve statistical information about the state of the market.

Reducing transactions costs

Compared with other OECD countries, transactions costs in France appear to be particularly high (Andrews *et al.*, 2011), with a property purchase/sale costing on average around 12% of its value for transactions carried out using the services of a real estate agency. These costs are determined by the level of taxation (transfer tax), the regulatory environment (notary fees) and the amount of competition (agency commissions). They add to the already high costs of residential mobility (house-hunting, removals, etc.).

However, transactions costs are a source of inefficiency, since it would be less detrimental to tax income from assets (financial or real estate) than the transactions for the acquisition of those assets. As levies on income and consumption, those on transactions discourage property purchase, but they have the additional impact of causing lock-in effects and deterring transactions that might achieve a more efficient allocation of assets in response to changes in the economic environment or other developments, for example by restricting residential mobility to areas with buoyant labour demand (Johansson *et al.*, 2008). Empirical estimates suggest that a reduction in transactions costs of 1 percentage point would increase owner-to-owner residential mobility by 8% (van Ommeren and van Leuvensteijn, 2005).

It would make sense therefore to shift the tax burden from transactions onto property. To do so, it would be necessary to continue to reduce substantially the registration fees that are currently set at 5.1% (compared with 8% on average in 1999) and to increase property tax in parallel. The components of transactions costs associated with compliance with regulations and competition are dealt with below.

Improving the housing supply response

Having a housing supply that is not very elastic in the long term to housing prices is unhelpful, because shocks that stimulate demand, such as those seen in France over the past 20 years, ultimately trigger a rise in property prices, rather than an adequate response over time and space in terms of the number of houses built. A strong supply response is thus a key factor in enabling the smooth functioning of the market, which is best left unhindered by complex and unnecessary regulation. According to recent OECD estimates, housing supply elasticities vary substantially across member countries, and France is characterised as having a weak response, in absolute terms and relative to North America and the northern European countries (Andrews *et al.*, 2011). In the literature, the following factors are cited as contributing to low elasticity of supply: population density, planning regulations, difficulties obtaining credit encountered by building companies, low levels of competition in the economy and the absence of a skilled labour force in the construction sector (Andrews *et al.*, 2011).

Planning restrictions are useful for communities in that they take account of the negative externalities of new building. In the best-case scenario, they restrict housing supply in the interests of the collective well-being, but in so doing they increase property prices. By their very nature, they lie at the heart of the conflict of interest between "insiders", those that stand to see the price of their assets fall if planning restrictions are relaxed, and those who are excluded by such regulation. There is a risk that "insiders" may hijack regulation to serve their own ends by putting pressure on local elected representatives, thus capturing the effect of any rise in demand on prices. Recent

OECD country surveys on Denmark, Finland, the Netherlands and Sweden suggest that zoning regulations may contribute to increases in property prices.

The lack of consistency between local urban planning and housing policy instruments is a frequent target of criticism. While there is no shortage of land in France, where population density is low relative to other European countries, building permits are an important aspect of planning policy. The October 2007 planning reform bill seems to have simplified building permit procedures and to have made planning laws clearer (MEEDDM, 2010). However, while housing policy has been implemented since 2004 at the inter-communality level, ensuring that it is consistent over an area that stretches beyond the commune, responsibility for granting building permits continues to fall to the commune. This situation can lead to "free-rider" behaviour, whereby municipalities bank on construction taking place in neighbouring communes, ultimately restricting aggregate supply (the "Not In My Back Yard" or NIMBY syndrome).

It is thus necessary to continue in the spirit of the abovementioned reforms and, as discussed in the framework of the Grenelle II forum (see Chapter 4), to extend inter-communal control to include building permits and the local land-use plans. It is necessary to go further and have the State through its prefects force communes to raise their planning land-use coefficients where these are too restrictive (Mistral and Plagnol, 2008). With regard to the greater Paris area, the relevant level of government is probably that of the region, where there is a need for improved governance on housing policy. Finally, some municipalities levy a tax on owners of vacant dwellings, but it brings in only EUR 18 million per year, despite a vacancy rate that is historically low but nevertheless stands between 6.4 and 8.8% depending on the source. This vacancy rate is often considered to be mainly of frictional origin and to be very low in areas where the market is tight. However, the scope of application of the tax might be broadened, in particular the two-year period of vacancy required before the property is subject to the tax might be reduced.[16]

The Council of State (2009) has attacked the disorderly build-up of new legal, technical and environmental requirements applying to owners: for causing an increase in new housing prices, rents and fees; for hastening the obsolescence of older housing stock; for lengthening construction times; for excluding the poorest groups of the population from housing; and, ultimately, for causing a supply shortage. It has also noted that the blanket application, without an impact study, of the law on disabled access to new buildings from 2012 has translated into an inefficient requirement for additional surface area. According to the Council of State, it is the view of many observers that the preference in France for universal regulation and detailed technical standards seems to lead to the most expensive solution with the heaviest administrative burden. The report asks whether the rise in inadequate housing and homelessness coincides with the stricter requirements in terms of decent housing, building standards or levels of comfort. According to estimates by the Directorate-General for Urban Development, Habitat and Construction (see Conseil d'État, 2009), the additional costs incurred as a result of technical standards in 2006/07 for new housing stock, for example, ranged from 4.5 to 17% (from 1 to 3% for energy, from 5.5 to 6% for disabled access, from 1 to 3% for termites and from 1 to 5% for earthquake prevention). Hence, it recommended to bring this process back under control and to systematically conduct regulatory impact studies *ex ante*.[17]

Promoting residential mobility

Residential mobility is an important factor in labour mobility, which in itself can enable the economy to adjust more rapidly to shocks and, in this way, sustain total employment. France does not appear to stand out relative to other EU countries in terms of having a particularly low level of residential mobility (Caldera Sánchez and Andrews, 2011; Janiak and Wasmer, 2008). However, as in most OECD countries, the degree of mobility of the population is linked to occupancy status: owner-occupiers are far less mobile than social-housing tenants, who in turn are less mobile than private-sector tenants. The impact of occupancy status is slightly more marked in France than in the other OECD countries, with the exception of the United States (Table 3.5). The usual pattern, which is robust across countries, can be attributed to the high transactions costs of property acquisition and to the rent advantage granted to social-housing tenants. Of course, the causal connection could be the other way around: those who are in a more stable position, who have no real plans to move, in particular for work-related reasons, are more inclined to become property owners, all things being equal, especially since this stability affords them more time to recoup the transactions costs. The estimates also show that, in France, a low level of educational attainment appears to constitute a larger obstacle to mobility than in most other countries (Table 3.5). In the light of these stylised facts, it becomes more difficult to justify providing subsidies to promote home ownership instead of offering assistance to individuals to find rental housing in the private sector, particularly given the high transactions costs.

Table 3.5. **The effect of household characteristics on residential mobility**

Estimates from probit regressions[1]

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	France	Belgium	Germany	Spain	Sweden	United Kingdom	United States
Outright owner	**–0.198*** **	**–0.070*** **	**–0.144*** **	**–0.135*** **	**–0.114*** **	**–0.111*** **	**–0.197*** **
	(0.013)	**(0.014)**	**(0.012)**	**(0.014)**	**(0.020)**	**(0.014)**	**(0.004)**
Owner with a mortgage	**–0.155*** **	**–0.075*** **	**–0.080*** **	**–0.072*** **	**–0.105*** **	**–0.134*** **	**–0.216*** **
	(0.015)	**(0.016)**	**(0.012)**	**(0.013)**	**(0.020)**	**(0.023)**	**(0.006)**
Social/subsidised tenant	**–0.097*** **	**–0.046*** **	**–0.058*** **	**–0.041*** **	**0.000**	**–0.092*** **	**–0.059*** **
	(0.015)	**(0.016)**	**(0.017)**	**(0.007)**	**(0.056)**	**(0.014)**	**(0.010)**
Age 35-44	**–0.135*** **	–0.071***	–0.117***	–0.033***	–0.121***	–0.096***	–0.093***
	(0.013)	(0.012)	(0.011)	(0.008)	(0.017)	(0.013)	(0.005)
Age 45-54	**–0.166*** **	–0.108***	–0.148***	–0.052***	–0.183***	–0.147***	–0.150***
	(0.014)	(0.012)	(0.011)	(0.007)	(0.015)	(0.011)	(0.005)
Age 55-68	**–0.149*** **	–0.098***	–0.200***	–0.051***	–0.215***	–0.162***	–0.175***
	(0.012)	(0.009)	(0.011)	(0.006)	(0.015)	(0.010)	(0.005)
Low education attainment	**–0.075*** **	–0.039**	–0.001	–0.005	–0.014	0.100***	–0.026***
	(0.019)	(0.016)	(0.020)	(0.009)	(0.025)	(0.034)	(0.009)
Middle education attainment	**–0.038** **	–0.037***	–0.017	–0.019**	–0.052***	0.074***	–0.002
	(0.015)	(0.013)	(0.013)	(0.009)	(0.017)	(0.014)	(0.006)
Number of observations	**5 574**	2 450	14 804	5 718	3 495	3 430	28 969

Note: Dependent variable: 1 if the head of household changed residence during the last two years; 0 otherwise.

1. Values are marginal effects. The coefficients correspond to the impact of a change in the explanatory variable on the probability of moving estimated at the average of the independent variables. The control groups are households renting in the private sector, young people and people with high education attainment. Regressions also include a large set of control variables; *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Source: Caldera-Sánchez, A. and D. Andrews (2011), "To Move or not to Move: What Drives Residential Mobility Rates in the OECD?", *OECD Economics Department Working Papers*, No. 846.

Recent OECD estimates show that cross-country variations in residential mobility are linked to public policy (Caldera Sánchez and Andrews, 2011). Residential mobility would be higher if real estate transactions costs were lower, if the housing supply were more elastic and if regulations governing rent control and landlord-tenant relations were more flexible. Of course, residential mobility is not an end in itself, and some regulations are even aimed at avoiding excessive mobility. Nevertheless, when such regulation becomes too onerous, it can impede labour-market performance. In this way van Ommeren and van Leuvenstejn (2005) show that high transactions costs create lock-in effects and limit labour mobility. Janiak and Wasmer (2008) find that housing-market restrictions, measured in terms of strong tenant protection, have quantitatively significant impacts on the unemployment rate in the event of negative labour-demand shocks.

Rebalancing landlord-tenant relations in order to promote investment

France is among the countries in which tenants benefit from the most protection in terms of rent control (see above), clauses on the duration and extension of rental contracts, and eviction procedures. This landlord-tenant balance arose out of reforms implemented during the 1980s. Wasmer (2008) supports the view that, although it responded to legitimate concerns, the *status quo* achieved by means of this body of laws is inefficient. Based on a comparison with Québec, Wasmer maintains that other accommodating relations between tenants and landlords are possible, which ensure a more fluid, and in certain respects, more equitable housing market. According to Wasmer, the way in which the rental market functions in Québec allows for moderate rents, high levels of mobility and the absence of distrust and problems on first contact, which means that accommodation can be rented even where the tenant is not a permanent resident or is not yet employed.

The starting point is to acknowledge that part of the population experiences difficulties securing access to housing. Insofar as the procedures for evicting a non-paying tenant are cumbersome, long and unpredictable – the courts are overwhelmed and do not have the power to enforce the eviction of a tenant – they breed negative incentives. Landlords react to the uncertainties surrounding rent recovery by conducting rigorous screening of tenants, despite the limitations provided for by law since 2009 (restricting the number of supporting documents required and reducing the amount of the security deposit to be paid from two months' to one month's rent), sometimes through objectionable discrimination, or by raising rents or limiting the supply. They tend to favour tenants with labour contracts of indefinite duration, which in turn increases the social demand for employment protection legislation (Decreuse and van Ypersele, 2010). Moreover, tenants acting in bad faith, who know how to work the complex system, may turn protection to their advantage. Instead, the principle should be that landlords who want to recover their properties for legitimate reasons, such as non-payment of rent, be able to do so very quickly: even though it is essential to avoid situations where families end up without housing as a result of eviction, it is the responsibility of the state to put in place emergency measures in order to avoid social and human tragedy.[18] As with flexicurity in the labour market, the objective of public intervention should be to secure tenants' access to housing rather than housing itself.

The need to reduce the time taken to resolve landlord-tenant disputes leads to two types of recommendations. First, in line with the conclusions drawn in the Pinte Report (2008), it is necessary to improve prevention measures before a case comes before a judge, who is not necessarily best placed to deal with the – inherently social – problem of re-housing tenants in accommodation that matches their capacity to pay. To achieve this, the

emphasis should be placed, in particular, on pinpointing precarious situations and notifying the authorities and insurance companies about past-due payments at an early stage (Conseil d'État, 2009). Second, where prevention measures have failed to head off the non-payment of rent, it is then above all a case of ensuring that owners can quickly recover their property. In order to shorten the recovery time and speed up the legal process, Wasmer (2008) advocates the following: establishing a single legal counterpart (as opposed to a situation in which the functions of the trial judge are juxtaposed with those of the execution judge); abolishing the winter moratorium on evictions between November and mid-March (tenants often stop paying rent in October); eliminating the complex court order procedures to pay so as to shorten the period leading up to the breach of the tenancy agreement; and proceeding with eviction within two weeks of breach of the tenancy agreement. In return, since tenants would no longer be able to remain in housing for an extended period without paying, landlords should not be allowed to demand either complex guarantees or deposits. Finally, responsibility for those people who cannot pay should be a matter of national solidarity, rather than falling to private landlords. In offloading the problem onto landlords, the state is exacerbating the housing shortage. Article 57 of the Mobilisation for Housing Act of March 2009 reduces to one year the maximum additional time that a judge can stay an eviction and thus already constitutes a step in this direction.

One challenge associated with this type of reform consists of how to manage the transition towards a new equilibrium, in the sense that, in the short term, more households may be forced to leave their accommodation in what is already a tight situation, with landlords not yet having changed their behaviour. It is first necessary, temporarily, to ease tensions in the housing market by developing the low-cost sector and significantly reducing the risk shouldered by landlords by automatically and quickly insuring them against losses (Wasmer, 2008). The Council of State also highlights the importance of building temporary low-cost housing units, such as the wooden houses proposed by Emmaüs France for a total unit price of around EUR 10 000; however, it stresses that acknowledging whether such housing could constitute a solution to the problem (which otherwise risks remaining insoluble) and working with local elected representatives to find locations where they could be built are primarily political issues. This type of scheme should initially be piloted in a few regions. It should also be formulated in conjunction with measures tasked with increasing mobility of tenants in the social housing stock, in particular by speeding up the exit of those whose income exceeds the ceiling set.

The *Garantie des Risques Locatifs* (Tenancy Guarantee Scheme – GRL), which was established under the impetus of the social partners, is aimed at making it easier for low-income households to access private-sector housing stock in areas of excess demand by insuring landlords against the risk of tenant default. In January 2010, the scheme was reformed and extended: all tenants whose effort ratio is lower than or equal to 50%, whatever their profile, are eligible for the GRL. The GRL is offered by insurance companies and is aimed at private-sector landlords who rent out unfurnished or furnished housing units for which the rent and additional costs and taxes are no more than EUR 2 000 per month. It insures landlords against the rental risk (default risk, degradation, litigation) up to an amount of EUR 70 000. Housing Action, managed by the social partners, and the government compensate insurers for the high delinquency rates of risky groups (*i.e.* that cannot be insured by the tenant default insurance market). The original measure seems to have had mixed success due to some forms of adverse selection. Indeed, the insurance

companies use this arrangement only for the highest levels of risk, making it a very expensive subsidy. Moreover, in areas of excess demand, where the need is greatest, landlords are able to undertake strict screening in order to protect themselves against risk.

Improving statistical information

Good-quality statistical information on housing is essential for ensuring that the market is transparent, fluid and, in general, functions smoothly. Moreover, by diminishing the problem of asymmetrical information among the various players, it also leads to more efficient and equitable transactions. The *Conseil national de l'information statistique* (National Council for Statistical Information – CNIS) recently submitted a report that criticised the status of statistical information on housing and construction and put forward proposals for improvements (CNIS, 2010). The report reveals large gaps in the available data: where they exist, access to them is hindered by government departments and by national statistical authorities, even where they are destined for use by local authorities, which have a growing role in housing policy. Moreover, this situation is not consistent with the underlying logic of the Act of 17 July 1978 on free access to administrative documents and the re-use of publicly held information. The CNIS thus recommended removing the obstacles to accessing personal data where these have been previously made anonymous in line with the right to privacy, as set out in the law. In Germany, where it is compulsory to report rents, local authorities are responsible for publishing the rents charged for all housing categories according to the year of construction, fittings and state of upkeep.

An amendment to the bill on the modernisation of the regulated legal professions, approved in July 2010, is a step in this direction. It aimed to provide the information required to create a leading indicator (the first publication of which occurred in December 2010) based on notarial records of "undertakings to sell", which are preliminary contracts preceding the sale by around three months on average; this enhances the quality of current property market monitoring. This could be taken further by providing individuals with free access to the statistics gathered by notaries once they have been checked for privacy concerns. More generally, since the conditions governing access to these data are recognised by the European authorities as a mission of public service, they cannot be left up to the goodwill of professional associations. In addition, the CNIS (2010) advocates creating an official price index for new housing.

Increasing competition in the housing sector

Housing credit

Credit constraints are relatively tight

The provision of credit in France is subject to prudent banking practices, which has enabled the excesses seen in some other OECD countries to be avoided. First and foremost, regulation determines the rmaximum or usury rate on the total effective rate (TER), the annualised interest rate, that banks can charge to their customers. This is equal to the quarterly average TER applied to loans in the previous quarter, irrespective of their duration, grossed up by 33% (this was 6.09% for fixed-rate mortgages in the third quarter of 2010). While most industrialised countries impose safeguards on credit extended to private individuals, the 33% rule is stricter than elsewhere, since, for example, Italy accepts a mark-up of 50%, and the German courts deem the rate to be excessive when it exceeds twice that available on the market.[19]

Second, in granting a mortgage, banks assess the income of borrowers rather than their wealth (including the underlying property), which results in more weight being given to the repayments/income ratio. Furthermore – and this is good practice – loans are presented in an easy-to-understand and transparent way so as to better protect the borrower. For example, most mortgages are offered at a fixed rate: as the share of variable-rate mortgages was starting to expand, credit institutions were forced to limit the repercussions of the interest rate hikes that occurred between 2006 and 2008.[20] Since then, variable-rate mortgages have been subject to an upper ceiling, which significantly limits the range of the variable rate applied (and thus the potential attractiveness of such mortgages). Generally speaking, the tradition in France with regard to credit is often deemed paternalistic, in that it endeavours to protect consumers, even from themselves.

The subprime crisis admittedly justified the cautious approach of French banks, which is reflected in a low loss ratio. In addition, the average rates practiced are relatively low, which is mainly the result of lively competition in the field of real estate loans, which the major network banks use as a means of attracting customers, as well as of other factors, such as the existence of a cross-subsidy mechanism with the associated insurance (which has generous profit margins, or at least did have until the reform of July 2010; see below). However, it seems reasonable to assume that the cautious practices in granting real estate credit effectively exclude certain households with a riskier profile from access to credit. It is difficult to know to what extent they restrict access to home ownership and total household indebtedness, which are relatively low by international standards. In order to reduce this possible constraint, the definition of usury could be relaxed and rationalised, the levels differentiated depending on the maturity of loans, and the excess over the average rate raised, but this would be certainly at the expense of a deterioration in the quality of the real estate loans on the balance sheets of financial institutions.

Legal, tax and regulatory obstacles to the development of the mortgage market

The mortgage market is not highly developed in France. Formally, guarantees are provided in the form of a mortgage or an institutional guarantee known as a *cautionnement*.[21] This institutional guarantee, which first appeared in the early 1980s, is a specifically French instrument based on a pooling of default risks, while the mortgage is a real surety, *i.e.* backed by an asset. Thus, since a mortgage is in principle based on the value of the asset pledged rather than on the solvency of the borrower, the development of the institutional guarantee may cause low-income households to be excluded from access to credit. This might be cause for concern especially since the share of institutional guarantees is growing rapidly and accounted for 56% of total guarantees in 2008, as opposed to 28% in 2000, while at the same time mortgages dropped from 53 to 38%. In reality, this is a moot point, given the practices in France. Even when credit institutions grant loans on the basis of a mortgage, the borrower's solvency plays a key role, so that the actual difference between a mortgage and an institutional guarantee is not as great as it seems. This is due to the fact that the company granting the guarantee, which must reimburse the creditor if the borrower defaults, takes responsibility for recovery of the debt and can therefore initiate a judicial mortgage foreclosure and undertake the seizure of any of the debtor's assets.

In general, lenders' behaviour is explained, then, by the difficulty of recovering outstanding debts in the event of default, which correspondingly reduces the effectiveness of the guarantee provided by the mortgage. The procedures are lengthy, and judicial sales are often concluded at low prices that do not necessarily enable creditors to recover the

totality of the debt (Baude and Bosvieux, 2002). As Mistral and Plagnol (2008) have pointed out, a reform of the guarantee method can be achieved only by substantially reducing the costs and legal uncertainties related to granting mortgages. The social and legal environment in France hinders risk-taking on mortgage loans, since lenders are held to be responsible for the loans they grant, either because borrowers may take legal action to cancel the debt in the event of a dispute, or because of the complexity and difficulty of using the courts for seizure of property, which has some similarities with the issue of tenant expulsion discussed earlier. As a result, lenders have come to consider that they cannot be indifferent to the social treatment of defaulting borrowers, and they prefer not to lend in some cases (Taffin and Vorms, 2007). By contrast, in Denmark, a country with a well functioning mortgage market (for a description see OECD, 2006), the community does not rely on the lender to protect, for example, a surviving spouse who had not taken out life insurance: while the property is sold very rapidly in the event of default, the municipality takes responsibility for finding new housing for him/her.

With regard to borrowers, the preference for the *cautionnement* is explained by its lower cost. This is in part due to tax and regulatory differences, since only mortgages are subject to the land registration tax (see note 21) and to the costs of registering and lifting mortgages and to higher notary fees.[22] Thus, the Economic and Social Council (2005) estimated that the cost of taking out mortgages in France is three to four times higher than in the United Kingdom or Germany. Lastly, competition with regard to institutional guarantees is unsatisfactory, since the credit institution imposes on the borrower the company granting the guarantee; the price of the institutional guarantee, then, seems to be set just low enough to make it more attractive to borrowers than a mortgage.

All this probably explains why the securitisation of mortgages is comparatively rare in France, even though there is no specific legislation to prevent it. The preponderance of French all-purpose banks in the distribution of housing loans, which rely on abundant savings supported by tax schemes, is a factor behind this low popularity of mortgages with non-bank lenders specialised in lower quality loans than banks. Consequently, the development of the mortgage market would be promoted by eliminating the distortions caused by the tax-free status of certain savings accounts, such as the home savings plan (PEL), and by greater entry of foreign specialists, provided that the legal obstacles to debt recovery are lifted. In addition, the lack of real interest in mortgages limits the need for creditors to ensure high-quality statistical monitoring, contributing to unsatisfactory knowledge of transactions prices and properties purchased.

For all these reasons, it seems advisable to reduce the effective costs of taking out a mortgage, while avoiding the abuses found elsewhere. Besides, the provision regarding the *pacte commissoire* (contractual appropriation) – a clause whereby the parties agree that the creditor will take ownership of the property in the event of non-payment via a rapid procedure and, above all, without the intervention of a judge – has been legal only since the Order of 23 March 2006 on sureties, but this has limited scope, since primary residences are excluded. This exclusion is apparently being maintained out of fear of abuse by creditors, who might force debtors to sell their property at far below market prices (even though the Order specifies that the value of the property at the time of the transfer must be determined by an independent expert).[23] Consequently, to adapt the rules for recovering the mortgaged asset, it would be advisable, as recommended by Mistral and Plagnol (2008), to extend the *pacte commissoire* provision to primary residences. The tax distortion against mortgages should also be eliminated and the related notary fees reduced substantially.

