# OECD Economic Surveys
# FRANCE

APRIL 2019

OECD

# OECD Economic Surveys: France 2019

This document, as well as any data and any map included herein, are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

**Please cite this publication as:**
OECD (2019), *OECD Economic Surveys: France 2019*, OECD Publishing, Paris.
*https://doi.org/10.1787/a0eee144-en*

ISBN 978-92-64-98744-9 (print)
ISBN 978-92-64-96408-2 (pdf)

OECD Economic Surveys
ISSN 0376-6438 (print)
ISSN 1609-7513 (online)

OECD Economic Surveys: France
ISSN 1995-3178 (print)
ISSN 1999-0235 (online)

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

**Photo credits:** Cover © Tungtopgun/Shutterstock.com.

Corrigenda to OECD publications may be found on line at: *www.oecd.org/about/publishing/corrigenda.htm*.

© OECD 2019

You can copy, download or print OECD content for your own use, and you can include excerpts from OECD publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgement of OECD as source and copyright owner is given. All requests for public or commercial use and translation rights should be submitted to *rights@oecd.org*. Requests for permission to photocopy portions of this material for public or commercial use shall be addressed directly to the Copyright Clearance Center (CCC) at *info@copyright.com* or the Centre français d'exploitation du droit de copie (CFC) at *contact@cfcopies.com*.

# *Table of contents*

**Executive summary** ..... **11**

**Key policy insights** ..... **17**

Economic growth has peaked ..... 22
The economic outlook has weakened, but remains positive ..... 22
Financial risks ..... 28
Better use of public spending to boost growth and well-being ..... 31
Key economic and social challenges remain ..... 31
Reducing public spending and improving their efficiency ..... 36
Making taxes more favourable to employment and productivity ..... 48
Ensuring environmental sustainability ..... 51
Improving productivity, employment and social mobility ..... 54
Product and services market reforms would boost growth ..... 54
Boosting innovative business investment ..... 60
Strengthening skills through initial education ..... 63
Bibliography ..... 67
Thematic Chapters ..... 73

**Chapter 1. Improving labour market performance** ..... **75**

Implementing the OECD Jobs Strategy ..... 75
The labour market has improved but challenges remain ..... 76
Those with few qualifications and young people face the most difficulties ..... 82
Employment and inequality have polarised ..... 82
Wages have decoupled from productivity ..... 88
The labour market needs to be transformed successfully ..... 93
Strengthening and adapting people's skills ..... 95
Promoting lifelong learning and skill acquisition ..... 95
Increasing support for those in the greatest difficulty ..... 100
Improving young people's move into employment ..... 103
Encouraging job quality and productivity gains ..... 109
Improve incentives to work for low wage earners ..... 109
Reducing labour market duality ..... 112
Strengthening collective bargaining ..... 121
Limiting inequality and improving support for low incomes ..... 128
Better co-ordinating and simplifying support for low income households ..... 128
Reducing gender bias at work ..... 131
Bibliography ..... 136

**Chapter 2. Improving the efficiency of public investment** ..... **149**

Overview and challenges to public investment ..... 151
The stock of public capital is extensive and its quality is high… ..... 151
…but a stronger focus on maintenance and on a thorough selection of investment projects is needed ..... 152
Local governments are responsible for the majority of public investment and the private sector could play a bigger role ..... 153
Investing for the future ..... 155

Strengthening framework conditions for effective public investment ..... 158
Towards a better prioritisation and selection of investment projects ..... 158
Leveraging the private sector in the provision of infrastructure ..... 163
Strengthening local government capacities for public investment ..... 165
Better maintenance and greener investment in transport and energy ..... 169
Improving transport infrastructure investment ..... 169
Promoting appropriate energy infrastructure ..... 176
Encouraging digitalisation and innovation ..... 181
Fostering a faster transition towards digitalisation ..... 181
Getting the most out of public investment in R&D ..... 184
Bibliography ..... 191

## Tables

Table 1. Macroeconomic indicators and projections ..... 23
Table 2. Low probability events that could lead to major changes in the outlook ..... 27
Table 3. Potential impact of some ongoing reforms on GDP per capita after 10 years[1] ..... 34
Table 4. Potential impact of some reforms proposed in this Survey on GDP per capita after 10 years[1] ..... 35
Table 5. Fiscal indicators ..... 37
Table 6. Fiscal consolidation efforts since 2007 ..... 38
Table 7. Main government tax and spending structural measures ..... 40
Table 8. Past OECD recommendations to reduce public spending and boost its efficiency ..... 46
Table 9. Past OECD recommendations for a tax system promoting sustainable growth ..... 48
Table 10. Illustrative fiscal impact of OECD-recommended reforms ..... 51
Table 11. Past OECD recommendations to improve environmental performance ..... 54
Table 12. Past OECD recommendations to improve the business environment ..... 63
Table 13. Past OECD recommendations to improve learning outcomes of disadvantaged children ..... 65
Table 1.1. New apprenticeships and professionalisation contracts ..... 108
Table 1.2. Recruitment on temporary contracts and TWA employment per 100 employees, 2017 ..... 120
Table 2.1. Public investment by main function ..... 152
Table 2.2. OECD's principles for effective public investment ..... 158
Table 2.3. Municipal investment ..... 166
Table 2.4. France's road transport network: selected figures ..... 173
Table 2.5. The nuclear fleet is ageing ..... 178

## Figures

Figure 1. France's productivity is high, but its growth lags peers ..... 17
Figure 2. France has many assets ..... 18
Figure 3. Slow income gains, low employment and high public debt are key challenges ..... 19
Figure 4. Growth has peaked ..... 24
Figure 5. The labour market is improving ..... 25
Figure 6. Rising wages support household income and consumption ..... 25
Figure 7. Core inflation remains subdued ..... 26
Figure 8. Export performance is disappointing ..... 27
Figure 9. Structure of exports ..... 28
Figure 10. Evolution of macro-financial vulnerabilities ..... 29
Figure 11. Non-financial corporate debt has continued to increase ..... 30

Figure 12. Housing market developments ..... 30
Figure 13. Well-being indicators are mixed ..... 31
Figure 14. Income and wealth disparities are contained but social mobility is weak ..... 32
Figure 15. Labour productivity growth has steadily declined ..... 33
Figure 16. Illustrative gains of some structural reforms along the income distribution ..... 36
Figure 17. The French public deficit and spending remain high ..... 37
Figure 18. Structural reform and further consolidation are necessary ..... 39
Figure 19. French metropolitan areas are fragmented ..... 41
Figure 20. Evolution of average urban population density by country ..... 42
Figure 21. Public spending on pension is set to decline together with replacement rates ..... 44
Figure 22. The public sector wage bill is high ..... 45
Figure 23. Tax breaks for the estate tax are large ..... 47
Figure 24. VAT revenue shortfalls are large ..... 48
Figure 25. Business taxation is hefty ..... 49
Figure 26. Green growth indicators - France ..... 52
Figure 27. Average effective tax rates in the road sector have increased ..... 54
Figure 28. The distributions of management quality and firms size are skewed ..... 55
Figure 29. Resource misallocation has increased, while investment disappoints ..... 56
Figure 30. Estimated labour productivity gains from policy reforms reducing skill mismatch ..... 57
Figure 31. Service trade barriers remain important in some key sectors ..... 58
Figure 32. Product market regulations remain stringent in some sectors, 2018 ..... 59
Figure 33. Perception of corruption risks ..... 60
Figure 34. Business investment has stagnated, despite generous R&D support ..... 61
Figure 35. The shift towards high skilled employment is expected to continue ..... 64
Figure 36. Expenditures on pre-primary and primary education are low ..... 64
Figure 37. Pedagogical training and teacher teamwork are weak ..... 66
Figure 1.1. The labour market has improved ..... 76
Figure 1.2. Some aspects of labour market inclusiveness show room for improvement ..... 79
Figure 1.3. Inequality is attenuated by taxes and social transfers ..... 80
Figure 1.4. The labour market presents some structural weaknesses ..... 81
Figure 1.5. Population's skills are unequally distributed ..... 82
Figure 1.6. Employment is more polarised, but wage inequality has been contained ..... 83
Figure 1.7. The unemployment rate has remained stubbornly high ..... 84
Figure 1.8. Disparities by level of qualification have widened ..... 85
Figure 1.9. The structure of employment has changed ..... 86
Figure 1.10. The term of temporary contracts has fallen sharply ..... 87
Figure 1.11. The number of young people not in employment or education is high ..... 87
Figure 1.12. Wages have not tracked productivity ..... 88
Figure 1.13. Changes in unit labour costs ..... 89
Figure 1.14. Salaries and the minimum wage ..... 90
Figure 1.15. Targeted exemptions from employer contributions have increased ..... 92
Figure 1.16. The skills of the active population fall off rapidly as people age ..... 93
Figure 1.17. Demographic ageing and automation are major issues ..... 94
Figure 1.18. Access to professional training remains unequal, 2016 ..... 97
Figure 1.19. Access to training for workers on temporary contracts ..... 100
Figure 1.20. Public spending on active labour market policies ..... 101
Figure 1.21. The number of beneficiaries of some employment policies has slumped ..... 103
Figure 1.22. Young people struggle to enter the workplace ..... 104
Figure 1.23. The educational system perpetuates significant disparities ..... 105
Figure 1.24. Numbers of apprenticeship contracts and key trends ..... 107

Figure 1.25. The simulated effects of the 2018 and 2019 tax and benefit reforms ..... 111
Figure 1.26. Temporary contracts provide little access to more stable jobs ..... 113
Figure 1.27. Comparative changes in employment protection restrictiveness ..... 116
Figure 1.28. Referrals to labour courts and the rate of temporary contracts have decreased ..... 119
Figure 1.29. Employer and union representation and collective bargaining coverage ..... 123
Figure 1.30. Local labour markets are extremely varied ..... 127
Figure 1.31. The impact of property market restrictions on the mobility of young people ..... 128
Figure 1.32. Replacement rates and eligibility criteria for unemployment insurance ..... 131
Figure 1.33. Gender disparities are moderate ..... 132
Figure 1.34. Participation in formal child care ..... 133
Figure 2.1. Stock of public capital and public investment ..... 151
Figure 2.2. Infrastructure governance indicators ..... 153
Figure 2.3. Distribution of investment spending across levels of government ..... 154
Figure 2.4. Local government investment ..... 155
Figure 2.5. The government funding of research is broadly in line with the OECD average ..... 157
Figure 2.6. The capital stock from public-private partnerships is fairly limited ..... 163
Figure 2.7. Territorial fragmentation is sizeable ..... 165
Figure 2.8. Municipal investment spending by category of municipalities ..... 166
Figure 2.9. Local government investment spending as a share of total spending ..... 167
Figure 2.10. Investment in transport infrastructure ..... 171
Figure 2.11. Rail investment spending ..... 173
Figure 2.12. Rail freight is not on the right track ..... 175
Figure 2.13. The share of renewables is small, but the CO2 emission content of electricity generation is low ..... 176
Figure 2.14. Energy-efficiency gains are driven by the residential sector ..... 177
Figure 2.15. Electricity generation predominantly originates from nuclear power ..... 179
Figure 2.16. Interconnection capacity with the European electricity market is low ..... 181
Figure 2.17. There is room to improve the quality of broadband infrastructure ..... 182
Figure 2.18. Penetration of digital technologies in public administration is improving ..... 184
Figure 2.19. Spending on R&D is broadly in line with the OECD average ..... 185
Figure 2.20. International net flows of scientific authors ..... 187
Figure 2.21. Project funding of R&D is limited ..... 188
Figure 2.22. Business R&D intensity is higher once adjusted for industrial structure ..... 189

## Boxes

Box 1. Key measures from the government's 2017-22 reform agenda ..... 20
Box 2. Impact of some OECD recommended reforms on growth and inclusiveness ..... 35
Box 3. Initial coin offering ..... 62
Box 1.1. The OECD's new Jobs Strategy ..... 78
Box 1.2. The 2018 reform of continuous training ..... 96
Box 1.3. The 2018 apprenticeship reform ..... 108
Box 1.4. The 2018 and 2019 tax and benefit reforms, and their simulated effect ..... 110
Box 1.5. The 2016 and 2017 employment protection reforms ..... 114
Box 1.6. Legal limits on worker compensation in case of unfair dismissal in other countries ..... 117
Box 1.7. Derogatory temporary contracts and TWA employment ..... 120
Box 1.8. The 2016 and 2017 collective bargaining reforms ..... 125
Box 1.9. The implementation of *Universal Credit* in the UK ..... 129
Box 1.10. Recommendations for improving labour market performance ..... 134
Box 2.1. Illustrating the challenges in defining and measuring public investment ..... 150

Box 2.2. The Grand plan d'investissement and the Fonds pour l'innovation et l'industrie ..... 156
Box 2.3. Decision-making process for large hospital investments ..... 161
Box 2.4. Distribution of responsibilities and transport planning ..... 171

*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 18 March 2019. The draft report was then revised in light of the discussions and given final approval as the agreed report of the whole Committee on 29 March 2019.*

*The Secretariat's draft report was prepared for the Committee by Antoine Goujard and Pierre Guérin under the supervision of Pierre Beynet. The Labour Market Chapter also benefitted from contributions by Stéphane Carcillo, Alexander Hijzen and Stefan Thewissen. Statistical research assistance was provided by Patrizio Sicari and editorial support was provided by Sylvie Ricordeau.*

*The previous Survey of France was issued in September 2017.*

**Follow OECD Publications on:**

http://twitter.com/OECD_Pubs

http://www.facebook.com/OECDPublications

http://www.linkedin.com/groups/OECD-Publications-4645871

http://www.youtube.com/oecdilibrary

http://www.oecd.org/oecddirect/

**This book has...**

StatLinks
A service that delivers Excel® files from the printed page!

Look for the *StatLinks* at the bottom of the tables or graphs in this book. To download the matching Excel® spreadsheet, just type the link into your Internet browser, starting with the *http://dx.doi.org* prefix, or click on the link from the e-book edition.

## BASIC STATISTICS OF FRANCE, 2018

(Numbers in parentheses refer to the OECD average)*

| | | | | | |
|---|---|---|---|---|---|
| **LAND, PEOPLE AND ELECTORAL CYCLE** | | | | | |
| Population (million) | 65.5 | | Population density per km² | 105.8 | (37.2) |
| Under 15 (%) | 18.0 | (17.8) | Life expectancy (years, 2016) | 82.4 | (80.4) |
| Over 65 (%) | 19.9 | (17.3) | Men | 79.2 | (77.7) |
| Foreign-born (%, 2016) | 12.2 | | Women | 85.5 | (83.1) |
| Latest 5-year average growth (%) | 0.5 | (0.5) | Latest general election | June 2017 | |
| **ECONOMY** | | | | | |
| Gross domestic product (GDP) | | | Value added shares (%, 2017) | | |
| In current prices (billion USD) | 2,776.2 | | Primary sector | 1.7 | (2.5) |
| In current prices (billion EUR) | 2 350.5 | | Industry including construction | 19.5 | (26.8) |
| Latest 5-year average real growth (%)[a] | 1.4 | (2.1) | Services | 78.8 | (70.6) |
| Per capita (000 USD PPP)[a] | 45.8 | (44.3) | | | |
| **GENERAL GOVERNMENT (2017)** Per cent of GDP | | | | | |
| Expenditure | 56.4 | (40.3) | Gross financial debt** | 124.3 | (110.7) |
| Revenue | 53.8 | (38.1) | Net financial debt** | 80.1 | (66.7) |
| **EXTERNAL ACCOUNTS** | | | | | |
| Exchange rate (EUR per USD) | 0.847 | | Main exports (% of total merchandise exports, 2017) | | |
| PPP exchange rate (USA = 1) | 0.766 | | Machinery and transport equipment | 39.8 | |
| In per cent of GDP | | | Chemicals and related products, n.e.s. | 18.5 | |
| Exports of goods and services | 31.3 | (56.0) | Miscellaneous manufactured articles | 12.1 | |
| Imports of goods and services | 32.3 | (51.8) | Main imports (% of total merchandise imports, 2017) | | |
| Current account balance[a] | -0.7 | (0.4) | Machinery and transport equipment | 37.3 | |
| Net international investment position (2017) | -21.4 | | Miscellaneous manufactured articles | 15.5 | |
| | | | Chemicals and related products, n.e.s. | 13.5 | |
| **LABOUR MARKET, SKILLS AND INNOVATION** | | | | | |
| Employment rate for 15-64 year-olds (%)[a] | 65.4 | (67.7) | Unemployment rate, Labour Force Survey (age 15 and over) (%) | 9.1 | (5.8) |
| Men | 68.9 | (75.4) | Youth (age 15-24, %) | 20.8 | (11.9) |
| Women | 61.9 | (60.1) | Long-term unemployed (1 year and over) (%, 2017) | 3.9 | (1.7) |
| Participation rate for 15-64 year-olds (%, 2017) | 71.8 | (72.1) | Tertiary educational attainment 25-64 year-olds (%, 2017) | 35.2 | (36.9) |
| Average hours worked per year (2017) | 1 514 | (1 744) | Gross domestic expenditure on R&D (% of GDP, 2017) | 2.2 | (2.4) |
| **ENVIRONMENT** | | | | | |
| Total primary energy supply per capita (toe, 2017) | 3.7 | (4.1) | $CO_2$ emissions from fuel combustion per capita (tonnes, 2016) | 4.4 | (9.0) |
| Renewables (%, 2017) | 9.8 | (10.2) | Water abstractions per capita (1 000 $m^3$, 2013) | 0.4 | |
| Exposure to air pollution (more than 10 µg/$m^3$ of PM2.5, % of population, 2015) | 80.7 | (75.2) | Municipal waste per capita (tonnes, 2017) | 0.5 | (0.5) |
| **SOCIETY** | | | | | |
| Income inequality (Gini coefficient, 2016)[a] | 0.291 | (0.313) | Education outcomes (PISA score, 2015) | | |
| Relative poverty rate (%, 2016)[a] | 8.3 | (11.7) | Reading | 499 | (493) |
| Median disposable household income (000 USD PPP, 2016)[a] | 25.7 | (23.1) | Mathematics | 493 | (490) |
| Public and private spending (% of GDP) | | | Science | 495 | (493) |
| Health care (2017) | 11.5 | (8.8) | Share of women in parliament (%) | 35.7 | (30.1) |
| Pensions (2015) | 14.4 | (8.5) | Net official development assistance (% of GNI, 2017) | 0.43 | (0.37) |
| Education (primary, secondary, post sec. non tertiary, 2015) | 3.7 | (3.5) | | | |

Better life index: www.oecdbetterlifeindex.org

* Where the OECD aggregate is not provided in the source database, a simple OECD average of latest available data is calculated where data exist for at least 29 member countries.

** Public debt (Maastricht definition, as used in the main text) was at 98.4% of GDP in 2018. The Maastricht definition evaluates debt at face value and not market value as employed here. Moreover, the instrument coverage is different.

a T-1 for the OECD average, relative to the year reported for France.

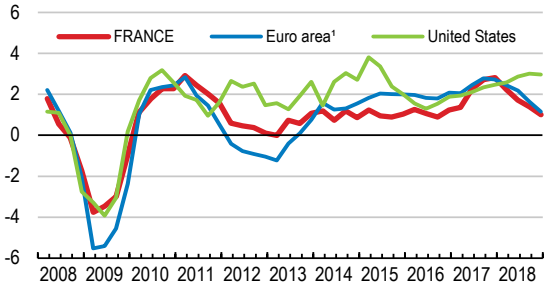
Source: Calculations based on data extracted from the databases of the following organisations: OECD, International Energy Agency, International Monetary Fund.

# *Executive summary*

## *The French economy is slowing down*

**Economic growth has slowed down after a gradual recovery**. Global economic conditions, monetary policy and structural reforms have supported exports and investment in recent years. However, global uncertainties and the effects of social unrests weighed on activity in 2018. Employment rates remain low and the fiscal situation has not recovered. Real wage growth and productivity gains have not returned to pre-crisis levels, despite a slight rebound in 2017-18.

**Figure A. Growth has slowed**




1. Euro area member countries that are also members of the OECD (17 countries).
*Source:* OECD (2019), *OECD Economic Outlook: Statistics and Projections* (database) and updates.

StatLink
https://doi.org/10.1787/888933950048

**Consumption and growth will benefit from a boost in households' purchasing power.** GDP growth is expected to remain around 1.3% in 2019-20. The expected slowdown among France's main trading partners will weigh on exports and business investment (Table A). On the other hand, employment gains, increasing real wages, lower taxes and oil prices will support household consumption. Social measures taken at the end of 2018 will also increase disposable income and consumption of retirees and low-wage earners.

**The main risks surrounding these forecasts are downward.** A stronger-than-expected slowdown in growth in advanced economies, particularly in Europe, would reduce exports and investment. In addition, recent social unrests have highlighted the need to fully integrate the redistributive effects of reforms to support their social acceptability and smooth the implementation of the measures needed for more inclusive and sustainable growth. The latest social protests had little impact at the end of 2018, but their persistence could create uncertainty and would weigh on the economic outlook.

**Table A. Growth will have a broader base**

| % change | 2018 | 2019 | 2020 |
|---|---|---|---|
| **Gross domestic product (GDP)** | **1.6** | **1.3** | **1.3** |
| Private consumption | 0.9 | 1.5 | 1.4 |
| Government consumption | 1.0 | 0.9 | 0.4 |
| Gross fixed capital formation | 2.9 | 2.1 | 2.0 |
| Exports of goods and services | 3.3 | 2.3 | 2.7 |
| Imports of goods and services | 1.3 | 2.6 | 2.7 |
| Unemployment rate | 9.1 | 8.7 | 8.5 |
| Consumer price index | 2.1 | 1.4 | 1.5 |

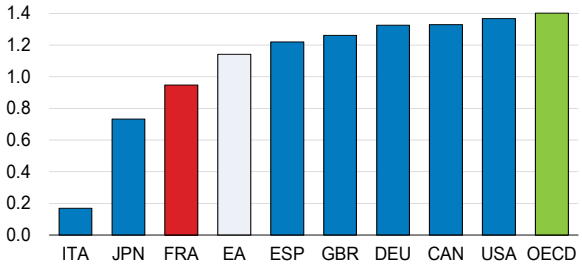
*Source*: OECD Economic Outlook.

## *Sluggish growth and job prospects weigh on well-being, while the level of public spending is high*

**Slowing productivity gains and weak employment rates have reduced GDP per capita growth** (Figure B). Productivity growth has decreased over the past ten years, as in most other OECD countries. The employment rate is still one of the lowest among OECD countries, especially for the low-skilled, youngsters and older workers, despite its historically high level. Too many workers have skills that do not match labour market needs and educational outcomes are highly dependent on family background. Unequal access to training has made difficult the professional integration of the youth. Finally, until recently, growing public spending has kept taxes high, weighing on disposable income. As a result, the public debt-to-GDP ratio has increased to close to 100% (Maastricht definition), and has not yet started to decline.

**Figure B. Income gains per inhabitant are slow**

GDP per capita[1], average annual % growth rate, 1998-2018

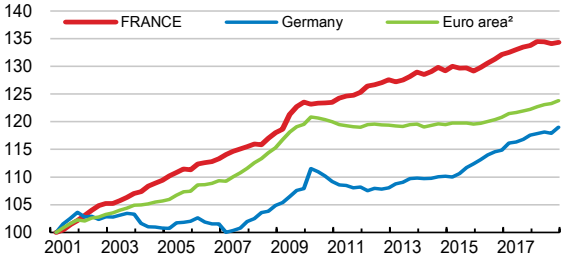



1. At constant 2010 USD PPPs.
*Source:* OECD (2019), *OECD National Accounts Statistics* (database).

StatLink
https://doi.org/10.1787/888933950067

**Figure C. Public spending has grown rapidly**

Real public spending[1], index 2001-Q1=100




1. Deflated by the GDP deflator.
2. Euro area member countries that are also members of the OECD (17 countries).
*Source:* OECD (2019), *OECD Economic Outlook: Statistics and Projections* (database) and updates.

StatLink
https://doi.org/10.1787/888933950086

**Public spending has grown rapidly.** Expenditure control objectives have not made it possible to sustainably reduce the level of public spending, which remains high, despite a recent inflection (Chart C). To reduce the share of public spending in relation to GDP, it will be necessary to review the allocation, the targeting and, if necessary, the amount of some expenditures, to improve the distribution of responsibilities between local governments and to increase the efficiency of their expenditures. Some spending, such as local government operational expenditures and health expenditures, have grown rapidly, despite their recent slowdown. In addition, some expenditures have not had the expected results: educational outcomes largely reflect family background and low-skilled workers have benefitted little from professional training until recently. The government's reform programme to control public spending and improve its allocation through expenditure reviews should be implemented more rapidly. The proposed merger of welfare programmes and housing benefits would also help better steer social assistance. In addition, pension expenditures are sizeable, and new measures to raise the effective age of labour market exit will be needed.

**Streamlining the tax system would support economic activity.** A number of narrow-based low-revenue taxes affect businesses and should be reviewed to simplify the tax system. VAT exemptions and reduced rates are sizeable and some of them benefit too little low-income households. Limiting these exemptions would promote economic activity and a more redistributive tax structure, while allowing to reduce the tax burden. Environmental taxes must also better reflect environmental and social costs. Their social acceptance will require gradual changes, without increasing the tax burden, and compensation measures to promote equity.

**Competition-enhancing reforms to regulatory settings would raise productivity and innovation.** An ambitious business simplification programme could ease firm entry and growth. Moreover, entry and conduct regulations remain stringent in several professional services – such as accountants, notaries and pharmacists – weighing on productivity and employment. To ensure such regulations are in the public interest, reviewing existing regulations from a competition perspective would be helpful.

**Stronger and more inclusive growth will require ambitious reforms.** Improving labour market outcomes, increasing competition, limiting public spending and eventually reducing tax rates should be priorities. Measures currently

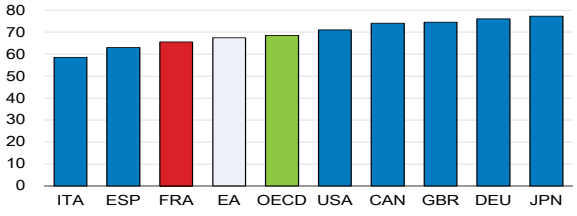
being implemented by the authorities could increase GDP per capita by 3.2% after 10 years and those proposed in this *Survey* would increase that gain to 5.1%. The gains from these reforms would be concentrated in the middle and lower-middle categories of the income distribution. The implementation of these reforms will need to put in place adequate compensation mechanisms, ensuring they are perceived as a means to promote equal opportunities.

### *Labour market reforms must foster more and better jobs*

**Employment rates remain low in international comparison** (Figure D), despite a recent increase. The low-skilled, young and older workers have particularly low employment rates. The low level of qualification of part of the labour force combined with tight labour market regulations have reduced access to employment. Support and training measures still need strengthening, particularly for the long-term unemployed, low-skilled and young people, as foreseen in the Youth Guarantee programme, the Skill Investment Plan and the antipoverty strategy. The government is continuing to lower labour cost and increasing wage top-ups for low-wage earners which will help improve their situation on the labour market and their disposable income.

**Figure D. Employment rates are low**

15-64 year-olds, % of the population, 2018-Q4 or latest available




*Source*: OECD (2019), *OECD Short-Term Labour Market Statistics* (database).

StatLink
https://doi.org/10.1787/888933950105

**Ensuring supply of the right skills would boost jobs and productivity.** Businesses report increasing skill shortages, while the share of young people who are not in employment, education or training is persistently high, despite a recent improvement. Professional training programmes have so far had low returns on investment. The government has initiated welcome reforms to improve access to up-skilling and re-skilling programmes and their quality and the apprenticeship reform could allow reducing mismatches between educational programmes and firm needs. Regularly evaluating vocational training and subsidised job programmes, as planned, will improve their quality. Programmes that have been found to have a positive impact on the employment prospects of participants should be expanded. Ongoing reforms also aim to develop apprenticeship. However, for these reforms to reach their full potential, it will be necessary to strengthen relationships between firms and the educational system and to continue to reduce dropout rates.

**Productivity and income gains would benefit from easing labour market transitions.** Recent reforms promote a more flexible labour market, through lower uncertainty about separation costs and the development of firm-level bargaining. However, short-term contracts have rapidly increased. Containing the use of short-term contracts would require increasing the relative cost of short-term hiring and reforming the unemployment insurance system so that it does not encourage recurrent short-term employment periods and unemployment spells. The authorities foresee to take measures in this direction. Moreover, favouring workers' mobility would help match job offers and job seekers. Better public transport and lower housing transaction costs would increase the efficiency of local labour markets.

### *Public investment should support stronger, more sustainable and inclusive growth*

**Public investment in France should concentrate on the maintenance and upgrading of the capital stock in some sectors.** The stock of public capital is extensive (Figure E) and the perceived quality of infrastructure is high. Yet, in some sectors such as rail transport or health care, a lack of maintenance has hampered the efficiency of existing infrastructure. Promoting socio-economic efficiency in project selection would

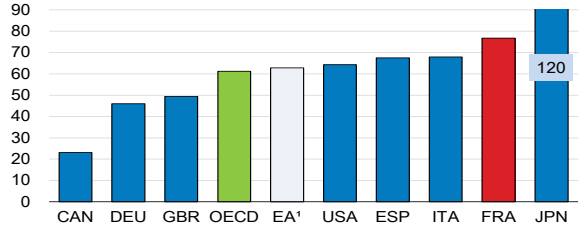
help make the most of new investments and concentrate investments where they are the most needed.

**Improving the efficiency of public investment will rely in large part on local governments**, as they represent the majority of public investment. Continuing efforts to streamline local governments and clearly allocating responsibilities across administrative levels will help achieve economies of scale and scope. Moreover, revising intergovernmental transfers to better tackle disparities in tax-raising abilities and costs faced would ensure that local resources match local needs. This would also help contain public expenditures.

**Transport and energy investments need to better tackle environmental challenges.** The transport sector accounts for a large share of pollution and emission reductions have been slow, while urban pollution remains high in some cities. Infrastructure planning needs to better reflect health and environmental costs and be consistent with government's targets for reducing greenhouse gas emissions. The increase in the shadow price of carbon used in socio-economic analyses goes in this direction.

**Figure E. The stock of public capital is high**

% of GDP, 2015




1. Euro area member countries that are also members of the OECD (17 countries).
*Source*: IMF (2017), *Investment and Capital Stock Statistics* (database), International Monetary Fund, Washington, D.C.

StatLink
https://doi.org/10.1787/888933950124

**Continuing reforms that give universities more autonomy will help reap the full benefits of investment plans**. A selected increase in funding for public research should go along with reforms to raise universities' autonomy over their human resource policies. Channelling additional funding through competitive processes and fostering a closer involvement with the private sector will also be key to foster innovation and knowledge diffusion.

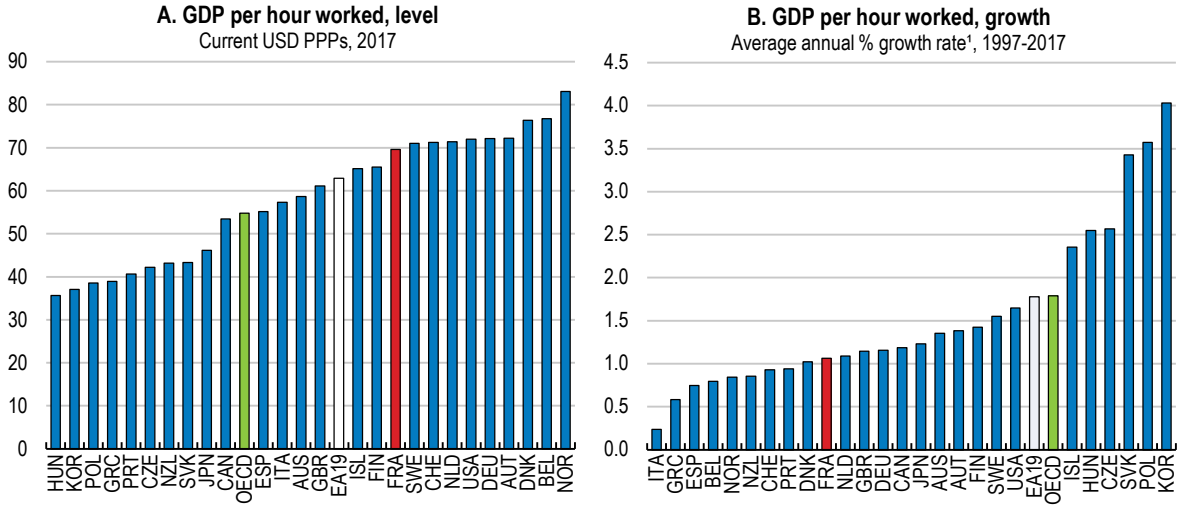
**The quality of the digital infrastructure could improve significantly**. Broadband penetration and internet speed are lagging relative to best performing countries. Efficient, reliable, and widely accessible digital infrastructure will be key to reap the full benefits of digitalisation. Investments in digital public administration will also help achieve productivity gains in public administration and contribute to increase public spending efficiency.

| MAIN FINDINGS | KEY RECOMMENDATIONS |
|---|---|
| **Developing a long-term strategy to boost growth and reduce the fiscal deficit and public debt** | |
| Structural reforms are needed to increase growth. However, these reforms may have a social cost in the short run, limiting their acceptability. | Continue reforms conducive to more inclusive and sustainable growth and promote their acceptability by minimising and/or offsetting their potential short-term negative effects on selected population groups. |
| Public debt is high and elevated public spending requires high taxes that weigh on economic activity. The government is undertaking targeted public expenditure reviews to identify gains in spending efficiency. | Continue fiscal consolidation durably to ensure a gradual decline in the debt-to-GDP ratio.<br>Announce precise targets for reducing public expenditures in spending reviews. |
| VAT exemptions and reduced rates are important and some of them benefit little low-income households. Tax expenditures are sizeable and some have been reinstated (such as overtime tax deduction) despite weak evidence of being beneficial. | Simplify the tax system by reducing the use of exemptions and reduced rates that do not benefit the lowest-income households, and reduce tax rates.<br>Systematically review tax expenditures after some years of implementation and phase them out if not deemed helpful. |
| The pension system is fragmented and pension spending elevated. The effective retirement age is low. | Review pension penalties and bonuses to encourage an increase in the effective retirement age and gradual retirement. |
| Existing infrastructure may have suffered from a lack of maintenance and upgrading in some sectors (rail transport, hospital and tertiary education). The health sector has set up a committee to help prioritise investment projects. | Continue to extend the investment selection framework in place in the health sector to other sectors.<br>Strengthen the share of infrastructure maintenance spending in public investment. |
| **Fostering employment to make growth more inclusive** | |
| The long-term unemployment rate remains high and employment rates are weak, notably for the low-skilled people. | Mainly focus employer social security contribution exemptions on low wages. |
| The skills of the population aged over 24 are lagging. The quality of lifelong training programmes is unequal. | Ensure access to transparent information and effective monitoring of the quality of lifelong learning programmes through additional evaluations and strengthened counselling. |
| The use of short-term contracts is recurrent and widespread. Some unemployment insurance rules can encourage an excessive use of short-term contracts. | Restrict the possibility of receiving unemployment benefits during repeated periods of temporary employment and the reloading of rights over short employment spells.<br>Modulate labour costs to reduce the excessive use of short-term contracts. |
| School to work transitions are difficult, notably for low-skilled youth. Intergenerational mobility is weak. The poorest households would benefit most from access to childcare, as it raises women's employment. | Strengthen apprenticeship in secondary vocational schools, and social and economic integration programs for inactive youth.<br>Speed up the development additional childcare services for low-income households and in poor neighbourhoods. |
| The take-up of some social programmes and follow-up measures is weak. | Merge welfare programmes and in-work benefits (*Prime d'Activité*), taking into account housing benefits and public housing in overall household resources. |
| **Improving productivity and competitiveness** | |
| Despite some progress, barriers to entry and competition in services remain high. Business regulation can be unduly restrictive. | Engage an independent institution to conduct a thorough review of all existing and proposed regulations affecting firms. |
| Science-industry collaboration remains weak, as is the share of competitive project financing of public research. | Continue to increase universities' autonomy over their programmes and human resource policies, while taking into account their public service function.<br>Continue to increase the budget of the National Research Agency. |
| The low flexibility of housing supply hinder access to housing for the poor and prevent greater residential and labour mobility. | Encourage a more flexible rental market by developing shorter contracts and the use of rental guarantees.<br>Lower transaction costs on housing, notably real estate transfer taxes. |
| **Recalibrating the economy for greener growth** | |
| The pricing of the environmental costs of fossil fuels is uneven. The transport sector is responsible for much of the greenhouse gas emissions and air pollution. However, diesel taxes do not reflect all of the negative effects of its use on the environment and health. Joint increases in diesel taxes and the carbon tax have not been socially accepted. | Better take into account environmental externalities in transport taxation and develop flanking measures for the most affected populations over the short term. |
| France is a major consumer of pesticides posing significant risks to health and the environment. | Strengthen the risk assessment of phytosanitary products, notably the effect of their interaction, and contribute to European research to gradually replace the substances identified as the most harmful. |

# Key policy insights

The French economy has a high productivity, ensuring standards of living in line with the OECD average (Figure 1, Panel A). This good economic performance is underpinned by a well-rated infrastructure, a dynamic working-age population, long life expectancy in good health, and a tax and transfer system that significantly reduces income disparities and poverty rates (Figure 2, Panel A). Moreover, from 2015 to end-2017, monetary policy, the global economic upturn and structural reforms have bolstered a gradual economic recovery.

**Figure 1. France's productivity is high, but its growth lags peers**



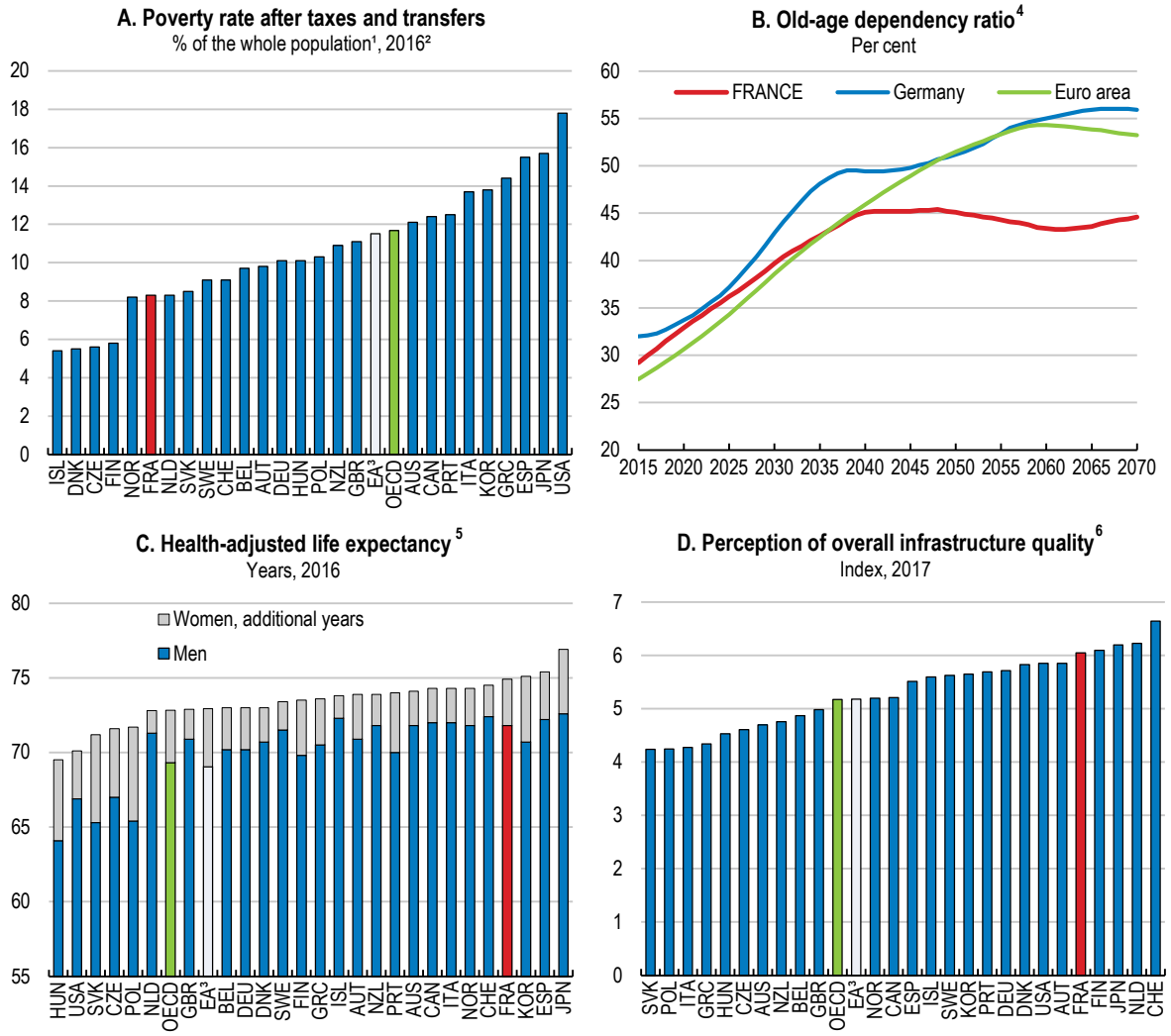

1. At constant 2010 USD PPPs.
*Source*: OECD (2019), *OECD Productivity Statistics* (database).

StatLink https://doi.org/10.1787/888933949345

However, growth slowed in 2018 and economic performance has disappointed over the medium term. Material living standards, as measured by GDP per capita, are constrained by slowing productivity growth, as in most other advanced economies (Figure 1, Panel B), and employment rates are relatively low (Figure 3). Despite growing real wages, households' purchasing power per unit of consumption, a better measure of living standards, has stagnated over the past ten years (INSEE, 2018). Too many low-skilled and young people are excluded from the labour market, and unequal educational outcomes weaken inter-generational mobility. Elevated public spending, while contributing to lower income disparities through extensive social expenditures, requires high taxes that limit firms' ability to create jobs, and reduce incentives for people to work. This has pushed the public debt-to-GDP ratio close to 100% of GDP (Maastricht definition). Regional GDP per

capita disparities have also increased, even though regional disposable income inequalities have decreased over the long term.

**Figure 2. France has many assets**



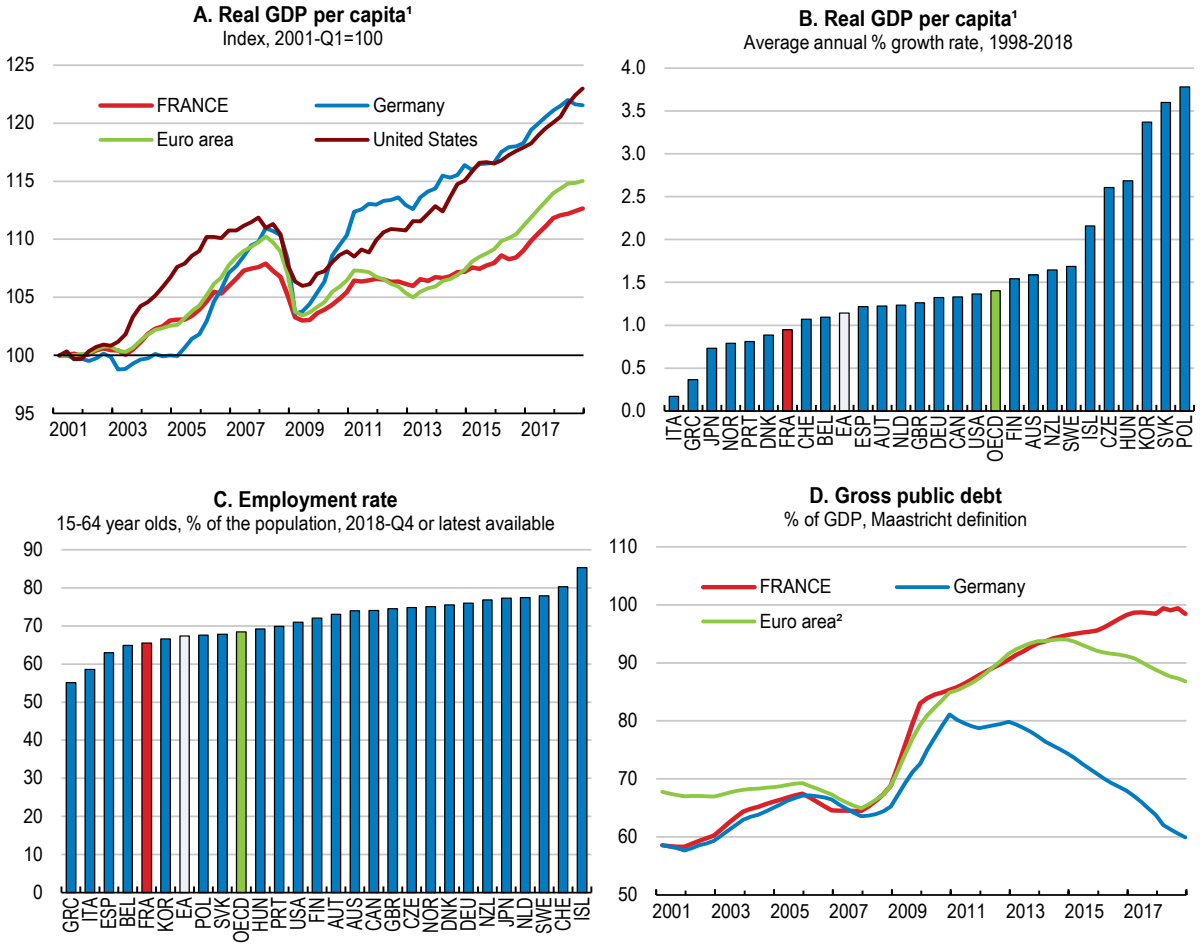

1. At 50% of household's median equivalised income.
2. Or latest available year.
3. Euro area member countries that are also members of the OECD (17 countries).
4. Ratio of the population 65 and over to population 15 to 64 years according to Eurostat (2018)'s baseline projections.
5. Average number of years that a new-born infant can expect to live in full health by taking into account years lived in less than full health due to disease and/or injury (HALE). The countries are ranked according to women's life expectancy.
6. Index from the lowest perceived quality (0) to the highest (7) based on the assessment of business leaders operating in the country.