Some practices restrict competition…

France also stands out because of the fact that credit institutions require borrowers to take out insurance covering the risks of death, invalidity and loss of employment, even for mortgages. Although this practice is not based on any legal requirement, the granting of credit is always subject to the granting of this insurance. The Consumer Credit Reform Act published in July 2010 to ensure transposition of the European Directive on consumer credit contains an article on the "decoupling" of borrower's insurance and real estate credit, which is aimed at liberalising the real estate credit market. In 2007, banks held 85% of the French borrower's insurance market, accounting for an annual turnover of EUR 6.5 billion. Henceforth, lenders cannot refuse to accept another insurance policy as a guarantee, provided that it offers a level of guarantee equivalent to the one that they are proposing. In addition, the bank cannot adjust its interest rate on the basis of the insurance option and must justify its decision if it refuses to accept insurance other than its own. This is an important reform for housing credit for a number of reasons. Firstly, because, although there was lively competition over interest rates, since the lending rate is used as a means of attracting customers, it concealed cross-subsidies with the other components of the loan, and in particular the borrower's insurance, which was a source of substantial profits. Secondly, it will increase competition in the field of insurance and make the real cost structure of credit more transparent. Thirdly, by clearly isolating the portion of the cost of credit connected with insurance premiums, it can prompt a reassessment of the practices of credit institutions, in particular by challenging the very need for such insurance. Naturally, improving debt recovery in the event of default would directly reduce the use of this insurance by lenders, and thereby the cost of credit. Lastly, extending the "decoupling" to institutional guarantees (*cautionnements*) should be envisaged, since the market for such guarantees is not competitive.

… and exclude some specific groups of people from credit access

In the absence of a competitive mortgage sector, people who have limited access to borrowers' insurance, such as the elderly and those with serious health risks or unstable income, can find themselves excluded from long-term credit, even though in most OECD countries age is not a handicap to borrowing, provided that the property constitutes a sufficient guarantee (Taffin and Vorms, 2007).[24] In many countries, such as Canada, the United States and Denmark, the mere fact of asking borrowers for information about their age or the state of their health would fall within the scope of anti-discrimination legislation. Recently, new instruments have been created, *i.e.* guaranteed mortgage loans (*prêts hypothécaires cautionnés*), which are specially designed for seniors. These are loans that have a double guarantee, in which the mortgage loan is supplemented by a supplementary guarantee replacing death and invalidity insurance. Once again, the success of these loans will depend on the real value of the guarantee, which in this case will be affected by the slow pace of certain procedures for administering estates (Taffin and Vorms, 2007). Although this instrument is original and interesting, it nevertheless illustrates the dysfunctions of conventional mortgages by seeking to bypass them without eliminating their impact on the cost of credit.[25]

Facilitating loan transfers seems to be a measure that would be relatively easy to implement in order to promote residential mobility. The costs of mobility for owner-occupiers who wish to buy a new primary residence include moving costs, transactions costs and generally the costs related to early repayment of their loan and arrangement of

new credit. ANIL (2009) shows that there is no legal obstacle to transferring the outstanding loan, either to finance a new purchase or to have it taken over by a new purchaser, but this practice is virtually non-existent in France, unlike Canada. Transferring it to the newly purchased property should nevertheless be easy in France, given the more personal approach to credit; it would also avoid the need to take out life insurance that is more costly than the initial insurance, since the purchaser will have aged if not experienced any health problems. In its proposal, ANIL shows that transferring the loan, the insurance, the guarantee and even the mortgage does not pose any particular problem, at least when the value of the new property is higher than the amount of debt outstanding. This transfer naturally generates effective costs, but these are much lower than those generated by repaying the former loan and obtaining a new one. It is therefore recommended that institutions explicitly define the conditions for transfer in the initial loan contract.

Notaries

Notaries in France act as public officials and play an important role in ensuring that transactions are secure by authenticating instruments and conserving contracts – functions over which they enjoy a monopoly. Despite the European Commission's reservations, the European Parliament excluded the profession of notary from the scope of the "services" Directive. By international standards, notarial costs do not seem particularly high in France, even though there should be greater transparency regarding the discretionary portion of fees. However, although notarial activity should continue to be regulated, a relaxation of the regulations might improve the fluidity of the real estate market. The most pressing issue is no doubt the need to eliminate the *numerus clausus*, which would make it possible to reduce the excessive interval between the signature of the preliminary contract and the sale – about three months on average – even though the length of this interval is also related to the time required to grant a real estate loan, cities' right of pre-emption and the various statutory inspections. The way that the notarial function is transmitted – sometimes by co-optation between family members or close friends – is often criticised for its lack of transparency, which leads to a *de facto* exclusion of young graduates wishing to practice the profession freely. Moreover, the administered fixed prices should be eliminated. Lastly, the current legislation allows notaries to engage in real estate brokerage activities alongside their duties as public officials, which enables them to broker on average some 10% of the sales of existing housing (Friggit, 2008). However, given their monopoly on registering deeds and the possibilities of cross-subsidies between the different activities, it is legitimate to wonder whether authorisation should be given for these two roles to be combined, since this distorts competition with real estate agents.

Real estate agents

There do not seem to be any barriers to entry in the real estate agent business, and the number of agencies virtually tripled over the last ten years, with agencies recently accounting for 60% of the sales of existing housing, as opposed to 30% in 1980 (Friggit, 2008). However, agency fees are high in comparison with those charged in other OECD countries and in terms of the quality of the service provided. Competition could be improved by making the prices charged and the services provided more transparent. Exclusive contracts for the sale of property, in fact, have ambiguous economic effects. On the one hand, they limit the incentives for agencies to conclude transactions rapidly, since there is no competition from other agencies for these properties. On the other hand, they

provide the upstream incentives necessary for agencies to take a pro-active approach to prospecting that will promote and accelerate bringing new properties onto the market. A solution to this dilemma might be to encourage the establishment of pooled listing system among agencies, modeled after the Multiple Listing Services (MLS) found mainly in United States and Canada but also in Europe (Spain) and based on a co-operative approach (commissions being shared between the buyer's and seller's agents). However, the practices of MLS raise intricate competition issues, and such cooperation seems to be used to prop up high fees for agents, notably by leading to exclusive listings (OECD, 2010). In any case, it would be advisable to eliminate the tacit renewal of exclusive contracts and to require the parties to sign an explicit contract every three months, which would also enable sellers to negotiate modifications more easily. Actually, France is unusual among OECD countries because almost 50% of transactions are direct sales from owner to buyer, with no real estate agent intermediary. Maintaining this active market is important. As websites develop increasing dominance over purchasers, they should be required to allow listings from individual sellers.[26]

A survey by the Directorate-General for Competition Policy, Consumer Affairs and Fraud Control (DGCCRF) also revealed at the end of 2007 that many agencies were failing to comply with some regulations, in particular regarding fees charged, terms of sale and commercial advertising. Although commission rates, which are degressive for the various sales price categories, must be posted in agencies, these scales, which are rarely displayed prominently, show maximum rates and, given that reductions are frequently granted, provide only imperfect information about the fees actually charged. However, the amount of any agency fees and the arrangements regarding who will pay them (the seller or the buyer) are stipulated in the preliminary contract. In order to make the market more transparent for consumers, notarial offices might therefore, in co-operation with INSEE and as is done for house prices, design and produce a quarterly publication, for each department, of prevailing commission rates and average commissions per square meter. Consumers would then have a reference on the basis of which they could negotiate the agency fees.

Property management companies

The rules and practices governing condominium ownership, which concerns some 7.6 million homes and 60% of first-time home buyers, tend to impede competition among property management companies, whose activity has generated a growing number of complaints to the DGCCRF. Although the fees charged by these companies have been unrestricted since 1986, their lack of transparency is detrimental to competition and to owners' ability to exercise their right of control. In March 2010, the government adopted an order clarifying the invoicing of the activities of property management companies by distinguishing between ordinary management fees and special services, which have been rising at an alarming rate. Other supplementary measures are no doubt necessary not only to enhance transparency, but also to improve condominium owners' understanding of what these companies do, for they are generally poorly informed of their options for changing managers. Both cancellation and non-renewal of the company's contract must be placed on the agenda of the annual condominium owners' general assembly, at an owner's request, and this request must comply with formal requirements and be made long in advance. To cancel a contract, the majority required in the general assembly may be difficult to achieve out of fear of the company's reaction, while for non-renewal, the owner

must obtain contracts from competing companies and forward them to the manager at the same time as the request to place the issue of non-renewal on the agenda.

To lower the fees charged would require better regulation of the method of remunerating management companies, in order to fight against certain practices that tend to inflate fees, such as the temptation not to bargain for the best price for the services provided by third parties, since the company is generally paid a percentage of the amount charged for the work. Lowering these fees will also require establishing tighter rules for managers in order to encourage them to comply better with the legal requirements governing the awarding of contracts (use of competitive procedures, opinion of the condominium owners' council and prior authorisation by the general assembly of contracts awarded to companies that have ties with the manager). The establishment of incentive contracts would make it possible to provide incentives to improve the cost-effectiveness of property management companies.

France in the spectrum of social housing systems[27]

Much of Western Europe is atypical of the industrialised world in treating housing as part of the welfare state. In many transition countries, governments have switched from regarding it as part of the social wage to full privatisation. In Australia, Canada, the United States and much of southern Europe, public rented housing has always been restricted to a very small part of the total stock. The French social housing sector accommodates 19% of households, comparable to the United Kingdom, Sweden and Denmark. But its traditional goal of accommodating a wide range of households is more like the Netherlands or Austria.

In the traditional model of social housing, rents were based on historical costs, which were themselves kept low with the help of government assistance in the form of loan guarantees, reduced interest rates, capital subsidies and/or subsidised land. Across Europe, however, governments are increasingly trying to limit the extent of their financial support to the sector by encouraging housing providers to borrow on the open market against existing assets; increasing private-sector involvement, including more provision by government-regulated profit-seeking organisations; and better targeting subsidies both to suppliers and to households most in need. Yet, although France is shifting towards greater targeting, it has on the whole appeared relatively immune to these pressures. It remains strongly committed to social housing as a central element in the housing system and in the menu of welfare support (Levy-Vroelant and Tutin, 2010).

In those countries where housing has been seen as part of the welfare state, social rented housing has traditionally been provided by municipalities, local non-profit organisations or co-operatives aiming to meet local needs. Ownership in France is concentrated among a very large number of HLMs (an acronym for *Habitation à loyer modéré*), all of which are local non-profit housing providers. Some are local public bodies; others are social enterprises including subsidiaries of large profit-making or non-profit organisations or semi-public companies. This rather "localist" model has been modified in some European countries, notably the Netherlands and the United Kingdom, where housing providers are now normally larger, less locally specific non-profit associations that can achieve economies of scale in construction and management as well as being conducive to mobility across localities.

Funding social housing

In most of the rest of Europe the systems of both funding and subsidisation have changed over the last 30 years as social housing has been brought more directly into the mainstream of financial markets, with financing at market rates, saving public money and increasing the incentives for efficiency. These pressures have been far more limited in France, where special funding sources remain in place and supply is boosted through subsidised loans, a 1% employer social contribution and budgetary support, as well as grants related to unit production costs. In any case, loans have been readily available to HLMs that are seeking to expand. This system has generated large-scale investment in new construction, but mainly in areas where social-housing organisations are well established, *i.e.* without necessarily targeting areas where the market is tight, with potential supply-demand mismatches in terms of location.

The nation that France perhaps most resembles in this respect is Austria, where funding is also concentrated on new construction and takes the form of grants and interest-rate subsidies (Reinprecht, 2007). The big difference is that in Austria funding is available across the spectrum of providers and not just for social landlords, while in France this practice is not very widespread. France has also often been compared to Sweden. It has a similar share of social rented housing, which is owned by municipal housing companies and was traditionally funded by interest-rate subsidies. But Sweden's housing policy trajectory over the last 20 years has been very different from France's. Triggered by the need to reduce government spending, Sweden eliminated interest-rate subsidies (Turner and Whitehead, 2002). In recent years targeting has been further increased on both the supply and demand sides, and the sector now concentrates increasingly on vulnerable households, similar to the model observed in much of Northern Europe.

In countries that have adopted a more privatised financing model, special circuits of funding have been removed and providers pay the market price for capital. Interest-rate subsidies have been phased out, mainly because funding was not reaching the areas with the greatest need, in part because of the uncertainty over financing commitments; employer contributions have also all but disappeared. Subsidies to housing increasingly go to assist lower-income households, rather than on bricks and mortar. There has also been an emphasis on bringing in individual equity through the transfer of units into owner-occupation and in some cases to private owners and developers. Supply subsidies now tend to be in the form of up-front capital grants to build in identified areas with particular housing needs, a course of action that France has been following given that construction subsidies are granted at the local level, and are being refocused on areas where the market is tight. In those countries where stock was transferred from the public to the non-profit or private sector, the dominant motivation was to reduce public expenditure. But it was also about improving the focus and efficiency of management (Stephens *et al.*, 2008; Whitehead, 2008).

The United States provides an example of a different private-sector-oriented approach to support. The Low-Income Housing Tax Credit (LIHTC) is funded by the federal government and distributed by states to housing providers, who are mainly private, profit-making companies and either use the credits to fund the construction of affordable rental housing or trade them to other providers or investors. A similar scheme has been introduced in Australia, where subsidies to provide time-limited social or affordable housing are becoming more prevalent. In Spain, the resale price caps on owner-occupied affordable housing are time-limited to 30 years. The German system has traditionally

subsidised private developers to build housing that must be let at social-rent levels for a period (much shorter than 30 years), after which it becomes part of the private housing stock. In France subsidised loans for higher income groups (*Prêt Locatif Social*, PLS) also work in this way, with the minimum social-rent period ranging from 9 to 30 years.

In France, funding relies on a cheap resource consisting of household savings in tax-free accounts collected by financial institutions and partly centralised at the *Caisse des Dépôts et Consignations*. This system makes it possible transform liquid resources (regulated savings) into very long-term loans (up to 50 or 60 years), since it is uncertain that the banking sector could assume such a risk under the same conditions. Insofar as the banking system as a whole would in principle be more profitable if it could use those funds at its own discretion relative to the 0.6% annual fee it receives (1.12% before the 2008 Modernisation of the Economy Act), the mechanism amounts to a tax on the banking system, but this combination of an implicit tax and tax breaks on savings accounts is probably inefficient. In the longer term, such an approach may distort both funding allocations and financing. In return for cheap loans, social housing providers undertake to charge significantly lower rents than in the private sector. France is also unusual in specifying categories of loans and associated grants which provide different levels of assistance for three types of social housing: standard loans, financing loans for social housing that can accommodate persons with higher incomes, as well as loans for housing targeted at the "very poor". Laferrère (2006) estimates that more than a third of the benefit of social housing accrues to the wealthier half of the population. This faulty targeting produces a poor allocation of low-rent housing. In other countries, assistance is mostly targeted at particular areas, rather than at the type of production.

The special regime for financing social housing in France has served the sector relatively well in the past. However, there is a strong case based on European experience for a detailed review of its costs and benefits in light of the distortions it may induce in macroeconomic terms and the somewhat overly detailed targeting by type of scheme. Moreover, HLMs are particularly "localised" and may often not achieve either the economies of scale nor the management efficiency of the larger, less localised providers that have evolved in some other European countries. A concentration of HLMs at the inter-communality level would be beneficial to the sector. Encouraging HLMs to co-operate also constitutes one of the guidelines for the current policy, with a view to strengthening their ability to meet needs by rationalising the allocation of resources among them.

Social sector rent determination

Rent determination in welfare states has traditionally been geared to ensuring the financial viability of the housing provider. Rental income is expected to cover the provider's costs, including direct interest charges and expenditure on management and maintenance. The rent calculation may be based on income and expenditure at the level of the estate (Denmark), the municipality (the United Kingdom and Sweden) or the organisation (the Netherlands; UK RSLs, registered social landlords; France HLMs). As a result, rents for individual units can differ greatly depending on when they were built or renewed, and similar properties can have very different costs to tenants depending on past financing regimes. In countries where there has been a shift towards private debt finance, the provider's annual costs will be closer to current costs than to historical costs (Whitehead and Scanlon, 2007; Whitehead, 2008). The most important trends, especially over the last decade, have been moves towards relating rents to property values, rather

than costs (the Netherlands, England and parts of Norway), or using rents in the private rental sector as a comparator (Sweden and Germany).

Rents in France are based on costs at the level of either the owner or the site. Thus, rents are limited and vary depending on the financial regime in place at the time of construction, rather than reflecting current values. France is also atypical in that central government sets maximum rents, and the extent to which rents are below market varies immensely across the country. Older dwellings which received high bricks-and-mortar subsidies will generally have lower rents, even if they are in good locations and have particularly desirable attributes. Who receives what assistance is ultimately determined by past investment financing and allocation principles. Even though rents in the social sector are not totally out of line with market levels,[28] it is difficult to make the case for social rents so far below and unrelated to market rents, when there is already a relatively generous housing allowance available to low-income households. This is particularly true given the high income limits for access to the French social sector. Elsewhere in Europe it has been shown that providers who can charge higher rents are able to raise more funding at lower cost, backed by their own assets and thus reduce their call on central government. Rent adjustments over time can also encourage greater mobility among social-sector residents and therefore allow the sector to house more vulnerable households. Recent measures in France are going in the right direction. Since 2009, means-tested income limits have been lowered and the rent supplement scheme has been strengthened. HLMs are now required to conduct regular surveys on tenants' incomes, and if they are over the limit, to raise rents to levels that encourage the better-off tenants to leave the social housing system.

The allocation of affordable housing across areas

In France, as in most Northern European countries, the social sector expanded in the post-war period to address the pressing need for more housing to replace urban slums and to ensure adequate accommodation for lower-income working households. The resultant mono-tenure estates originally provided housing of a higher quality than what they replaced, but standards of dwellings and neighbourhoods have not kept pace with modern requirements. One result is that the problems of social housing are often seen as synonymous with those of big, homogenised, industrially built estates constructed after the Second World War. The spatial concentration of social housing means that there is inadequate affordable housing in many parts of the country. It also means that there is an overwhelming need to remould and rehabilitate existing estates in ways that will make social housing acceptable in the twenty-first century. These requirements have been addressed in many Northern European countries by targeting investment on localities with particular needs and by different forms of privatisation that have enabled new owners to borrow to improve the existing stock.

French policy on both issues is clear-cut: first, all larger communities are expected to move towards having social housing make up 20% of their total housing stock; second, the government has identified a number of "sensitive urban zones" (ZUS; there are 751 of them with 4.4 million inhabitants), where using the employers' 1% contribution it will fund programmes of demolition and regeneration intended to change the nature of these neighbourhoods. The 20% policy is unusual in that it applies a standard percentage across all communities with populations of more than 3 500 (provided that their population is not declining and they are not exposed to natural or technological risks). It raises two

questions. What is the basis for requiring a level of provision in every area that is above the current national average? How can the policy be implemented and enforced?

The requirement for all municipalities to have the same percentage of social housing is out of step with practice elsewhere. Subsidies for construction of new social housing are sometimes allocated to sub-national governments or administrative units on a per capita basis (*e.g.* the LIHTC in the United States). But the equal distribution of subsidies for *new* social housing does not address an uneven distribution of *existing* social housing. Other countries use approaches based on assessing local circumstances and existing provision. In England, for instance, all local authorities have been required to identify the need for additional affordable housing in their area (Department of Communities and Local Government, 2006).

In those French municipalities that currently have little social housing, meeting the 20% requirement would necessarily entail either large-scale construction of new social housing or the lease or purchase of dwellings from the private sector to use as quasi-social housing. There have been no large-scale attempts since the 1970s in Europe to transfer stock into social housing; rather, the trend has been in the opposite direction. If the 20% were to be met through non-profit provision, the main mechanism would necessarily be through new construction. The most important policy development elsewhere with respect to new construction has been that a number of countries, including England, Germany, Ireland, Spain and the United States, now require residential and commercial developers to provide affordable dwellings, or land/financial contributions for the construction thereof, as a condition for being allowed to supply commercial space or build homes for the private market. The affordable housing may take the form of either social rented housing or low-cost owner-occupied homes, often aimed at key public-sector workers.

France has taken the approach of imposing financial penalties on local authorities that do not meet the 20% target (see note 8). The Solidarity and Urban Regeneration Act seems to be having a positive impact since over the 2005-07 period 339 communes out of a total of 730 met their commitment to partially close the gap in the construction of social housing. However, penalty rates that could achieve the levels of investment required are unlikely to be politically acceptable, especially as new construction also depends on initiatives by individual HLMs. The 20% requirement appears then to be both inappropriate – in that the share is the same whatever the need – and unenforceable, even over decades. This is both because achieving the target would depend mainly on new construction, and because penalties cannot be adequate to incentivise the very large increases required in many areas. A system that takes greater account of local needs and which provides incentives for delivery and perhaps a requirement to include social housing in all new developments would be more consistent with experience elsewhere. Probably the most cost-effective way of achieving significant increases in affordable provision would be through municipalities or non-profit providers leasing quasi-social housing from the private sector. This is a generally accepted approach across much of Europe, although there are concerns about the extent to which the very vulnerable tend to be concentrated in this type of provision, which probably offers less security than formal social housing (Whitehead and Scanlon, 2007; Levy-Vroelant and Tutin, 2010). At the limit the approach converges to one that depends solely on income-based subsidies to enable households to pay private rents.

The allocation of social housing

In most European countries, formal allocation rules allow access to social housing for the majority of the population, even when there are income limits on entry. France is atypical in setting up different income ceilings for particular types of social housing. These limits have historically been very generous, although the ceiling for the top class of social housing was reduced in 2009 so that only the lowest six deciles of the income distribution now qualify. For example, in Paris at 1 June 2010 the monthly net income cap for social housing eligibility was EUR 2 030 for a single person, and 3 970 for a couple with one child. If tenants' incomes rise to more than 20% above this ceiling they are required to pay a *supplément de loyer de solidarité* (*cf*. supra), as is the case in Germany and Ireland. However, in none of these countries are such increases seen as enough to incentivise tenants to leave. Only in Norway, where social housing is regarded more as a short-term tenure, is there an effective policy to raise rents to market levels when tenant circumstances improve.

Eligibility rules across Europe are generally set by central government but implemented by local government and landlords, often in partnership with one another. France is atypical in that a range of stakeholders, including the mayor, the prefect and employers, play a direct role in allocations. This means that housing providers are subject to political and localist pressures, which can make it difficult to give priority to more vulnerable households. In fact, political leaders are closely involved in the management of the body that represents the interests of HLMs nationally with the public authorities (*Union Sociale pour l'Habitat*, USH), as is shown by the fact that many of them sit on USH executive boards.

Central government may place particular responsibilities on providers – as, for instance, under the homelessness legislation in England by which local authorities are required to accommodate specified groups of households if they are inadequately housed. In France, each provider, although it is subjet to common objectives of housing low-income and disadvantaged persons while respecting social diversity, in practice has its own allocation rules. Often these do not directly relate to the housing needs of individual households but rather reflect the objectives of a range of local stakeholders. The legislation (*Loi DALO*), which provides for a legally enforceable right to housing, was originally interpreted in a highly restrictive way, as a last resort requiring the government to house or rehouse high-priority individuals who needed housing on an emergency basis. However, from 2012 priority will be given to those who have faced an "abnormally" long delay in accessing social housing. This could in principle include people who are not poorly housed but who have simply been on the waiting list a long time, thus exacerbating the problems of allocation to the needy. Similar issues arise in other countries; in Denmark, for example, allocation is based on waiting lists, and it is not uncommon for middle-income households to register even if they are not in particular housing need.

Traditionally, "universalist" systems like France's tend also to accommodate a higher proportion of lower-income employed households than do more targeted systems. On the other hand, in many countries, notably Austria, Denmark, Germany and Sweden, very vulnerable households may be either housed by the municipality or by profit-oriented landlords, rather than by core social-sector providers. The Netherlands and England are examples of countries where the most vulnerable households are accommodated in the social housing sector. In France, although the average tenant's relative income has declined considerably over the years as a result of better targeting, there are still many better-off

households in social housing, while a high proportion of vulnerable households continues to be accommodated in the private rented and temporary lodging sectors.

A further matter of concern is that it is difficult for established tenants to move within the sector as they must join the end of the queue, which represents about 1 million requests overall, either to move to a new area or to a different dwelling. Indeed, moving within the social sector is officially possible only when two households, housed by the same landlord and located in the same estate, agree to switch flats. This system is much less flexible than in countries with similar proportions of social housing, where those already in social housing would be given priority to downsize or to move for employment reasons. The merging of HLMs would make it easier for tenants to be more mobile within the social housing system.