*Source:* OECD (2019), *OECD Income Distribution and Poverty Statistics* (database); Eurostat (2018), "Baseline projections: Demographic balances and indicators", *Eurostat Database*; WHO (2018), *Global Health Observatory data repository* (database), World Health Organisation, Geneva; WEF (2018), *The Global Competitiveness Report 2017-2018* (database), World Economic Forum, Geneva.

StatLink https://doi.org/10.1787/888933949364

The government has undertaken a series of pro-growth and pro-inclusiveness structural reforms to boost medium-term economic activity and put public finance on a firmer footing (Box 1). Comprehensive labour reforms, lower business and labour taxes and a welcome productivity-enhancing public investment plan should help raise medium-term growth and boost employment. Environmental considerations have also been a concern, although targets for improvement have been set at a relatively distant future. The 2017 Climate Strategy foresees a net zero carbon footprint by 2050, the ban of sales of fossil fuel vehicles from 2040 and a steady increase in the carbon tax (i.e. the carbon component of domestic consumption taxes). However, the government decided to cancel the foreseen 2019 hikes in energy taxes following the "gilets jaunes" protests. Spending reviews and a planned pension reform are set to increase the effectiveness of public expenditures and make room for tax cuts, while preserving public investment. OECD estimates, covering a broad part of ongoing reforms, show that they could boost GDP per capita by 3.2% at a ten-year horizon and would mostly benefit middle- and lower-middle income households (Box 1).

**Figure 3. Slow income gains, low employment and high public debt are key challenges**




1. At constant 2010 USD PPPs.
2. Euro area member countries that are also members of the OECD (17 countries).

*Source:* OECD (2019), *OECD National Accounts Statistics*, *OECD Short-Term Labour Statistics* and *OECD Economic Outlook: Statistics and Projections* (databases) and updates.

StatLink https://doi.org/10.1787/888933949383

**Box 1. Key measures from the government's 2017-22 reform agenda**

- **Labour market reforms** (Chapter 1): the aim of the 2017 *Ordonnances* is to facilitate collective bargaining and firm-level negotiations, as well as to reduce legal uncertainty surrounding dismissals for permanent contracts and to regulate the administrative extensions of sector-level agreements by setting up an independent committee to evaluate the economic and social effects of administrative extensions. New unemployment insurance rights are open to some self-employed workers and to resigning employees subject to conditions.
- **Measures to promote initial education and adult learning** (Chapter 1): A 2018 law (*loi pour la liberté de choisir son avenir professionnel*) reforms the apprenticeship system to boost its take-up by the youth and bring it closer to firms' needs. This law also reforms the vocational training system and aims to strengthen the quality of training by simplifying its funding to make it more attractive. Moreover, a new training plan (*Plan d'investissement dans les compétences*) is increasing funding for access to training for young low-skilled workers and long-term unemployed. A 2018 law (*loi sur l'orientation et la réussite des étudiants*) has engaged a global reform to raise individualised support and counselling for students, notably to reduce failure rates during undergraduate university studies.
- **Anti-poverty strategy** (Chapter 1): the government has increased in-work benefits – *Prime d'activité* – to support low-income workers. The government plans to boost access to early childhood education and care in poor neighbourhoods.
- **Pension reform:** the government plans to move to a single pension system to improve transparency, foster labour mobility, lower management costs, and ensure the long-term financial sustainability of the pension system. Discussions about this reform started in 2018 and the reform should be voted in 2019.
- **Healthcare reform**: the 2022 healthcare plan ("Ma Santé 2022") aims at improving prevention and co-ordination among care providers. This plans also reforms medical studies in order to better tailor the number of doctors to social needs. Moreover, the plan "100% santé" aims to provide access to all for optical, hearing and dental care.
- **Education reforms:** Following a 2019 law (*loi "Pour une école de la confiance*"), education will be compulsory for three year olds (instead of six year olds) from the 2019 school year school to better address educational inequalities that start building up from early ages. At the primary level, class size in grade 1 and grade 2 in poor neighbourhoods was halved to improve knowledge transmission and reduce socio-educational inequalities by targeting the most vulnerable groups.
- **Effectiveness of public spending** (Chapter 2): the government targets to reduce the weight of current public expenditure by three points of GDP over 2017-22. Specific spending reviews aim at cutting current expenditures.
- **Tax reforms:** An increase in the proportional personal income tax (*contribution sociale généralisée*, CSG) allowed for a reduction in employee social contributions in 2018. The wealth tax (*impôt sur la fortune*) was focused on real estate assets only (*impôt sur la fortune immobilière*), and the taxation of capital was set to a flat rate of 30%. The headline corporate income tax rate will decrease to 25% in 2022. A permanent reduction in employer social contribution rates replaced the tax credit for competitiveness and employment (*crédit d'impôt pour la compétitivité et l'emploi – CICE)* in 2019. The government is phasing out the residency tax (*taxe d'habitation*) for middle-income households (80% of the

population) by 2020. By contrast, taxes on tobacco will continue to increase substantially, and environmental taxation increased in 2018.

- **Business environment and product market reforms:** the draft PACTE bill announced in 2018 smoothed some regulatory thresholds to boost firm growth. The reform of the national railway company (SNCF) also aims to prepare the opening up of domestic rail passenger transport to competition and foresees that the government will take back EUR 35 billion of SNCF's debt by 2022.
- **2017 Climate Strategy** (Chapter 2 and below): The National Low Carbon Strategy (*Stratégie Nationale Bas-Carbone*, SNBC) describes France's roadmap for achieving carbon neutrality by 2050. It sets targets for reducing greenhouse gas emissions in the medium term by setting carbon targets not to exceed every five years. The Multiannual Energy Plan (*Programmation pluriannuelle de l'énergie*, PPE) presents a strategy to decarbonise France's energy mix for the next ten years: the share of renewable energies will have to reach 32% of final energy consumption by 2030.
- **Transport and mobility** (Chapter 2): the 2018 draft bill on mobility (*loi d'orientation des mobilités*) plans to reduce car dependency by ensuring that the entire territory is covered by local authorities organising mobility. The bill also includes a program of investments in transport infrastructure for the period 2019-27, prioritising daily transport.

Source: République Française (2018), National reform programme 2018; République Française (2018), Projet de loi de finances pour 2019.

Looking forward, France should capitalise on this reform agenda and take further measures to improve public spending efficiency and increase high-quality jobs, two of the main issues discussed in this Survey. The main OECD recommendations in this Survey could raise GDP per capita by an additional 2 percentage points at a ten-year horizon and reduce the public spending to GDP ratio by 2 points in the long term. To do so, productivity growth across the business sector must be revived through policy settings that facilitate the expansion of high potential enterprises and exporting firms. This would help address France's long-standing export share decline, even though it has stabilised in recent years.

These reforms would address the social challenges of long-term unemployment and inactivity, difficulties in accessing the labour market, in particular for low-skilled youth, and significant inequalities of opportunity that result in low equity in access to quality education and very low intergenerational mobility. The ongoing national debate (*Grand débat national*) is an opportunity to effectively communicate the gains of these reforms and could avoid a political polarisation and the risk of legislative impasse that could lessen the chances to make changes (Alesina, Ardagna and Trebbi, 2006). To be socially acceptable and politically feasible, the reform agenda will need to be introduced without completely eliminating acquired rights. This implies to strike a balance between a partial recognition of acquired rights, to the extent that public finances can accommodate it, possible compensations of the aggregate impacts of reform packages, along with mechanisms to support the population in the reform process (OECD, 2015).Against this background, the main messages of this *Survey* are:

- Continuing pro-growth reforms, in line with recent measures, is key to further reducing unemployment. However, short-term negative impacts on some categories of the population should be compensated to ensure the social acceptability of the reform process.

- Reducing public spending in relation to GDP is needed to improve the fiscal position, and lower tax rates in the long run, particularly on labour. Government spending policies should focus on ensuring investment and social spending are well targeted raising and public administration efficiency.
- Raising well-being will depend on strengthening skills and greater inclusion of low-skilled workers in the labour force. This requires increasing the quality of education, reforms to ensure high-quality training programmes benefit everyone and measures to reduce the use of short-term contracts, as the government wishes.
- Continuing to reduce administrative barriers to entry and unduly restrictive regulations will raise competitive pressures and ensure favourable conditions for young and dynamic firms. This would boost productivity gains and innovation.

## Economic growth has peaked

### *The economic outlook has weakened, but remains positive*

GDP growth is expected to be around 1.3% in 2019-20. While in 2017 a solid rebound in exports and investment by businesses and households pushed growth to a level of 2.3% unprecedented over the past ten years, it stood at 1.5% in 2018. Exports and household investment slowed down. Household consumption was also disappointing as the savings rate increased. Yet, business confidence remains above its historical average, although it fell sharply in 2018. Relatively accommodating monetary conditions, corporate tax cuts, and the ongoing recovery in profit margins are stimulating business investment, despite slowing external demand (Table 1 and Figure 4).

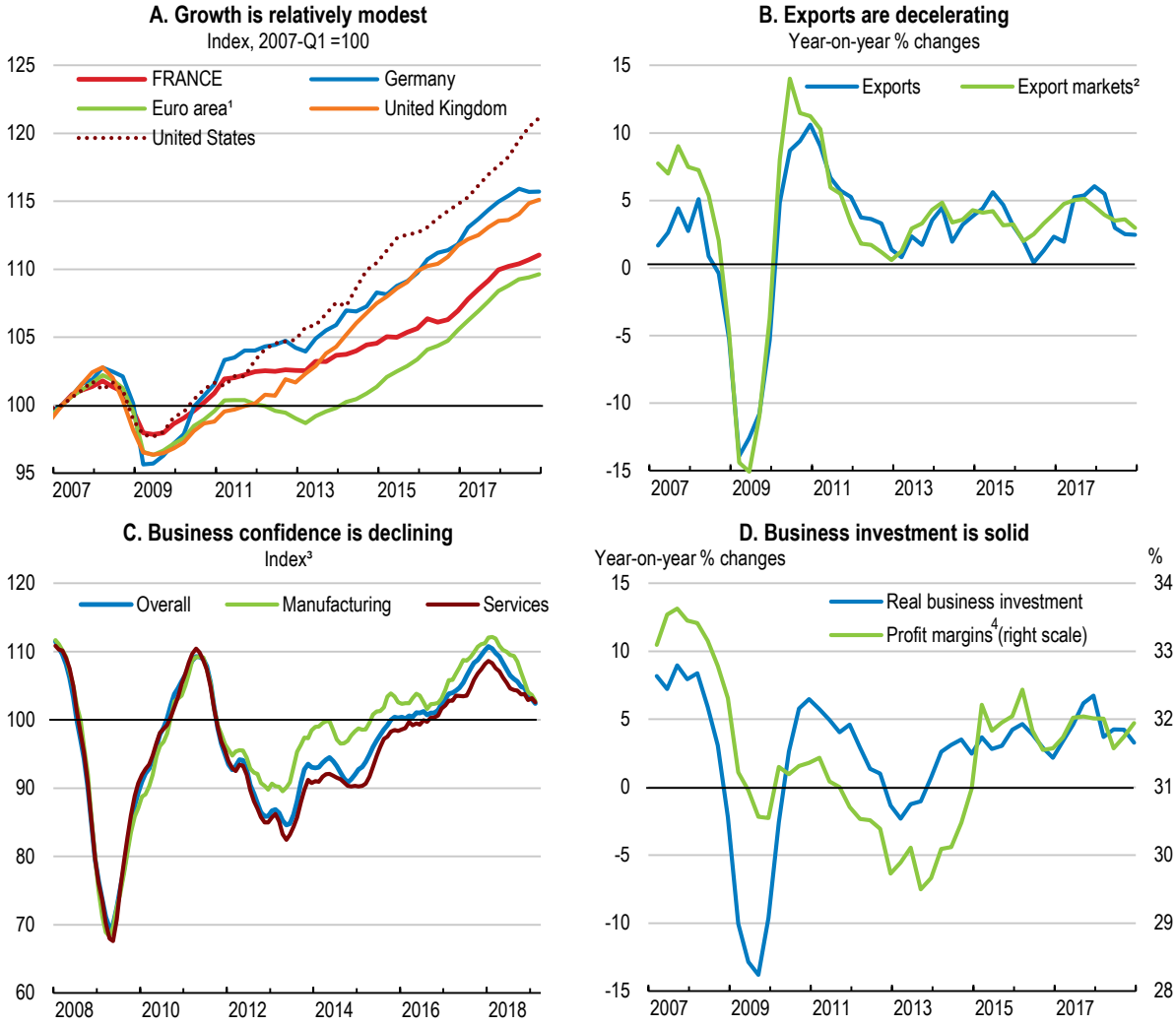
**Table 1. Macroeconomic indicators and projections**

| | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|
| | Current prices EUR billion | Percentage changes, volume (2014 prices) | | | | |
| **GDP** | 2198.3 | 1.1 | 2.3 | 1.6 | 1.3 | 1.3 |
| Private consumption | 1188.5 | 1.9 | 1.2 | 0.9 | 1.5 | 1.4 |
| Government consumption | 523.4 | 1.4 | 1.4 | 1.0 | 0.9 | 0.4 |
| Gross fixed capital formation | 472.6 | 2.7 | 4.7 | 2.9 | 2.1 | 2.0 |
| Of which: Residential | 113.0 | 2.8 | 5.4 | 1.8 | -1.2 | 0.4 |
| Non-residential | 284.7 | 2.7 | 4.5 | 3.3 | 3.1 | 2.5 |
| Final domestic demand | 2184.5 | 2.0 | 2.0 | 1.4 | 1.5 | 1.3 |
| Stockbuilding1 | 26.4 | -0.4 | 0.2 | -0.4 | -0.1 | 0.0 |
| Total domestic demand | 2210.9 | 1.6 | 2.2 | 0.9 | 1.4 | 1.3 |
| Exports of goods and services | 672.2 | 1.5 | 4.7 | 3.3 | 2.3 | 2.7 |
| Imports of goods and services | 684.8 | 3.1 | 4.1 | 1.3 | 2.6 | 2.7 |
| Net exports1 | -12.6 | -0.5 | 0.1 | 0.6 | -0.1 | 0.0 |
| **Other indicators** (% change, unless otherwise specified): | | | | | | |
| Potential GDP | - | 1.1 | 1.1 | 1.3 | 1.3 | 1.3 |
| Output gap[2] | - | -1.9 | -0.7 | -0.5 | -0.5 | -0.5 |
| Employment | - | 0.6 | 1.1 | 0.9 | 0.5 | 0.5 |
| Unemployment rate[3] | - | 10.1 | 9.4 | 9.1 | 8.7 | 8.5 |
| GDP deflator | - | 0.2 | 0.7 | 0.9 | 1.4 | 1.4 |
| Consumer price index | - | 0.3 | 1.2 | 2.1 | 1.4 | 1.5 |
| Core consumer prices | - | 0.6 | 0.5 | 0.9 | 0.7 | 1.1 |
| Household saving ratio, net[4] | - | 8.3 | 8.5 | 8.6 | 9.1 | 9.0 |
| Trade balance[5] | - | -0.8 | -1.1 | -0.9 | -1.0 | -0.8 |
| Current account balance[5] | - | -0.8 | -0.6 | -0.7 | -0.7 | -0.5 |
| General government financial balance[5] | - | -3.5 | -2.8 | -2.5 | -3.2 | -2.3 |
| Underlying government financial balance[2] | - | -2.2 | -2.1 | -2.6 | -2.3 | -2.4 |
| Underlying government primary balance[2] | - | -0.5 | -0.4 | -0.5 | -0.8 | -1.0 |
| General government gross debt[5] | - | 125.6 | 124.3 | 124.8 | 125.9 | 125.4 |
| General government debt, Maastricht definition[5] | - | 98.0 | 98.4 | 98.4 | 99.8 | 99.7 |
| General government net debt[5] | - | 82.6 | 80.1 | 80.7 | 81.8 | 81.3 |
| Three-month money market rate, average | - | -0.3 | -0.3 | -0.3 | -0.2 | 0.2 |
| Ten-year government bond yield, average | - | 0.5 | 0.8 | 0.8 | 1.0 | 1.2 |

1. Contributions to changes in real GDP, actual amount in the first column.
2. As a percentage of potential GDP.
3. As a percentage of the labour force.
4. As a percentage of household disposable income.
5. As a percentage of GDP.

Source: OECD (2019), OECD Economic Outlook: Statistics and Projections (database) and updates.

**Figure 4. Growth has peaked**




1. Euro area member countries that are also members of the OECD (17 countries).
2. Export market growth with destination markets as of 2010.
3. Standardised index, with average 100 and standard deviation 10; 3-month moving averages.
4. Non-financial corporations, as a percentage of their gross value added.

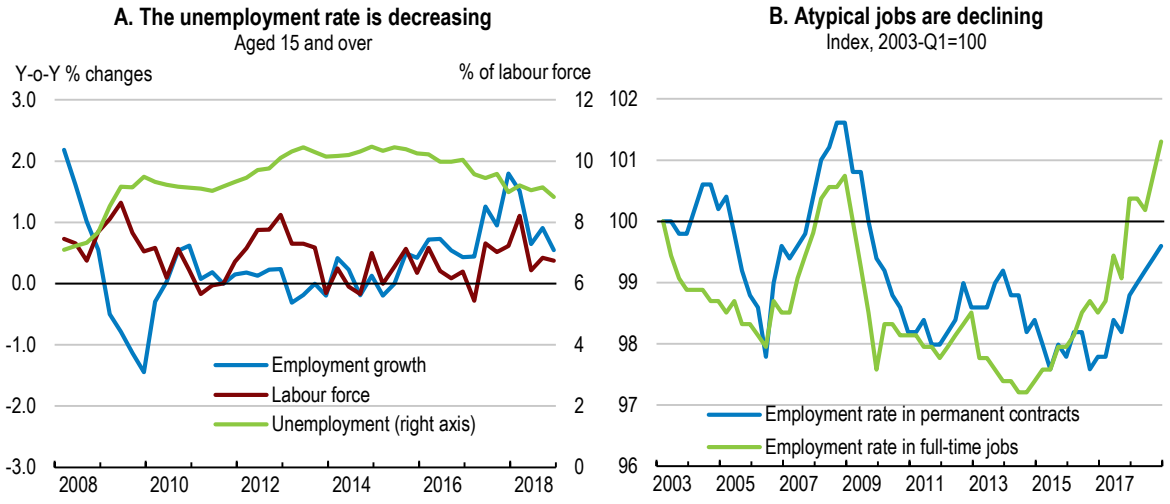
*Source:* OECD (2019), *OECD Economic Outlook*: *Statistics and Projections* (database) and updates; INSEE (2019), "Indicateurs de climat des affiares" and "Comptes nationaux trimestriels", *INSEE databases*; INSEE (2018), *Point de conjoncture - Octobre 2018*.

StatLink https://doi.org/10.1787/888933949402

In the context of slowing global growth and France's main European partners, exports and business investment would gradually slow down. However, France appears more resilient than its main partners. Consumption would rise strongly in 2019, supported by the current improvement in the labour market, some tax cuts, the decline in oil prices and the fading negative effects of the end-2018 social protests (Figure 5 and Figure 6). The new social measures, taken at the end of 2018 and designed to promote disposable income following the "gilets jaunes" movement, represent around 0.4% of GDP in 2019, which would also stimulate consumption from pensioners and low-wage workers. In addition, the still

favourable financing conditions and the relatively low level of household debt, while on the upward trend, will support household investment.

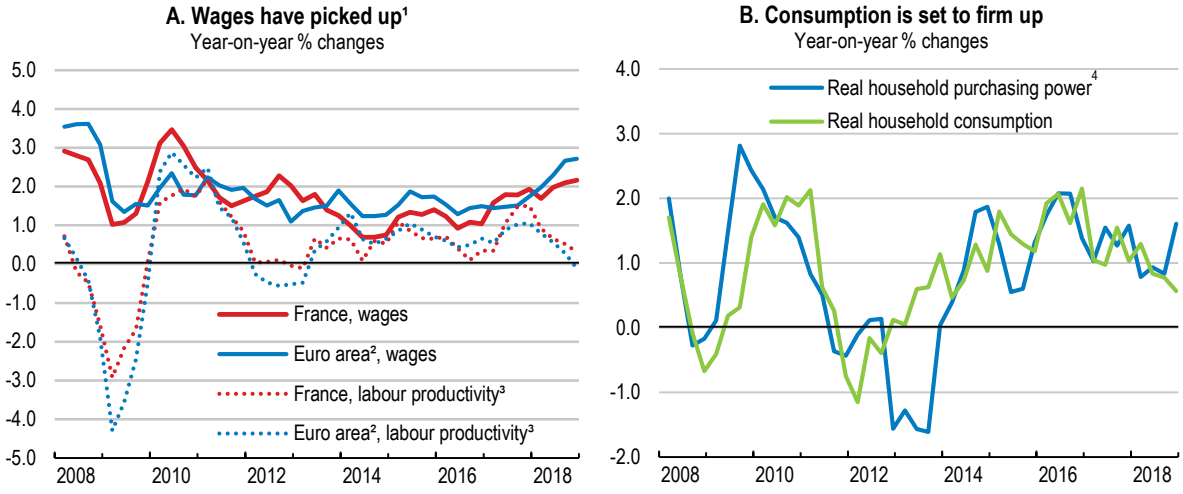
**Figure 5. The labour market is improving**




*Source:* OECD (2019), *OECD Economic Outlook: Statistics and Projections* (database) and updates; INSEE (2019), Enquête emploi 2019.

StatLink https://doi.org/10.1787/888933949421

**Figure 6. Rising wages support household income and consumption**




1. Nominal wages per employee.
2. Euro area member countries that are also members of the OECD (17 countries).
3. Productivity per person employed.
4. Gross household disposable income deflated by the private final consumption expenditure deflator.

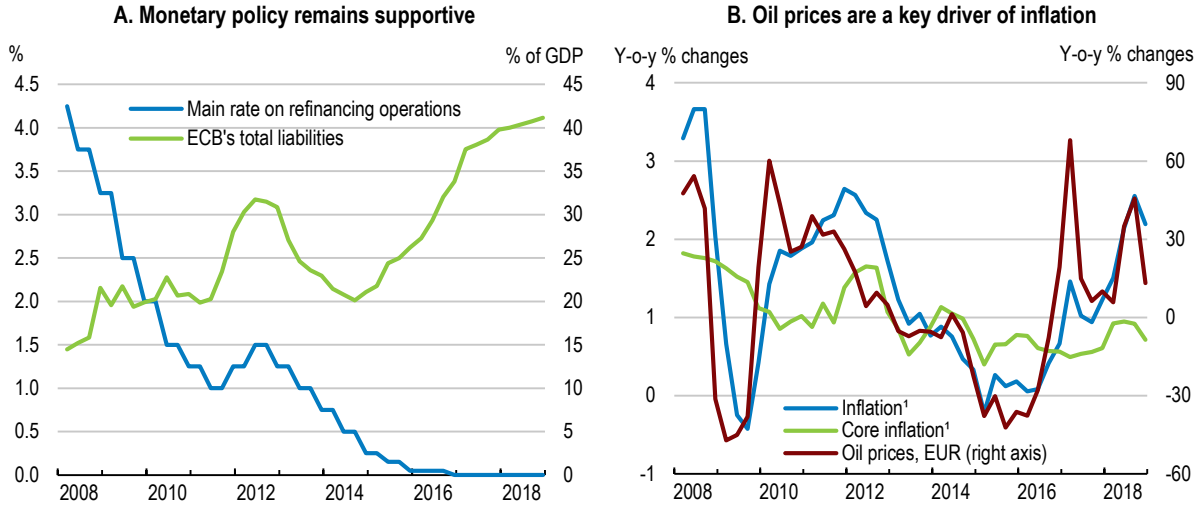
*Source*: OECD (2019), *OECD Economic Outlook: Statistics and Projections* (database) and updates.

StatLink https://doi.org/10.1787/888933949440

After a temporary rebound in 2019, the fiscal deficit is expected to decline substantially in 2020 (Table 1). A large one-off business tax reduction – the tax credit for competitiveness and employment (CICE), Box 1 –, lower-than-expected consolidation efforts related to social unrest and the cancellation of environmental tax increases will push the deficit upwards in 2019. However, the deficit is set to be close to 2.3% of GDP in 2020, reflecting the transitional costs of the CICE reform in 2019 amounting to nearly 1% of GDP and efforts to reduce public expenditures. Public debt will remain at a historically high level, close to 100% of GDP (Maastricht definition).

Core inflation will increase modestly (Figure 7). Ongoing economic growth, although it is slowing, will support a moderate improvement in the labour market situation. A gradual pick-up in wages along with still accommodative monetary policy conditions are supporting a gradual increase in underlying inflation. However, headline inflation is projected to slow down in 2019-20, reflecting the decline in oil prices at the end of 2018.

**Figure 7. Core inflation remains subdued**




1. Harmonised indices.

*Source:* OECD (2019), *OECD Economic Outlook: Statistics and Projections* (database) and updates; INSEE (2019), *"Prix du pétrole et des matières premières importées", Information Rapides, N° 46;* ECB (2018), *"Financial Market Data*: *Official Interest Rates*", Statistical Data Warehouse, European Central Bank, Frankfurt.

StatLink https://doi.org/10.1787/888933949459

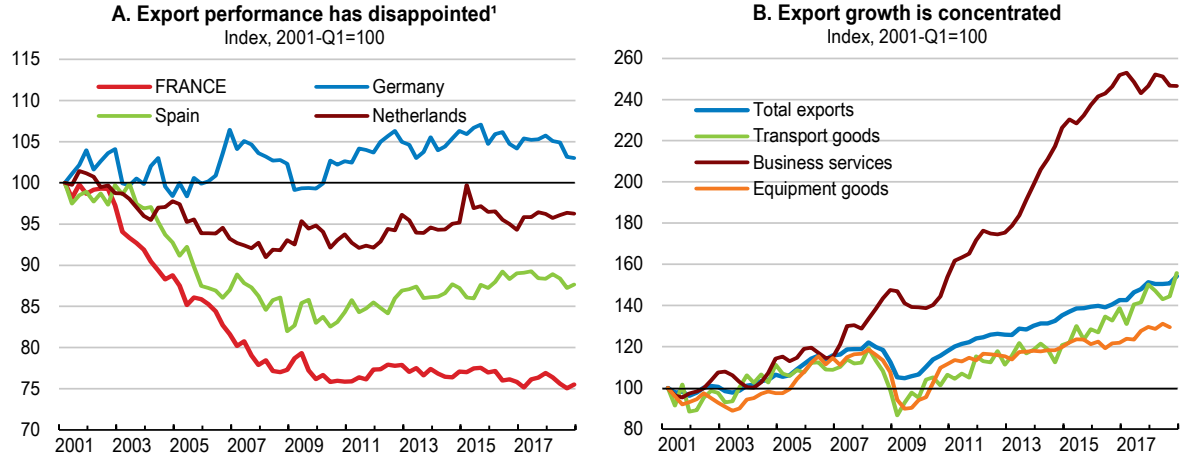
In the near term, risks to this outlook are significant. A more severe slowdown than expected in advanced economies, particularly in Europe, would have adverse effects for exports and investment. Moreover, disruptions related to ongoing social protests, particularly those of the "gilets jaunes" could, if they worsened, reduce economic activity in the short run as well as consumer and business confidence. Consumption growth might turn out stronger or weaker than expected, as the impact of ongoing tax changes, such as the move to a withholding personal income tax, on consumer confidence and saving behaviour are hard to predict. A number of large possible shocks could also alter the economic outlook significantly (Table 2).

**Table 2. Low probability events that could lead to major changes in the outlook**

| Vulnerability | Possible outcome | Possible policy action |
|---|---|---|
| A steep rise in protectionism globally markedly reduces trade and the demand and prices for France's exports. | A large and prolonged reduction in export production activity leads to lower investment and job losses, harming incomes and government revenues. | Continue to work (in the context of international collaboration) towards free markets and improvements to the rules-based trade system. Strengthen the economy's resilience and workforce adaptability to changes in the global economy. |
| Disorderly exit of the United Kingdom from the European Union. | A disorderly exit of the United Kingdom from the EU, a major trading partner for France, could severely hurt consumer and business confidence, resulting in lower investment. This could also lead to severe congestion in some seaports. At the same time, the relocation of some financial services could support economic activity in France. | Set up contingency plans as planned. Work for a close economic relationship between the UK and the EU while maintaining the integrity of the EU's internal market. |
| Prolonged and heightened social unrests. | Prolonged and heightened social protests would hurt private consumption and business investment as well as exports through weaker tourism. The authorities' ability to reform would also be adversely affected. | Intensify consultation efforts with all stakeholders during the *Grand débat national*. Better involve the population in the reform process by outlining the expected effects. Offset the potential short-term negative impacts of certain reforms. |

Trade performance is a vulnerability for the French economy. Despite a positive growth contribution from net exports in 2017-18 (Table 1), and a contribution from sectoral specialisation that is more favourable relative to its European peers (Camatte and Gaulier, 2018), France's foreign trade performance is unsatisfactory (Figure 8, Panel A). Goods exports growth has relied on relatively few sectors, particularly aeronautics, transport equipment and agriculture (Panel B and Figure 9). Yet, the share of services has been growing strongly, reaching close to 30%, second in Europe only to the United Kingdom. Non-price competitiveness is hampered by weaker innovation than in the best performing economies, whereas research spending is mostly directed at industries that are in decline in terms of their share of value added (see below). However, French exports also partly reflect the internationalisation strategies followed by French companies, which have focused on multiplying production sites (Emlinger, Jean and Vicard, 2019). The current account deficit thus remains moderate at 0.7% of GDP in 2017.

**Figure 8. Export performance is disappointing**



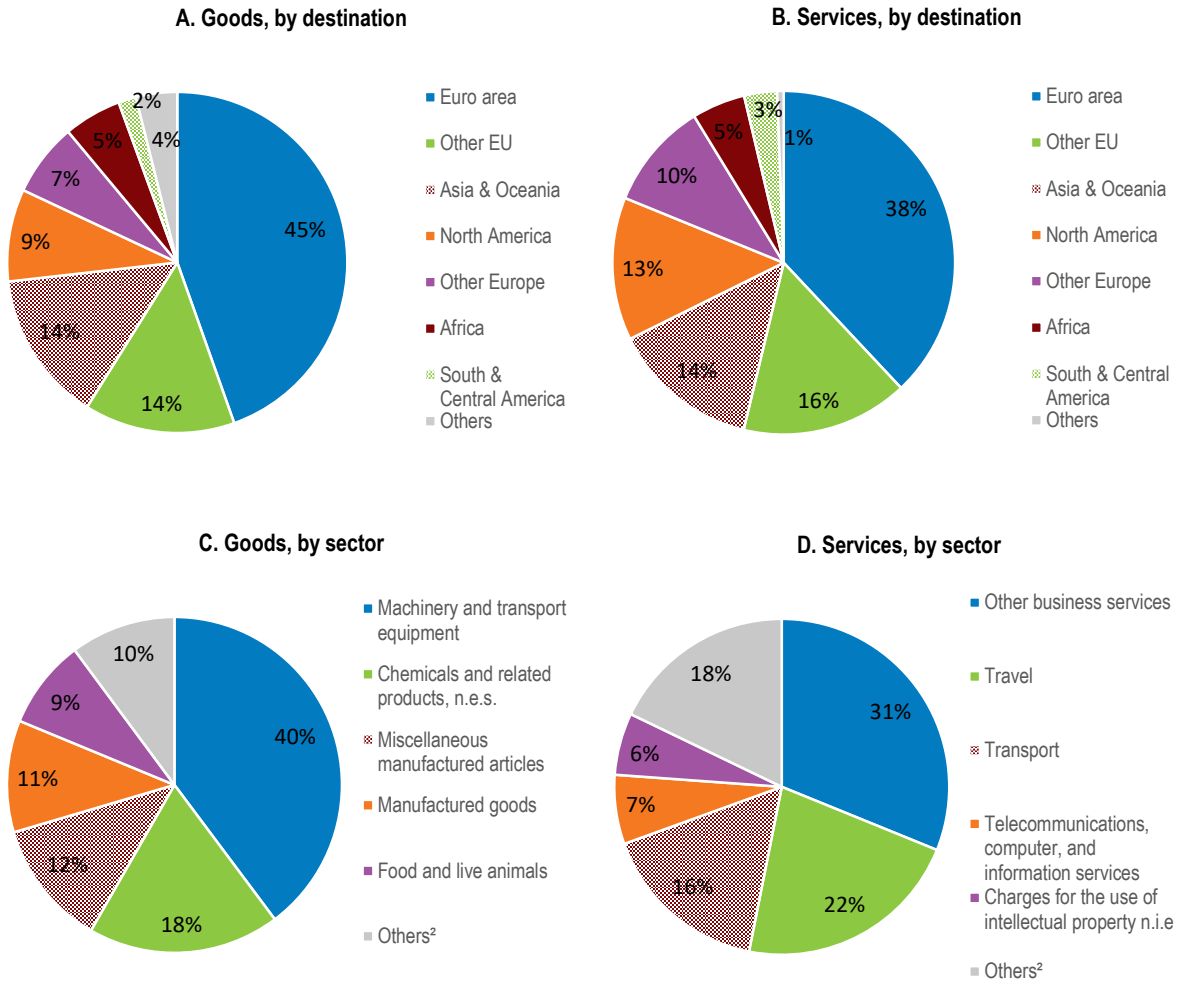

1. Difference between export growth and export markets' growth, in volume terms (with export markets as of 2010).

*Source:* OECD (2019), *OECD Economic Outlook: Statistics and Projections* (database) and updates; INSEE (2019), *Quarterly national accounts* (database).

StatLink https://doi.org/10.1787/888933949478

**Figure 9. Structure of exports**

Per cent, 2017




1. In Panel C, others include animal and vegetable oils-fats-waxes, non-elsewhere classified commodities, crude and inedible materials (except fuels), mineral fuels and lubricants, beverages and tobacco; in Panel D, others include financial services, manufacturing services, insurance and pensions services, maintenance and repair, personal cultural/recreational services, construction and public administration services.
*Source*: OECD (2019), *International Trade Statistics* (database).

StatLink https://doi.org/10.1787/888933949497

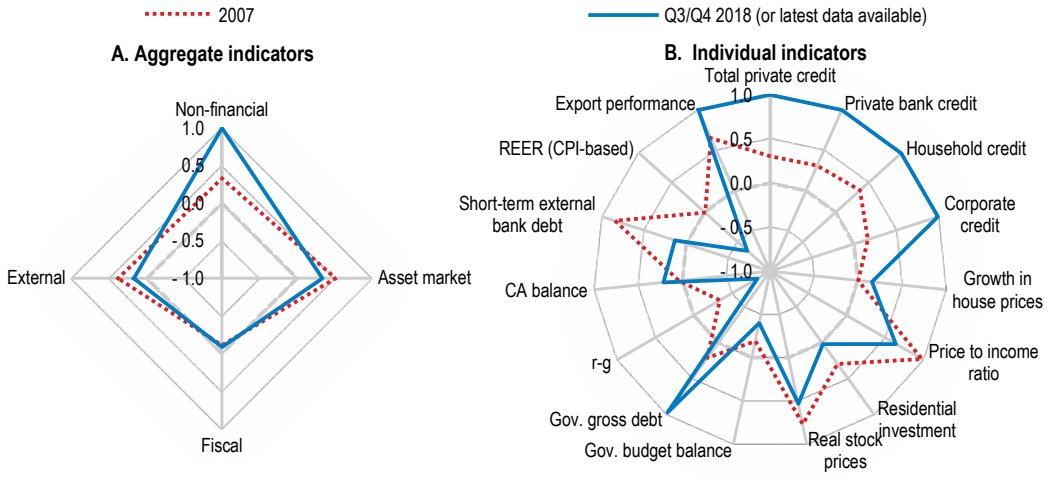
## *Financial risks*

Some macro-financial vulnerabilities appear to have worsened relative to 2007, in particular public and private sector debts are near historical highs (Figure 10). The debt of non-financial corporations reached 73% of GDP in the second quarter of 2018, noticeably higher than the euro-area average (Figure 11). However, this increase has been accompanied by a rise in the liquid assets that non-financial corporations hold, mitigating risks (Khder and Rousset, 2017). Against this background, the authorities lowered the

maximum exposure of banks' lending to the most indebted large corporates in July 2018, and the counter-cyclical buffer will increase to 0.25% of banks' capital in July 2019, which is expected to lower annual outstanding credit growth by up to 0.5 percentage point (Haut Conseil de stabilité financière, 2018). In March 2019, they also proposed to raise this buffer to 0.5%. The authorities should continue to use macro-prudential policies pro-actively to prevent the build-up of imbalances.

**Figure 10. Evolution of macro-financial vulnerabilities**

Index scale of -1 to 1 from lowest to greatest potential vulnerability, where 0 refers to long-term average, period since 1970.



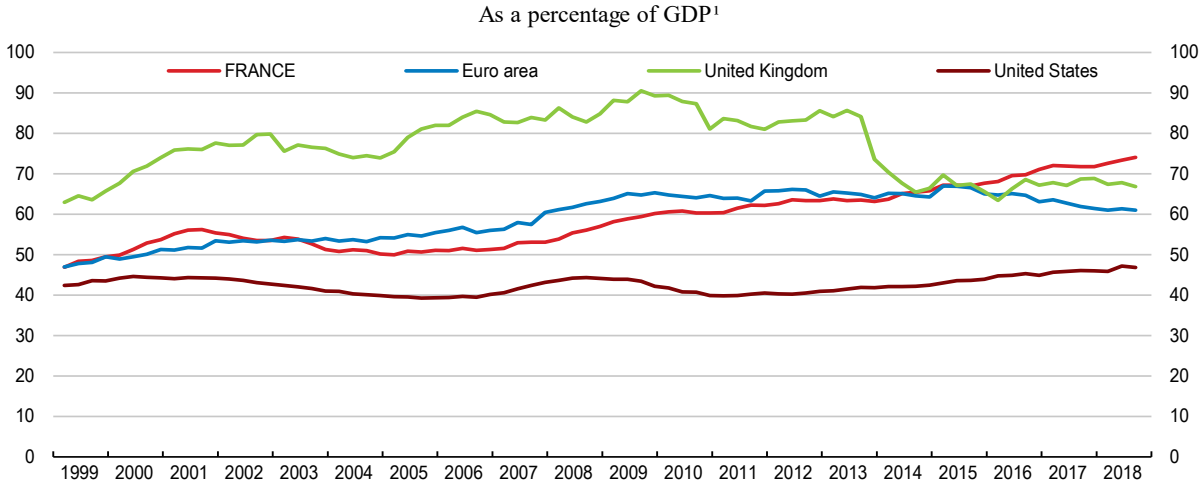

*Note*: Each aggregate macro-financial vulnerability dimension is calculated by aggregating (simple average) normalised individual indicators from the OECD Resilience Database. Individual indicators are normalised to range between -1 and 1, where -1 to 0 represents deviations from long-term average resulting in less vulnerability, 0 refers to long-term average and 0 to 1 refers to deviations from long-term average resulting in more vulnerability. Non-financial dimension includes: total private credit (% of GDP), Private bank credit (%of GDP), household credit (% of GDP) and corporate credit (% of GDP). The asset market dimension includes: growth in real house prices (year-on-year % change), house price to disposable income ratio, residential investment (% of GDP) and real stock prices. Fiscal dimension includes: government budget balance (% of GDP) (inverted), government gross debt (% of GDP) and the difference between real bond yield and potential growth rate (r-g). External dimension includes: current account balance (% of GDP) (inverted), short-term external bank debt (% of GDP), (real effective exchange rate (REER) (relative consumer prices) and export performance (exports of goods and services relative to export market for goods and services) (inverted).
*Source*: Calculations based on OECD (2019), *OECD Resilience Statistics* (database).

StatLink https://doi.org/10.1787/888933949573

Household credit has reached historically high levels. However, risks appear overall contained according to the central bank (Banque de France, 2018a). The nature of mortgage loans that are primarily at fixed interest rates – 93% of the outstanding mortgage market in 2017 (Autorité de contrôle prudentiel et de résolution, 2018) – is a factor of resilience for household solvency. However, a sharp increase in banks' financing costs would adversely impact the profitability of their mortgage stock. Moreover, a sharp repricing of households' assets (particularly housing) or a drop of their income (in case of a recession) would make households less solvent. A close monitoring of risks related to residential real estate is thereby necessary. The increase in real house prices since mid-2015 is modest relative to euro-area and OECD developments (Figure 12, Panel A). Price to rent and price to income ratios remain below the average OECD country and have moderated from their highs in

2011 (Panel B). Yet, price increases in some large cities such as Paris and Lyon have been stronger than at the nationwide level, suggesting that local developments should be carefully monitored, and that appropriate macro-prudential tools should be used if needed (European Central Bank, 2017).

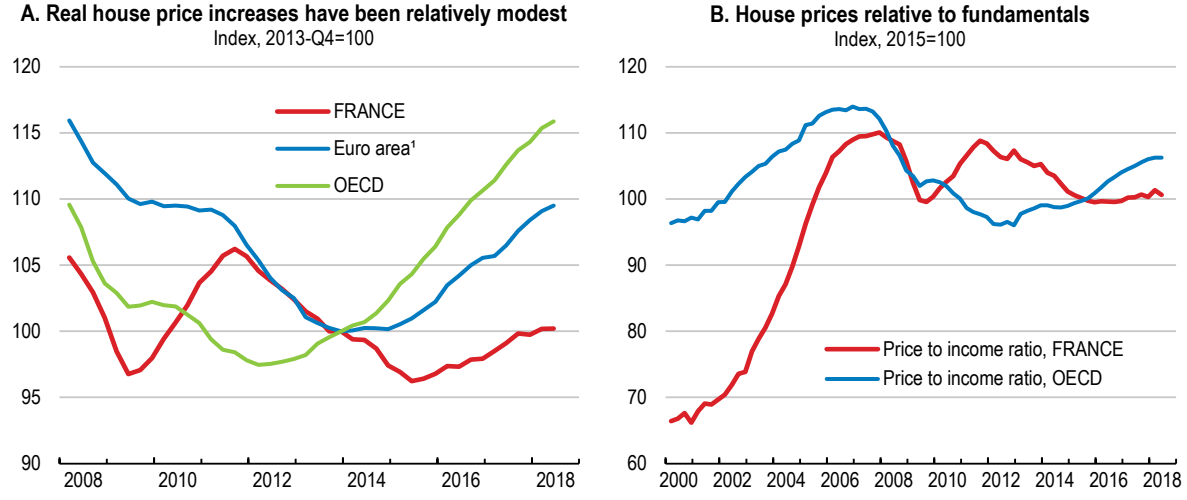
**Figure 11. Non-financial corporate debt has continued to increase**




1. The non-financial corporate debt is consolidated by subtracting assets from the non-financial corporate sector's liabilities.
*Source*: Banque de France (2019), "Endettement des agents non-financières : comparaisons internationales", Webstat database.

StatLink https://doi.org/10.1787/888933949516

**Figure 12. Housing market developments**




1. Euro area member countries that are also members of the OECD (17 countries).
*Source*: OECD (2019), *Analytical House Price Indicators* (database).

StatLink https://doi.org/10.1787/888933949535

The valuation of commercial real estate requires careful monitoring as France is the most expensive market among large European countries (Banque de France, 2018b), and

commercial property valuations can signal vulnerabilities in the housing sector as a whole. Enhancing data collection efforts to gauge price dynamics would be a good move, since the quality of existing data is poor (European Systemic Risk Board, 2016). The systemic consequences of steep price falls on this market appear, however, limited as direct exposures from the insurance sector and large banks to commercial real estate stand below 5% of their balance sheets. Moreover, these institutions seem to be resilient to steep price falls in the office segment of commercial real estate (Haut Conseil de stabilité financière, 2017).