Overall, the French system can be characterised as a universalist system in transition. It has unusually detailed rules relating to funding allocation by type of social housing and to regional maximum rents. On the other hand, it is atypical in that central government is involved in allocation procedures only by defining general priorities. In the main the system is based on financial (historic cost) rather than economic (current cost) incentives, and there is little capacity to direct resources to the areas and households where need is greatest. Other countries with similar social-housing objectives have addressed these issues by moving away from direct government support towards at least some market-based efficiency measures.

Box 3.4. **Recommendations in the field of housing policy**

Limit distortions and make the housing market more fluid and transparent

- Reduce the segmentation of the rental market by: reducing the differences in rent between the social and private sectors while increasing means-tested personal housing subsidies and at the same time cutting financial subsidies for social housing; and indexing rent over the life of contracts on the basis of a published index reflecting rent trends for new contracts, preferably at a sufficiently localised level.
- Update the registry of rateable values and implement a mechanism for periodic revaluation.
- Ensure greater tax neutrality by: *i)* eliminating taxation of rental incomes and offsetting this by increasing the property tax (*taxe foncière*) nationwide to the same level of taxation as on other assets; *ii)* implementing capital gains tax, though deferring the taxation on primary residences provided that these gains are reinvested, but only until the owner's death; *iii)* applying the normal VAT rate to maintenance and renovation expenses, and only once to all new construction; *iv)* eliminating tax advantages for home savings plans.
- Reduce transactions costs by shifting transactions taxes to property taxes.
- Broaden the responsibilities of *intercommunalités* (intercommunal groupings of municipalities), in particular with regard to building permits and local land-use plans, raise land-use coefficients and consider broadening the scope of application of the taxes on vacant housing.
- Rebalance landlord-tenant relations: by strengthening prevention through monitoring situations of vulnerability and early reporting by landlords of unpaid rent to the administration and insurers; by reducing pressure on the housing market through development of temporary affordable accommodation; by shortening the time required for owners to recover their property in exchange for a reduction in the guarantees they can require. This overall approach could be tested initially in a few local experiments.

Box 3.4. **Recommendations in the field of housing policy** *(cont.)*

- Improve statistical information by allowing free access to data collected by notaries that have been checked for privacy concerns, and by facilitating the construction of an index of the price of new housing. Produce studies evaluating housing policies and present these to parliament on a regular basis.

Increase competition

- Evaluate to what extent the definition of usury, which serves as a maximum borrowing rate, actually restricts access to credit.
- Reform the market for housing credit guarantees by: reducing the effective costs of taking out a mortgage by eliminating mortgage-related taxes and charges and by facilitating debt recovery, even when the default involves a primary residence; decoupling the guarantee from the loan, as was recently done for repayment insurance (*cautionnements*); and including loan transfer clauses explicitly in the initial contract.
- Eliminate the *numerus clausus* for notaries, reduce transaction delays between pre-contract signature and finalised sale and remove the current system of administered fixed prices.
- Improve the transparency of real estate agency fees and of the services provided; eliminate the tacit renewal of exclusive contracts; require real estate websites to allow listings from individual sellers, not just registered agents; improve regulation of the method of remunerating property management companies, and encourage them to meet their obligations by implementing incentive contracts.

Reform social housing

- Merge HLM companies at a supra-municipal level in order to achieve economies of scale; remove social housing from local pressures, including in the allocation of housing; and reduce mismatches between needs and new construction.
- Evaluate the way social housing is financed in France through a cost-benefits analysis taking into account the probably significant distortions that it may generate in the allocation of savings, investment and the structure of rents. Open up the social housing market to private providers subject to appropriate regulations.
- Bring rents closer to market values rather than linking them to costs at the time of construction. Continue to target the allocation of social housing toward the most disadvantaged households, and increase the exit from social housing of households with above-median income, in particular by strengthening the existing rules on extra rent charges and ensuring that they are enforced strictly. Relax the provisions governing mobility within the entire social housing stock.
- Revise Article 55 of the Solidarity and Urban Renewal Act ("*loi SRU*") to make it more realistic by gearing the percentage of social housing to needs at the local level, rather than setting a uniform objective, while making the penalties more dissuasive.

Notes

1. Expenditure on housing increased in value by 5.2% a year on average between 1984 and 2004, with the improved quality of dwellings contributing 1.3% a year (Plateau, 2006).
2. See Jacques Friggit's long-series website *www.cgedd.developpement-durable.gouv.fr/rubrique.php3?id_rubrique=138*.
3. For a more detailed treatment see Rolland (2011).

4. The time limit is generally three months. The fine set by the administrative court must correspond to the average cost of the type of accommodation deemed suitable for the applicant.
5. Social housing corporations are exempt from corporation tax, transfer duties, tax on rental income, tax on vacant dwellings and tax on buildings and benefit from the 5.5% reduced rate of VAT.
6. If a tenant leaves home or dies, a social housing lease may be transferred to the partner for the benefit of descendants, ascendants or dependants. The person concerned must be able to prove that he or she had been living with the tenant for at least a year at the date of the tenant's departure or death and must meet the social-housing qualification criteria.
7. Other housing improvement subsidies are provided by public establishments like the National Agency for Urban Renewal.
8. The requirement also applies to Paris Region municipalities with more than 1 500 inhabitants situated in an urban area with more than 50 000 inhabitants. The penalties are equal to 20% of the tax potential per inhabitant multiplied by the shortfall in social housing units and are paid into a social housing fund. EUR 32 million in penalties were collected in 2009.
9. The loan may amount to as much as 40% of the transaction. Other measures to help first-time buyers exist. Beyond government-guaranteed means-tested homeownership loans, the Pass-Foncier scheme allows households to buy a principal dwelling in two stages: first the dwelling, then the land. Initially for houses, it has since been extended to flats. The scheme costs nearly EUR 1 billion annually. The home savings loan is a reduced-interest loan granted to participants in a home savings scheme after an initial savings phase.
10. Real property owned for more than 15 years and sales for less than EUR 15 000 are also exempt from capital gains tax.
11. This calculation is based on an average social sector rent of EUR 320 a month, or EUR 3 840 a year, and 4.5 million social housing units: 4 500 000 * 3 840 * (1/(1 – 0.4) – 1) = EUR 11.5 billion.
12. When a lease expires, a landlord who wishes to increase the rent by more than the rise in the index, for example in order to align it with market rents, must prove that the rent is plainly undervalued in relation to comparable housing, giving nine specific examples. If there is no agreement, the matter must be referred first to the departmental conciliation commission, then to the courts.
13. The objection could be raised that, with a structural increase in rents, this would penalise a portion of the population, including retired people whose income follows the consumer price index more closely. However, the envisaged shift affects relative prices. At a given rate of consumer price inflation, a rise in rents is reflected in a fall in the relative prices of the other components of the index. Where a household spends more than the average proportion of its income on housing, such a development would indeed cause its purchasing power or real income to fall. In such cases, the problem must be treated with social policy measures, rather than by avoiding it while contributing to the segmentation of the housing market.
14. Recent buildings, especially those including rent-controlled units, contain many modern conveniences covered by the arrangements. Conversely, the renovation of existing dwellings has not been fully taken into consideration, nor has the disaffection for areas where economic activity, lively in 1970, has since withered (Conseil des Prélèvements Obligatoires, 2010).
15. France stopped taxing imputed rents in 1965 because the scheme was costly to administer and yielded relatively little, given taxpayers' tendency to underestimate their property's value (Driant and Jacquot, 2005).
16. This tax concerns unfurnished housing units that have been vacant for at least two years (at 1 January of the tax year), located in certain urban centres with a population of over 200 000. The following are not subject to the tax: secondary residences, housing units that are vacant involuntarily, housing unit that were occupied for at least 30 consecutive days during one of the two reference years, housing units that would require major work before they could be occupied, housing units that are to be demolished or refurbished as part of city planning, renovation or demolition operations and housing units that are on the market but have not been rented or sold. The amount of the tax is progressive: 10% of the rental value for the first year, 12.5% the second year and 15% as from the third year (*http://droit-finances.fr*).
17. Under a framework law, it became compulsory for an impact study to be conducted in respect of draft laws submitted after 1 September 2009, but such studies continue to be optional in the case of regulations.
18. According to the Housing Survey (*Enquête Logement*, 2002), 6.7% of tenants had made past-due payments over the two previous years. In 2009, there were around 140 000 court procedures

relating to non-payment of rent, 107 000 eviction orders and around 10 600 evictions involving the law-enforcement agencies (Ministry of Justice; Ministry of the Interior).

19. *Source: www.cbanque.com/credit/taux-usure.php*.

20. Since the second quarter of 2009, the share of variable-rate loans has stabilised at 12-13% of aggregate lending. Following the hike in short-term rates that occurred in the period 2006-08, in May 2008 the banks made a series of commitments to the government aimed at preventing practices that increase borrower vulnerability, such as abandoning call rates and negative principal amortisation practices. Moreover, the risk to the borrower is contained, since interest-rate variation is typically restricted to a range of 50 to 150 basis points.

21. In France, a distinction is made between a conventional mortgage (*hypothèque conventionnelle*) and a "first priority lien" (*privilège de prêteur de deniers* or PPD). Just like a mortgage, the PPD enables lenders to protect themselves against the risk of non-repayment of loans, and the contract must be signed before a notary. If borrowers fail to meet their payments, creditors can initiate a real estate seizure procedure leading to the sale of the property and the priority reimbursement of the holder of the lien. There are two differences, however. Unlike a mortgage, the PPD is limited to an existing property (*i.e.* it may not be used for new construction) and can be applied only to the property financed. In addition, the PPD is not subject to the land registration tax (*taxe de publicité foncière*), which is 0.615% of the guaranteed amount, so its cost is lower.

22. The mortgage is registered by the notary with the mortgage registry office, which deducts a charge to cover the registrars' salaries. As from 2012, mortgage registrars will be gradually replaced by "public finance administrators". The removal of the mortgage from the list of mortgaged properties is a legal act called *mainlevée d'hypothèque* (mortgage release), for which a fee is also charged.

23. However, the ban on the "fast-track" clause (*clause de la voie parée*) by which the amount of the transfer might be negotiated privately has been maintained. Under this procedure, the property, even if it is still occupied, might be sold without the intervention of a judge.

24. The case of people with a "serious health risk" is addressed by the AERAS Agreement concluded in July 2006 between the central government, professional federations of banks, insurance companies, mutual companies and patients' and consumer associations. Some 10% of applications for insurance received are identified as involving a serious health risk. In 2008, in 93% of these cases, an offer of insurance cover was made (see the "Assessment of the Application of the AERAS Agreement", Report to the Government and Parliament, November 2009).

25. The 2006 Order also created two new types of loan – rechargeable mortgage loans (*prêt hypothécaire rechargeable*) and life annuity mortgage loans (*prêt viager hypothécaire*), which enable owners to borrow by mortgaging their property, for purposes including consumption. The mechanism of rechargeable mortgages has been strictly regulated (for example, the amount that can be borrowed is limited to the amount of the loan already repaid, even if the asset has appreciated), and as a result it has had only limited success thus far. Given that the rechargeable mortgage is generally used to promote consumption, its analysis goes well beyond the framework of this chapter, which is focused on the functioning of the housing market. However, the subprime crisis highlighted the dangers of a broadly pro-cyclical credit mechanism, since it enables borrowers to go deeper into debt in order to consume when the value of assets rises, and it facilitates the emergence of speculative real estate bubbles. Lastly, one must be wary of the recommendations frequently made to systematically include options for renegotiating loans at an apparently lower cost, since the real costs of these options are in one way or another incorporated into the initial cost of the loan.

26. *Se loger.com* is the most dominant website for purchasers, but requires a real estate license to advertise. *Explorimmo*, on the other hand, does not require a license in order to advertise. *De particulier à particulier* remains an important but declining force which obviously takes advertisement from non-license holders.

27. Details relating to the issues discussed in this section can be found in Whitehead and Scanlon (2011).

28. Maximum rents are set on the basis of the location of housing units according to a division into four zones reflecting the level of pressure on the rental market and thus implicitly the level of market prices. Social landlords are able to raise the level of rents annually by a higher amount than the reference index applicable to the private sector. They have considerable leeway to raise rents for new tenants within the maximum allowed limits, which are themselves revalued on the basis of national rent trends in the private sector. Consequently, there is not necessarily a widening gap with market rents.

Bibliography

André, C. (2010), "A Bird's Eye View of OECD Housing Markets", *OECD Economics Department Working Paper*, No. 746.

Andrews, D., A. Caldera-Sánchez and Å. Johansson (2011), "Housing Markets and Structural Policies in OECD Countries", *OECD Economics Department Working Papers*, No. 836.

ANIL (2009), "Faciliter le transfert de prêts pour favoriser la mobilité résidentielle", June.

Arnott, R. (1995), "Time for Revisionism on Rent Control?", *Journal of Economic Perspectives*, Vol. 9, No. 1.

Atkinson, A.B. and J.E. Stiglitz (1976), "The Design of Tax Structure: Direct *versus* Indirect Taxation", *Journal of Public Economics*, Vol. 6.

Basu, K. and P.M. Emerson (2000), "The Economics of Tenancy Rent Control", *Economic Journal*, Vol. 110.

Baude, E. and J. Bosvieux (2002), "Hypothèque ou caution : L'exception française", *Étude Anil*, December.

Briant, P. (2010), "L'accession à la propriété dans les années 2000", *Insee Première,* No. 1291.

Briant, P. and N. Donzeau (2011), "Être sans domicile, avoir des conditions de logement difficiles", *Insee Première,* No. 1330.

Briant, P. and C. Rougerie (2008), "Les logements sont plus confortables qu'il y a vingt ans et pèsent davantage sur le revenu des ménages", *France, portrait social – édition 2008*.

Caldera-Sánchez, A. and D. Andrews (2011), "To Move or Not to Move: What Drives Residential Mobility in the OECD?", *OECD Economics Department Working Papers*, *No.* 846.

Conesa, J.C., S. Kitao and D. Krueger (2009), "Taxing Capital? Not a Bad Idea After All!", *American Economic Review*, Vol. 99.

Conseil d'État (2009), *Droit au logement, droit du logement*, Rapport public.

Conseil des prélèvements obligatoires (2010), *La fiscalité locale*, May.

Couleaud, N. and F. Delamarre, (2010), "Le patrimoine économique national en 2009", *INSEE Première*, No. 1305.

Bandt, O. (de), T. Knetsch, J. Penalosa and F. Zollino (2010), *Housing Markets in Europe,* Springer, Heildelberg.

Decreuse, B. and T. van Ypersele (2010), "Housing Market Regulation and the Social Demand for Job Protection", *GREQAM Working Paper*, No. 11.

Department of Communities and Local Government (2006), *Planning Policy Statement 3: Housing*, London.

Driant, J.C. (2008), "Crise du logement et mutations des politiques du logement en France", in D. Fée and C. Nativel (eds.), *Crises et politiques du logement en France et au Royaume-Uni*, Sorbonne Nouvelle.

Driant, J.C. and C. Rieg (2004), "Les ménages à bas revenus et le logement social", *INSEE Première*, No. 962.

Driant, J.C. and A. Jacquot (2005), "Loyers imputés et inégalités de niveau de vie", *Économie et Statistique*, No. 381-382.

Eerola, E. and N. Määttänen (2010), "The Optimal Tax Treatment of Housing Capital in the Neoclassical Growth Model", *http://staff.etla.fi/maattanen/optimal_house_tax.pdf*.

Fack, G. (2005), "Pourquoi les ménages à bas revenus paient-ils des loyers de plus en plus élevés?", *Économie et Statistique*, No. 381-382.

Fack, G. (2008), "L'évolution des inégalités entre ménages face aux dépenses de logement (1988-2006)", *Informations sociales*, No. 155.

Fitoussi, J.P., E. Laurent and J. Maurice (2004), "Ségrégation urbaine et intégration sociale", *Rapport du Conseil d'analyse économique*.

Fondation Abbé Pierre (2010), *L'État du mal-logement en France*, 15th Annual Report.

Friggit, J. (2008), "Répartition du marché de la négociation de logements anciens à destination de résidence principale occupée par le propriétaire, depuis 1945", *CGEDD*, *www.cgedd.developpement-durable.gouv.fr*.

Gervais, M. (2002), "Housing taxation and capital accumulation", *Journal of Monetary Economics*, Vol. 49.

Gilli, F. (2008), "Vingt ans de dépenses publiques de logement", *Données sociales – La société française*.

Gobillon, L. and D. Le Blanc, "Quelques effets économiques du prêt à taux zéro, 2005", *Économie et Statistique*, No. 381-382.

Jacquot, A. (2005), "Comportements résidentiels et marché du logement", *Économie et Statistique*, No. 381-382.

Janiak, A. and E. Wasmer (2008), "Mobility in Europe. Why it is Low, the Bottlenecks, and the Policy Solutions", *European Economy*, *Economic Paper*, No. 340.

Johansson, Å., C. Heady, J. Arnold, B. Brys and L. Vartia (2008), "Taxation and Economic Growth", *OECD Economics Department Working Paper*, No. 620.

Laferrère, A. (2004), "Les aides personnelles au logement : réflexion économique à partir de l'expérience française", in *Le logement dans sa multidimensionnalité*, under the direction of N. Bernard and C. Mertens, Namur.

Laferrère, A. (2006), "En matière de logement, l'enfer est pavé de bonnes intentions", *Telos*.

Levy-Vroelant, C. and C. Tutin (2010), *Le logement social en Europe au début du* XXI^{e} *siècle*, Presse Universitaires de Rennes, Rennes.

Mankiw, N.G., M. Weinzierl and D. Yagan (2009), "Optimal Taxation in Theory and Practice", *NBER Working Papers*, No. 15071.

Marks, D. (1984), "The Effects of Partial-Coverage Rent Control on the Price and Quantity of Rental Housing", *Journal of Urban Economics*, Vol. 16.

Metcalf, G.E. (2006), "Value-Added Tax", Tufts University Department of Economics Working Paper.

MEEDDM (2010), "Évaluation de la réforme du permis de construire", *Rapport No. 007015-01*, March.

Miles, D. and V. Pillonca (2008), "Financial Innovations and European Housing and Mortgage Markets", *Oxford Review of Economic Policy*, Vol. 24, No. 1.

Mistral, J. and V. Plagnol (2008), *Loger les classes moyennes*, Rapport du Conseil d'analyse économique.

Nakajima, M. (2010), "Optimal Capital Income Taxation with Housing", *Federal Reserve Bank of Philadelphia Working Paper*, No. 10-11.

OECD (2006), *OECD Economic Surveys: Denmark*, OECD Publishing Paris.

OECD (2007), "Combating Poverty and Social Exclusion", *OECD Economic Surveys: France*, Chapter 2, OECD Publishing, Paris.

OECD (2010), "Improving Competition in Real Estate Transactions", *OECD Journal: Competition Law and Policy*, Vol. 10, Issue 2.

Olsen, E.O. (2009), "The Cost-Effectiveness of Alternative Methods of Delivering Housing Subsidies", *Department of Economics Working Paper, University of Virginia*.

Olsen, E.O. (2002), "Should the Housing Choice Voucher Program Be Converted to a Block Grant?", *Department of Economics Working Paper, University of Virginia*.

Ommeren, J. (van) and M. van Leuvensteijn (2005), "New Evidence of the Effect of Transactions Costs on Residential Mobility", *Journal of Regional Science*, Vol. 45, No. 4.

Pinte, E. (2008), Hébergement d'urgence et l'accès au logement des personnes sans abri ou mal logées, Rapport parlementaire.

Plateau, C. (2006), "Vingt ans de dépenses de logement", *Données sociales – La société française*.

Poterba, J.M. (1984), "Tax Subsidies to Owner-Occupied Housing: An Asset-Market Approach", *Quarterly Journal of Economics*, Vol. 99, No. 4.

Poterba, J.M. (1992), "Taxation and Housing: Old Questions, New Answers", *American Economic Review*, Vol. 82, No. 2.

Reinprecht, C. (2007), "Social Housing in Austria", in C. Whitehead and K. Scanlon (eds.), *Social Housing in Europe*, London School of Economics, London.

Rolland, B. (2011), "Les politiques du logement en France", *OECD Economics Department Working Papers*, forthcoming.

Stephens, M., M. Elsinga and T. Knorr-Siedow (2008), "The Privatisation of Social Housing: Three Different Pathways", in K. Scanlon and C. Whitehead (eds.), *Social Housing in Europe II*, London School of Economics, London.

Taffin, C. and B. Vorms (2007), "Élargir l'accès au crédit au logement des emprunteurs atypiques", *Rapport*.

Trevien, C. (2008), "La formation des loyers des logements et les effets des HLM sur les ménages", *Internship Report*, École nationale de statistique et d'administration économique.

Turner, B. and C. Whitehead (2002), "Reducing Housing Subsidy: Swedish Housing Policy in an International Context", *Urban Studies*, Vol. 39, No. 2.

Vorms, B., A. Jacquot and J.L. Lhéritier (2010), "L'information statistique sur le logement et la construction", *Report of a working group of the CNIS*, March.

Wasmer, E. (2008), "Pour une réforme radicale de l'organisation du droit au logement", *En Temps Réel*, Cahier 27.

Whitehead, C. and K. Scanlon (2007), "Social Housing in Europe", in C. Whitehead and K. Scanlon (eds.), *Social Housing in Europe*, London School of Economics, London.

Whitehead, C. (2008), "Financing Social Housing", in K. Scanlon and C. Whitehead (eds.), *Social Housing in Europe II*, London School of Economics, London.

Whitehead, C. and K. Scanlon (2011), "Comparative Issues in Social Housing", *OECD Economics Department Working Papers*, forthcoming.

Chapter 4

France's environmental policies: Internalising global and local externalities

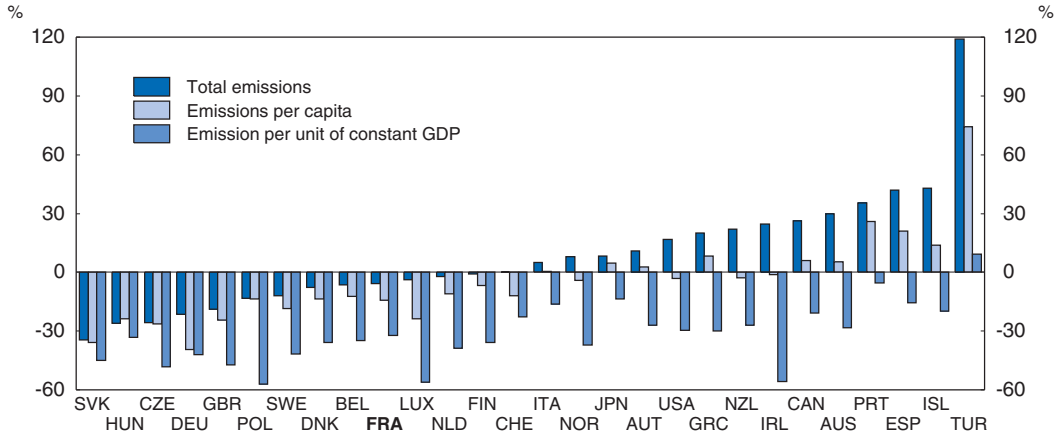
The authorities have a very ambitious environmental-policy agenda, aimed chiefly at cutting greenhouse gas (GHG) emissions but also at dealing with local air and water pollution, waste management and the conservation of biodiversity. The laws that followed the Grenelle de l'environnement encompass policy measures in energy generation, manufacturing, transport, waste management, construction and agriculture to encourage a transition towards a low-carbon economy. The government is committed to an ambitious GHG reduction objective of 75% to be achieved by 2050. This chapter evaluates its policies in terms of cost effectiveness, with a special emphasis on: how to impose a unique carbon price in the aftermath of the rejection of the carbon tax by the Constitutional Council; the challenges relating to renewable and nuclear electricity generation; the ways to reduce carbon intensity in the residential and transport sectors; how to improve waste management; and whether external costs related to the use of fertilisers and pesticides are properly accounted for in water management. Whereas considerable progress has been made to "green" the economy, an important challenge that remains is to internalise global and local externalities in all sectors of the economy so as to increase the cost-effectiveness of environmental policies.

Contributing to global climate change mitigation

France's commitments and achievements

The European Union is taking the lead in the global efforts to contain global warming. The EU's action plan sets a 2020 target of cutting emissions by 20% from 1990 levels and 30% if other large non-EU GHG emitters commit to significant cuts. For France, the EU-wide 20% goal is translated into a binding national target of a 14% decline by 2020 compared to 2005, the base year for sectors that are not part of the EU-ETS, primarily the residential, transport and agriculture sectors.[1] To date, in managing to cut its total GHG emissions by roughly 6% between 1990 and 2008, France has gone well beyond its Kyoto commitment to hold GHG emissions at 1990 levels for the period 2008-12 (Figure 4.1). This was one of the better performances among high-income OECD countries.