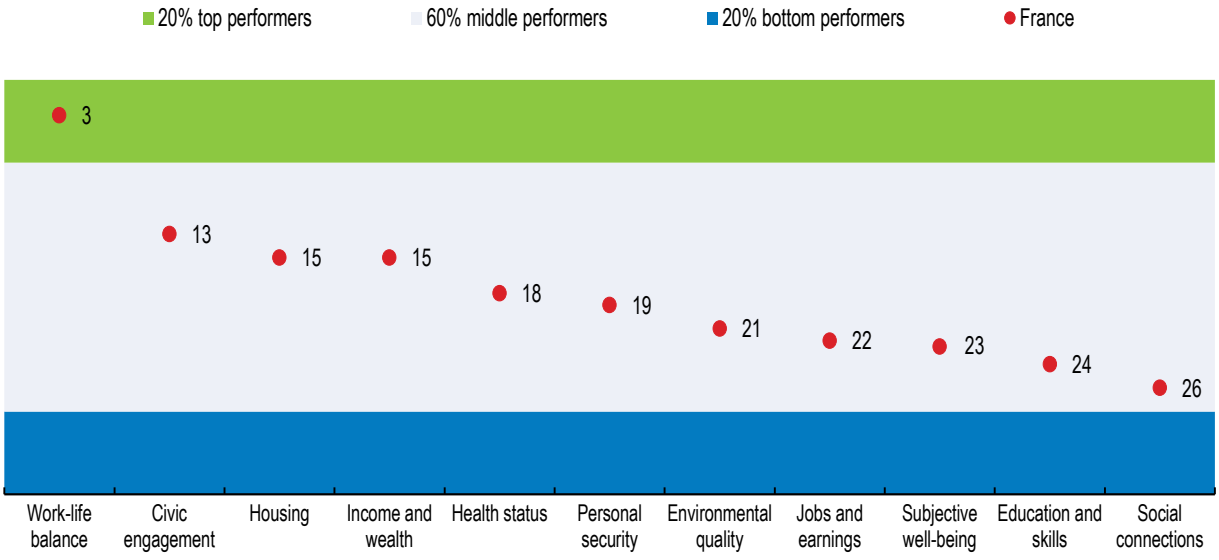
## Better use of public spending to boost growth and well-being

### *Key economic and social challenges remain*

France's well-being indicators are mixed. France is above the OECD average on indicators concerning income and wealth, housing conditions and work-life balance (Figure 13). Monetary poverty is low in international comparison (Figure 2). Income and wealth disparities appear moderate (Figure 14) and they have been broadly stable over time, even in the upper tail of the income and wealth distribution (OECD, 2014a; Balestra and Tonkin, 2018). Over the past twenty years, the real disposable income of the poorest household has increased significantly faster than the median household and the top deciles (Argouarc'h and Picard, 2018).

**Figure 13. Well-being indicators are mixed**

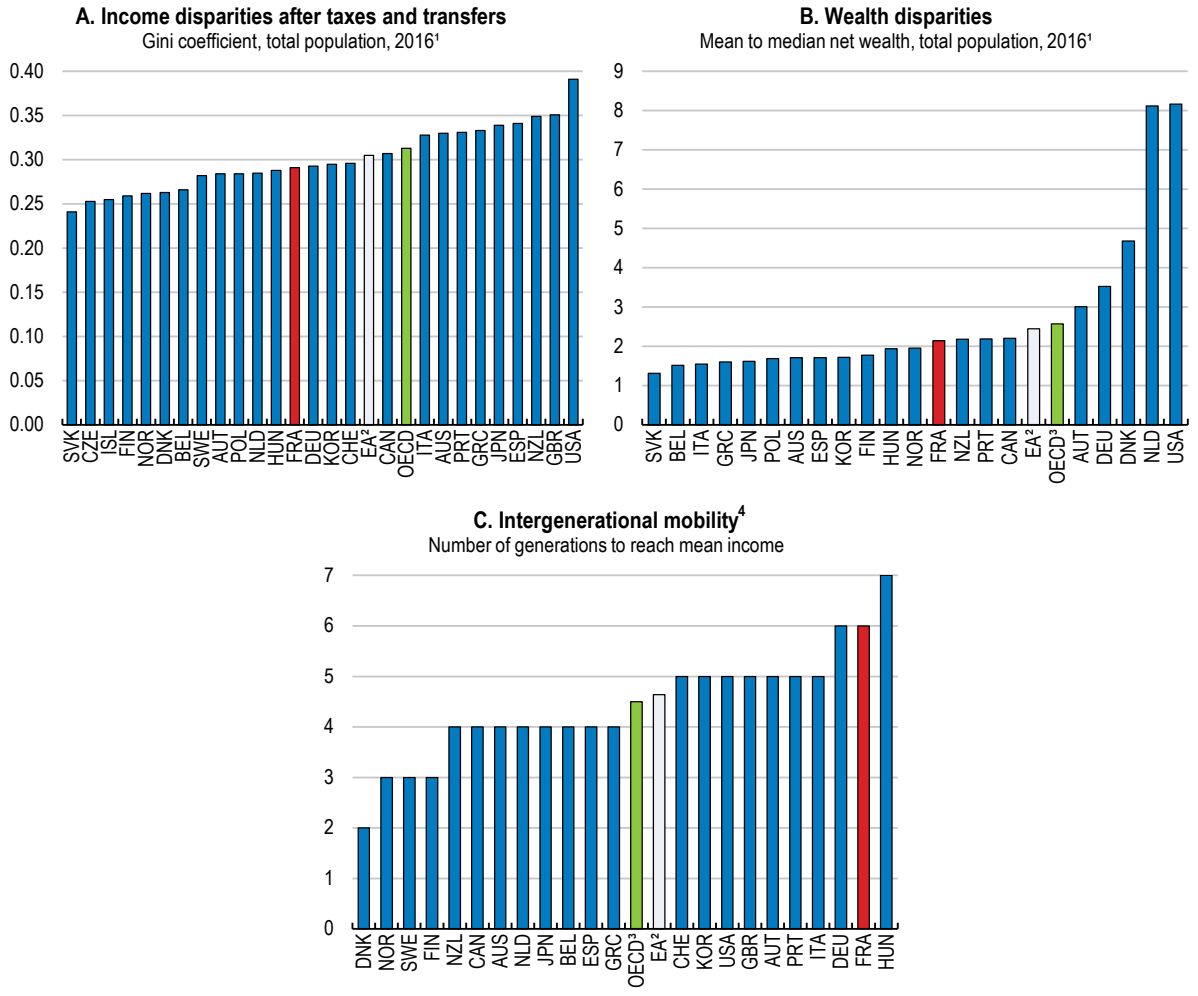
Better Life Index, country rankings from 1 (best) to 35 (worst), 2017[1]




1. Each well-being dimension is measured by one to four indicators from the OECD Better Life Index set. Normalised indicators are averaged with equal weights.
*Source*: OECD (2017), *OECD Better Life Index*, www.oecdbetterlifeindex.org.

StatLink https://doi.org/10.1787/888933949554

**Figure 14. Income and wealth disparities are contained but social mobility is weak**




1. Or latest available year; for France, 2014 in Panel B.
2. Euro area member countries that are also members of the OECD (17 countries), excluding Lithuania in Panel B, as well as Luxembourg and all other Eastern European euro area countries in Panel C.
3. Unweighted average across countries with available data (27 and 24 countries in Panels B and C, respectively).
4. Expected number of generations it would take the offspring from a family at the bottom 10% to reach the mean income in society.
*Source*: OECD (2019), *OECD Income distribution and Poverty Statistics* and *OECD Wealth Statistics* (databases); OECD (2018), *A Broken Social Elevator? How to Promote Social Mobility*, OECD Publishing, Paris.

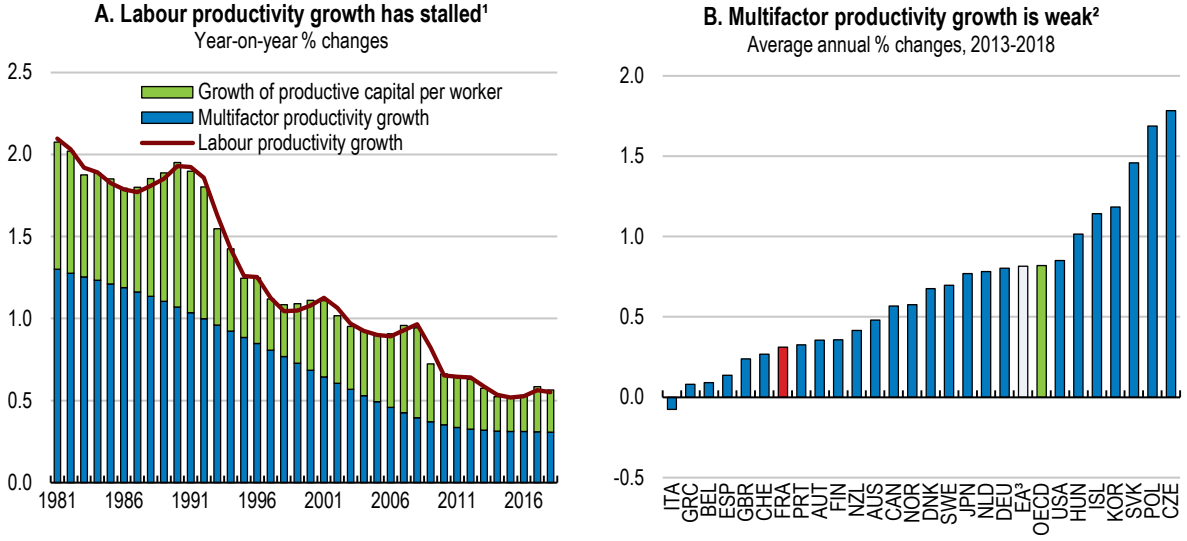
StatLink https://doi.org/10.1787/888933949592

Employment rates, although back to levels not seen since the early 1980s, remain low in international comparison. The importance of long-term unemployment and the high proportion of fixed-term contracts concentrate the economic and social difficulties on certain households. Many low-skilled workers and labour market entrants are excluded from the labour market, implying a particularly high poverty rate before taxes and transfers. Long-term inactive and unemployed workers cumulate significant difficulties that tend to concentrate over space (OECD, 2017a) and be reproduced across generations. Inter-generational social mobility appears weak (OECD, 2018a) and the link between family

background and schooling results is excessively strong in France. Access to housing and health could also improve further.

Productivity growth has been sluggish and declining for the past 25 years (Figure 15, panel A). Capital accumulation per worker has substantially declined well before the crisis, as for most comparable economies. Multifactor productivity, which is more closely related to innovation, also decelerated and appears low in international perspective (panel B). Raising multi-factor productivity growth is needed to maintain sustainable and inclusive growth going forward. The productivity gap between French firms and best performing global firms has widened, notably in services sectors, suggesting that policies that can increase diffusion and spillovers are key (Andrews, Criscuolo and Gal, 2016; Berlingieri, Blanchenay and Criscuolo, 2017; Cette, Corde and Lecat, 2017). Policies to boost skills, innovation and digitalisation will also be needed to boost growth potential, job creation and reduce socio-economic disparities (Chapters 1 and 2).

**Figure 15. Labour productivity growth has steadily declined**




1. Trend labour productivity per employee.
2. Annualised trend multifactor productivity growth.
3. Euro area member countries that are also members of the OECD (17 countries).

*Source:* OECD (2018), *OECD Economic Outlook: Statistics and Projections* (database).

StatLink https://doi.org/10.1787/888933949611

Ongoing reforms could help reignite productivity growth. If fully implemented, those reforms would have a meaningful impact on growth and equity in the medium term (Table 3 and Table 4). The estimated impact of selected reforms (for which there is sufficient empirical evidence) on potential GDP per capita is of the order of 3.2 per cent at a ten-year horizon. Moreover, additional simulations use OECD empirical evidence on the long-term distributional effects of structural reforms based on the experience of similar reforms in OECD countries (Causa, Hermansen and Ruiz, 2016; Akgun, Cournède and Fournier, 2017) to illustrate the potential distributional effects of this reform package. The simulated results suggest that the long-term income gains of ongoing reforms would be concentrated around the average household and in the lower- and lower-middle parts of the income distribution (Table 4 and Figure 16).

**Table 3. Potential impact of some ongoing reforms on GDP per capita after 10 years[1]**

| | GDP per capita | Through employment | Through productivity |
|---|---|---|---|
| 2017-18 labour market reforms | | | |
| - Higher targeted spending on lifelong training | 0.6 | 0.4 | 0.1 |
| - Lower administrative extension of branch-level agreements[2] | 0.7 | 0.7 | 0.0 |
| - Reduced uncertainty around dismissal costs | 0.3 | 0.2 | 0.1 |
| Tax measures | | | |
| - Reduced tax wedge[3] | 0.2 | 0.2 | 0.0 |
| - Reduction of capital taxation[4] | 0.8 | 0.0 | 0.8 |
| - Steady increase in in-work benefits (*Prime d'activité*)[5] | 0.5 | 0.5 | 0.0 |
| Product market and simplification measures | | | |
| - Simplification of bankruptcy procedures, smoothing of firm-size related thresholds and incentives for employee-participation schemes[6] | 0.4 | 0.2 | 0.2 |
| Total (Ongoing reforms) | 3.2 | 2.1 | 1.1 |

1. All figures are rounded to the nearest decimal point. The estimates assume full implementation of the reforms.
2. This estimate assumes a drastic change in the dynamics of extension of collective agreements, as well as an ambitious mobilization and implementation of the recommendations of the expert group that may assess the benefits of extending branch-level agreement. It assumes that the difference between the union membership rate and the coverage rate of the extended agreements would fall by 10 percentage points (from 90% to 80%).
3. Reduction of social contributions and increase of the proportional personal income tax (*contribution sociale généralisée*, CSG).
4. Reduction of the corporate income tax rate and transformation of the wealth tax.
5. This estimate shows a decline in the effective tax wedge after transfers averaging 2.8 percentage points for low-income workers
6. These estimates are based on De Williencourt et al. (2018).
*Source*: OECD estimates based on Balázs Égert and Peter Gal (2017), "The quantification of structural reforms in OECD countries: A new framework", *OECD Journal: Economic Studies*, Vol. 2016/1 and Akgun, O., B. Cournède and J-M. Fournier (2017), "The effects of the tax mix on inequality and growth", *OECD Economics Department Working Papers*, No. 1447, OECD Publishing.; De Williencourt, C, Faci, A. and S. Ray (2018), "Quel effet macroéconomique du PACTE ? Premiers éléments de réponse", *Trésor-Eco*, No. 226.

Speeding up reforms – while compensating, if necessary, their overall potential negative short-term impact on selected categories of population and continuously evaluating their implementation – could boost productivity growth and gains among low-income households in the medium run. Increasing competition in markets that are still protected, such as regulated professions and retail trade, raising innovation and business dynamics, and reducing administrative barriers will be key to boost productivity growth.

The reforms proposed in this *Survey* would lift growth, raise productivity and strengthening incentives to invest. This would complement the ongoing reforms. Illustrative simulations suggest that the total estimated total impact of the ongoing and recommended reforms is of the order of a 5.1 per cent increase in potential GDP per capita at a ten-year horizon (Box 2). The illustrative long-term income gains of the overall reform package would be tilted towards the lower and average parts of the income distribution (Figure 16).

### Box 2. Impact of some OECD recommended reforms on growth and inclusiveness

The estimated impact of some key structural reforms proposed in this *Survey* are calculated using historical relationships between reforms and growth in OECD countries (Table 4). These estimates assume swift and full implementation of reforms.

**Table 4. Potential impact of some reforms proposed in this Survey on GDP per capita after 10 years[1]**

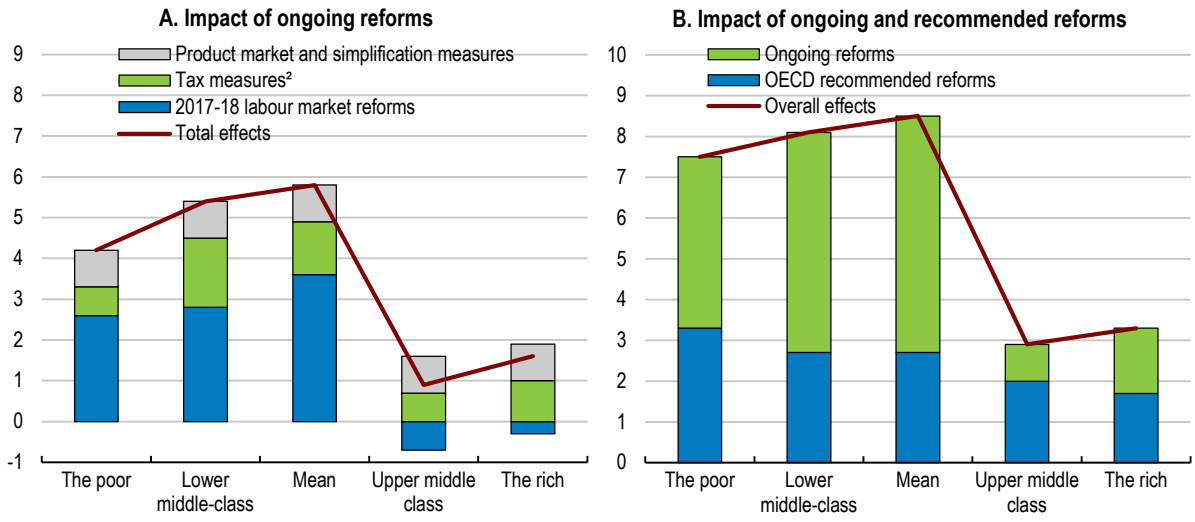
| | GDP per capita % | Through employment (percentage points) | Through productivity (percentage points) |
|---|---|---|---|
| Labour market reforms | | | |
| - Improved social dialogue[2] | 0.4 | 0.4 | |
| - Higher effectiveness of activation policies | 0.2 | 0.1 | 0.1 |
| - Gradual increase in the effective retirement age to 64 by 2025 | 0.5 | 0.3 | 0.1 |
| Product market and simplification measures | | | |
| - Further simplification of business regulations and opening up of regulated professions | 0.1 | | 0.1 |
| Tax and public spending measures | | | |
| - Increase in digital investment (0.1% of GDP)[3] | 0.3 | | 0.3 |
| - Increase in public spending for R&D (0.1% of GDP) | 0.2 | | 0.2 |
| - Shift taxes away from production (0.5% of GDP) | 0.2 | | 0.2 |
| Total (recommended reforms) | 1.9 | 0.8 | 1.0 |
| Total (ongoing reforms) | 3.2 | 2.1 | 1.1 |
| Total (recommended and ongoing reforms) | 5.1 | 3.0 | 2.1 |

1. All figures are rounded to the nearest decimal point. The estimates assume full implementation of the reforms.
2. Estimates are based on the assumption that the measures to reform social dialogue described in Chapter 1 could reduce the difference between the union membership rates and the coverage rate of collective agreements by an additional 5 percentage points.
3. The output effects from a 0.1% of GDP permanent increase in digital investment are scaled using the range of models used to estimate the long-term GDP gains from an increase in public investment reported in A. Mourougane, J. Botev, J-M. Fournier, N. Pain and E. Rusticelli (2016), "Can an Increase in Public Investment Sustainably Lift Economic Growth?" OECD Economics Department Working Papers, No. 1351, OECD Publishing, Paris.

*Source*: OECD estimates based on based on B. Égert and P. Gal (2017), "The quantification of structural reforms in OECD countries: A new framework", *OECD Journal: Economic Studies*, Vol. 2016/1; Akgun, O., B. Cournède and J-M. Fournier (2017), "The effects of the tax mix on inequality and growth", *OECD Economics Department Working Papers*, No. 1447, OECD Publishing, Paris.

**Figure 16. Illustrative gains of some structural reforms along the income distribution**

% increase in real disposable income over the long term[1]




1. All figures are rounded to the nearest decimal point. The estimates assume full implementation of the reforms. The reforms used for this illustrative exercise correspond to those described in Tables 3 and 4, except for two measures due to the estimates presented in Causa et al. (2016) and Akgun et al. (2017). On the one hand, the effect of reducing uncertainties surrounding redundancy costs (Table 3) is not taken into account here. On the other hand, a stronger decentralisation of wage bargaining (a change in the index used by Causa et al. (2016) from 5 to 4.65) was taken into account in the context of the labour market reforms in Panels A and B. However, a quantification of the expected effects on GDP per capita over a 10-year horizon is unavailable.
2. These estimates are based on De Williencourt et al. (2018), and assume equal long-term gains over the income distribution, as with most product market reforms in Causa et al. (2016) and Akgun et al. (2017).
Source: OECD estimates based on Balázs Égert and Peter Gal (2017), "The quantification of structural reforms in OECD countries: A new framework", OECD Journal: Economic Studies, Vol. 2016/1 and Akgun, O., B. Cournède and J-M. Fournier (2017), "The effects of the tax mix on inequality and growth", *OECD Economics Department Working Papers*, No. 1447, OECD Publishing.; De Williencourt, C, Faci, A. and S. Ray (2018), "Quel effet macroéconomique du PACTE ? Premiers éléments de réponse", *Trésor-Eco*, No .226.

StatLink https://doi.org/10.1787/888933949630

### *Reducing public spending and improving their efficiency*

France has made some progress in reducing public deficits since 2012. The budget deficit has declined to 2.6% of GDP in 2018 from 5.0% in 2012. On the basis of current government plans, the fiscal deficit will increase in 2019, following a large one-off spending due to the transformation of the CICE in lower social security contributions for employers (Box 1) and, to a lower extent, due to exceptional measures to respond to the "gilets jaunes" protests. However, the headline deficit should be below 3% in 2020 (Table 5). This fiscal path will provide support to economic activity in 2019, but, overall, fiscal policy is expected to be broadly neutral in 2019-20. The debt-to-GDP ratio is expected to stabilise at around 100% by end-2020.

Despite this progress, France's fiscal consolidation pace has lagged those of its neighbours following the fiscal easing in response to the Great Recession of 2007-08. Many euro-area countries that reached fiscal deficits higher than France in 2010-11 have now smaller deficits, such as Spain or Portugal. In fact, all France's direct neighbours had smaller fiscal deficits in 2017 (Figure 17, panel A). This owes in big part to the ability of those countries to reduce their ratio of public spending while France has not been able to do that following the steep increase in 2008 (panel B). For example, from their 2007 peak, Spain, Belgium

and Germany have reduced their public spending ratios by 6.9, 4.2 and 3.7 percentage points, respectively. During the same period, French public spending was reduced by only one percentage point, implying that most of the fiscal deficit adjustment was on the revenue side.