Figure 4.1. **Changes in % GHG emissions (excluding LULUFC), 1990-2008**[1]



1. LULUFC means land use, land-use change and forestry change.

Source: OECD, *National Accounts* and *Demography and Population Databases*; OECD calculations based on absolute emissions data drawn from UNFCC and Eurostat.

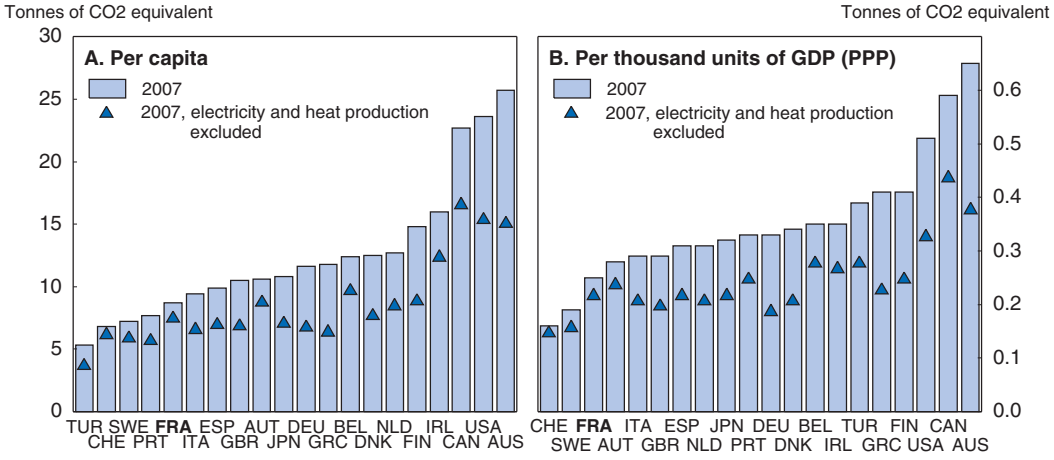
StatLink http://dx.doi.org/10.1787/888932377751

The French government's strong commitment to reduce GHG emissions substantially is also reflected in its long-term objective of a 75% cut from 1990 levels to be achieved by 2050. A climate plan launched in 2004 that has gained momentum since 2008 in the frame of the *Grenelle de l'environnement* (resulting in the first and second Grenelle Laws) encompasses policy measures in energy generation, manufacturing, transport, waste management, construction and agriculture to encourage a transition to a low-carbon economy. According to simulations by the French government, measures taken since 2008 should reduce GHG emissions to 22.8% below 1990 levels by 2020. The simulations also suggest that GHG emissions would decrease by a mere 2.2% in the absence of measures taken since 2008 and that they would rise by 26.6% if no measures had been taken since 1990 (MEEDDM, 2009b).

The potential for further reduction in GHG emissions

GHG reduction targets should be aligned with marginal abatement costs and thus possibly with the absolute level of emissions, given a worldwide target. The government's plans to reduce GHG emissions by 2020 and 2050 are very ambitious, because France has been so far a top performer in terms of the absolute level of GHG emissions. In 2007 and 2008, France emitted less GHGs than its G7 peers in absolute terms but also when measured on a per capita or per GDP unit basis; in the OECD area, only Sweden and Switzerland did better (Figure 4.2). The main reason for France's outstanding position is that a large proportion of electricity generation uses low-carbon nuclear and hydroelectric technologies. Not considering electricity, France performs much less well (Figure 4.2).

Figure 4.2. **GHG emissions per capita and per unit of GDP, 2008**



Source: OECD calculations based on absolute emissions data drawn from UNFCC; OECD, *Economic Outlook 88 Database*.
StatLink http://dx.doi.org/10.1787/888932377770

Reducing GHG emissions further will require increasing the carbon efficiency of output. Because some other OECD countries and large emerging economies like China, India and Russia emit up to 13 times more greenhouse gases per unit of GDP than France,[2] cutting GHG emissions in France is unlikely to be the most cost-efficient global solution (Prud'homme, 2009a). But it can be justified on the grounds of equity: if all countries, rich and poor, were allowed to have similar per capita GHG emissions, after reducing global GHG emissions by 50% by 2050, France still would need to lower per capita emissions (Prévot, 2007). Yet the size of the reduction would be smaller than the official objective.

A cross-country comparison of sectoral GHG emissions

Against this backdrop, cutting GHG emissions by 75% will be much more costly in France than in other major European countries. In 2007 per capita GHG emissions in public electricity and heat production were as low as 0.8 tonne per person in France, while the corresponding statistic ranges from 2.0 tonnes in Italy to 4.2 tonnes in Germany (Table 4.1). Consequently, most of the cuts in France will have to come from other sectors of the economy. A comparison of per capita emissions in other sectors reveals no major differences, with one exception: agriculture, although this reflects the relatively large size of the sector in France, rather than unusually high emissions intensity.

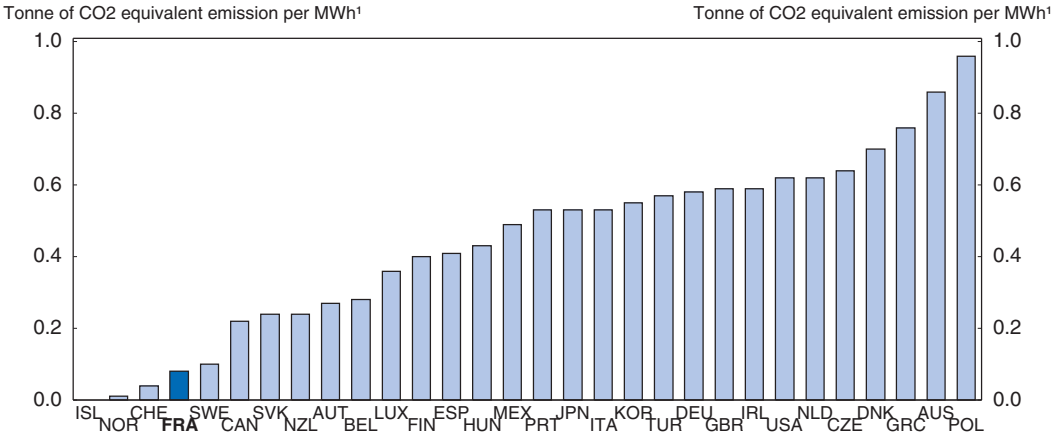
Table 4.1. **GHG emissions – sectoral indicators, 1990-2007**

	Per capita GHG emissions, 2007 (tCO_2eq/capita)						Percentage changes in total GHG emissions, 1990-2007						Share in total GHG emissions, 2007 (%)					
	FRA	DEU	ITA	GBR	SWE	CHE	**FRA**	DEU	ITA	GBR	SWE	CHE	**FRA**	DEU	ITA	GBR	SWE	CHE
Total excluding LULUCF	**8.3**	11.6	9.3	10.4	7.2	6.8	**–5.3**	–21.3	7.1	–17.3	–9.1	–2.7	**100.0**	100.0	100.0	100.0	100.0	100.0
Total including LULUCF	**7.2**	11.4	8.1	10.4	4.9	6.7	**–11.8**	–20.8	7.4	–17.8	12.7	0.5	**. .**	. .	. .	. .	. .	. .
1 – Energy equivalent	**6.0**	9.4	7.7	8.9	5.3	5.6	**0.3**	–21.7	9.5	–10.8	–9.5	–0.3	**72.4**	80.9	83.0	85.3	73.7	81.9
1.A.1 – Energy Industries equivalent	**1.1**	4.7	2.7	3.5	1.2	0.5	**1.5**	–7.1	17.6	–11.3	5.7	36.0	**12.7**	40.8	28.7	33.2	16.5	6.8
1.AA.1.A – Public electricity and heat production equivalent	**0.8**	4.2	2.0	2.9	0.9	0.3	**0.8**	2.9	12.7	–13.3	5.9	18.3	**9.1**	36.6	21.9	28.0	13.0	5.0
1.AA.1.B – Petroleum refining equivalent	**0.2**	0.3	0.4	0.2	0.2	0.1	**14.6**	9.6	58.1	–17.8	8.0	138.3	**2.9**	2.3	4.7	2.4	3.0	1.7
1.AA.1.C – Manufacture of solid fuels	**0.1**	0.2	0.2	0.3	0.0	0.0	**–26.0**	–69.7	4.5	26.4	–9.0	. .	**0.7**	1.9	2.0	2.8	0.5	. .
1.A.2 – Manufacturing industries and construction equivalent	**1.2**	1.1	1.4	1.3	1.2	0.8	**–10.7**	–42.3	–11.1	–19.9	–9.1	–2.6	**14.9**	9.4	14.6	12.6	16.3	11.4
1.A.3 – Transport – Classification: Total for category	**2.2**	1.9	2.2	2.2	2.3	2.2	**15.4**	–6.9	25.1	11.9	12.1	10.7	**25.8**	16.0	23.4	20.9	31.9	31.9
1.AA.3.A – Civil aviation	**0.1**	0.0	0.0	0.0	0.1	0.0	**8.7**	–22.4	50.5	71.7	–10.7	–45.2	**0.9**	0.2	0.4	0.3	0.9	0.3
1.AA.3.B – Road transportation	**2.0**	1.8	2.0	2.0	2.1	2.1	**15.1**	–4.5	26.6	10.4	14.4	12.4	**24.1**	15.2	21.8	19.3	29.8	31.1
1.AA.3.C – Railways	**0.0**	0.0	0.0	0.0	0.0	0.0	**–46.5**	–55.6	–25.6	32.0	–33.9	27.2	**0.1**	0.1	0.1	0.4	0.1	0.1
1.AA.3.D – Navigation	**0.1**	0.0	0.1	0.1	0.0	0.0	**70.1**	–74.1	–8.3	19.9	–17.6	3.3	**0.6**	0.1	0.9	0.8	0.7	0.2
1.AA.3.E – Other transportation	**0.0**	0.0	0.0	0.0	0.0	0.0	**164.5**	–15.7	88.1	70.7	5.7	–42.5	**0.1**	0.4	0.1	0.1	0.3	0.2
1.A.4 – Other sectors	**1.5**	1.6	1.4	1.7	0.5	2.1	**–3.0**	–38.2	4.8	–8.6	–58.9	–13.3	**17.9**	13.4	14.9	16.0	6.8	30.1
1.AA.4.A – Commercial/Institutional	**0.4**	0.4	0.4	0.3	0.1	0.6	**–1.4**	–44.9	39.3	–19.3	–66.5	–13.3	**5.2**	3.8	4.1	3.2	1.3	9.1
1.AA.4.B – Residential	**0.9**	1.1	0.9	1.3	0.2	1.4	**–1.2**	–34.0	–4.2	–4.4	–72.9	–13.6	**11.1**	9.1	9.2	12.0	2.7	19.9
1.AA.4.C – Agriculture/Forestry/Fisheries	**0.1**	0.1	0.1	0.1	0.2	0.1	**–17.3**	–48.0	–4.7	–19.7	8.5	–6.4	**1.7**	0.6	1.6	0.7	2.8	1.1
1.B – Fugitive emissions from fuels	**0.1**	0.1	0.1	0.2	0.1	0.0	**–51.2**	–60.9	–32.7	–62.1	12.6	–46.9	**1.1**	1.1	1.3	2.1	1.9	0.5
2 – Industrial processes	**0.6**	1.4	0.6	0.5	0.7	0.4	**–28.4**	–3.1	–0.5	–48.3	12.8	–6.1	**7.5**	12.1	6.6	4.4	10.0	6.0
3 – Solvent and other product use	**0.0**	0.0	0.0	. .	0.0	0.0	**–33.9**	–38.5	–10.9	. .	–11.5	–50.7	**0.3**	0.3	0.4	. .	0.4	0.5
4 – Agriculture	**1.5**	0.6	0.6	0.7	0.9	0.7	**–11.0**	–16.5	–8.3	–20.9	–10.1	–9.4	**18.0**	5.4	6.7	6.8	12.9	10.4
5 – LULUCF	**–1.1**	–0.2	–1.2	0.0	–2.2	–0.1	**–80.6**	42.9	–5.1	266.0	36.2	72.3	**–13.5**	–1.7	–12.8	–0.3	–31.3	–1.3
6 – Waste – Classification	**0.2**	0.1	0.3	0.4	0.2	0.1	**–16.7**	–71.5	2.9	–56.8	–38.4	–33.3	**1.9**	1.2	3.3	3.6	2.9	1.3

Note: LULUCF means land use, and land-use and forestry change.
Source: OECD calculations based on data drawn from the UNFCCC, Eurostat and OECD.

Looking at the sources of lower GHG emissions in Switzerland and Sweden, Europe's two most carbon-efficient economies, may yield additional insights. The main reason why Sweden produces less GHGs than France is because its buildings generate 1 tonne lower emissions per person. This was achieved by a spectacular cut of roughly 70% in the sector thanks to the replacement of heating oil by district heating based on biomass, triggered by an increase in energy and CO_2 taxes (OECD, 2011). By contrast, the key difference in overall carbon intensity of the French and Swiss economies resides in manufacturing, and public electricity and heat production. Lower carbon emissions in the manufacturing sector can be explained by carbon-efficient technologies. Per capita emissions in public electricity and heat generation are 2.5 times lower in Switzerland (0.3 tonne per person) than in France. The two other countries that emit even less GHGs per capita for this purpose in a year are Iceland and Norway with 0.1 tonne per person. But these differences are attributable less to lower per capita electricity consumption than to the lower carbon content of unitary electricity production, as clearly shown in Figure 4.3.

Figure 4.3. **CO_2 emissions per unit of gross electricity production in OECD countries, 2008**



1. The share of various energy sources in total gross electricity production of each country is multiplied by the per MWh CO_2 equivalent emissions. For nuclear, hydroelectric, geothermal, solar, tidal wave and wind, the values of 0 tCO_2 equivalent/MWh, for natural gas 0.5 tCO_2 equivalent/MWh and for non gas combustibles 1 tCO_2 equivalent/MWh are used.

Source: OECD calculations based on data drawn from IEA and OECD.

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Looking at changes over time, GHG emissions turned out to have been lower in 2007 compared to the benchmark year of 1990 in most sectors of the French economy, with the notable exception of transport where emissions were on a clear rise. While emissions increased in civil aviation, navigation and other transportation, the main driver of this development is road transportation, where GHG emissions increased by around 15% over the period, especially between 1990 and 2001 whereas they remained stable after 2002. Road transport accounted for 93% of total emissions in the transport sector, and 26% of France's global GHG emissions in 2007. The large and rising share of the transport sector in overall GHG emissions is also a prominent feature of other large European countries (with the exception of Germany), and of Switzerland and Sweden.

Internalising the external costs of GHG emissions

Carbon pricing

The marginal damage of carbon dioxide, also called the social cost of carbon, can be calculated as the net present value of the additional damage caused by the emission of one extra tonne of carbon dioxide (Tol, 2009).[3] Existing estimates show that the mean of the social cost of carbon ranges between EUR 25 and EUR 56[4] (Tol, 2009; Kuik *et al*., 2009) and that the degree of uncertainty around the mean is huge. For France, the Boiteux report (Boiteux, 2001) proposed a carbon price that was meant to be used for cost-benefit analysis of future infrastructure projects. The report recommended a price of about EUR 32 per tonne expressed in 2009 prices[5] for the period 2000-10 and an annual increase of 3% starting in 2011. Almost a decade later, the Quinet report (Quinet, 2008) commissioned by the French government revisited both the carbon price to be used in the policy debate and decisions with regard to public policies, including public investment. The report used three models and a scenario that reflects the European and French commitments for GHG reductions for calculating the carbon price for 2020 and 2050. On that basis, the following per tonne carbon prices expressed in 2008 prices were put forward: EUR 56 in 2020, EUR 100 in 2030 and EUR 200 in 2050. The government can impose a carbon price to fully internalise the external costs of GHG emissions. If this price covers the costs of the marginal uncompensated environmental damage, it maximises social welfare and is usually referred to as a Pigouvian tax. Such a tax can be imposed either via a straight tax levied on carbon-intensive goods and services or via a cap-and-trade system.

The carbon tax in France

France attempted to introduce a carbon tax in 2009. Yet in December 2009, the Constitutional Council (*Conseil constitutionnel*) rejected the carbon tax that was adopted by parliament in the 2010 budget as inconsistent with the constitution. The carbon tax, initially set at EUR 17 per tonne of CO_2, was intended to put a price, starting in 2010, on the externalities caused by CO_2 emissions of households and firms (except for those covered by the EU-ETS). In its decision, the Council stressed the constitutional principle that protecting the environment is everybody's duty and that exemptions should be aligned with the final goal of the carbon tax, namely the reduction of CO_2 emissions in France. The Council recognised that exemptions can be allowed if justified by the public interest, such as preserving competitiveness, or if a sector is subject to other regulatory measures with a similar objective such as the EU-ETS. The Council pointed out that the tax covered less than half of total CO_2 emissions, mainly due to burning fuel and heating oil, and that 97% of industrial CO_2 emissions were not covered. The participation of selected industries in the EU-ETS does not change the overall picture, given that emissions quotas were allocated for free. The planned exemptions, the Council argued, were clearly inconsistent with the overall objective of cutting CO_2 emissions and with the principle of equal burden sharing to achieve this objective.

Following the failure of the carbon tax in France, there are several options for how to impose an explicit carbon price on sectors not covered by the EU-ETS. One possibility to extend coverage is to introduce a cap-and-trade system for households' fuel consumption (Raux, 2007). Nonetheless, a cap-and-trade system at the household level has potentially high operational costs. Another low-cost option would be to expand the EU-ETS to the final products of actors in the fossil fuel wholesale market, namely to oil refineries or fuel wholesalers (Delpla, 2009). As a result, not only road transportation, but also GHG

emissions due to heating of residential and commercial properties would be included, increasing the coverage of the emissions trading system from 30% to roughly 75% of France's total GHG emissions. Finally, a straight carbon tax would probably pass muster with the Constitutional Council if emissions permits were auctioned for French firms in the EU-ETS (in fact, they are expected to be in 2013).

The importance of a single carbon price

Ideally, to minimise the total abatement cost, a single carbon price should be applied across all countries and sectors to reduce GHG emissions where it is the cheapest to do so. Marginal abatement costs may be higher or lower in some countries or sectors than others. Specifically, the carbon price should not differ across sectors on the basis of the existence of low-carbon alternative technologies or because of different demand elasticities to the price of carbon-intensive products. Instead of granting exemptions and reductions to the carbon tax or emissions permits, direct transfers and compensation should be used to maintain cost-effectiveness (OECD, 2006). Revenues from a carbon tax or permit auctioning could be used to compensate poor households or to decrease distortionary taxes such as taxes on labour and capital to counteract the negative effects of a carbon tax or existing distortionary tax policies on employment and investment (called revenue recycling or the "double dividend"). Moreover, tax revenues could be used to finance increased R&D in carbon-abatement technologies.

Climate change mitigation policies in France: The Grenelle de l'environnement

The wide range of implied carbon prices

A number of excise taxes (*Taxes intérieures sur la consommation*, TIC) are levied on fossil energy products in France; the most prominent is the excise tax on fuels (*Taxe intérieure sur les produits pétroliers* – TIPP), which generates the bulk of environmental tax revenues (1.3% of GDP in 2008) (Callonnec, 2009). Others are the excise tax on natural gas (*Taxe intérieure sur la consommation de gaz naturel*, TICGN) and coal (*Taxe intérieure de consommation sur les houilles, lignites et cokes*, TICC). Unfortunately, the carbon price implied by these various excise taxes varies considerably across different fossil energy products (Table 4.2). For example, the implicit carbon price derived from the excise tax in 2009 amounted to EUR 271 for petrol and to EUR 159 for automotive diesel, both well above the OECD average. These figures suggest that diesel is favoured unduly compared to petrol, as in all other OECD countries. The distortion between automotive fuels and other fossil energy products is much larger as the latter are taxed at extremely low rates, implying carbon prices at least 90% lower than for automotive fuels. The most extreme cases are natural gas for households and coal used for electricity production and household heating, which are not taxed at all (Table 4.2). Nevertheless, electricity production-related GHG emissions are covered by the EU-ETS.

Hence, the carbon prices discussed above cannot be viewed as effective prices because a number of exemptions and reductions exist and the costs of other negative externalities are not accounted for. According to Callonnec (2009), the effective carbon price that accounts for the exemptions and reductions is EUR 155 per tonne of CO_2 for fuel and EUR 7 for non-fuel fossil energy products. The major excise tax exemptions concern: *i*) fuel used for aircraft and for maritime navigation and fishing (excluding private jets and private boat use); *ii*) fossil energy products for electricity generation excluding cogeneration; *iii*) natural gas and coal for private consumption of households (including collective heating); and

Table 4.2. **Implicit carbon price based on excise tax content, 2009Q3**

	Petrol	Diesel	Ratio of diesel over petrol	LPG	Natural gas		Light fuel oil		Coal	Electricity	
					HH	IND	HH	IND		HH	IND
Netherlands	317	156	0.5	42	85	46	94	94	. .	4	. .
Turkey	312	162	0.5	155	0	5	132	. .	0	13	6
Germany	292	174	0.6	54	. .	. .	23	23	0	0	. .
United Kingdom	281	233	0.8	. .	0	3	45	45	0	0	5
Finland	280	135	0.5	. .	10	10	32	32	0	19	6
Belgium	274	131	0.5	0	. .	. .	7	7	0	. .	. .
Norway	271	173	0.6	. .	. .	. .	61	61	. .	1 707	0
France	**271**	**159**	**0.6**	**35**	**0**	**6**	**21**	**21**	**0**	**139**	**87**
Portugal	260	135	0.5	32	0	0	65	. .	0	0	0
Italy	252	157	0.6	74	. .	. .	149	149	0	57	78
Denmark	251	142	0.6	. .	135	135	108	11	19	128	9
Sweden	237	154	0.7	. .	. .	. .	135	22	. .	. .	. .
Slovak Republic	230	178	0.8	0	0	8	0	0	. .	0	0
Ireland	227	152	0.7	. .	0	0	18	18	0	0	0
Switzerland	220	189	0.9	. .	10	10	9	9	7	73	73
Austria	217	143	0.7	. .	31	. .	40	40	0	76	65
Czech Republic	207	144	0.7	50	0	6	10	10	2	2	2
Luxembourg	206	112	0.5	32	. .	3	4	8	0	26	. .
Spain	195	126	0.6	19	0	0	32	32	. .	14	9
Korea	188	109	0.6	74	19	19	22	22	. .	. .	. .
Japan	186	94	0.5	43	. .	0	6	6	2	5	5
Hungary	184	127	0.7	. .	0	5	. .	. .	0	0	2
Greece	183	112	0.6	. .	0	0	112	112	. .	. .	. .
Poland	176	101	0.6	64	0	0	21	21	0	5	5
New Zealand	112	1	0.0	. .	4	4	. .	0	. .	0	0
Australia	99	82	0.8	0	. .	. .	. .	. .	. .	. .	. .
Canada	80	48	0.6	. .	. .	. .	6	6	. .	. .	. .
United States	38	35	0.9	. .	. .	. .	. .	. .	0	. .	. .
Mexico	0	0	. .	. .	0	0	0	0	0	0	0
Average	208	126	0.6	45	16	13	46	31	2	103	19

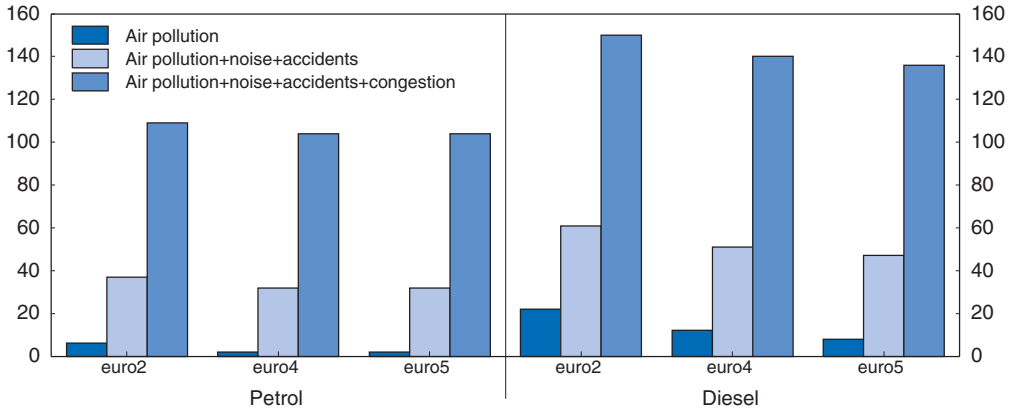
Note: Average refers to the unweighted average. The implied carbon price is computed as the amount of the tax levied per litre times the amount (litres) of fuel that needs to be burnt to reach a CO_2 emission of one tonne. One litre of diesel (light fuel oil for households and industry), petrol and LPG (liquefied petroleum gas) is assumed to produce respectively 2.7, 2.24 and 1.7 kg of CO_2. It is assumed that 4 535 269 kcal of natural gas generates 1 tonne of CO_2 and that burning 1 kg of coal generates 2.93 kg of CO_2. HH and IND refer to households and industry, respectively.
Source: OECD calculations based on data obtained from International Energy Agency.

iv) fossil energy products used in energy-intensive industries such as metallurgy and chemistry. Callonnec (2009) points out that exemptions for coal cover around 92% of France's coal consumption, but most of the industries exempted from the tax are covered by the EU-ETS, justifying those exemptions. The major tax reductions include: *i*) a partial reimbursement of 3.6 cents per litre of fuel for trucks, agricultural vehicles of over 7.5 tonnes and buses; and *ii*) a partial reimbursement of 12 cents for diesel and 24 cents for petrol for taxi drivers. An additional excise tax reduction for bio-fuels, first introduced in 1992, was 21 cents per litre for bio-petrol and bio-diesel in 2009 but fell to 14 cents in 2011. This implies an upward carbon price adjustment for bio-fuels, with the relative price of biodiesel to that of bio-petrol moving closer to that for conventional fuels.