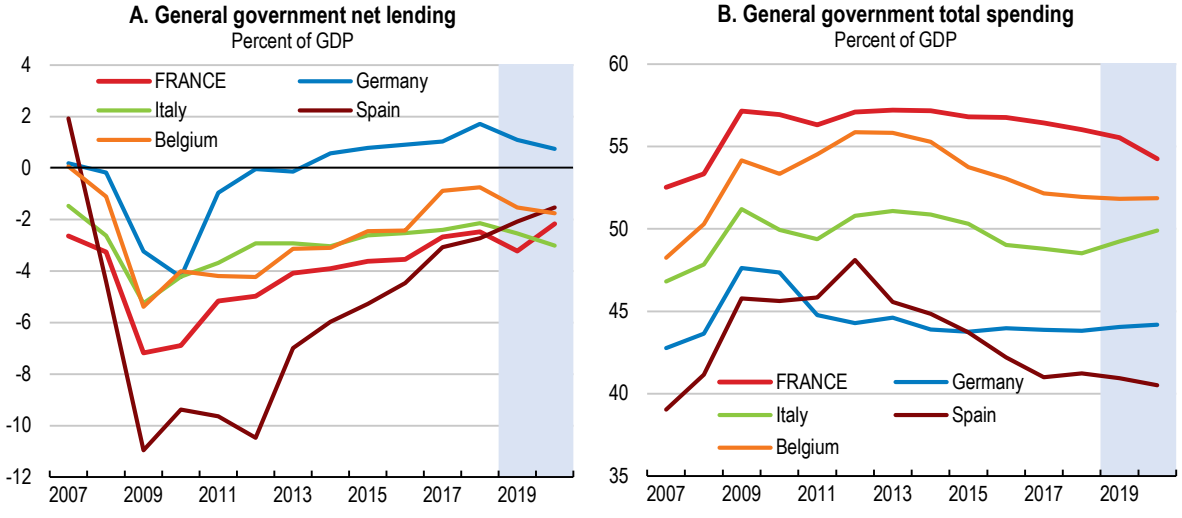
**Table 5. Fiscal indicators**

As a percentage of GDP

| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018[1] | 2019[1] | 2020[1] |
|---|---|---|---|---|---|---|---|---|---|
| Spending and revenue | | | | | | | | | |
| Total expenditure | 57.1 | 57.2 | 57.2 | 56.8 | 56.6 | 56.4 | 56.0 | 55.5 | 54.2 |
| Total revenue | 52.1 | 53.1 | 53.3 | 53.2 | 53.0 | 53.6 | 53.5 | 52.3 | 52.1 |
| Net interest payments | 2.4 | 2.2 | 2.1 | 1.9 | 1.8 | 1.7 | 1.6 | 1.5 | 1.5 |
| Budget balance | | | | | | | | | |
| Fiscal balance | -5.0 | -4.1 | -3.9 | -3.6 | -3.5 | -2.8 | -2.5 | -3.2 | -2.3 |
| Primary fiscal balance | -2.5 | -1.9 | -1.8 | -1.8 | -1.8 | -0.9 | -1.0 | -1.8 | -0.9 |
| Cyclically adjusted fiscal balance[2] | -4.1 | -2.9 | -2.7 | -2.4 | -2.3 | -2.2 | -2.3 | -2.9 | -2.0 |
| Underlying fiscal balance[2] | -4.1 | -2.9 | -2.7 | -2.5 | -2.2 | -2.1 | -2.6 | -2.3 | -2.4 |
| Underlying primary fiscal balance[2] | -1.7 | -0.8 | -0.7 | -0.7 | -0.5 | -0.4 | -0.5 | -0.8 | -1.0 |
| Public debt | | | | | | | | | |
| Gross debt (Maastricht definition) | 90.6 | 93.4 | 94.8 | 95.6 | 98.0 | 98.4 | 98.4 | 99.8 | 99.7 |
| Net debt | 68.5 | 67.6 | 75.2 | 77.2 | 82.6 | 80.1 | 80.7 | 81.8 | 81.3 |

1. Projections.
2. As a percentage of potential GDP. The underlying balances are adjusted for the cycle and for one-offs. For more details, see OECD Economic Outlook Sources and Methods.
*Source*: OECD (2019), *OECD Economic Outlook: Statistics and Projections* (database) and updates.

**Figure 17. The French public deficit and spending remain high**




*Source:* OECD (2019), *OECD Economic Outlook*: *Statistics and Projections* (database) and updates.

StatLink https://doi.org/10.1787/888933949649

Empirical research shows that consolidation through the control of expenditures tends to be more sustainable (Guichard, Kennedy and André, 2007). To assess the drivers of the improvement of the French fiscal balance, an analysis has been made by decomposing the different factors behind the changes in the structural balance in order to better assess the discretionary component of public finances following a method proposed, among others, by Duchêne and Levy (2003). As shown in Table 6, no significant expenditure effort was achieved after 2009, expect in three years, from 2013 to 2015. The continuous improvement of the structural fiscal balance since 2010 owed much to new tax measures (especially in 2011-13; see Table 6) and non-discretionary factors, such as higher tax elasticities (most likely the case in 2016-17).

Reducing the fiscal deficit through public spending restraint is key to putting the debt-to-GDP ratio on a declining path. This will entail a stronger control over public spending. Tax revenues are already high, leaving no room of manoeuvre from increasing tax revenues. Indeed, the heavy tax burden will eventual have to decline, since it is detrimental for economic activity and because the social acceptance of additional taxes seems to have reached a limit.

**Table 6. Fiscal consolidation efforts since 2007**

Per cent of GDP

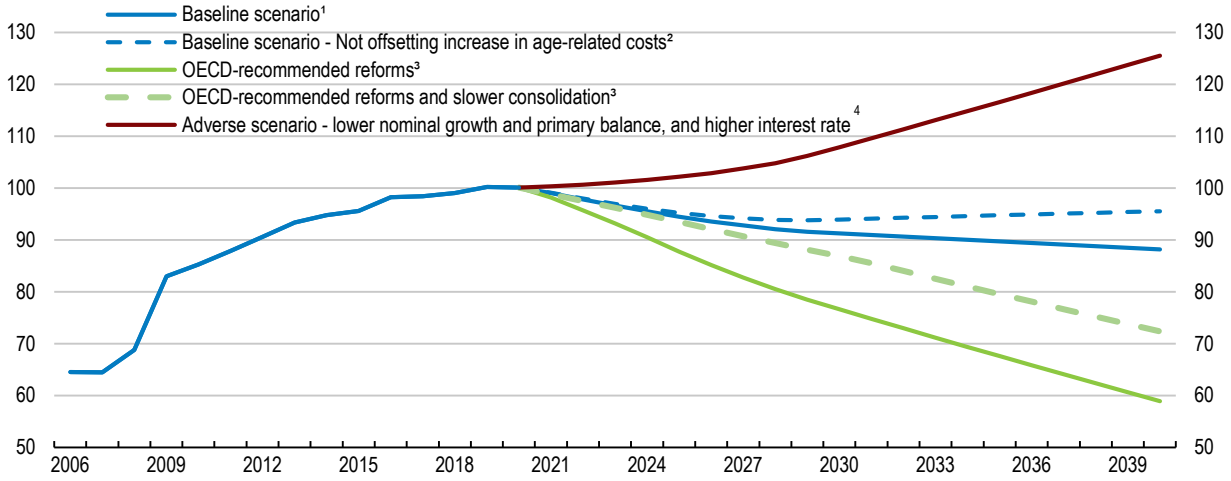
| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| General government financial balance | –2.6 | –3.3 | –7.2 | –6.9 | –5.2 | –5.0 | –4.1 | –3.9 | –3.6 | –3.5 | –2.8 | –2.5 |
| Change in the general government financial balance (A=A1+A2) | –0.2 | –0.6 | –3.9 | 0.3 | 1.7 | 0.2 | 0.9 | 0.2 | 0.3 | 0.1 | 0.9 | 0.1 |
| Cyclical component (A1) | 0.5 | –0.8 | –2.5 | 0.5 | 0.7 | –0.4 | -0.3 | 0.0 | 0.0 | 0.0 | 0.8 | 0.2 |
| Cyclically-adjusted component (A2=B1+B2) | –0.7 | 0.2 | -1.4 | –0.2 | 1.0 | 0.6 | 1.2 | 0.2 | 0.3 | 0.1 | 0.1 | –0.1 |
| Discretionary effort (B1=C1+ C2) | –0.5 | –0.5 | –2.4 | –0.1 | 1.1 | 0.7 | 1.4 | 0.3 | 0.3 | –0.2 | –0.1 | –0.2 |
| *New measures affecting the tax burden (C1)* | *–0.3* | *–0.5* | *–0.8* | *0.1* | *1.1* | *1.1* | *1.3* | *0.2* | *–0.1* | *–0.2* | *0.2* | *–0.2* |
| *Effort in controlling nominal expenditure growth*[1] (C2) | *–0.1* | *0.0* | *–1.6* | *–0.2* | *0.0* | *–0.4* | *0.1* | *0.1* | *0.4* | *0.0* | *–0.3* | *0.0* |
| Non-discretionary component (B2) | –0.2 | 0.7 | 1.0 | –0.1 | -0.1 | -0.1 | –0.2 | -0.1 | 0.0 | 0.3 | 0.2 | 0.1 |

*Note*: Computed using the difference between the growth of expenditure and potential GDP (Duchêne and Levy, 2003). Public spending includes the CICE (tax credit for competitiveness and employment).
*Source*: OECD and French authorities; OECD computations.

According to OECD projections, France's public debt – Maastricht definition – will slowly decrease but still reach 90% of GDP by 2040 (Figure 18). This central scenario assumes that the increase of ageing costs is fully offset by compensatory measures. If this is not the case, the debt-to-GDP ratio would be 5 percentage points higher than in the baseline scenario by 2040. This would heighten risks to fiscal sustainability, especially if by that time the level of interest rates has returned to level seen before the 2007 financial crisis.

**Figure 18. Structural reform and further consolidation are necessary**

Simulations of gross government debt as a percentage of GDP, Maastricht definition




1. The baseline scenario builds on Table 1 for 2019-20. It assumes a potential growth that increases to 1.7% in 2030, based on the measures described in Table 3, and remains stable thereafter. The primary balance and GDP deflator are set at -0.3% of GDP (from 2022) and 2.0% (from 2021), respectively, while the effective interest rate increases progressively from 1.7% in 2021 to 3.0% in 2030 and remains stable thereafter.
2. The "Not offsetting increase in age-related costs" scenario includes the European Commission projections of total ageing-related public expenditures (pensions, long-term care, health and education). These projections suggest ageing-related costs will add 0.5 percentage points of GDP to annual government spending, compared to the baseline scenario.
3. The "OECD-recommended reforms" scenario adds the estimated effects of the reforms recommended in this Survey (Box 2) and Table 10. This scenario assumes that the primary balance would go from -1.0% of GDP in 2020 to 1.2% of GDP in 2025 and would stay stable thereafter. In the alternative scenario "OECD-recommended reforms and slower consolidation" the primary balance progressively reaches 0.8% of GDP in 2032 and remains stable afterwards.
4. The adverse scenario is similar to the baseline simulations but real GDP growth is set at 1%, the primary deficit is set to stabilise at 1.2% of GDP over 2021-40 and the effective interest rate increases progressively from to 1.7% in 2021 to 3.5% in 2030 and remains stable thereafter.
*Source:* Adapted from OECD (2018), *OECD Economic Outlook: Statistics and Projections* (database), *June and November;* and European Commission (2018), "The 2018 Ageing Report - Economic and budgetary projections for the 28 EU Member States (2016-2070)" Directorate-General for Economic and Financial Affairs.

StatLink https://doi.org/10.1787/888933949668

To put the debt-to-GDP ratio firmly on a declining path, further efforts to control expenditures are needed. At this stage, the foreseen spending cuts only broadly compensate planned tax cuts (Table 7), and a stronger control over public spending will be necessary to sustainably lower taxes, while reducing the public deficit. A welcome committee mandated by the government (Comité Action publique 2022) has identified potential efficiency gains to reduce public spending. However, detailed performance objectives on the quality of public services or budget savings are not yet available. A quantitative tracking of the implementation and outcomes of spending reviews will be important to ensure their effectiveness (OECD, 2017b).

**Table 7. Main government tax and spending structural measures**

Estimated effect on the fiscal balance in 2022, per cent of GDP

| | |
|---|---|
| Containment of local-government spending | 0.7% |
| Partial indexation of social benefits to inflation in 2019-20 | 0.3% |
| Containment of health-care spending | 0.2% |
| Cut in subsidised contracts | 0.1% |
| Housing spending reform | 0.1% |
| Cut in the number of civil servants | 0.1% |
| ***Total spending cuts*** | 1.4% |
| Cut in the statutory CIT rate | -0.4% |
| Increase in environmental and tobacco taxes | 0.2% |
| December 2018 fiscal package | -0.2% |
| Lower taxation on capital income and wealth tax reform | -0.2% |
| Full repeal of the housing tax on main residences | -0.7% |
| ***Total tax measures*** | -1.4% |
| ***Total effect on the fiscal balance*** | 0.0% |

*Note*: The estimated fiscal impacts are relative to a no-change scenario relative to GDP in spending and tax revenues from 2017, and assume full implementation. This includes both legislated and anticipated reforms. The increase in environmental tax includes the 2018 carbon tax hike only. The December 2018 fiscal package corresponds to the tax cut for low- and middle-income pensioners, the increase in in-work benefits (*prime d'activité*) and tax exemptions for overtime work.
*Source*: OECD calculations based on the *2019 Rapport économique social et financier*, *Évaluation des voies et moyens Tome II Dépenses fiscales 2019*, and *Programme de Stabilité 2018-2022* (all reports are from the Ministère de l'Économie et des Finances).

A strategy to reduce public spending in France should include improving its efficiency, particularly those related to local governments and tax expenditures, lowering the public-sector wage bill, and reducing pension spending in relation to GDP. Moreover, health-care spending represents about 14% of public expenditures, and public and private health-care expenditures are high in international comparison. There remains scope to implement past Survey recommendations to reduce the foreseen increase in costs by boosting the health system's efficiency (OECD, 2017a). As in other areas of reform, the expected costs and benefits of measures will need to be clearly communicated. Voters and other stakeholders will need to be convinced of the need for reform and the costs of no action (OECD, 2010a).

### *Containing local government spending*

Local governments represent roughly 20% of public spending. The 2018-22 budget programme foresees that local governments will achieve sizeable spending reductions relative to a no-change scenario (Table 7). A contractual approach with a system of penalties (and investment subsidies for municipalities) has been set up to foster compliance to the targets set out by the central government. These contractual agreements have been signed by 71% of the 322 large local governments subject to these requirements (Gourault and Dussopt, 2018). Local governments that have not signed such an agreement will also be subject to a control of their operating expenses, and may be subject to penalties if they exceed their targets, which have been notified to them by the State representative in each *département.*

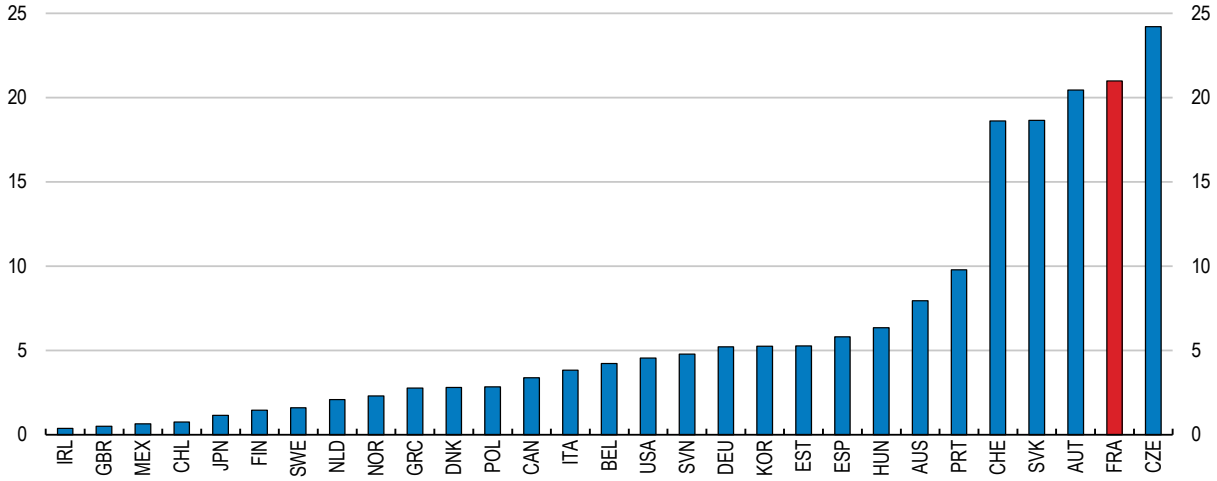
Simplifying the multiple layers of sub-central governments – the so-called *mille-feuille* – could serve to make spending more efficient and, in due course, realise substantial savings. The 2014-15 territorial reforms reduced the number of regions in metropolitan France from 22 to 13 and increased the size of inter-municipal co-operation structures. They also created

new governance bodies for large urban areas (*métropoles*). Yet, they lacked detailed objectives, and early indications suggest that cost savings in the short run have been limited in that the amalgamations of regional administrations were either partial or done based on the most attractive conditions. These reforms also did not fully streamline the allocation of responsibilities between different levels of local governments, suggesting significant room for efficiency gains in this area (Cour des comptes, 2017a).

Continuing efforts for streamlining small municipalities would help achieve further efficiency gains. French municipalities are small in international comparison and French metropolitan areas are among the most administratively fragmented in the OECD (Figure 19). Small municipalities make it more difficult to internalise spatial spillovers in terms of urban planning, environmental and congestion costs or public services provision. They also compound co-ordination problems by spreading expertise more thinly. Asymmetric arrangements, in which responsibilities for municipalities are differentiated based on population size or urban/rural criteria, could be further developed in that respect (Allain-Dupré, 2018). The differentiation of responsibilities depending on the category of inter-municipal cooperation structures is a step in that direction. Pilot experiments, as done in Denmark as part of the "Free municipality" programme, would also be helpful to identify asymmetric arrangements with the strongest benefits. Moreover, ensuring that regulations applying to local governments are proportional and tailored to them would help limit their effects on public spending (Lambert and Boulard, 2018).

**Figure 19. French metropolitan areas are fragmented**

Unweighted average number of municipalities per 100 000 inhabitants[1], 2014




1. Metropolitan areas includes functional urban areas with a population of 500,000 or more; see OECD (2012), Redefining "Urban": A New Way to Measure Metropolitan Areas, OECD Publishing, Paris http://dx.doi.org/10.1787/9789264174108-en.
*Source:* OECD (2018), *OECD Cities statistics* (database), *https*://stats.oecd.org/Index.aspx?DataSetCode=CITIES.

StatLink https://doi.org/10.1787/888933949687

Intergovernmental transfers need to put a stronger focus on standard unit cost approaches to better reflect spending needs of local governments and contribute to contain public spending. The main central government transfer to the municipal sector (*dotation globale de fonctionnement,* DGF) is complicated as it includes multiple layers, including several equalisation components that benefit to nearly all municipalities. Moreover, the lump-sum

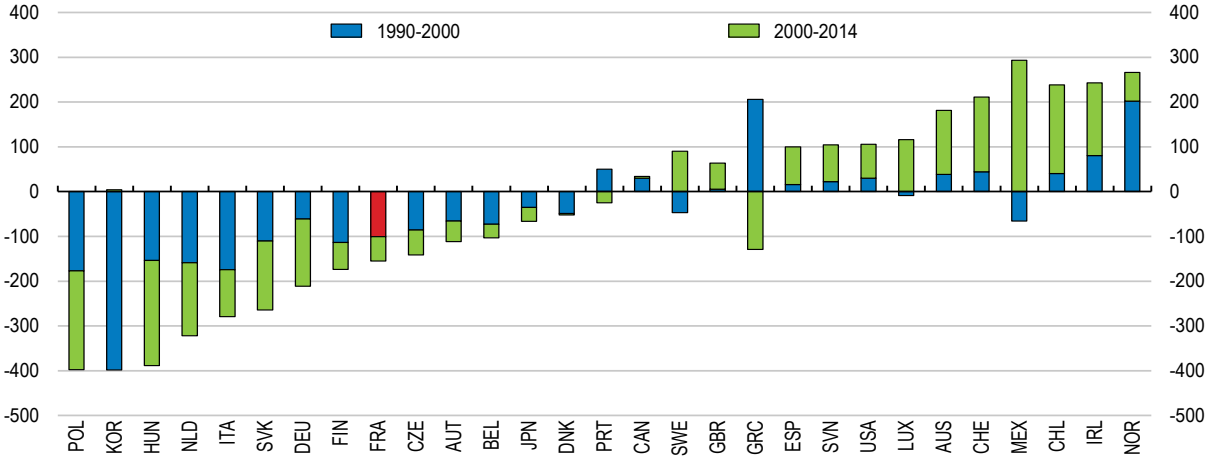
component of the DGF tends to perpetuate past spending patterns that can lead to sizeable inequalities across jurisdictions (Cour des comptes, 2016). Giving a stronger role to cost-based approaches by defining a basic set of collective goods and services to be delivered by local governments would help better reflect actual spending needs of municipalities.

Moreover, increasing further horizontal equalisation, which corresponds to transfers within the same level of local government, would be helpful in that horizontal transfers have hitherto remained modest in France. Horizontal equalisation tends to achieve better results than vertical equalisation (OECD, 2013), which typically corresponds to transfers from the central government to local governments. Avoiding earmarking further national taxes to local governments is also preferable as earmarked taxes are already largely used in France, and these lead to budget rigidities and incentives for excessive spending (Moretti and Kraan, 2018).

Urban sprawl increases the cost of providing collective goods and services and puts upward pressure on local government spending. French urban areas have noticeably sprawled over 1990-2014 (Figure 20), with significant environmental, economic and social consequences (OECD, 2018b), as well as risks to underuse infrastructure. As recommended in previous *Surveys* (OECD, 2017a; OECD, 2011), the lowest level of land-use planning should be the inter-municipal co-operation structure, which should exclusively be in charge of delivering building construction permits and of the development of business parks (*zones d'activités économiques*). Reviewing building restrictions in local land-use plans would also help achieve more sustainable urban development patterns. Moreover, removing exemptions to the development impact fees (*taxe d'aménagement*) for public amenities and commercial buildings would ensure that local tax incentives are fully effective.

**Figure 20. Evolution of average urban population density by country**

Change in average urban population density[1], inhabitants/km², 1990-2014




1. Urban population density refers only to population density in functional urban areas (FUAs): small cities not forming part of a functional urban area are not considered in the analysis. The full list of FUAs for France is available here: http://www.oecd.org/cfe/regional-policy/functional-urban-areas-all-france.pdf.