The carbon prices shown in Table 4.2 are substantially upward biased since part of the taxes can be ascribed to negative local externalities, which are not taken into account for the calculations. As a matter of fact, burning fossil energy sources releases into the

atmosphere particulate matter, nitrogen oxides, sulphur dioxide, ozone and volatile organic compounds that damage human health, degrade buildings, result in agricultural crop losses and impact on biodiversity and ecosystems by polluting soil and water. Further negative externalities include noise pollution, accidents not covered by private insurance and bottleneck and flow congestions resulting from the use of vehicles. The total costs of local negative externalities vary a great deal depending on population density and time of day but also on the type of fuel used (diesel *versus* petrol), the vehicle emission standard applied (Euro I, II, III, IV) and the type of externalities considered (Figure 4.4). When considering the costs of local negative externalities, the implied carbon price for automotive fuels decreases significantly in absolute terms, and the relative distortion in favour of diesel rises as the local external costs of burning diesel are higher than petrol. If only air, soil and water pollution and damage to the landscape are considered, the carbon price of diesel drops by EUR 50/tonne, while it does not change much for petrol. Adding noise and accidents to air pollution results in a negative carbon price for diesel and in a carbon price of around EUR 100/tonne for petrol (Figure 4.5). Considering negative local externalities relating to congestion on top of noise, accident and air pollution yields massively negative carbon prices both for petrol and diesel. Nevertheless, excise taxes might not be the most efficient way to deal with some externalities. For example, the external costs of accidents, including time losses, could be covered by private insurance, while those related to congestion could be taken care of by road/congestion pricing.[6]

Figure 4.4. **Estimated external costs of petrol and diesel cars (EUR cents/litre), 2009**



Source: The external costs of noise pollution, accidents and congestion are taken from Persson and Song (2010, "The Land Transport Sector: Policy and Performance", *OECD Economics Department Working Paper*, No. 817, Table 5.9). The cost of air pollution for Germany published in CE DELFT (2008, *Handbook on Estimation of External Costs in the Transport Sector)* is used for all countries. In this figure, air pollution also contains soil and water pollution and damage to the landscape. The original figures refer to 2000 prices and are converted to 2009 prices by using the cumulated inflation rate of the EU25. Euro 2, 4 and 5 refer to vehicle emission standards.

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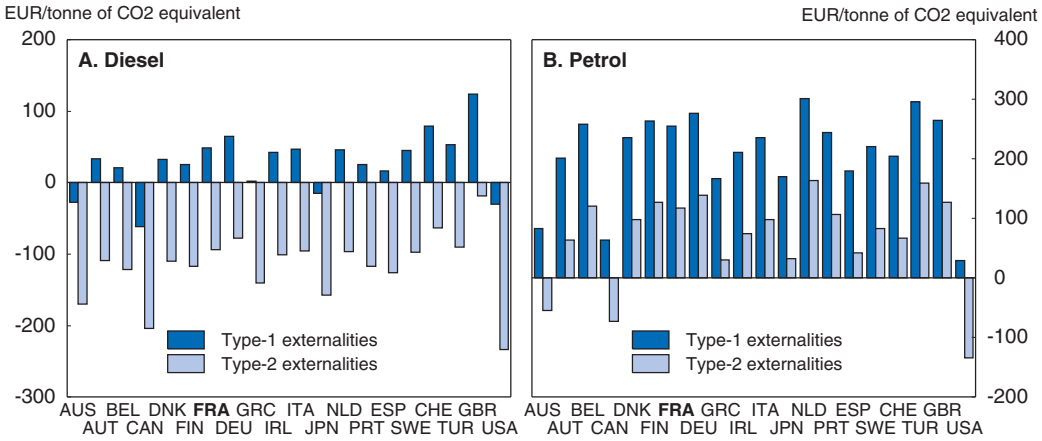
France is a far cry from having a unique carbon price. The differences in existing implied carbon prices should be decreased gradually by phasing out current tax reductions and exemptions, by increasing the carbon price of underpriced products such as coal and natural gas and by correcting the distorted relative price of diesel and petrol. A uniform carbon tax levied on top of existing taxes would not allow this goal to be achieved. This is all the more important because non-existent or very low carbon prices for several fossil

Figure 4.5. **The implied carbon price in automotive excise taxes if the costs of local negative externalities are taken into consideration**[1]



1. The implicit carbon tax is obtained by using the same methodology as in Table 4.2; the basis of the calculation is the excise tax from which two sets of external costs are reduced: 1) the external cost of air pollution (type-1 externalities); 2) the external cost of air pollution, noise and accidents (type-2 externalities).

Source: OECD calculations.

StatLink http://dx.doi.org/10.1787/888932377827

energy products are tantamount to direct subsidies that result in overconsumption of those sources of energy (Metcalf, 2009). When adjusting relative carbon prices policymakers should of course consider the external costs of local pollution.[7]

The "Grenelle de l'environnement"

Official estimates suggest that existing and new measures would allow emissions in sectors outside the EU-ETS to be reduced by 18.3% between 2005 and 2020, compared to a –14% target for France within the EU's burden-sharing plan in these sectors (MEEDDM, 2009a). The government expects the new measures taken to impact almost exclusively on energy use in electricity generation, manufacturing, transport, the tertiary sector and agriculture, with a cut of 29% in GHG emissions compared to the scenario of no additional measures taken, whereas GHG emissions not related to energy use in industrial processes, agriculture and waste management would either remain unchanged or fall only marginally (MEEDDM, 2009b). Another objective is to increase the share of renewable energy to 23% in total final energy consumption by 2020. In fact, the French government's climate change mitigation policy can be viewed as a transposition of the EU's triple 20 plan according to which a 20% reduction in GHG emissions by 2020 compared to 2005 should be achieved by cutting energy consumption by 20% and increasing the share of renewable energy to 20% in total energy consumption.

Smoothing peak demand

Given that roughly 90% of France's electricity production is virtually carbon free thanks to its stock of nuclear and hydroelectric power plants, a further decarbonisation should target the remaining 10%, which mainly relates to semi-base and peak electricity production. Coal-fired power plants should be replaced by fast-reaction natural gas-fired plants, and peak demand should be smoothed to decrease the demand for high-carbon electricity produced by fossil fuel-fired plants. Nonetheless, the *Grenelle de l'environnement* aims at a

considerable increase in the share of renewable energies in total electricity production. Against this background, a careful analysis should determine the least-cost options.

Electricity generation in France is characterised by an excess base-load capacity reflected in electricity exports, and an increased peak demand that can be covered only by electricity imports during some 60 hours per year (Rapport Poignant-Sido, 2010). Serving electricity demand during peak periods requires rapid-response capacities as demand and supply need to be balanced continuously in the electricity grid. Quick-response generation capacity usually relies on high-carbon content technology, mostly oil in France's case. As a result, smoothing peak demand can contribute to lower GHG emissions. Peak demand has daily, weekly and annual patterns, the latter being mostly associated with the heating season and cold waves since a considerable number of French households use direct electric heating or have switched recently from fossil fuel to alternative heating technologies such as heat pumps that use electricity as an input. The seasonal pattern in electricity demand can be smoothed in two complementary ways: smoothing demand and lowering the carbon content of semi-base and peak supply.

Demand can be smoothed to lower the reliance on high-carbon power stations serving peak demand.

- Off-peak and peak electricity tariffs can help smooth intraday demand, especially if the price of electricity is calibrated to change consumer behaviour. Special tariff (so-called peak day withdrawal or PDW) packages had been introduced to help smooth demand over longer time periods by offering electricity at a very high price on pre-announced days for which high demand is forecast. At present, the PDW tariff is no longer available to new customers. Although interesting in principle, this tariff was poorly designed and did not allow full cost recovery. The Poignant-Sido report (2010) suggests a progressive but comprehensive transition from flat to time-varying tariffs.
- The French electricity distributor (Électricité réseau distribution France, ERDF) is currently trialling a new generation of communicating electric meters called "Linky" that will provide a precise indication of users' load curves as well as two-way communication from and to users. It will serve as a platform for new services, which will allow users greater control over their consumption, especially during peak hours. A recent study by the consulting company Accenture estimated that peak demand could be cut by 7% in Europe if 50% of households and small businesses were equipped with smart meters (Ollagnier, 2010). The "smart grid" opens new perspective thanks to remote control services that enable the network operator to switch off high electricity consumption devices such as electric radiators, air conditioners, hot water tanks or heat pumps for a limited period of time during peak demand without causing major disruption for the consumer. The Poignant-Sido report recommends that all new electric heating and air-conditioning appliances should be equipped with devices which allow the network operator to transmit a signal to switch them off for a predetermined period of time. Indeed, the French company Voltalis already offers to French households the "Bluepod" box, which switches off the aforementioned devices if necessary. If demand exceeds electricity production, the transmission network operator (Réseau de transport d'électricité, RTE) contacts Voltalis, which can withdraw demand in real time by modulating electricity consumption in many households via the "Bluepod".[8] Furthermore, seasonal consumption could be also reduced by modernising France's public street lighting and by an information campaign promoting

lower recommended heating and higher air-conditioning target temperatures (Rapport Poignant-Sido, 2010).

On the supply side, electricity produced during periods of low demand relying on low-carbon technology such as nuclear or renewable energies should be stored and then used when demand is high. Currently, the only technology available on an industrial scale is electricity stored in the form of water behind dams. Yet, there are strong geographical and ecological constraints on a significant expansion of hydropower capacity in France. New technologies, including electricity storage with air compression, may change the *status quo*. In addition, the electricity sector's multi-year investment plan recognises the scope to cut the carbon content of the semi-base-load by investing in gas-fired power plants to replace coal-fired plants but nevertheless emphasises the need to maintain oil-fired plants to meet peak demand (MEEDDAT, 2008a).

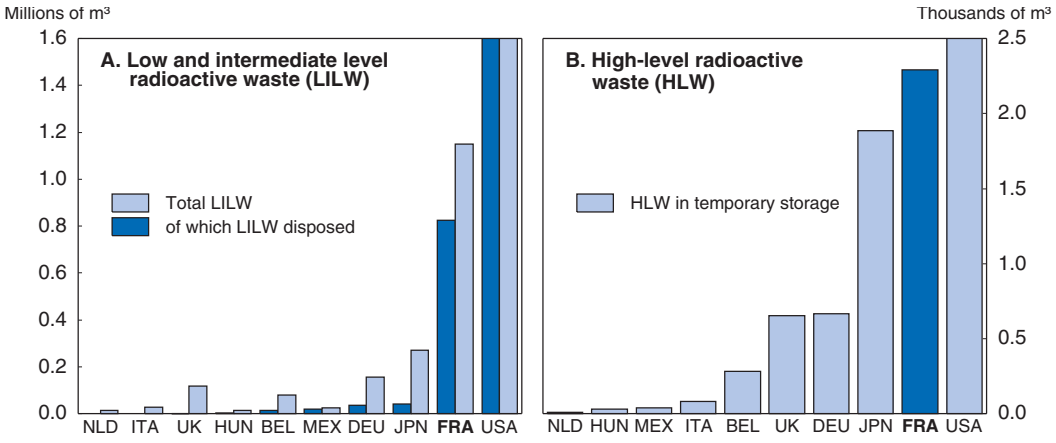
Maintaining and modernising the nuclear stock and dealing with its waste

Crucial to maintaining a low-carbon electricity generation capacity is to keep France's ageing nuclear stock operational. Its 58 reactors in the 19 nuclear power stations were built between 1979 and 2000 and had an average age of 23 years in 2009 (IEA, 2010). The first reactors will reach the end of their planned lifetime of 40 years[9] towards 2020, but EDF, the national electricity supplier that operates all the reactors, is seeking to extend their lifespan to 60 years, as suggested by the Roussely report (Roussely, 2010), subject to the approval of the Nuclear Safety Authority (*Autorité de sûreté nucléaire*, ASN). In the meantime, in 2007 EDF started the construction of a "third-generation" European Pressurised Water Reactor (EPR) and plans a second one; they offer a higher level of safety. But the new reactors will produce electricity at a higher cost than existing nuclear capacity for which investment costs are largely written off. The New Law on the Organisation of the Electricity Market of 7 December 2010 (*Nouvelle loi du marché de l'électricité*, NOME) opened 25% of EDF's historical nuclear power generation to alternative suppliers who will be able to buy electricity from EDF for their domestic needs at a price which will be determined by the government until 2015, and by the energy regulator (*Commission de régulation de l'énergie*, CRE) thereafter, and which will have to reflect the economic conditions of the historical installed nuclear capacity. In the spirit of the Champsaur report (Champsaur, 2009), the NOME recommends that the access price for historical nuclear power should be based on the future costs of maintaining the historical installed nuclear capacity in operational condition and extending its lifetime, in addition to historical costs of past investments that have not yet been amortised and operating costs. Taking a step forward, the Roussely report suggested that investment costs related to the renewal of the nuclear stock should also be reflected in the access and retail prices. This would imply a major but progressive increase in the regulated price of electricity.[10]

France has the second largest stock of nuclear waste in the developed world, chiefly as a result of its large civilian nuclear programme (Figure 4.6). The stock of very low, low- and intermediate-level radioactive waste amounted to over 1 million cubic metres at the end of 2007. At that time, approximately three quarters of that waste was stored in final depositories, while the stock of high-level radioactive waste was 2 300 cubic metres, all in intermediary storages. According to the Nuclear Safety Agency (Autorité de sûreté nucléaire, 2010), the stock of very low, low- and intermediate-level waste will double by 2030. The urgency of constructing long-term depository sites for all levels of radioactive waste, addressed in the Law on Sustainable Management of Radioactive Materials and Waste (Loi

Figure 4.6. **Radioactive waste stocks, 2007**

m^3, low- and intermediate-level radioactive waste LILW (left) and high-level radioactive waste HLW (right)



Source: IAEA (*http://nucleus.iaea.org/sso/NUCLEUS.html?exturl=http://newmdb.iaea.org*) and Autorité de sûreté nucléaire (2010, *Annual Report 2009*) for France.

StatLink http://dx.doi.org/10.1787/888932377846

n° 2006-739 du 28 juin 2006) became evident after a recent inquiry by ASN that revealed major weaknesses at a temporary storage site of the company AREVA in La Hague (*Le Monde*, 2010). The National Agency for Radioactive Waste Management (*Agence nationale pour la gestion des déchets radioactifs*, ANDRA) is in charge of taking the lead in finding appropriate sites for near-surface disposals for long-life, low-level waste and for deep disposals for intermediate- and high-level waste (IEA, 2010). The Roussely report urges ANDRA to join forces with EDF and other actors in the French nuclear industry to meet the deadline of 2015 for applying for a construction licence for a deep geological storage facility.

According to the law, the costs of waste disposal and decommissioning have to be covered by the nuclear industry (EDF and AREVA), and provisions must be made for this purpose. In the case of waste storage, an estimate drawn up by ANDRA (National Agency for Radioactive Waste Management) is used as a basis for assessing the size of the provisions the operator needs to make. These costs were estimated to amount to around 1% of production costs in 2002 and between EUR 21 and 26 billion in 2009 (National Assembly, 2011). According to the Court of Audit, deep geological storage would cost between 13.5 and EUR 16.5 billion (Cour des comptes, 2006). By contrast, provisions for decommissioning are estimated by EDF. But they have to be validated by EDF's Nuclear Commitments Monitoring Committee, of which the Director of Energy and Climate from the Ministry of Energy is a member. A national evaluation committee, whose mandate was renewed on 10 August 2010, is tasked with checking that these provisions are properly funded. By way of example, by 2010, EDF had set aside EUR 12.4 billion of financial assets to finance these provisions. At the same time, all future costs of decommissioning and nuclear waste management are estimated at around EUR 30 billion in present value at end of 2010.[11] EDF has to constitute a portfolio of financial assets covering those costs by 2016 (rather than 2011 as initially planned).

Encouraging other forms of renewable energy

The French government uses two main instruments to promote renewable energy. First, the tax system includes a tax credit for the purchase of equipment, and a reduced

VAT rate of 5.5% is applied to equipment used for investment in small solar energy plants (< 3 kWe). Second, mandatory feed-in tariffs imposed on EDF or local distribution firms and set by ordinance above the market price of electricity for terms of up to 20 years have been introduced to ensure that electricity producers can at least break even on investment. In addition, feed-in tariffs are often used to support infant industries or innovative activities, although broader and less targeted support, including access to venture capital and an innovation policy that encourages basic and applied research, would seem to be more effective. Feed-in tariffs were first introduced in 2001-02 for electricity generation technologies that make use of solar, wind, tidal wave, geothermal and hydro energy, biomass and biogas. They were revised upwards for solar, geothermal and hydro energy and biogas but were regressive for wind. There is a large dispersion in feed-in tariffs across renewable energies. But there is also substantial variation for a given source of energy. Feed-in tariffs may depend on installed electricity generation capacity, the specific technology used (offshore *versus* onshore wind, rooftop or ground-based solar panels), the geographic location (metropolitan France *versus* Corsica and overseas departments for solar and geothermal energy, geographical situation on a North/South gradient in metropolitan France), energy efficiency (biogas and biomass) and the season of the year (winter *versus* summer for hydroelectric power plants). Two important issues with regard to feed-in tariffs are: the implicit subsidies to producers due to what is for a set period of time an above-market selling price; and the cost of an avoided tonne of CO_2 equivalent GHG emission due to the specific technology supported by feed-in tariffs.

In early 2010, this difference between feed-in tariffs and market prices was particularly high for solar energy, reaching 27 to 54 cents per kWh with a wholesale market price of around 6 euro cents per kWh. In fact, guaranteed feed-in tariffs for photovoltaic energy were 7 to 14 times higher than the market price of electricity (Table 4.3, Panel A). In September 2010, the feed-in tariff was lowered by 12% for large-scale installations, and as of 2011 the budget bill lowered the tax credit granted to small installations from 50 to 25%. The ratio ranges from 3 to 4 for biomass, geothermal and tidal power, while it is below 3 for wind, hydroelectricity and biogas. Feed-in tariffs for solar energy in France were among the highest in the OECD (only Portugal provides more generous subsidies), while those for biogas were and remain the lowest (Table 4.3, Panel B).

While on the rise, the share of specific renewable energies in France's gross electricity production were below the OECD average in 2008. For instance, whereas wind accounted for more than 10% of electricity production in Germany, Denmark and Spain, its share in France was a mere 1%. Similar conclusions can be drawn for solar and geothermal energy and combustible renewables. By contrast, the share of electricity produced using tidal power is the highest in France, though it is quantitatively not very important, accounting for only 0.1% of gross electricity production. It should be recognised, however, that renewable energies such as wind and solar energy cannot replace base load and semi-base load on a large scale due to intermittence unless technological progress is made to store electricity, for instance using compressed air. This is being deployed in a demonstration power plant of the German electricity supplier RWE (RWE, 2010).

Overall, subsidies implied by feed-in tariffs received by French electricity producers using renewable energy (except for hydropower)[12] are estimated to be EUR 0.5 to 1 billion per annum, which corresponds to 0.02%-0.05% of GDP.[13] A large share goes to wind and biomass. At the same time, subsidies directed at solar energy were low in 2009, due to the fact that, despite extremely high feed-in tariffs, the installed solar capacity remained

Table 4.3. **Feed-in tariffs and implied producer subsidies in Europe**

The ratio of feed-in tariffs to average market price of electricity production

Panel A. Feed-in tariffs, 2009-10

	The ratio of feed-in tariffs to average market price of electricity production						
	Solar	Wind	Biogas	Biomass	Geothermal	Hydro	Tidal wave
Austria	7.7-11.8	1.9	4.4		1.9		
Belgium	3.6-10.8	1.6-2.2		1.6-2.2			
Czech Republic	12.8	2.1	2.6	2.6	4.1	2.1	
Denmark		1.1-2.6					
Finland		1.8	1.6-2.7				
France	**7.3-13.5**	**1.9-3.0**	**1.0-2.0**	**2.9-4.1**	**2.8-3.5**	**1.5-2.4**	**3.5**
Germany	8.5-11.1	2.4-3.3	2.0-3.0	2.0-3.0	2.7-6.3	2.0-3.3	
Greece	5.6-7.7	1.2-1.0					
Ireland		3.5-1.4	1.8-4.7	3.0-3.5		1.8	
Italy	4.9-6.6	4.2	2.5-4.2	3.1	2.8		4.8
Netherlands	2.3	2.3		2.3		2.3	
Portugal	8.9-16.5	0.7-1.3				1.1	3.7
Slovakia	10.9	2.1	3.2	2.9			
Spain	8.1-8.6	2	2.2-3.5	1.5-4.3	1.8-1.9	1.9-2.1	1.8-1.9
Switzerland	6.0-11.1	3	2.6-4.2	0.4	3.4-6.0	1.1-3.9	
United Kingdom	8.8-12.4	1.3-10.3	1.6	0.7-2.7		1.4-6.0	

Panel B. Direct producer subsidies implied by feed-in tariffs, 2009

	EUR million							% of GDP
	Solar	Wind	Biogas	Biomass	Geothermal	Hydro	Wave	**Total, excl. hydro**
Austria	6-9	90	75		0.1			**0.05-0.06**
Belgium	18-67	23-47		62-129				**0.03-0.07**
Czech Rep.	40.7	14	21	92	0	129		**0.12**
Denmark		20-538						**0.01-0.24**
Finland		11	3-8					**0.01-0.01**
France	**44-88**	**302-674**	**1-31**	**120-193**	**0**	**1 397-3 662**	**53**	**0.02-0.05**
Germany	1 805-2 426	2 009-3 446	487-972	506-1 009	1-4	885-2 065		**0.20-0.33**
Greece	2	4-27						**0.00-0.01**
Ireland		51-296	4-17	5-6		40		**0.04-0.19**
Italy	206-299	1 394	168-352	421	690			**0.19-0.21**
Netherlands	3	253		199		5		**0.08**
Portugal	50-98	0-96				24		**0.03-0.12**
Slovakia	0	0	1	33				**0.05**
Spain	1 724-1 846	1 422	29-62	36-263	0	1 277-10 367		**0.31-0.34**
Switzerland	8-16	2	14-28	0	0	224-5 205		**0.01-0.01**
United Kingdom	5-8	119-3 175	159	0-216		126-1 765		**0.02-0.23**

Source: Panel A: OECD calculations based on data on feed-in tariffs obtained from official sources and market prices of electricity exchanges. The ranges refer to the lowest and highest feed-in tariffs for a given energy source. Panel B: OECD calculations. The amount of subsidy is calculated as the lower and upper-bound feed-in tariffs in excess of the market prices multiplied by electricity production from a given energy source in 2009.

low.[14] When compared to other OECD countries, the overall amount of subsidies in 2009 therefore seems moderate: direct subsidies to renewable electricity producers in particular in Germany but also in Italy and Spain are estimated to be higher by a factor of 5 to 10, as a percentage of GDP, than in France.

The design of feed-in tariffs in France is rather simple: they are fixed separately in absolute monetary values that are revised only occasionally. Feed-in tariffs are not reviewed

systematically to respond to trend declines in the cost of renewable-energy-based power and can therefore generate high rents for electricity producers. Following Germany's example, degressivity has been recently introduced in France with two decreases in 2010 in the feed-in tariff for solar energy and a scheduled regular decrease for wind energy of –2% per year (since 2008), which will eventually make feed-in tariffs converge to market prices. In addition, the Decree of 9 December 2010 suspended the requirement to purchase solar energy produced by certain installations for a period of three months in order to introduce a new regulatory framework for the sector which in particular would include annual volume targets (in terms of installed capacity) (Chauveau, 2010).

The costs implied by the feed-in tariffs of abating one tonne of CO_2 equivalent GHG emissions depend crucially on two parameters: the excess of the feed-in tariff over the market price and, very importantly, the carbon-intensity of the power generation technology that is displaced by the subsidised technology.[15] Previous OECD work (OECD, 2004a) computed the abatement costs of measures promoting renewable sources of energy by assuming that investment in electricity production based on renewable energies will replace natural gas-fired combined-cycle turbines as the benchmark technology that would be a natural choice for increasing capacity. This chapter takes a different view and argues that two different benchmarks should be used. It should be stressed that the abatement costs calculated here are lower-bound estimates, given that investment subsidies are not taken into account.

The first benchmark is the most carbon-intensive technology, namely coal-fired power plants. This choice permits the comparison of the least-cost abatement options in each country.[16] As reported in the upper Panel of Table 4.4, the abatement costs are a linear function of the feed-in tariffs in excess of the market price of electricity (as carbon intensity for the displaced technology is held constant across countries): abating GHG emissions in the French electricity sector appears to be the most expensive if photovoltaic is the replacement technology (EUR 270-540 per tonne of CO_2 avoided) and costs the least for biomass (EUR 2-44 per tonne of CO_2 abated). These abatement costs are, respectively, among the highest and lowest in the OECD. Abatement costs for other sources of renewable energy are closer to the OECD average.

The second and perhaps more appropriate benchmark is the country's actual electricity mix if a significant rise in the share of renewable energies crowds out all existing technologies. For France, the 23% objective for renewable energy in the global energy mix coupled with a current share of 75-80% of nuclear energy in electricity production would mean that low-carbon renewables would replace an existing low-carbon technology, obviously at a very high cost.[17] The lower the carbon intensity of a country's electricity mix, the higher the abatement cost associated with a given low-carbon technology. This is shown in Table 4.4: reducing GHG emissions is extremely expensive in France and Switzerland, while it is much cheaper in countries with a higher share of coal-fired power plants, such as Germany, Denmark and Poland.

Ideally, the abatement costs implied by feed-in tariffs should be aligned with the carbon price projected by the government to achieve GHG emissions goals. These costs should be set equal for all sources of renewable energy to insure that those with the lowest actual abatement costs are chosen and to avoid favouring particular technologies. However, it should be noted that the large number of externalities to be taken into account, including local air pollution, pollution of land, air and damage to the countryside, does not necessarily mean that a strict

Table 4.4. **GHG abatement costs implied by feed-in tariffs Europe, 2009-10**

	Solar	Wind	Biogas	Biomass	Geothermal	Hydro	Wave
Abatement cost, benchmark = coal-fired power plants (EUR/tonne of CO_2 equivalent)							
Austria	261-421	37	131		34		
Belgium	108-408	23-48		23-48			
Czech Rep.	457	47	62	64	119	43	
Denmark		0-80					
Finland		39	29-83				
France	**271-537**	**39-87**	**2-44**	**82-132**	**77-107**	**23-59**	**107**
Germany	291-391	53-91	39-78	39-78	66-205	38-88	
Greece	329-479	2-14					
Ireland		17-100	30-149	80-100		32	
Italy	275-399	229	109-229	149	129		269
Netherlands	55	55		55		55	
Portugal	311-611	(–13) –12				3	106
Slovakia	386	42	87	74			
Spain	281-301	39	46-100	18-130	30-34	36-44	30-34
Switzerland	241-482	96	78-153	–26	115-239	6-139	
United Kingdom	311-454	14-373	26	(–10) –68		14-198	
Abatement cost, benchmark = country-specific electricity mix (EUR/tonne of CO_2 equivalent)							
Austria	939-1 515	132	472		123		
Belgium	382-1 442	82-170		82-170			
Czech Rep.	689	71	94	96	179	65	
Denmark		4-111					
Finland		85	63-179				
France	**3 107-6 157**	**447-997**	**23-507**	**940-1 513**	**883-1 227**	**260-682**	**1 227**
Germany	487-655	89-153	65-130	65-130	111-343	63-147	
Greece	422-614	3-17					
Ireland		28-165	50-246	132-165		53	
Italy	495-718	412	196-412	268	232		484
Netherlands	87	87		87		87	
Portugal	587-1 154	(–25) –24				5	200
Slovakia	1 524	166	344	293			
Spain	612-655	85	100-218	39-284	66-75	78-96	66-75
Switzerland	5 952-11 916	2 367	1 922-3 786	–652	2 844-5 916	148-3 430	
United Kingdom	528-772	24-634	44	(–16) –115		24-337	

Source: OECD calculations. Abatement costs are computed using the lower- and upper-bound feed-in tariffs in excess of market prices and the amount of avoided CO_2 equivalent emissions.

equalisation of feed-in tariffs would be optimal. Yet in most OECD countries, including France, abatement costs for solar energy and other renewables are well above any realistic carbon price and vary a great deal across different energy sources, mainly because feed-in tariffs reflect, besides considerations of energy security and industrial policy, the actual costs of investment in renewable energies.[18] The only exception is the Netherlands, where feed-in tariffs are uniform and imply abatement cost of EUR 55 and 87 per tonne of CO_2 using, respectively, coal-fired capacity and the observed electricity mix as benchmarks.

The residential, commercial and government sectors have reasonably low abatement costs

The government hopes to achieve lower GHG emissions in the residential, commercial and government sectors by reducing the consumption of primary energy sources by 38% by 2020 and by engineering a switch from fossil to renewable sources for heating purposes.

For residential housing, which represents about three-quarters of total heated space, the current annual average energy consumption of 240 kWh per square metre is expected to be reduced to 150 kWh by two main channels. First, stringent norms will impose very low energy consumption of 50 kWh for new residential buildings from 2012 onwards and "energy-plus" buildings, designed to produce energy to cover their own energy needs, starting in 2020. The second is through energy efficiency improvement of existing buildings. The renovation of the current stock and the modernisation of heating systems are supported by a tax credit for sustainable development (crédit d'impôt développement durable), an environmental zero interest loan (*éco-prêt à taux zéro*), a low-interest credit assigned for eco-friendly social housing, and the reduced VAT of 5.5% for a variety of equipment. The conditions for access to the tax credit and the reduced VAT were tightened in 2010. Even though MEEDDAT (2008b) presents abatement costs for the energy consumption of new buildings and the thermal renovation of public and private buildings, it would be desirable to introduce a systematic analysis of specific measures in terms of abatement costs both to determine the cost of public subsidies and to improve the cost efficiency of the measures. Estimated abatement costs of selected investments in low-carbon and energy-efficient equipment shown in Table 4.5 exhibit a substantial variation depending on the existing heating system and the type of housing considered (single family houses *versus* multi-unit buildings). Abatement costs are the lowest for replacing carbon-intensive heating systems, while they are very high for replacing electric heating and heat pumps. They are particularly low for multi-unit buildings. It should be noted that these figures represent gross costs in that they do not take account of energy savings and should therefore be interpreted as the abatement costs of the measures taken by the government and not as total abatement costs.

Table 4.5. **Estimated abatement costs of measures aiming at better thermal insulation and upgrading heating systems**

EUR/tonne of CO_2 equivalent

Type of original heating	Coal	Heating oil		Natural gas		Electricity		Heat pump	
Type of dwelling	Family house	Family house	Multi-unit building	Family house	Multi-unit building	Family house	Multi-unit building	Air-source family house	Ground source family house
Type of thermal insulation									
Windows	256-341	278-370	37-43	773-1 031	103-120	1 522-2 029	152-178	4 167-5 556	5 556-7 407
Walls	319	346	170	962	473	1 894	698	5 185	6 914
Roof	107	116	39	322	107	634	159	1 736	2 315
Type of new heating system									
Natural gas (condensation)	67	74	41	516	286				
Electric heating	31	34	4	157	27				
Heat pump									
Air source	64-136	69-149		222-475		560-1 199			
Ground source	88-179	97-195		299-599		699-1 398			

Note: The figures shown in the table are gross abatement costs because they exclude energy saving.
Source: OECD calculations.

Additional measures include relief on property tax for the renovation of buildings built before 1989, special public funds provided for renovations meeting strict energy-performance standards. To increase public awareness of energy efficiency, and to comply with the EU Directive of 2002 on the energy performance of buildings, a commercial or residential property sale or rental contract has to be accompanied by an

energy-performance certificate (*diagnostic de performance énergétique*) that classifies the property in terms of energy efficiency and CO_2 emissions in seven major dimensions. Real estate advertisements have to be accompanied by energy-performance certificates starting in 2011.

Since 2006, energy providers (electricity, gas, heating fuel and district heating, of which nearly 80% is supplied by EDF and GDF Suez) are required to secure energy savings. A similar system was put in place in 2002 in the United Kingdom and in 2005 in Italy. Energy providers have the obligation to reduce the energy sold with the help of increased energy efficiency of their final customers. If they miss the reduction target, they have to pay 2 cents for each kWh by which they fail to meet the target. Certified energy reductions are rewarded by so-called white or energy-saving certificates that can be used for a provider's own target compliance or can be sold to other providers that cannot meet their targets. As in any other cap-and-trade system, the incentives ensure that cuts are done where they are the cheapest. According to DGEC (2009), in 2009 92% of white certificates were concerned with residential and commercial buildings, of which improvements to heating systems and thermal isolation represented the major chunk, and the price of exchanged certificates remained below 1 cent per kWh. Energy savings during the first phase (1 July 2006-30 June 2009) amounted to 60 TWh (compared to a goal of 54 TWh), *i.e.* 15% of the annual energy consumption of the housing sector in France. The system is now entering into its second phase from 1 January 2011 to 31 December 2013 with a target of 345 TWh, *i.e.* more than six times the goal for the first period (MEEDDM, 2009e).

The transport sector: reducing GHG emissions at a very high price?

The transport sector, which accounted for around one quarter of France's total GHG emissions in 2007 emitted 15.4% more GHGs in 2007 than in 1990. The main goal of French environmental policies targeted at the transport sector is to reduce GHG emissions by 20% between now and 2020 in order to reduce them to 1990 levels by that date. Because road transportation is responsible for the lion's share of sectoral emissions, the measures taken aim to divert transport away from roads, especially from the use of cars to alternatives including public transport, railways and inland water and sea transport and to increase the energy efficiency of road transportation.

Three distinct measures are being used to encourage the shift from roads to alternative means of transportation. The first aims to reduce the role of individual transport in long-distance travel by adding an extra 2 000 km to the 1 875 km of existing high-speed rail network (lignes à grande vitesse, LGV) by 2020, a EUR 16 billion investment, and possibly another 2 500 km later on. Second, the expansion of the existing 326 km of public transport lanes (tramways, buses, etc.) to 1 800 km in major provincial French cities, and the building of a circular automatic train linking the outskirts around Paris are meant to reduce the use of passenger cars in peri-urban areas. Third, an investment programme of EUR 7 billion launched in 2009 seeks to reduce long-distance road freight transportation by increasing the share of rail in total freight to 25% by 2022 from 14% in 2003 (Loi Grenelle I). Pivotal to the programme are the so-called rail motorways, of which there are two in experimental form linking Perpignan to Luxembourg and Lyon to Turin, and a third connecting south-west France and the northern part of the country via the Ile-de-France region is expected to be launched in the near future. In addition, measures are being taken to increase the speed and length of freight trains, to reduce congestion in the Montpellier-Nîmes area and around Lyon and to improve railway and inland water

connections to major sea ports (MEEDDM, 2010c). Furthermore, the government hopes to remove 5 to 10% of lorry traffic by creating sea motorways along the French coastlines and by developing inland water traffic. For instance, the modernisation of the canal route Seine-Northern Europe is expected to reduce 250 000 tonnes of GHG emissions annually at a cost of EUR 4 billion in investment.

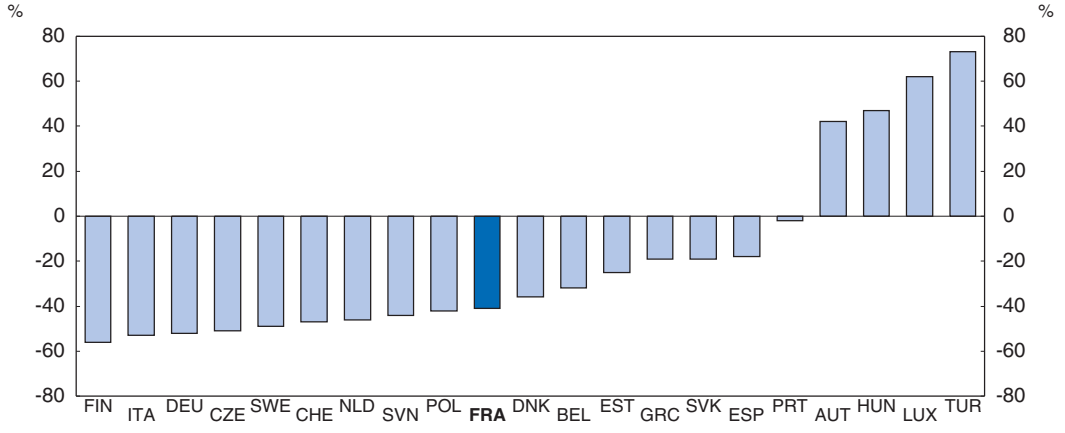
Yet this impressive investment agenda implies a very high public GHG abatement cost: EUR 530 to EUR 2 500 per tonne of CO_2 equivalent avoided (Prud'homme, 2009b). In 2008, the railway system and local public transport received EUR 13 and EUR 18 billion in implicit subsidies, respectively, while public revenues related to road transportation exceeded the running and capital costs of the road network by a large margin (EUR 16 billion[19]). High-speed trains (TGVs) cover around 90% of total costs, but the share is only 50% for nationwide passenger trains, 30% for regional trains and freight rail transport and 25% for urban public transport (Prud'homme, 2009b). Doubling the share of rail in total transport will add at least another EUR 10 billion in public subsidies, abstracting from those to staff pensions. A similar scaling up of public transport would result in extra public subsidies of EUR 18 to EUR 31 billion. All in all, doubling rail's share would increase the general government deficit by about 0.5 to 0.9 percentage point of GDP a year, all other things being equal. This taken together with a similar increase in public transportation would lead to an annual rise in the public deficit of 1.5 to 2.5 percentage points of GDP. Prud'homme (2009b) points out that public subsidies in the current regulatory environment do not incentivise either the network operator (RFF) or the service provider (SNCF) to improve performance. Allowing inter- (coaches *versus* trains) and intra-modal (alternative passenger train service providers) competition or introducing a variant of incentive regulation would foster cost efficiency. Combined with an independent regulator, it would also be bound to spur investment, as shown for instance in Égert (2009) for network industries. The creation of an independent railway regulator (*Autorité de régulation des activités ferroviaires*) in December 2010 is an important step in this direction.

Considering that rail and road transport accounted, for, respectively, 11% and 87% of total transport services, a doubling of the rail share and a corresponding decline in road transport would give net GHG emission savings of 14.15 Mtonnes per year. Dividing the annual costs of EUR 10 to EUR 17 billion by avoided emissions yields an abatement cost of EUR 526 to EUR 894 per tonne of CO_2 avoided.[20] Kageson (2009) points out that high-speed trains are unlikely to contribute significantly to reducing GHG emissions because building the new infrastructure and equipment generates GHG emissions that counterbalance the gains from diverting traffic from road vehicles and airplanes but also because their high energy needs are likely to be covered by gas- or coal-fired capacity in the short run. Looking more specifically at abatement costs in rail freight, a simple calculation including both the costs of investment and public subsidies gives a range of EUR 618 to EUR 1 007 per tonne, depending on the size of previous public subsidies.

Policies aimed at reducing GHG emissions in road transportation rely on advertising campaigns, standards and market-based instruments. Two major campaigns launched in 2006 have sought to increase public awareness regarding private cars' carbon emissions. First, new cars are now categorised and labelled according to their CO_2 emission levels, as with the energy efficiency labelling of household appliances and residential buildings. Second, questions relating to efficient driving are included in driving theory tests, and more generally companies are encouraged to promote such "green" driving. This may in turn encourage innovation.[21]

The government has set a goal of lowering the average 176 grams/km of CO_2 emitted by the French passenger car fleet to 120 grams by 2020. That would cut GHG emissions by a third if higher fuel efficiency does not translate into more car use (the so-called rebound effect). A similar reduction is being sought for heavy vehicles and motorcycles. In line with EU objectives, average emissions of all newly registered passenger cars of each manufacturer should not be higher than 130 grams/km of CO_2 by 2015 and 95 grams/km by 2020. Non-compliance will trigger progressive penalty payments for each gram in excess of the standard. In addition, stringent EU standards with a view to reducing local pollution have been gradually implemented on new cars since 1992. Euro V, just implemented, and Euro VI to be introduced in 2015 impose drastic reductions of local pollutants compared to Euro I. For instance, vehicle emission standards imposed a cut by a factor of five for the share of particulate matters in exhaust fumes of diesel passenger cars between 1992 (Euro I) and 2006 (Euro IV). The achieved cut of 40% over the same period in France is large but lags behind the change in vehicle emission standards for several reasons (Figure 4.7). First, the norms for heavy trucks, which are less strict, are being applied with considerable delay. Second, the share of diesel passenger cars in the ever expanding car fleet almost doubled to 54% in 2008 from 31% in 1997, largely due to public policies favouring diesel over petrol engines. Third, overall mileage on the French road network has increased over time. Fourth, it takes years for the new norms to be transmitted to the entire car fleet. In 2007, 95% of the French car fleet was consistent with Euro I, while only 35% met Euro IV norms. A simple calculation that uses the observed annual increase of 2% in the total number of passenger cars (after scrapping), a total car fleet of 30.85 million cars and 2.05 million new cars in 2008, suggests that 22 years will be needed for a complete renewal of the fleet.

Figure 4.7. **Change in total emissions of particulate matter due to road transportation, 1992-2006**



Source: OECD calculations based on data obtained from Eurostat.

StatLink http://dx.doi.org/10.1787/888932377865

Promoting bio-fuels has been high on the government's agenda as it has fixed more ambitious targets than those recommended by the European Union: their share in total energy consumption (in calorific values) of road transport was set to reach 7% by the end of 2010 instead of the European objective of 5.75%, and the 10% objective should be reached by 2015 rather than by 2020. The underlying justification of the use of bio-fuels is that related GHG emissions are lower than for conventional fuels. The life-cycle GHG outcomes

of first- and second-generation bio-fuels are subject to significant controversy mainly because the intermediate stages of the production cycle, including crop production and the transformation of crops into bio-fuels, can be very energy intensive (Steenblik, 2007; International Transport Forum, 2008). A recent study commissioned by the French government argues that, in France, first-generation bio-fuels have had a favourable GHG emission balance compared to fossil fuels (Bio Intelligence Service, 2010). Yet the study does not account for indirect land-use change: a positive life-cycle GHG balance can become negative if diverting crops in one country and making up for them elsewhere causes deforestation, for instance. While it is highly questionable whether bio-fuels help reduce GHG emissions, using bio-fuels in vehicles significantly reduces local pollution due to sulphur oxides (SO_X), carbon monoxide (CO) and particulates.

The first measure that helps achieve these bio-fuels goals is a penalty incorporated since 2005 in the general tax on polluting activities (TGAP) on fuel sold by distributors that does not respect a specified target. The minimum share of bio-fuels in total fuel sales was 1.75% in 2006 and was progressively increased to 7% in 2010. The second measure is a partial exemption from excise tax for bio-diesel and bio-ethanol and tax relief on vegetable oils used by farmers and fishermen as fuel. The partial tax exemption has been extended to 2013.[22] Furthermore, the 10% objective is well reflected in the launch in 2009 of a fuel composed of 90% of 95-octane petroleum petrol and 10% of ethanol that can be used by 60% of the French petrol car fleet and that is supposed to ultimately replace the conventional 95- and 98-octane petrol. However, in order to reduce GHG emissions, it is more efficient to target and/or tax the carbon content of fuels, rather than imposing volumetric production targets for bio-fuels because various bio-fuels have different GHG balances (International Transport Forum, 2008). Of course this holds only if bio-fuels have a favourable GHG balance, which remains highly uncertain.

The bonus-penalty system that has been in place since 2008 helps the shift towards low-carbon and less polluting cars by offering a monetary award to those purchasing a new car with an emission level of below 130 g of CO_2/km and by penalising the purchase of cars that emit more than 160 g of CO_2/km. Until end-2010 this system, which replaced the surtax introduced in 2004 on cars with emission levels above 200 g of CO_2/km, was coupled with a car-scrapping scheme as from December 2008, which was ended on 1 January 2011 and which had aimed at reducing the average emissions of the overall French fleet by replacing old polluting cars. Even though this system has speeded up the reduction in emissions from new vehicles, it has further strengthened the decade-long trend increase in the share of diesel cars in the total stock by focusing only on CO_2 emissions and has failed to take account of the higher contribution of diesel fuelled cars to local air pollution. Indeed, the main instrument for reducing emissions other than CO_2 is the Euro standard. Until the Euro V standard entered into force on 1 January 2011 for new cars, the standards tended to be less stringent for diesel cars than for petrol cars. But Euro V closes the gap between the permitted emissions ceilings for petrol and diesel cars. In 2011, the bonuses were lowered and the emission grids for the bonuses and penalties tightened; as of 1 January 2011, the only vehicles eligible for a bonus are those whose CO_2 emissions are less than 110 g/km and a penalty is applied to vehicles whose CO_2 emissions exceed 150 g/km. As from 1 January 2012, these values will be lowered to 105 g/km for the bonus and 140 g/km for the penalty. This is an important further step, which should be pursued until the bonuses are reduced to zero because the bonus-penalty system financially rewards a negative global and local externality since even very low-emission cars cause a negative externality. In any case, the thresholds in

the bonus-penalty system and the car labelling scheme are not fully aligned with each other, reducing transparency and increasing compliance costs for manufacturers. The two schemes should be harmonised in the future.

Personal and business car owners have to pay, in addition to the VAT, a one-off tax related to the power of the engine instead of CO_2 emissions at the time of the purchase of the car. Passenger cars owned by companies are subject to a special annual tax (*Taxe sur les véhicules de société*) that is calculated on the basis of a car's CO_2 emissions and the annual mileage for cars that were registered after 2004 (on the basis of the car's horsepower for those purchased before 2004). Nevertheless, a two-year break applies to electric cars and those run on natural gas or super-ethanol (E85), while taxis, rented cars, cars used in driving schools or for racing are fully exempted. Company utility vehicles are not subject to any tax of this kind. Indeed, the implementation in late 2009 of the European Directive 2007/46/EC made it possible for companies to register large cars like Audi Q7, BMW X5, Porsche Cayenne, Volkswagen Touran, Renault Espace and Grand Scenic, Citroën C4 and C5 as utility vehicles that escape from the taxes applying to other company-owned passenger cars (Fainsilber, 2010). This loophole was closed by article 24 of the 2011 budget bill adopted on 29 December 2010.