*Source*: OECD (2018), *Rethinking Urban Sprawl: Moving Towards Sustainable Cities*, OECD Publishing, Paris.

StatLink https://doi.org/10.1787/888933949706

### *Reforming the pension system*

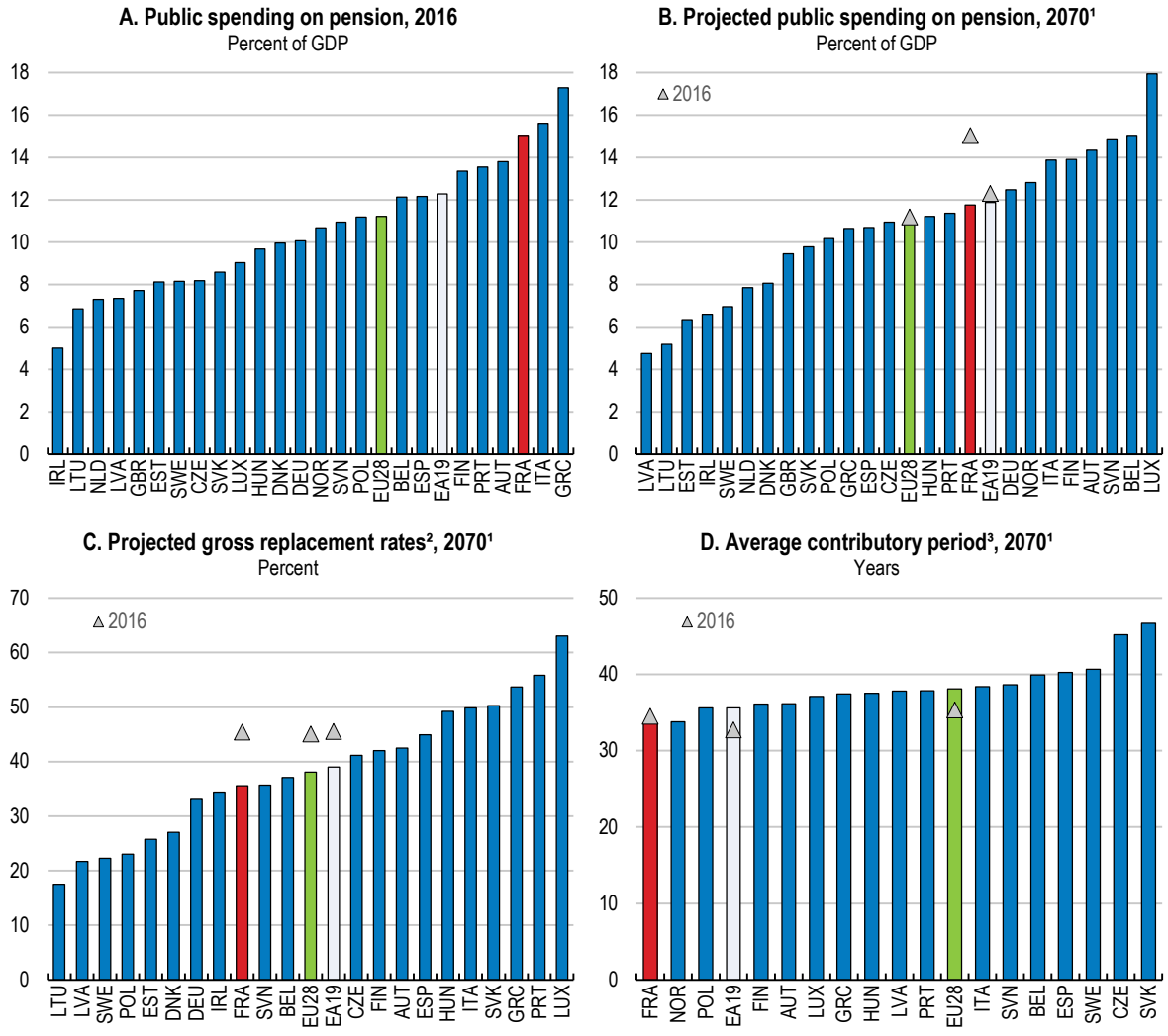
Public expenditures on pensions appear high but broadly under control. Public pension spending is among the highest in the OECD area at about 14% of GDP (Figure 21). However, under the current legislated rules, public expenditures on pensions are set to remain broadly stable until 2040 and would decline rapidly thereafter according to the projections from the European Commission (European Commission, 2018). The financial sustainability of the pension system has been ensured by a decrease in replacement rates which, in the absence of an improvement in the labour market, are expected to decline rapidly (Figure 21), as is the average pension measured as a proportion of the average wage (European Commission, 2018). According to these projections, in 2070, projected public expenditures would be close to the euro-area average.

However, the pension system suffers from numerous weaknesses. The low adjustment rule of past earnings - based on inflation rather than wages (COR, 2018; Cour des comptes, 2018) - could heighten poverty risks for some pensioners in the long run. It could also increase inequalities between pensioners and the employed population Moreover, the complex structure of the pension system – 42 different pension regimes coexist – prevents workers to anticipate their future pension rights. The coexistence of multiple schemes with different rules also undermines labour mobility, contributes to inequities, and fosters a sense of mistrust in the pension system. These weaknesses are amplified by the labour market situation. The effective contributory period to public pension are among the lowest in the European Union (Figure 21). Weak employment rates and labour market challenges, as well as low effective exit age of the labour market reduce contribution periods and undermine pension rights (Chapter 1).

The plan to move to a single point-based pension system goes in the right direction to improve labour mobility. The design of adequate contributions and solidarity mechanisms will be key to successfully move to a single pension system (Boulhol, 2019). Under the current pension system, workers with incomplete careers due to late entry or career breaks have limited benefit losses in international comparison (OECD, 2017c; COR, 2018b). The 2019 reform will need to ensure a better visibility of future pension levels. To avoid creating inequities between workers and retirees, it will also be necessary to review the rules for adjusting past earnings based on wages and adjust the other parameters to ensure the sustainability of the pension system (Boulhol, 2019).

Several measures would be desirable. A revision of bonuses could make gradual retirement more attractive (OECD, 2017d). An alternative solution would be to abolish contributions for those who have reached full pension entitlements and continue to work. Raising the statutory retirement age, eventually by indexing it to life expectancy, could also help accelerate the increase in effective retirement age (OECD, 2017a). Similarly, survivor pension schemes could be reviewed to increase incentives to work and reduce their costs (OECD, 2018c). Finally, it will be important to ensure the convergence of the parameters of the special pension regimes (COR, 2016). Family-related pension benefits also appear outdated. They are heterogeneous across pension schemes and the third child top up tend to benefit more men than women and affluent families (Vignon, 2018).

**Figure 21. Public spending on pension is set to decline together with replacement rates**




1. European Commission projections (2018).
2. Gross replacement rates are measured as the very first pension benefit relative to the last wage before retirement.
3. Average contributory period for new pensions. Contributory periods can increase for several reasons, such as, for example, rising statutory retirement ages that force employees or higher employment rates.
*Source*: European Commission (2018), "The 2018 Ageing Report - Economic and budgetary projections for the 28 EU Member States (2016-2070)", Directorate-General for Economic and Financial Affairs.

StatLink https://doi.org/10.1787/888933949725

## *Containing health care spending*

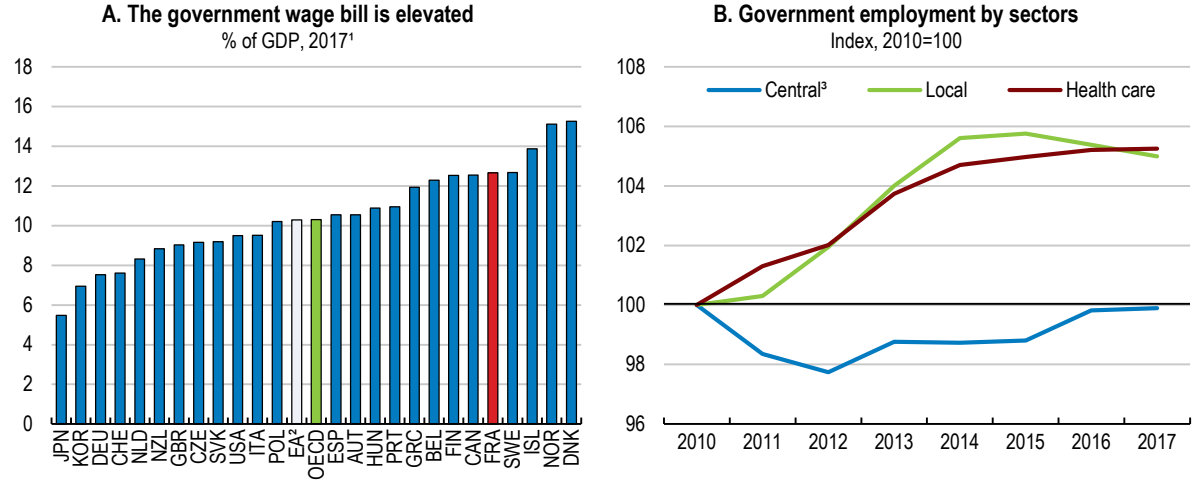
France's health care system offers high quality care, but as part of a long-term strategy to reduce public spending, there is a need to improve the efficiency of public health spending, as foreseen in the government plan "Ma santé 2022". To contain the ongoing rise in health expenditures, it is particularly important to encourage health practitioners to adopt more efficient behaviours and stem the rise in pharmaceutical spending. The development of capitation payments to remunerate health professionals for the prevention and treatment of

chronic diseases would limit excessive medical intervention, drug sales and improve the prevention and monitoring of chronic diseases (OECD, 2017a). In addition, the share of generics in the reimbursed drug market is low in international comparison. Targeted information for hospitals and primary care providers should be strengthened to improve the relevance of prescriptions, and to apply reimbursement ceilings to a wider range of drugs.

### *Reforming the delivery of public services to improve their efficiency*

Operating and personnel outlays are high and increased rapidly in some sectors (Figure 22). The authorities intend to reduce the number of civil servants by 120 000 by 2022, which corresponds to cuts of the central government and local government workforces by 2.0% and 3.5%, respectively. To meet these targets, they reorganise further the tax administration and deploy a new voluntary departure programme. The authorities are also considering an increase in the civil servants' working time in local governments to align it with the legal working time.

**Figure 22. The public sector wage bill is high**




1. Or latest available year.
2. Euro area member countries that are also members of the OECD, excluding Lithuania (16 countries).
3. Civil servants from the central government (fonction publique d'État), local governments (fonction publique territoriale), and health care (fonction publique hospitalière) accounted for 44%, 35% and 21% of total civil servants, respectively in 2017. All categories include subsidised contracts (emplois aidés).
*Source*: OECD (2018), *OECD National Accounts Statistics* (database); INSEE (2018), L'emploi dans la fonction publique en 2016, *INSEE Première* nº 1691 et mises à jour (*Informations rapides* nº 325, 2018).

StatLink https://doi.org/10.1787/888933949744

Using digital investment to mutualise the face-to-face delivery of public services would be a good move. Mutualisation can lower costs and promote job mobility across government functions without jeopardising the quality of public services. OECD countries that restructured the way public service is delivered to boost productivity through economies of scale and scope include Canada that merged multiple agencies into a consolidated public service organisation in 2005 (Service Canada) or Norway that established in 2006 a unified labour and welfare organisation (NAV). France could consider following the one-stop-shop delivery model of public services based on the results of the experiments currently

conducted. However, the large-scale implementation of a one-stop-shop system for public services would require significant preparation to avoid the undesirable effects of hasty mutualisation.

**Table 8. Past OECD recommendations to reduce public spending and boost its efficiency**

| Main OECD recommendations | Summary of actions taken since the 2017 *Survey* |
|---|---|
| Move towards a single pension system to improve labour mobility and lower management costs. Then, gradually increase the minimum retirement age in line with life expectancy. | Discussions with stakeholders to move to a single pension system started in 2018, and the reform will be voted in 2019. |
| Reform public employee job-mobility rules, and reduce the number of civil servants through a targeted approach, redefining the duties of government, for example with the help of an external audit. | The authorities announced quantitative objectives to reduce the number of civil servants in central and local governments by 2022. |
| Increase health practitioners' remuneration for prevention and treating complex chronic diseases, which will help reduce the level of medical intervention, the number of prescriptions and drug sales. Facilitate insurance schemes' contracting with groups of providers. Expand electronic health records to improve health-care co-ordination. | The 2022 healthcare plan aims at improving prevention and co-ordination among care providers, notably by reforming doctors' education. The authorities also target to increase the take-up of generic drugs and develop bundled payments for some long-term diseases. |

### *Reducing inefficient tax expenditures*

Tax expenditures (excluding the CICE) are large at about EUR 80 bn in 2018 (3.4% of 2018 GDP) and can be gradually streamlined to improve the effectiveness of the tax system and its redistributive effects.The broadening of tax bases will have to go along with lower tax rates, particularly the progressivity of the tax wedge on low- and middle-income households, to strengthen social cohesion.

Thorough regular evaluations of tax expenditures have room for improvement, and the authorities are introducing new tax expenditures such as tax-free overtime work, which can have adverse effects on hiring and entails significant dead-weigh costs. The benefits of tax expenditures should be systematically evaluated after a few years of implementation. Such reports should be made public and if some tax expenditures are deemed inefficient, the government should phase them out or explain why it wishes to maintain them.

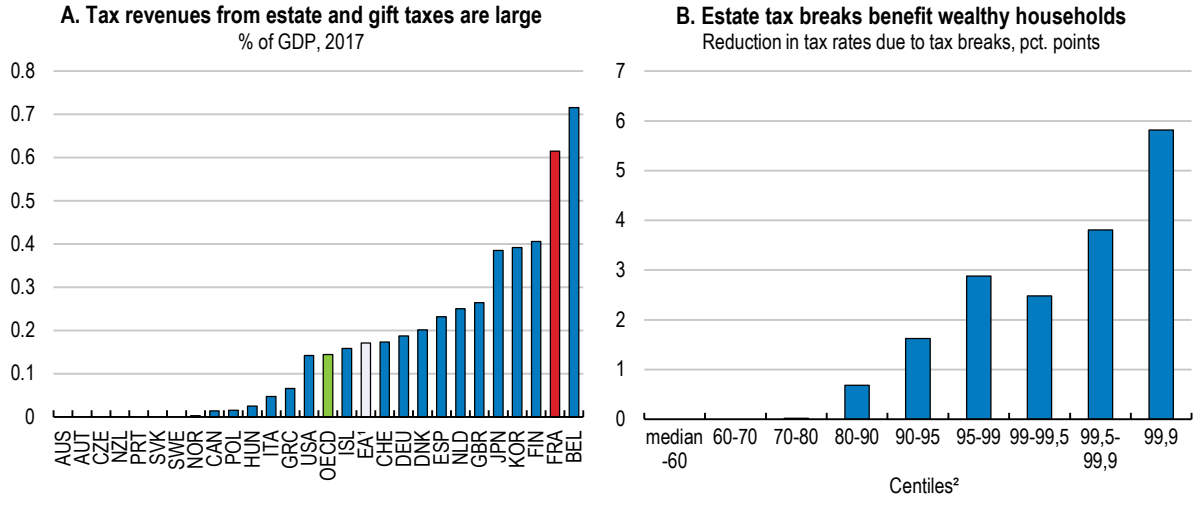
Moreover, the case for removing tax preferences in favour of the housing sector is strong, as they can result in a misallocation of capital, away from unsubsidised business activities that are more productive (Arnold et al., 2011). Estimated tax expenditures for the housing sector are sizeable (about 0.7% of GDP in 2019), and the main expenditures do not primarily benefit low-income households, such as the reduced rates for the value added tax (VAT) in the construction sector and personal income tax breaks for housing investment. Moreover, their efficiency is undermined by the weak responsiveness of housing supply (Caldera Sánchez and Johansson, 2011; OECD, 2017a).

There are also many tax expenditures on households' savings vehicles – at least 126 in 2016 amounting to about 1.0% of GDP (Conseil des prélèvements obligatoires, 2018). In particular, there is an unusually large number of personal savings vehicles that benefit from a preferential tax treatment ranging from share savings plans to life insurance savings products and savings deposits, and households' savings are heavily tilted towards such financial products. Reducing these tax expenditures would help ensure neutrality of the tax system and promote a fairer tax system, since capital income is more unevenly distributed than labour income.

Reducing tax exemptions on the inheritance and gift taxes would help tackle wealth inequality with knock-on effects on equity and intergenerational mobility. Wealth inequality in France is broadly in line with the average OECD country and tax revenues

from estate and gift taxes are large in international comparison (Figure 23, Panel A). However, the progressivity of the inheritance and gift taxes is limited as tax breaks mostly benefit wealthy households (Panel B), which can fuel a feeling of an unfair taxation system among the population. Yet, a well-designed inheritance tax may be a more efficient and less administratively costly way of addressing wealth inequality than a net wealth tax (OECD, 2018d). For example, eliminating the distinct tax treatment for estate purposes of life insurance savings vehicles for large life-insurance contracts would be welcome.

**Figure 23. Tax breaks for the estate tax are large**



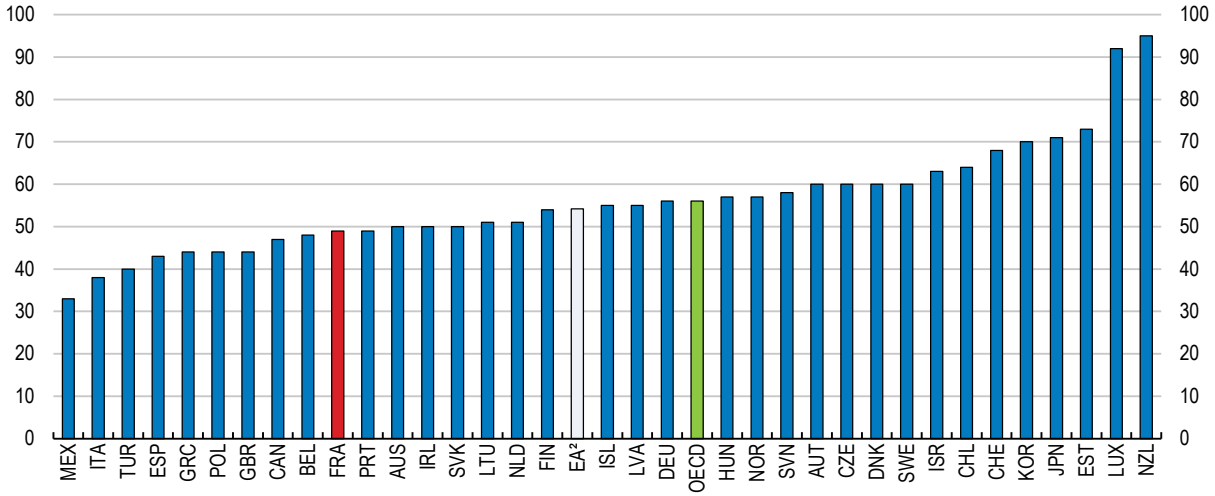

1. Euro area member countries that are also members of the OECD (17 countries).
2. Distribution by centile of inheritances received by children; Panel B shows that the top 0.1% legacies which amount on average to EUR 5.5 million obtain a roughly 6 percentage point tax rate cut due to tax breaks. Calculations are reported in (Dherbécourt, 2017).
*Source:* OECD (2018), *OECD Revenue Statistics* (database); Dherbécourt, C. (2017), *"Peut-on éviter une société d'héritiers ?",* https://www.strategie.gouv.fr/sites/strategie.gouv.fr/files/atoms/files/na_51-transmissions-ok_0.pdf.

StatLink https://doi.org/10.1787/888933949763

The VAT tax system is complicated by the use of many reduced rates on selected items and exemptions, leading to substantial VAT revenue shortfalls (Figure 24; Table 9). Social policy targets are more efficiently reached through targeted social transfers or the personal income tax (PIT) than through reduced VAT rates. The employment gains of reduced rates on selected sectors such as hotels and restaurants also seem limited in that the benefits appear to have largely benefitted to hotel and restaurant owners (Benzarti and Carloni, 2018), and such reduced rates tend to benefit to the most affluent households. Removing some of the VAT tax breaks, particularly those that benefit the wealthiest households, would be less distortive, and would give room to sustain efforts to lower the taxation on households or businesses (see below).

**Figure 24. VAT revenue shortfalls are large**

VAT revenue ratio[1] (VRR), 2016




1. The VRR is an indicator of the loss of VAT revenue as a consequence of exemptions and reduced rates, fraud, evasion and tax planning. It measures the difference between the VAT revenue actually collected and what would theoretically be raised if VAT was applied at the standard rate to the entire potential tax base in a "pure" VAT regime and all revenue was collected.
2. Euro area member countries that are also members of the OECD (17 countries).
*Source:* OECD (2018), *Consumption Tax Trends 2018 - VAT/GST and Excise Rates, Trends and Policy Issues, Consumption Tax Trends,* OECD Publishing, Paris. https://doi.org/10.1787/ctt-2018-en.