Another component of French transport policies is road pricing. The toll levied on users of French motorways depends on the mileage and the type of vehicle (motorcycles, passenger cars, light utility vehicles, bus and trucks) and aims principally to finance the costs of investment, maintenance and operation, rather than monetising explicitly external costs relating to local pollution, accidents and congestion. A first step in dealing with extra pollution caused by the many toll gates on French motorways was the introduction of the system called "Liber-T" that allows vehicles to pass the gates quicker and to make traffic more fluid. Furthermore, toll gates will be installed for passage without stopping and by making the toll vary according to the time of day, the occupancy ratio and the energy efficiency of the cars. At present, time-varying tolls are applied on two motorway sections in the Paris region: the tunnel "Duplex" linking the northern and southern part of the A86 around the west of Paris and the A14 linking Orgeval to La Défense. Motorway schemes relying on variable but enforceable speed limits, successfully trialled by French motorway operators, may also help reduce congestion and thus reduce GHG emissions.

An environmental road toll for heavy vehicles on the national road network was voted in the 2009 budget, in accordance with the European Directive 2006/38/EC, but will be implemented at the national level only in 2012 due to technical problems with the toll collection system and following an experimental period in Alsace where traffic grew significantly due to a similar tax in Germany (MEEDDM, 2010d and 2010e). Not only will the toll, calculated on the basis of actual mileage, reflect vehicle characteristics and the costs of the wear and tear of the road network, but it is also supposed to cover the external costs caused by heavy trucks with the hope of diverting goods transportation from road to rail and inland waterways. The "Grenelle 2" law allows for cities with more than 300 000 inhabitants to experiment with congestion charges. Nevertheless, care should be taken when designing urban road tolls so that they produce net social benefits. International experience shows that whether urban tolls produce net benefits depends largely on the calculation of time gains due to reduced congestion (Raux, 2005).[23] Global and local environmental gains are less important. A number of conditions are needed for benefits to exceed costs: *i*) a high level of road congestion; *ii*) keeping operational costs low; and *iii*) a low level of congestion in public transportation (Kopp and Prud'homme, 2010; Raux, 2005).

Mandatory environmental labelling of consumer products

The Grenelle laws set the ambitious goal of requiring an obligatory displaying of the over-the-lifecycle environmental impact (including the carbon equivalent footprint) of consumer products, the production, distribution and waste management of which account for half of the CO_2 emissions of households. The labelling is aimed to cover all products, imported and home produced, across all sectors. A trial period will be launched in July 2011, with a progressive expansion of the product coverage. This is an interesting initiative that the French government intends to promote at the EU level as well.

Waste production and management

Avoiding the production of waste is at the heart of waste management policies in France, which had set an objective of stabilising the amount of municipal waste produced for the period from 2003 to 2008 and a decrease of 7% per capita for 2009-14. The main instrument to achieve these goals is an information campaign targeted at households, firms and local authorities. Nevertheless, municipal waste production has been on a steady rise since 1997, and the stabilisation goal for 2003-08 was not achieved: per capita municipal waste increased by 7% during this period. Rising municipal waste is a general trend in Europe, with only a few exceptions including Germany, the United Kingdom and Spain (Table 4.6). Notwithstanding the observed rise, the level of municipal waste, which reached 543 kg per capita in 2008, is only moderately high by European standards. Yet France fares relatively well in terms of hazardous waste production, with 152 kg per head in 2008, the main chunk of which relates to construction and manufacturing activities.

France has adopted moderately ambitious recycling goals: 35% by 2012 and 45% by 2015 for household waste, and 75% for packaging material and industrial waste excluding construction and agricultural waste, while waste dumped and burnt should decline by 15%. Table 4.7 shows that the goal set for 2012 was almost attained in 2008, with a recycling rate of 33%, up by 13 percentage points compared to 1997. At the same time, half of the remaining waste was landfilled and the rest incinerated. To recycle 75% of packaging waste appears to be a more challenging task, given that only 57% of this type of waste was recycled in 2007 (Table 4.7). Another 10% of packaging waste was burnt to produce electricity or heat. The observed level of recycling and recovery of packaging material, except that for plastics, is in line with the EU Directive 2004/12/EC on packaging and packaging waste that sets a minimum recovery rate of 60%, a minimum recycling rate of 55% for overall waste and the following specific minimum recycling rates: 60% for glass and paper, 50% for metal, 22.5% for plastic and 15% for wood. According to MEEDDM (2009d), two-thirds of construction waste was recycled.

When comparing waste management outcomes at the European level, it turns out that some countries have reduced landfill to almost zero (Table 4.6). Low landfill rates, often a result of stringent quantitative goals set by governments or high landfill taxes, were achieved either by increasing recycling rates (Belgium and the Netherlands) or by raising recycling and incineration rates at the same time (Austria, Germany and Sweden). Countries with low landfill rates are also the ones with the highest, sometimes almost complete, recovery rates for packaging waste (Table 4.7). Nevertheless, the high recycling rates observed in some such countries may not be cost effective if the unit recycling cost is much higher than the total social costs of landfill or incineration. Recycling may be expensive because of inefficient organisation due to the lack of competition or incentive

Table 4.6. **Waste production and management in Europe, 1997-2008**

Kg of waste per capita

	Municipal waste			Recycled		Incinerated		Landfilled	
	2008	1997-2008 (%)	2003-08 (%)	2008 (%)	1997-2008 p.p. (%)	2008 (%)	1997-2008 p.p. (%)	2008 (%)	1997-2008 p.p. (%)
Czech Republic	306	–4	9	18	18	11	11	71	–29
Poland	320	2	23	28	25	1	1	71	–26
Slovakia	328	19	10	15	–10	9	–2	76	12
Turkey	428	–15	–4	–1	–10	13	–4	89	13
Greece	453	25	6	23	14	0	0	77	–14
Hungary	453	–7	–2	18	5	9	2	74	–7
Slovenia	459	–22	10	24	8	2	2	74	–9
Portugal	477	18	7	17	–17	19	19	64	–2
Norway	490	–21	22	44	–28	38	24	18	4
Belgium	493	6	5	61	26	33	–4	5	–21
Estonia	515	22	23	52	51	0	0	48	–52
Sweden	515	24	9	49	16	49	12	3	–28
Finland	522	17	12	32	0	17	12	51	–12
France	**543**	**9**	**7**	**33**	**13**	**32**	**–3**	**36**	**–10**
Iceland	555	25	14	. .	. .	. .	. .	. .	. .
Italy	561	20	7	39	25	12	6	49	–31
United Kingdom	565	6	–5	36	28	10	4	55	–32
Spain	575	2	–12	34	–3	9	3	57	0
Germany	581	–12	–3	66	16	33	16	1	–32
Austria	601	13	–1	70	16	27	17	3	–32
Netherlands	622	5	2	66	15	33	–4	1	–11
Luxembourg	701	15	2	46	19	35	–14	19	–5
Ireland	733	34	0	37	18	3	3	60	–20
Switzerland	741	22	11	50	–3	50	3	0	0
Denmark	802	36	19	42	6	54	0	4	–7

Note: The rate of recycling is computed as the share of municipal waste that cannot be accounted for by incineration and landfill.
Source: OECD calculations based on data obtained from Eurostat.

regulation, or simply because of intrinsic high marginal costs relating to the specificity of each material and population density (OECD, 2004b).

Nevertheless, actual and targeted recycling rates do not appear to be excessive in France. A cost-benefit analysis commissioned by the European Commission concluded that the optimal rate of recycling for French household waste ranges from 46% to 69% (Research Development and Consulting, 2003). The unit cost of recycling of EUR 64 to EUR 80 per tonne in 2009 in France, which is much lower than that observed for instance in Austria, Germany or Japan of around EUR 300 per tonne (OECD, 2004b; MEEDDM, 2009c), is broadly in line with the private costs of landfill and incineration of EUR 55-80/tonne (MEEDDM, 2009c). If the positive externalities associated with avoided global and local pollution and savings of energy resources are expressed in monetary terms, which in aggregate can reach EUR 300/tonne, recycling becomes a solution largely superior to landfill or incineration. Table 4.8 shows that with a few exceptions, recycling helps save raw material and energy resources and reduces GHG emissions, water use, the amount of waste water treated and solid waste generated for most recycled materials. Furthermore, the overall positive impact was relatively large in 2006, as avoided GHG emissions accounted for about 3.5% of France's total GHG emissions in that year.

Table 4.7. **Recovery and recycling rates of packaging waste, 2007**

	Recovery rate (%)					*Of which:* Recycling rate (%)					
	Total	Plastic	Paper	Metals	Wood	Total	Glass	Plastic	Paper	Metals	Wood
Denmark	97	98	100	87	52	57	128	22	61	87	33
Belgium	95	86	97	91	100	80	100	38	92	91	72
Germany	95	95	98	90	97	67	84	43	80	90	30
Luxembourg	92	90	96	80	98	63	92	39	71	80	31
Netherlands	92	92	97	84	94	61	81	26	74	84	32
Austria	90	95	95	67	71	67	86	33	84	67	19
Norway	90	85	93	66	. .	68	99	30	82	66	. .
Finland	84	43	96	70	90	52	81	18	88	70	10
Sweden	82	78	74	74	100	59	95	42	74	74	17
Czech Republic	71	57	99	56	44	66	65	46	94	56	37
France	**67**	**53**	**97**	**64**	**33**	**57**	**62**	**21**	**89**	**64**	**21**
Slovak Republic	67	45	97	74	21	61	55	42	86	74	5
Italy	67	59	78	67	61	57	60	28	70	67	54
United Kingdom	64	32	87	52	77	59	55	23	79	52	77
Ireland	64	22	77	68	99	61	76	22	77	68	76
Poland	60	47	75	30	78	48	40	28	69	30	48
Portugal	59	23	84	63	73	57	46	15	82	63	71
Spain	58	38	66	63	67	52	56	23	61	63	61
Bulgaria	55	20	98	0	0	55	71	20	98	0	0
Hungary	55	44	92	65	20	46	21	17	87	65	20
Estonia	52	38	57	18	67	50	62	38	57	18	39
Greece	48	14	80	51	75	48	18	14	80	51	75

Note: Recovery rate is the share of waste production that is recycled or incinerated to generate heat or electricity.
Source: Eurostat.

Table 4.8. **Avoided pollution and resource savings due to recycling in France, 2006**
Per unit impact (per tonne recycled)

	Raw material	Fossil energy	GHG	Water	Eutrophication	Non-hazardous waste
Unit	tonne	toe	tCO_2eq	m^3	Kg-eq-PO_4	tonne
Iron	–1.40	0.50	–1.60	–1.80	–0.20	–0.97
Aluminium	–2.30	–2.20	–7.10	–9.80	–0.05	–1.50
Copper	–0.85	–0.45	–1.14	–50.10	–0.19	–1.00
Lead	–2.56	–0.07	–0.69	–94.50	–0.09	–1.40
Packaging board		**0.03**	–0.16	–17.80	**0.51**	–0.05
Paper		–0.24	–0.37	–4.65	–0.004	–0.09
Special paper		**0.06**	–0.39	–10.30	–0.003	0.31
Glass	–1.20	–0.12	–0.46	–1.30	–0.01	–1.06
Plastic						
PE	–0.71	–1.06	–2.30	**4.70**	–0.003	–0.28
PET	–0.62	–0.90	–2.70	–0.27	**0.01**	–0.49

Source: ADEME (2009), *Bilan du recyclage 1997-2006, Rapport*, Synthèse générale et analyse par filière.

The costs of negative local externalities due to landfill and incineration are not fully internalised. The external costs of landfill, dominated by GHG (methane) emissions, are evaluated at EUR 10-13 per tonne by Rabl *et al.* (2008) and at EUR 18-25 per tonne by Chèze and Arnold (2005). The negative externalities connected with incineration are mainly related to toxic gas and GHG emissions whose corresponding costs are estimated respectively at EUR 4-21 and EUR 15-22 per tonne.[24] In 2008, the general tax on polluting

activities (TGAP) was levied on landfill but not on incineration, and its level of EUR 10.03 per tonne was lower than the estimated external costs. The tax, revised to EUR 15 per tonne in 2009, will increase to EUR 40 by 2015. At the same time, the tax was extended in 2009 to waste burnt in incineration plants with an initial rate of EUR 7 per tonne and a planned increase to EUR 14 per tonne by 2013. A tax reduction is available for landfill sites if energy recovery from biogas exceeds 75% and if waste is transported from the collection points to the final repository site by rail or boat. A complete exemption applies to sites with full energy recovery from biogas. Waste incineration also receives tax reductions based on the degree of energy recovery, the means of transport and the NO_X pollution caused. The increase in TGAP is a very welcome development, because it aligns taxes with external costs and because the pre-announced gradual but strong increase is likely to influence behaviour. One of the explicit goals of the change was to equalise the cost of landfill with that of incineration and to raise costs above the cost of recycling, which has environmental benefits that are far superior. The tax of EUR 40 per tonne for landfill is well above the higher-bound estimate of the external cost. As the external cost estimates are based on a carbon price of EUR 19-20 per tonne, the landfill tax can reflect a higher carbon price in accordance with the path proposed by the Quinet report. At the same time, the tax of EUR 14 for incineration is broadly aligned with the cost estimates of the related negative externalities obtained using a low carbon price (Rabl *et al.*, 2008). The taxes should be harmonised according to the costs of global and local externalities, even though some local externalities cannot be readily quantified.

While the composition of waste treatment can be changed if the price of waste collection and treatment incorporates an incentive element, an overall reduction in the volume or weight of municipal waste cannot be taken for granted if households pay a flat fee for final waste disposal. To finance waste management, most local authorities rely on a household waste collection tax (*Taxe d'enlèvement des ordures ménagères*) that is based on the rental value of residential properties in the official registry, obviously disconnected from the waste generated by households. Others use general revenues or charge a specific waste-management fee (*Redevance d'enlèvement des ordures ménagères*), usually a lump-sum fee (Glachant, 2003). The setting of the waste-management fee already allows the inclusion of a variable part based on the amount of waste produced. In addition, article 46 of the Planning Act of 3 August 2009 regarding implementation of the *Grenelle de l'environnement* introduced the principle of creating a legislative framework that will allow local authorities to introduce, between now and 2015, incentive-based waste pricing by 2015 by splitting the waste tax or fee into a fixed part covering fixed costs and a variable part that should vary according to the weight or volume of the waste collected from individual households.[25] Nevertheless, the success of the new policy will hinge critically upon practical design features, including the measurement of individual waste production and the pricing policy. A danger related to incentive waste pricing is that it may result in backyard waste burning or illegal dumping (Glachant, 2004; OECD, 2004b).

A useful complimentary policy to reduce waste downstream is to tax waste production upstream. The extended producer responsibility schemes used in France and other EU countries require producers to organise the recycling of waste associated with a number of product groups including household packaging, electrical appliances and electronics, tyres, batteries and accumulators, textile products, motor oil and scrapped vehicles (MEEDDM, 2010a). Producers usually join forces in the form of joint ventures that take charge of recycling. In France, producers pay a unit fee per package/product according

to the product's weight and its recycling costs. If producers cannot pass the tax on to the final price, such fees should incentivise them to innovate in order to reduce the weight and/or the recycling costs. Yet fees paid by producers are low and cover only a fraction of recycling costs.

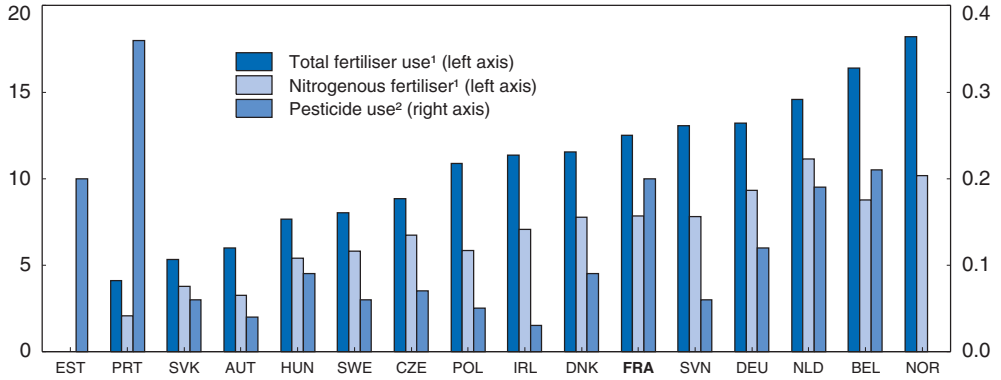
Consequently, fees that have been set too low have helped to increase recycling rates but have not contributed to cutting waste at the source (Glachant, 2003 and 2005). In 2005, almost 80% of out-of-use cars, 89% of accumulators and 74% of tyres, 31% of batteries and 30.5% of motor oil was either re-used or recycled (ADEME, 2006). Against this backdrop, the *Grenelle de l'environnement* proposed to increase cost recovery rates (for example, up to 80% for household packaging, despite not giving a specific deadline).

Water pollution and management

Environmental policies governing France's water resources seek to address water pollution and the sustainable use of water resources. As for pollution, achievement of the goal of bringing the total surface and groundwater water body to good condition by 2015 in accordance with the EU Water Framework Directive of 2000 looks likely to be particularly challenging. In 2010, only 45% of surface water bodies were reported to be in good condition (up from 38% in 2007) and 56% of groundwater bodies (90% of groundwater bodies were in good quantitative conditions and 59% in good chemical condition) (Eaufrance, 2010). With its heavy reliance on the use of pesticides and fertilisers, agriculture is a major source of water pollution in France. In 2008, French farmers were among the heaviest users of pesticides in Europe on a per hectare basis (Figure 4.8). In 2007, the presence of pesticides was detected in 91% of river water and 59% of groundwater observation points. The pesticide content of water was higher than allowed by existing environmental standards in 11% and 18% of the respective observation points (CGDD, 2010a). Figure 4.8 also shows the heavy use of nitrogenous fertilisers. When accounting for livestock manure and nature's absorption capacities, France had an excess of about 50 tonnes of nitrogen per hectare of agricultural land, somewhat below the OECD and EU averages (OECD, 2008). Nevertheless, nitrate (NO_3) concentration of groundwater has been on the rise over the last decade: it exceeded the maximum admissible concentration of 50 mg/l (Groundwater Directive of 2006), above which water is considered undrinkable, in 6% of the observation sites in 2007 up from 4% in 1997, and was between 40 and 50 mg/l in 6% of the observation points in 2007 compared to 5% ten years earlier (CGDD, 2010b). Water pollution is especially important in some regions such as Brittany (partly due to livestock manure), where nitrate concentration was above the maximum admissible concentration at 20% of drinking water extraction sites and where around one third of extraction sites delivered water incompatible with existing quality standards already in 2002 (Cour des comptes, 2002).

Policy measures to improve surface and groundwater quality include the restoration of the ecological continuity of watercourses, the creation of at least five-meter-wide green buffer zones alongside watercourses, the purchase of 20 000 hectares of wetland, the establishment of marine natural parks to cover 2% of French sea areas by 2020, the protection of the 500 most endangered water extraction sites and the tripling by 2012 of the area covered by organic agriculture in particular close to watercourses and water extraction sites (Bommelaer *et al.*, 2010). Mention should also be made of the extension of winter soil cover in vulnerable areas starting in 2012.

Figure 4.8. **Fertiliser and pesticide use in Europe, 2008**



1. Tonne/ha of total agricultural land.
2. Tonne of active ingredient/ha of total agricultural land.

Source: OECD calculations based on *Eurostat Data*.

StatLink http://dx.doi.org/10.1787/888932377884

Specifically targeting farmers, the government's Eco-Phyto programme aims to halve pesticide consumption by 2018, mainly based on an awareness and education campaign, the development of a real-time warning system against pests and the banning of a number of substances used in pesticides (MAP, 2009). Since 2000, the general tax on polluting activities (TGAP) has been levied on pesticides with an average tax rate of 2% (Aubertot *et al.*, 2005). In 2009, the TGAP on phyto-sanitary products was replaced by a fee on diffuse agricultural pollution (*Redevance pour pollutions agricoles diffuses*), ranging from EUR 0.6 to EUR 3.7/kg in 2009 increased to EUR 0.9 to EUR 5.1/kg in 2011. The main changes are that the tax will not be paid by producers but by distributors and the amount of the tax will be documented on the invoice to increase farmers' awareness. Yet two open issues remain. First, the proceeds of the tax, which will be distributed among the water and waste-treatment-plant operators according to observed pollution levels, is unlikely to cover the costs of removing pesticides from the water. The projected revenues from the fee amount to around EUR 60 million per annum after 2010 (Bommelaer *et al.*, 2010), of which only EUR 30 million have been earmarked for water agencies whereas the other half has been assigned to funding the Eco-Phyto plan. However, the annual costs of removing pesticides to produce drinkable water is estimated at EUR 50-100 million (Aubertot *et al.*, 2005). Moreover, using pesticides has other important externalities: a negative impact on wildlife and biodiversity (killing honeybees, beneficial predators, fish and birds) and on human health through pesticide poisoning. Just the external costs on human health may be around EUR 2/kg of substance (Tegtmeier and Duffy, 2004). Overall, external costs of pesticide use appear not to be fully internalised. Second, the projected revenues imply an effective tax rate of 6% that seems to be too low to trigger changes in farmers' behaviour. The Danish experience shows that the implied tax rate has to be significantly higher to achieve a strong reduction in pesticide use (Aubertot *et al.*, 2005).

A water pollution fee for non-domestic water pollution is determined for industrial users and farmers that varies as a function of the level of annual water pollution (Environmental Law; article L. 213-10-2). Farmers also have to pay a fee to the water companies on water pollution from livestock (*Redevance pour pollution de l'eau d'origine non*

domestique des activités d'élevage). However, the fee applies only to farmers with a large number of animals and only to a fraction of the livestock.

No policy measures are planned to deal specifically with pollution arising from the massive use of fertilisers. Yet, in addition to ground water pollution, the use of synthetic nitrogenous fertilisers entails a number of negative externalities. Fertiliser production generates GHG emissions and causes local atmospheric pollution. When in the soil, nitrates are decomposed by bacteria resulting in N_2O emissions that account for 5% of global GHG emissions. Furthermore, run-off of nitrates and other nutrients from agriculture to surface water causes eutrophication (algal blooms) that blocks sunlight and decreases the water's oxygen content. Blottnitz *et al.* (2006) estimate the external costs at EUR 0.16/kg of nitrogen for fertiliser production and EUR 0.15/kg for fertiliser use based on a carbon price of EUR 19 per tonne. These estimates would increase substantially if the carbon price put forward in the Quinet Report (2009) were to be used. While fertiliser producers are covered by the EU-ETS, the external costs related to the use of the products should be matched by a corresponding tax levied on the products or by imposing fertiliser usage quotas on farmers in the spirit of a tradable permits system. Each system has pros and cons in terms of economic efficiency and practical feasibility. Proposals to this effect had been put forward in the latest laws on water. Therefore, economic agents concerned by the new regulation need to be compensated for example in the form of lump-sum payments.

Water pollution stemming from household wastewater is much better handled. Around 94% of French households are connected to sewage treatment plants (OECD, 2009b). This ratio is somewhat higher in Canada, Germany and the United Kingdom, but is much lower (around 70%) in other OECD countries including Belgium, Ireland, Mexico or Turkey. Most sewage treatment plants in France meet existing European standards that require secondary (biological) treatment and low nitrogen and phosphorus concentration through tertiary treatment. The 146 largest sewage treatment plants identified at the end of 2006 as substandard should be brought up to full compliance by 2015. By March 2010, 104 of those plants had been modernised, and work had started at 36 others (MEEDDM, 2010b), while as of 1 January 2011, 122 had been brought into compliance and work was underway at a further 22. In addition, households pay the water agencies a fee on water pollution (*Redevance pour pollution de l'eau domestique*) that cannot exceed EUR 0.5/m^3. Finally, household detergents containing phosphates have been banned since 1 July 2007. In accordance with the Act of August 2009 implementing the *Grenelle de l'environnement*, this ban will be extended to industrial detergents, currently subject to the TGAP, from 2012 onwards.

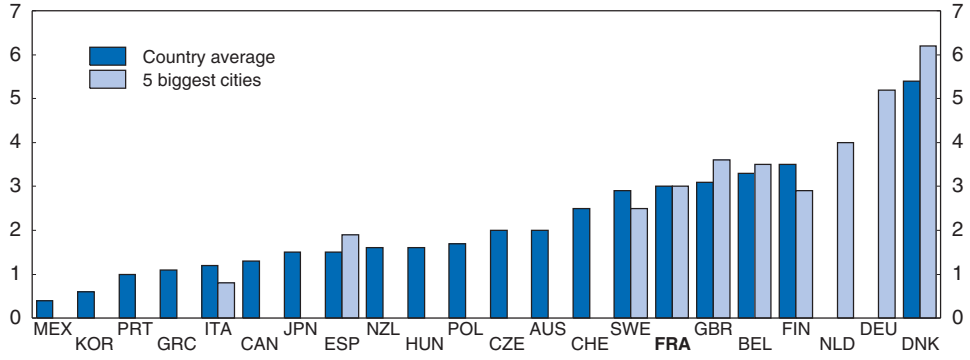
The second major objective of French water management policies is the sustainable use of water resources. Overall water consumption was slightly above 500 cubic meters per year per person in 2006 and necessitated the use of 17% of long-term fresh water reserves. An important part of water consumption is connected with the cooling needs of nuclear power plants. Nevertheless, even abstracting from that, per capita water consumption of households and agriculture is still among the highest in Europe (Table 4.9). High consumption coupled with drought causes seasonal local water shortages. For instance, on 13 August 2010, restrictions on water use were imposed by the prefects in 52 departments (out of the total 96 in Metropolitan France) (MEEDDM, 2010f). The prices charged for household water in major French cities are close to the European average. At the same time, nationwide water prices are among the highest in the OECD area (Figure 4.9). It would

Table 4.9. **Per capita water use, 2006**

	Abstraction/ resources (per cent)	Total	Public system	Agriculture	Industrial cooling	Manufacturing
			Cubic metre per capita			
Netherlands	10.9	598.7	36.7	8.5	318.5	161.6
Switzerland	5.0	356.6	47.8	. .	225.2	. .
Slovakia	0.9	127.5	59.2	4.4	7.0	56.9
Germany	18.9	430.8	65.1	. .	272.2	65.6
Czech Republic	12.3	191.4	68.2	2.9	59.0	29.5
Belgium	32.1	611.6	69.7	3.6	398.7	123.5
Greece	13.2	853.8	75.7	757.1	9.0	
Denmark	4.2	126.0	78.2	36.5	0.8	8.3
Slovenia	2.9	465.3	83.3	2.3	351.3	27.3
France	**17.5**	**516.7**	**93.0**	**75.5**	**302.7**	**45.4**
Sweden	1.4	288.6	97.8	11.7	11.3	154.3
Spain	30.4	771.5	130.3	467.4	149.1	21.9
Ireland	1.5	169.3	141.2	. .	. .	. .

Note: Data refer to 2006 or to the latest available year.
Source: OECD calculations based on data obtained from Eurostat.

Figure 4.9. **Unit price of water for households in OECD countries, 2008**[1]



1. 2008 for the 5 biggest cities, and 2007 or latest available year for the OECD country averages.

Source: OECD (2010, *Pricing Water Resources and Water and Sanitation Services*) for country averages and NUS Consulting (2008, *Étude sur le prix de l'eau en Europe en 2008*) for the average price in the 5 biggest cities of a country.

StatLink http://dx.doi.org/10.1787/888932377903

seem that countries with higher prices recorded lower per capita household water consumption. Households are charged proportionately to water use, and prices cover operating and infrastructure maintenance and renewal costs (OECD, 2010). Incentives to save water could also include progressive water tariffs such as increasing block tariffs. Furthermore, rather than the standard VAT rate of 19.6%, it is the reduced rate of 5.5% that is applied to water services in France. Even though European Directive 2006/26/EC permits the use of the reduced rate for water distribution, this reduced rate may induce a relative overconsumption of water relative to other goods and services and thus should be eliminated. At the same time, according to OECD (2010), water prices are below total cost recovery for industry and agriculture. Cutting indirect subsidies on industrial and agricultural water use would efficiently reduce water consumption.

Box 4.1. **Environmental policy recommendations**

GHG emissions

- Consider a systematic evaluation of the abatement costs of the individual elements of France's comprehensive climate-change mitigation policies and put more emphasis on low-cost abatement options. Public subsidies should be set in accordance with abatment costs and the goal of reductions in GHG emissions amongst other objectives.
- Introduce a carbon tax that passes the scrutiny of the Constitutional Council. The carbon tax should be set in line with actual GHG emissions and should cover all sectors excluded from the EU-ETS. Support actively the non-EU-ETS carbon tax at the EU level as any climate-change mitigation policy implemented in France alone can be suboptimal due to lower cost abatement possibilities abroad.
- Unify excise taxes on fossil energy products by raising taxes for natural gas, heating oil and coal. The unified tax should be aligned with the level and the path of the carbon price projected by the Quinet commission, which would help achieve emission targets set for 2020 and 2050.
- Review fuel tax relief for agricultural vehicles and fishing boats with a view to reducing them and abolish tax relief for heavy goods vehicles and taxis.
- Eliminate the relative distortion between diesel and petrol prices.

Negative local externalities

- Incorporate external costs of local pollution due to burning fossil energy products in tax-system design either by increasing excise taxes or by extending TGAP to those products. Conversely, excise taxes on conventional and bio-fuels should reflect the differences in external costs and carbon emissions.

Transport sector

- Unify taxes on car purchases (bonus-penalty system and the tax on registering a car) and on company cars on the basis of CO_2 emissions and local pollution. Phase out exemptions granted to heavy users (taxi drivers, rented cars, light and heavy utility vehicles). Continue to reduce the environmental bonus-penalty system until the bonus rewarding negative externalities is eliminated. Congestion charges are a possible solution for major cities provided they are validated by *ex ante* cost and benefit analysis.

Electricity production

- Focus on the further decarbonisation of electricity production by promoting technologies to smooth high-carbon peak demand. Encourage time-varying pricing to smooth electricity demand during peak periods.
- Reduce the subsidies to renewables, in particular to solar. Focus on the least-cost abatement solutions without favouring specific technologies such as solar energy: the marginal abatement costs implied by subsidies should be in line with the carbon price foreseen by the Quinet commission, even if the large number of externalities does not necessarily mean that a strict equalisation of feed-in tariffs would be optimal.
- Improve the long-term sustainability of radioactive-waste management by commissioning independent experts to draw up estimates of the future costs of decommissioning nuclear plants.

Solid waste management

- Increase upstream taxes on waste due to consumer products, and introduce incentive pricing for households sooner than 2015 to achieve the reduction in waste targeted by the government.

Box 4.1. **Environmental policy recommendations** *(cont.)*

Water pollution

- Fully implement the polluter-pays principle to farmers for water and other environmental pollution. Levy a tax on fertilisers, and increase the tax on pesticides corresponding to estimated external costs or introduce (tradable) fertiliser and pesticide consumption quotas for farmers.
- Raise the price of water for industry and farming to cover both operating and capital costs. Instead of the reduced rate, apply the standard VAT rate to water use. Compensate the poor with lump-sum payments.

Notes

1. The target of *minus* 14% by 2020 compared to the base year of 2005 corresponds to a 12.75% reduction against the benchmark year of 1990.
2. The ratio of 13 is obtained by dividing global GHG emissions compared to nominal GDP in euros for China by the same ratio for France. The sources are the IEA for GHG emissions and the OECD for nominal GDP.
3. The social cost of carbon can be measured per tonne of carbon or per tonne of carbon dioxide. One tonne of carbon corresponds to 3.66 tonnes of carbon dioxide (CAS, 2008; Prévot, 2007). This chapter uses the social cost of carbon measured on a per tonne of carbon dioxide basis.
4. Tol (2009) reports figures in 1995 USD terms. These figures were adjusted for the cumulated US inflation rate between 1995 and 2009 and converted to euros using the average USD/EUR exchange rate for 2009.
5. The carbon price proposed in the report was EUR 27.3. Accounting for cumulated inflation between 2000 and 2009 gives a carbon price of EUR 31.8 in 2009.
6. Environmental taxes are mainly aimed at correcting negative externalities. Using them beyond the level that would correct those externalities to raise tax revenues creates more distortion that an increase in VAT.
7. Existing exemptions could be reassessed on the basis of all global and local externalities.
8. From a legal standpoint, the question of who has to pay for electricity that is produced but is not delivered by suppliers in the event of a major withdrawal of demand has not been settled. Even though the CRE ruled in favour of EDF that Voltalis – which is paid by the RTE like the suppliers – should compensate EDF for the electricity generated and supplied to the network but not consumed, the dispute will be settled in the *Conseil d'État*.
9. There is no legal limit in France on the operating life of nuclear reactors, even through the licences to create nuclear reactors issued by the French administration are tacitly based on a lifetime of 40 years. However, all nuclear reactors must be granted an operating licence validated by the Nuclear Safety Authority (ASN) every ten years. Consequently, extending the lifetime of a number of reactors from 30 to 40 years will depend on the opinion of the ASN (ASN, 2010).
10. Regulated prices will be phased out after 2015 for large and medium-sized businesses but will be maintained for households for an indefinite period of time.
11. The legislation also requires operators to submit a report to the Ministry of Energy every three years in which they describe the evaluation of charges, the methods used to calculate provisions and the choices made in terms of the composition and management of assets assigned to covering provisions, whose management procedures are set out in government Decrees. The Nuclear Safety Authority issues an opinion on the three-yearly reports by operators in the area that falls within its jurisdiction (strategy towards decommissioning and the management of spent fuel and radioactive waste). The government also relies on expert advice provided by the Insurance inspection unit (*Corps de contrôle des assurances*) and the French Treasury Agency (Agence France Trésor). Finally, in July 2010, the Ministry of the Environment commissioned a report on the transparency of the nuclear fuel cycle which usefully supplemented the three-yearly report.

12. Table 4.3, Panel B contains estimates for hydroelectric power generation, but these figures probably overestimate subsidies because hydroelectric plants built a long time ago do not benefit from the high feed-in tariffs, and a large proportion of such power comes from older plants.
13. These estimates are lower-bound estimates for the overall level of subsidies because they do not account for favourable tax treatment and the external costs of electricity generation that are not reflected in taxes.
14. This is due to the technical constraints faced by the network operator in connecting massive numbers of facilities to the grid. A significant improvement in the situation was expected in 2010.
15. In a given multi-year phase of the EU-ETS, a decrease in one country's emissions will allow more emissions elsewhere. Nevertheless, emissions decreases may be constraining in the longer term if the overall emissions ceiling is adjusted for reduced emissions between two multi-year phases of the EU-ETS.
16. The abatement cost is minimised if the most carbon-intensive technology is displaced.
17. A more general problem of solar and wind energy is that they depend on weather conditions and therefore have to be backed up by more reliable energy sources both for base and peak-load electricity generation. But technological progress in storing electricity other than pumped hydro would attenuate this problem.
18. Breaking even on investment requires more time and/or higher prices for solar and wind energy in countries with a lower number of sunny or windy days per year.
19. Taking the EUR 35 billion in road-related revenues into account road transport was taxed by EUR 19 billion.
20. It should be noted that these figures are only approximate because they do not consider: *i*) initial investment costs needed to expand the railway network; *ii*) negative local externalities, though not much reduced, given that the external costs of road transportation outside of cities are not very high and because rail also generates some negative local externalities; and *iii*) positive network externalities.
21. For instance, an alarm system has been recently developed by the company Viveris Technologies that first blinks and then beeps if the engine rotation speed deviates from optimum. This new gadget ordered by a regional transport company costs EUR 750 and saves 1 litre per 100 km for buses (Berkovicius, 2010). The abatement cost of this new gadget is around EUR 130 per tonne under the assumption of an average annual mileage of 35 000 km over a six-year lifetime.
22. The tax reduction on bio-diesel (bio-fuel added to petrol) was 0.22 (0.27) euros/l in 2008, 0.15 (0.21) euros/l in 2009, 0.11 (0.18) euros/l in 2010 and 0.08 (0.14) euros/l in 2011.
23. Kopp and Prud'homme (2010) and Prud'homme and Bocajero (2005) show that the social costs of the Stockholm and London urban toll exceed social benefits, while on the other hand Santos (2007) and the International Transport Forum (2010) report opposite results.
24. The figures in Chèze and Arnold (2005) are in 2000 prices. The figures reported here are adjusted for cumulated inflation between 2000 and 2009. Other externalities include the damage of leachates and reduced amenity values. It is worth noting that, as of today, all authorised French landfill sites are equipped with liners to prevent leakage to the soil and groundwater.
25. Around 30 French municipalities covering 600 000 inhabitants experimented with incentive-based waste pricing in 2009.

Bibliography

ADEME (2006), "Le prix de la mise en décharge des déchets non dangereux gérés par les collectivités en 2005 : Résultat d'une enquête réalisée en 2006 auprès des structures intercommunales faisant appel à un prestataire pour la mise en décharge de déchets non dangereux", *Synthèse*, March.

ADEME (2009), *Bilan du recyclage 1997-2006, Rapport*, Synthèse générale et analyse par filière.

Assemblée Nationale (2011), Hearing, Open to the Press, of Mr. F.M. Gonnot, Chairman, and Mrs. M.C. Dupuis, Director General, of the National Agency for Radioactive Waste Management (ANDRA), Economic Affairs Committee, *Summary Record* No. 36.

Aubertot, J.N., J.M. Barbier, A. Carpentier, J.J. Gril, L. Guichard, P. Lucas, S. Savary, I. Savini and M. Voltz (eds.) (2005), *Pesticides, agriculture et environnement. Réduire l'utilisation des pesticides et limiter leurs*

impacts environnementaux, Expertise scientifique collective, synthèse du rapport, INRA et Cemagref (France).

Autorité de sûreté nucléaire (2010), *Annual Report 2009*, 2 April.

Berkovicius, C. (2010), "Un voyant et une alarme pour sensibiliser les chauffeurs de bus à l'éco-conduite", *Les Échos*, 28 June.

Bio Intelligence Service (2010), *Analyses de cycle de vie appliquée aux biocarburants de première génération consommés en France*, Étude réalisée pour le compte de l'ADEME, MEEDDM, du ministère de l'Alimentation, de l'Agriculture et de la Pêche, et de FranceAgriMer.

Blottnitz, H., A. Rabl, D. Boiadjiev, T. Taylor and S. Arnold (2006), "Damage Costs of Nitrogen Fertilizer in Europe and their Internalization", *Journal of Environmental Planning and Management*, 49(3), pp. 413-33.

Boiteux, M. (2001), *Transports : Choix des investissements et coût des nuisances*, Commissariat Général du Plan, June.

Bommelaer, O., J. Devaux, C. Noël and M. Tremblay (2010), *Le financement de la gestion des ressources en eau en France : Étude de cas pour un rapport de l'OCDE*, MEEDDM, Commissariat général au développement durable, 7 June.

Callonnec, G. (2009), "Fiscalité comparée de l'énergie et du CO_2 en Europe et en France", *ADEME&vous*, *Stratégie&études*, No. 20, 8 July.

CAS – Centre d'analyse stratégique (2008), "La valeur tutélaire du carbone", *Note de veille,* No. 101.

Champsaur, P. (2009), Rapport de la commission sur l'organisation du marché de l'électricité, April.

Chauveau, J. (2010), "Électricité photovoltaïque : Le gouvernement baisse les tarifs de 12%", *Les Échos*, 24 August.

Chèze, B. and O. Arnold (2005), "Les études de monétarisation des externalités associées à la gestion des déchets", ministère de l'Écologie et du Développement durable, *Document de travail* No. 05-S03.

Commissariat général au développement durable (2009), *Performances environnementales de la France – Mise en œuvre 2005-09 des recommendations de l'OCDE*, December.

Commissariat général au développement durable (2010a), *Les pesticides dans les milieux aquatiques*, Données 2007.

Commissariat général au développement durable (2010b), *L'environnement en France*, *Édition 2010 – Synthèse*, MEEDDM, June.

Cour des comptes (2002), *Rapport public particulier sur la préservation de la ressource en eau face aux pollutions d'origine agricole : Le cas de la Bretagne*, February.

Delpla, J. (2009), *Contre la taxe carbone Borloo… pour des raisons environnementales*, *http://blogs.lesechos.fr/article.php?id_article=2838*.

Direction générale de l'énergie et du climat (2009), *Rapport sur le fonctionnement du dispositif des certificats d'économie d'énergie*, MEEDDM, May.

Égert, B. (2009), "Infrastructure Investment in Network industries: The Role of Incentive Regulation and Regulatory Independence", *OECD Economics Department Working Paper*, No. 688.

Eaufrance (2010), *La reconquête du bon état des eaux et des milieu aquatiques : De l'état des eaux en 2009 aux objectifs 2015*, March.

Fainsilber, D. (2010), "Un arrêté ministériel réveille les ventes de gros 4 x 4", *Les Échos*, 1 July 2010.

Glachant, M. (2003), "La réduction à la source des déchets ménagers : Pourquoi ne pas essayer la tarification incitative ?", *Annales des Mines – Responsabilités et Environnement*, No. 29, January.

Glachant, M. (2004), *La politique nationale de tarification du service des déchets ménagers en présence de politiques municipales hétérogènes*, June.

Glachant, M. (2005), "Le concept de responsabilité élargie du producteur et la réduction à la source des déchets de consommation", *Annales des Mines – Responsabilité et Environnement*, No. 39, July.

International Energy Agency (2010), *Energy Policies of IEA Countries: France*, 2009 Review, Paris.

International Transport Forum (2008), "Biofuels: Linking Support to Performance", *Joint Transport Research Centre*, *Discussion Paper* No. 2008-7.

International Transport Forum (2010), "Implementing Congestion Charging: Summary and Conclusions, Joint Transport Research Centre Round Table 4-5 February 2010", *Discussion Paper* No. 2010-12.

Jamet, S. and J. Corfee-Morlot (2009), "Assessing the Impacts of Climate Change: A Literature Review", *OECD Economics Department Working Paper*, No. 691.

Kageson, P. (2009), "Environmental Aspects of Inter-City Passenger Transport", International Transport Forum, Joint Transport Research Centre, *Discussion Paper* No. 2009-28, December.

Kopp, P. and R. Prud'homme (2010), "The Economics of Urban Tolls: Lessons from the Stockholm Case", *mimeo*.

Kuik, O., L. Brander and R.S.J. Tol (2009), "Marginal Abatement Costs of Greenhouse Gas Emissions: A Meta-Analysis", *Energy Policy*, 37, pp. 1395-1403.

Le Monde (2010), "Déchets radioactifs : L'Autorité de sûreté nucléaire tance Areva", 12 June.

Metcalf, G.E. (2009), "Tax Policies for Low-Carbon Technologies", *NBER Working Paper*, No. 15054.

Ministère de l'Agriculture et de la Pêche (2009), *Le plan écophyto 2018, moins de pesticides, c'est mieux*.

Ministère de l'Écologie, de l'Énergie, du Développement durable et de l'Aménagement du Territoire (2008), *Programmation pluriannuelle des investissements de production d'électricité, Période 2009-20*, July.

Ministère de l'Écologie, de l'Énergie, du Développement durable et de l'Aménagement du Territoire (2008b), *Étude d'impact du projet de loi programme du Grenelle de l'Environnement*, October.

Ministère de l'Écologie, de l'Énergie, du Développement durable et de la Mer (2009a), *Plan climat de la France : Mise en œuvre du Grenelle de l'Environnement*.

Ministère de l'Écologie, de l'Énergie, du Développement durable et de la Mer (2009a), Cinquième communication nationale de la France à la Convention cadre des Nations Unies sur les changements climatiques, November.

Ministère de l'Écologie, de l'Énergie, du Développement durable et de la Mer (2009b), *Le point sur la rénovation de la taxe sur les déchets ménagers : L'impulsion du Grenelle pour moins de déchets et plus de recyclage*, No. 16, June.

Ministère de l'Écologie, de l'Énergie, du Développement durable et de la Mer (2009c), *Le Plan d'actions déchets*, 9 December.

Ministère de l'Écologie, de l'Énergie, du Développement durable et de la Mer (2009e), "Communiqué de presse : Jean-Louis Borloo annonce le succès des certificats économies d'énergie et le renforcement de ce dispositif, conformément aux orientations du Grenelle de l'Environnement", 26 May.

Ministère de l'Écologie, de l'Énergie, du Développement durable et de la Mer (2010a), *Le principe de la responsabilité élargie du producteur*, 8 January.

Ministère de l'Écologie, de l'Énergie, du Développement durable et de la Mer (2010b), "Une politique de l'eau ancrée dans le développement durable", Journée mondiale de l'eau, Communiqué de presse.

Ministère de l'Écologie, de l'Énergie, du Développement durable et de la Mer (2010c), *Information réunion du Comité de suivi de l'Engagement national pour le fret ferroviaire*, 8 July.

Ministère de l'Écologie, de l'Énergie, du Développement durable et de la Mer (2010d), *L'éco-redevance poids lourd*.

Ministère de l'Écologie, de l'Énergie, du Développement durable et de la Mer (2010e), *Le gouvernement confirme la mise en œuvre de l'éco-redevance poids-lourds*, 20 April.

Ministère de l'Écologie, de l'Énergie, du Développement durable et de la Mer (2010f), *Point situation sécheresse : limitation des usages de l'eau en vigueur au 13 août 2010*, 20 August.

OECD (2004a), *Sustainable Development in OECD Countries: Getting the Policies Right*, OECD Publishing, Paris.

OECD (2004b), *Addressing the Economics of Waste*, OECD Publishing, Paris.

OECD (2006), *The Political Economy of Environmentally Related Taxes*, OECD Publishing, Paris.

OECD (2008), *Environmental Performance of Agriculture at a Glance*, OECD Publishing, Paris.

OECD (2009a), *The Economics of Climate Change Mitigation: Policies and Options for Global Action Beyond 2012*, OECD Publishing, Paris.

OECD (2009b), *Managing Water for All*, OECD Publishing, Paris.

OECD (2010), *Pricing Water Resources and Water and Sanitation Services*, OECD Publishing, Paris.

OECD (2011), "Enhancing the Cost-Effectiveness of Climate Change Mitigation Policies in Sweden", *Economic Survey of Sweden 2011*, OECD Publishing, Paris.

Ollagnier, J.M. (2010), "Réduire le coût de la transition vers une économie décarbonée", *Les Échos*, 17 August.

Persson, J. and D. Song (2010), "The Land Transport Sector: Policy and Performance", *OECD Economics Department Working Paper*, No. 817.

Prévot, H. (2007), *Trop de pétrole !*, Éditions du Seuil, Paris.

Prud'homme, R. (2009a), "CO_2 : Raison garder", *Commentaire*, No. 125, Spring 2009, pp. 133-41.

Prud'homme, R. (2009b), *Réduction de la dépense publique : Plaidoyer pour une nouvelle politique des transports*, Fondation Concorde (Nouvelles Visions).

Prud'homme, R. and J.P. Bocajero (2005), "The London Congestion Charge: A Tentative Economic Appraisal", *Transport Policy*, 12(3), pp. 279-87.

Quinet, A. (2008), *La valeur tutélaire du carbone*, Centre d'analyse stratégique, June.

Rabl, A., J.V. Spadaro and A. Zoughaib (2008), "Environmental Impacts and Costs of Solid Waste: A Comparison of Landfill and Incineration", *Waste Management and Research*, 26, pp. 147-62.

Rapport Poignant-Sido (2010), Groupe de travail sur la Maîtrise de la pointe électrique, April.

Raux, C. (2005), "Comments on 'The London Congestion Charge: A Tentative Economic Appraisal' (Prud'homme and Bocajero, 2005)", *Transport Policy*, 12(4), pp. 368-71.

Raux, C. (2007), "Changement climatique : Des permis plutôt que des taxes", Telos.

Research Development and Consulting (2003), *Evaluation of Costs and Benefits for the Achievement of Reuse and Recycling Targets for the Different Packaging Materials in the Frame of the Packaging and Packaging Waste Directive 94/62/EC*, Final consolidated report.

Roussely, F. (2010), *Avenir de la filière française du nucléaire civil*, Synthèse du rapport, 16 June.

RWE (2010), *ADELE – Adiabatic Compressed-Air Energy Storage for Electricity Supply*.

Santos, G. (2007), "Congestion Pricing: An Idea that Makes Sense", *VOX EU*, 25 July.

Steenblik, R. (2007), "Subsidies: The Distorted Economics of Biofuels", International Transport Forum, *Joint Transport Research Centre Discussion Paper*, No. 2007-3.

Syrota, J. (2007), Rapport "Les perspectives énergétiques de la France à l'horizon 2020-50", Centre d'analyse stratégique.

Tegtmeier, E.M. and M.D. Duffy (2004), "External Costs of Agriculture Production in the United States", *International Journal of Agricultural Sustainability*, 2(1), pp. 1-20.

Tol, R.S.J. (2009), "The Economic Effects of Climate Change", *Journal of Economic Perspectives*, 23(2), pp. 29-51.

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