StatLink https://doi.org/10.1787/888933949782

**Table 9. Past OECD recommendations for a tax system promoting sustainable growth**

| Main OECD recommendations | Summary of actions taken since the 2017 *Survey* |
|---|---|
| Withdraw reduced rates for VAT. | No action taken. |
| Reduce registration fees, and increase taxes on immovable property. | No action taken. Conversely to increasing taxes on immovable property, the repeal of the housing tax runs against an increase in taxes on immovable property. |
| Use lower social contributions as an opportunity to give a bigger role to the progressive income tax by lowering the basic allowance. Remove personal tax breaks on capital income, and lower the tax rate. | The cut in employees' social contribution was compensated by an increase in the proportional income tax (*contribution sociale généralisée*). The taxation of capital income was reduced to a flat rate of 30%. The tax base of the wealth tax was narrowed to real estate assets only. Some tax breaks applying on large life-savings contracts were removed in 2018. |

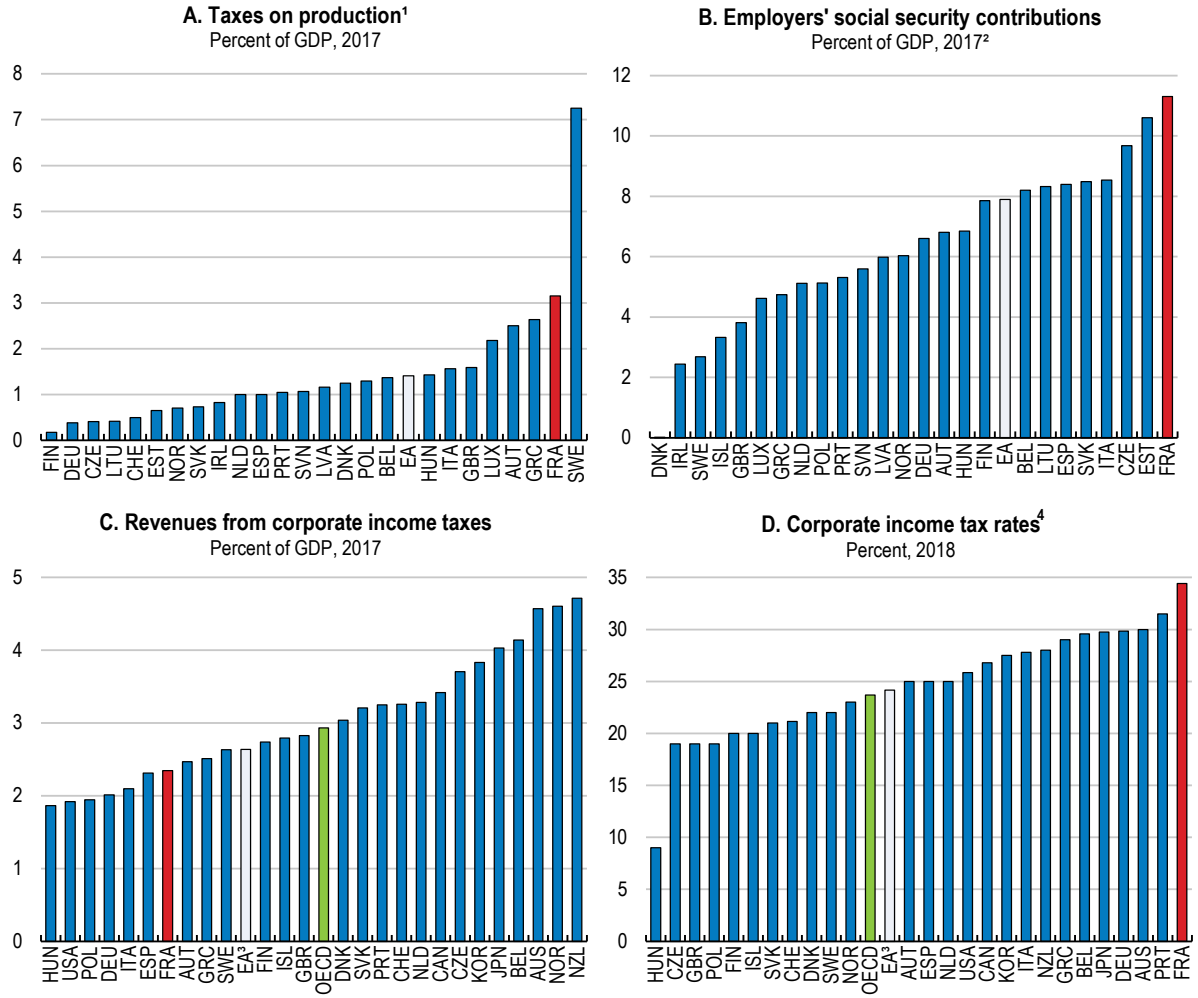
## *Making taxes more favourable to employment and productivity*

### *The tax burden on businesses is hefty*

The large number of taxes levied on businesses go along with frequent changes to exemptions and tax credits. This can be a barrier to firm entry and productivity growth, particularly taxes on production that affect companies regardless of their economic situation. Taxes on production stand at 3.2% of GDP the second highest in the EU (Figure 25, Panel A). Taxes on production include taxes collected by local governments such as the contribution on the firms' value added, the property tax on businesses and a tax to fund public transport. Employers' social security contributions also weigh heavily on businesses (Panel B). Moreover, government revenues derived from the corporate income tax, net of tax credits, are low despite high statutory tax rates (Panels C and D).

Overall, taxes on production consist of about 40 taxes levied by the central government, and, for the most part, by local governments on capital and labour. Efforts to eliminate low-yield taxes on businesses are a first step in reducing the tax burden of businesses. This should go along with efforts to reduce the distortions induced by some tax bases. Eliminating tax expenditures on businesses, particularly those related to reduced VAT rates, would also give room to cut taxes on production, promoting a more efficient tax system.

**Figure 25. Business taxation is hefty**




1. Taxes on production exclude taxes on households.
2. Employers' actual compulsory social security contributions, including governments. In France, employers' social security contributions excluding public administration reached 8.1% of GDP in 2016. The employers' contributions-to-GDP ratio is expected to decrease by 0.9 percentage point as of 2019 following the transformation of the CICE in lower employers' social security contributions.
3. Euro area member countries that are also members of the OECD (17 countries).
4. Combined central and sub-central (statutory) corporate income tax rates - as of 2018 - given by the central government rate (less deductions for sub-national taxes) plus the sub-central rate. Where a progressive (as opposed to flat) rate structure applies, the top marginal rate is shown.
*Source*: European Commission (2018), *AMECO Statistics* and *Taxation trends in the European Union* (databases); OECD (2018), *OECD Global Revenue Statistics* (database).

StatLink https://doi.org/10.1787/888933949801

France legislated a gradual decline in the top statutory rate of the corporate income tax (CIT) from 33.3% to 25% in 2022. Ongoing efforts to broaden the CIT tax base include stricter rules governing the tax consolidation regime for cross-border transactions and a change in the patent box regime to align it with the OECD's Base Erosion Profit Shifting (BEPS) rules. As in other OECD countries, the corporate tax system continues to favour debt over equity (Hanappi, 2018), even though measures were introduced in 2019 to limit the benefits of interest payments deductions. These deductions can also be used by multinational enterprises in their profit-shifting strategies to locate debt in higher-tax rate jurisdictions (Sorbe, Johansson and Bieltvedt Skeie, 2017). Removing entirely the tax bias in favour of debt would rebalance financing incentives, while reducing corporate leverage and enhancing resilience

### *The property tax system has room for improvement*

Policies promoting residential mobility would reduce skills mismatch with positive effects on productivity and employment (Adalet McGowan and Andrews, 2015). High transaction costs can create barriers to labour mobility that heighten skills mismatch (Caldera Sánchez and Andrews, 2011). Transaction fees (*droits de mutation à titre onéreux*) are onerous in France and there is evidence that recent increases have reduced the number of transactions, particularly in non-tense markets (Bachelet and Poulhes, 2017). Elevated transaction fees can also create incentives to purchase undeveloped land to build a new house rather than an existing building in a more central area to lower the tax burden, aggravating urban sprawl.

Lowering registration fees for real estate transactions and reforming recurrent taxes on immovable property (see below), which are less distortionary would therefore be welcome. Replacing the tax break on capital gains from the sale of immovable property by an inflation correction based on consumer prices could also foster residential mobility.

The gradual repeal of the housing tax (*taxe d'habitation*) risks undermining the ability of local governments to set tax rates and bases, which is favourable for public investment and growth (Kim and Dougherty, 2018). The authorities plan to compensate the repeal of the housing tax by reallocating other local direct taxes and by increasing central government transfers. France currently has a recurrent tax on both the owner of an immovable property (*taxe foncière*) and on the occupant of an immovable property (*taxe d'habitation*). The *taxe foncière* is a tax on capital whose receipts go to both the municipality and the *département,* while the receipts from the *taxe d'habitation* go to the municipality only.

The housing tax amounted to EUR 22.3 billion in 2017 (1.0% of 2017 GDP), or roughly 25% of the operating expenses from the municipal sector in 2017. The rationale for the gradual repeal of the housing tax is that it is viewed as being unfair, since it tends to be regressive as it overlooks the taxpayers' ability to pay (Conseil des prélèvements obligatoires, 2010), and its tax base relies on outdated notional rental values.

Updating the cadastral rental values and reforming the *taxe foncière* is a priority to ensure efficiency and fairness of property taxation. The cadastral values used for the property tax levied on households (both for the *taxe d'habitation* and *taxe foncière*) are based on an assessment of property values dating back from 1970. Cadastral values are adjusted uniformly each year – based on consumer price inflation – regardless of spatial variation in property prices so that property values used for taxation purposes differ markedly from market prices. A revised property tax based on updated cadastral values would also make up for some of the loss in revenues from the housing tax repeal. Phasing-in this reform

gradually as currently done in the case of the property tax levied on businesses would smooth tax liabilities and likely reduce reform opposition.

### *Illustrating the effects of OECD-recommended reforms*

The proposed tax and spending reforms give the government a choice of options to reduce public spending in the medium run. These options would also make room in the longer term to increase spending on growth-enhancing investment, for example, public expenditures on R&D. This is quantified in an illustrative manner in Table 10.

**Table 10. Illustrative fiscal impact of OECD-recommended reforms**

Estimated change in the fiscal balance in 2022, per cent of GDP

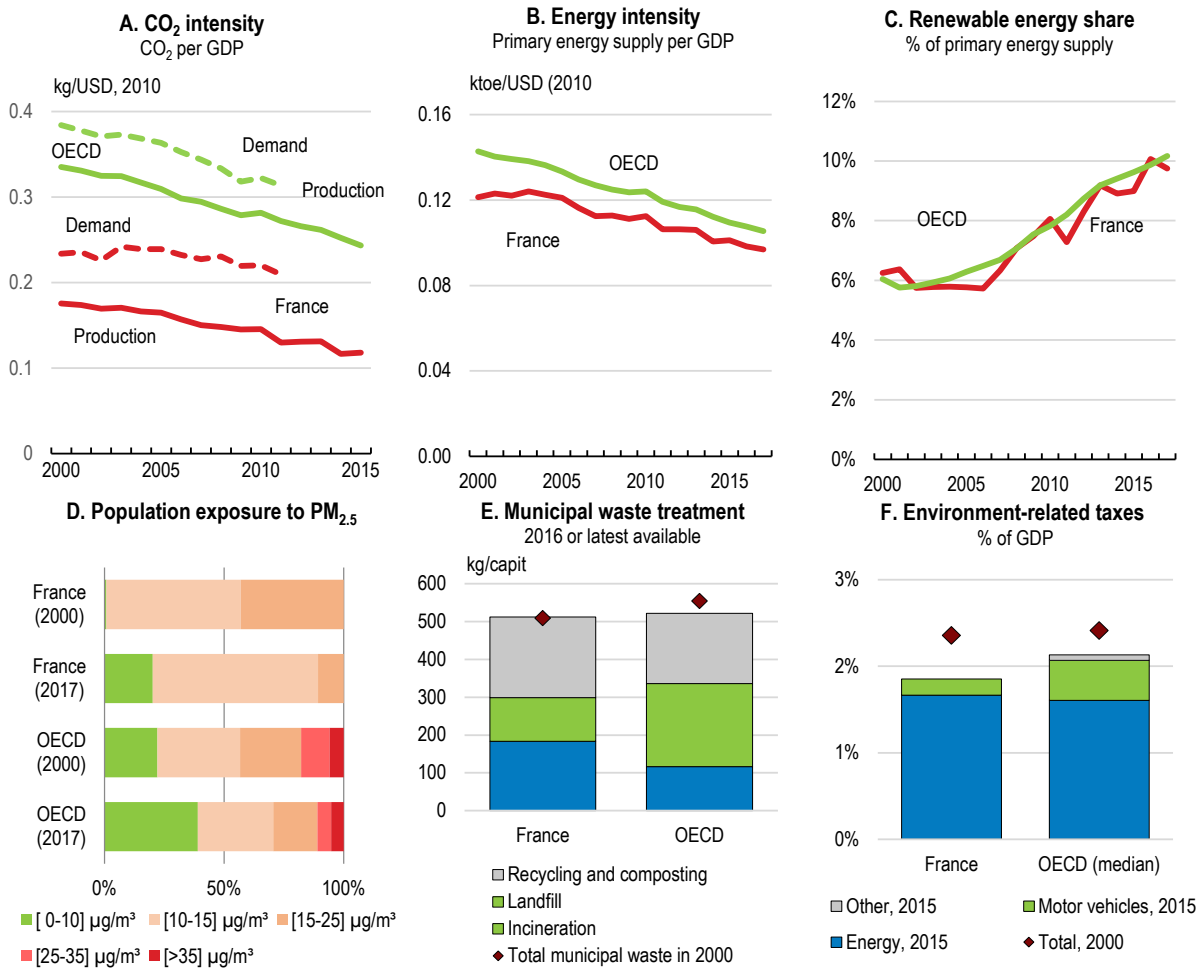
| | |
|---|---|
| Removing the reduced VAT rate on hotels and restaurants: | 0.1% |
| Remove tax breaks on households' savings | 0.2% |
| Cut taxes on production | -0.5% |
| ***Total tax measures including government plans presented in Table 7:*** | -1.6% |
| A gradual increase in the effective retirement age to 64 in 2025 | 0.9% |
| Broad-based spending review | 0.5% |
| Accounting effects of the OECD-recommended reforms after 4 years through higher GDP growth (Box 2) | 0.4% |
| Increase in public spending for R&D | -0.1% |
| ***Total spending cuts including government plans presented in Table 7:*** | 3.1% |

*Note*: The estimated changes in the fiscal balance are static estimates that abstract from behavioural responses that could be induced from policy changes. These estimates are only reported for illustrative purposes. OECD-recommended structural reforms through higher GDP growth in Box 2 would lead to higher GDP by 1.9%, abstracting from population growth. The public-spending-to-GDP ratio of 56.5% in 2017 would be lowered to (56.5/(1.019x4/10))% over 4 years and, assuming a tax revenue to GDP elasticity of one, the estimated effect on the fiscal balance would be 0.4%. For the increase in the effective retirement age, the pension simulator from the *Conseil d'orientation des retraites* is used (http://www.cor-retraites.fr/simulateur/). The outcomes of the broad-based spending review are scaled using the proposals of the *Action Publique 2022* committee related to health care (improved balance of EUR 5 bn), housing (improved balance of EUR 3 bn), mutualisation of purchases of goods and services by public entities (improved balance of EUR 3bn), central administration and local government reforms (improved balance of EUR 1 bn each). A 0.2% reduction in tax breaks on households' savings could be achieved by removing the favourable tax treatment for housing investment and for the sale of immovable property (Conseil des prélèvements obligatoires, 2018). For the fiscal benefits from removing reduced VAT rates, estimates available in the *Dépenses fiscales volume II* of the *Evaluation des voies et moyens* of the 2019 budget draft bill are used.
*Source*: OECD calculations.

## *Ensuring environmental sustainability*

France's environmental policy is proactive and ambitious, but the main challenge for France is to fulfil its commitments (OECD, 2016a). The 2017 Climate Plan is a welcome step in that respect (Table 11). France's $CO_2$ emissions per unit of GDP are among the lowest in the OECD, owing to its predominantly nuclear electricity generation capacity and relatively strong electrification (Figure 26, Panel A). Yet, progress with lowering the energy intensity of production and raising the share of renewable energy has been modest in recent years (panels B, C). On current trends, France will not reach its greenhouse gas emission reduction targets. Transport accounts for around 35% of emissions, and it will be important to concentrate transport infrastructure investment towards zero-carbon transport. Policies to support investment in energy efficiency and renewables have room for improvement (see Chapter 2).

**Figure 26. Green growth indicators - France**




*Source*: OECD (2019), *OECD Green Growth Indicators* (database).

StatLink https://doi.org/10.1787/888933949820

Air quality has improved and population exposure to small particles is lower than in most OECD countries (panel D). Nonetheless, air pollution is estimated to cause 48 000 premature deaths in France, mostly by small particles and around 50% of mortality may be due to road transport (Santé publique France, 2016). Urban sprawl has contributed to an increase in car dependency and traffic congestion. Policies to limit urban sprawl, discussed above, would help contain pollution, energy consumption and $CO_2$ emissions, with positive effects on biodiversity (OECD, 2016a). Higher taxes on car purchase, modulated according to cars' pollution performance, in particular NOx emissions, could also lower pollution in the absence of taxation directly related to car use and related adverse externalities. Better taking into account environmental externalities in transport taxation and developing an efficient pricing of road infrastructure, combined with targeted social support measures, would make it possible to reduce environmental externalities. Combined with measures to tackle congestion and develop public transport, such as congestion charges, this approach would make significant progress in reducing air pollution.

A more even taxation of fossil energy use would improve the effectiveness of the pricing of carbon emissions in terms of emission reduction. Some industrial emitters are subject to both the European Union's emission trading system (ETS) and energy taxes, others only to either taxes or ETS. In 2015, 15% of industrial emissions (not including emissions from biomass) were not priced at all (OECD, 2018e). Natural gas and coal are taxed less, in terms of carbon content, than petrol, in the manufacturing and construction sectors (OECD, 2018f). Overall 42% of emissions from energy sources were priced at EUR 30 per ton, a low-end estimate of current climate-related costs of carbon (OECD, 2018e). However, France considerably strengthened its carbon tax over 2015-18 for the sectors not included in the EU's ETS system, and the carbon tax reached 44.6 euros/$tCO_2$ in 2018. However, there remain many exemptions and scope for base broadening.

Additional communication and using tax revenues to compensate the most vulnerable households and improve environmental outcomes could foster citizens' support and make such taxes fairer (CEV, 2017). How environmental tax revenues are used has a substantial impact on their acceptance (OECD, 2010b). In particular, the use of revenues could help offset the negative real income and distributional effects of higher taxes on fossil fuels (Douenne, 2018; Simon and Thao Khamsing, 2016). For example, OECD evidence on heating fuels shows that using a third of the revenues of environmental taxes on domestic energy to raise income-tested cash transfers for low-income households would improve energy affordability (Flues and van Dender, 2017). The planned discussion about the revenues of environmental taxes and their use during the yearly budgetary debate from 2020 is a good move, since it could lead to define future flanking measures along with the planned increases of environmental taxes (Peyrol and Bureau, 2018).

France could make more use of economic incentives to avoid waste and recycle more. The volume of household waste remains large, while its recovery rate remains lower than in Germany and Belgium (panel E). Landfill taxes are lower than in other European high-income countries (European Environment Agency, 2016), and France has no mandatory separate collection of biowaste. The development of pay-as-you-throw schemes linking waste management fees to the amount of waste produced by each households, with higher charges for unrecycled waste could be developed further (European Environment Agency, 2018; Ministère de l'Écologie, du Développement durable et de l'Énergie, 2014). The planned increase in the tax rate of the waste component of the general tax on polluting activities (TGAP, *taxe générale sur les activités polluantes*) is an important step in this direction.

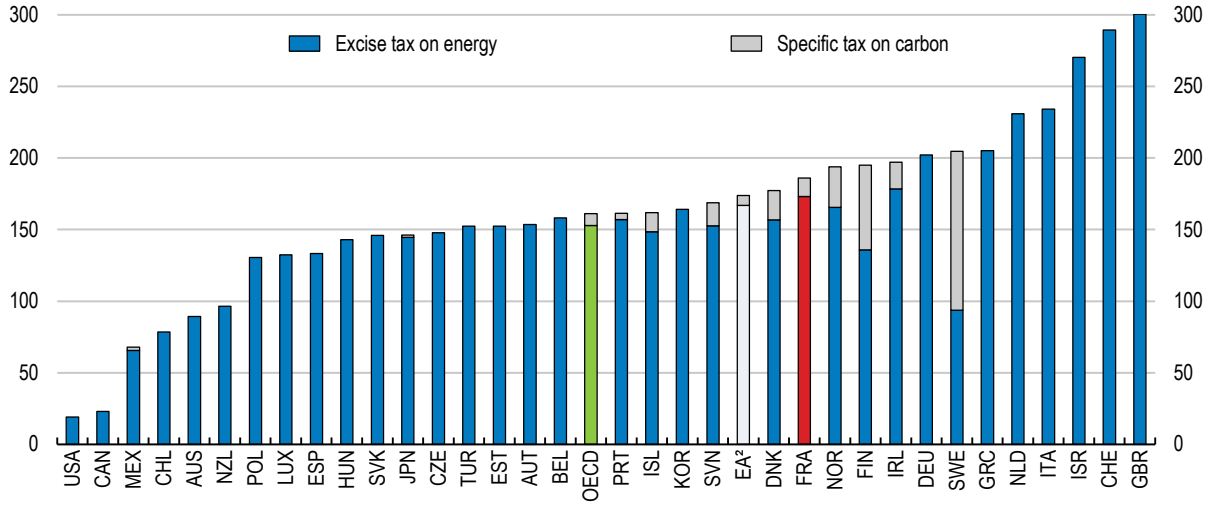
Moreover, France is one of the main consumers of pesticides, which creates risks for the environment and biodiversity (OECD, 2016a). Incorporating environmental impact assessment into all agricultural product authorisation procedures at national and European level would lead to environmental and public health gains. This involves strengthening the risk assessment of phytosanitary products, in particular those of their interaction effects, and to increase the consideration of their impact on the functioning of ecosystems in socio-economic evaluations. Contributing to European research would enable gradually replacing the substances identified as the most harmful. Moreover, accelerating the transition towards sustainable production methods (agroecology), outlined in the "ecophyto" and biodiversity plans (Table 11), would be positive.

**Table 11. Past OECD recommendations to improve environmental performance**

| Main OECD recommendations | Summary of actions taken since the 2017 *Survey* |
|---|---|
| Air. Adopt and implement the national plan for the reduction of atmospheric pollutants to ensure that standards for the protection of human health are respected; promote the creation of restricted traffic zones and trial the use of urban road tolls. | The national plan for the reduction of atmospheric pollutants was adopted in 2017. |
| Waste. Strengthen measures to raise awareness and provide information on waste prevention and recycling; step up the pace of implementation of incentive pricing. | No action taken. Incentive pricing remains little used. |
| Agricultural inputs. Continue to increase the diffuse pollution charge and introduce a similar charge for mineral nitrogen fertilisers; assess the results of the savings certificates scheme for plant protection products. | The diffuse pollution charge is increasing in 2019. |
| Step up the pace of reform of energy and vehicle taxation for better internalisation of damage related to climate change and air pollution. | The trajectory of the carbon tax hike was steepened in 2017, but the increase in the carbon tax has paused in 2019. |
| Add quantified objectives, indicators and financing perspectives to the National Biodiversity Strategy. | The biodiversity plan announced in 2018 aims at a net zero land take, and set up a 4-year financing perspective to support biodiversity. |
| Promote agroecology with information, training, research and financing to facilitate the transition to sustainable modes of production | The biodiversity plan unveiled a series of measures to promote agroecology. |

**Figure 27. Average effective tax rates in the road sector have increased**

Average effective tax rates from excise taxes and specific taxes on carbon[1], EUR per tCO2, 2015




1. Effective tax rates are calculated including the carbon emissions from biomass.
2. Euro area member states that are also members of the OECD, excluding Latvia and Lithuania (15 countries).
*Source*: OECD (2018), *Taxing Energy Use 2018*, OECD Publishing, Paris.

StatLink https://doi.org/10.1787/888933949839

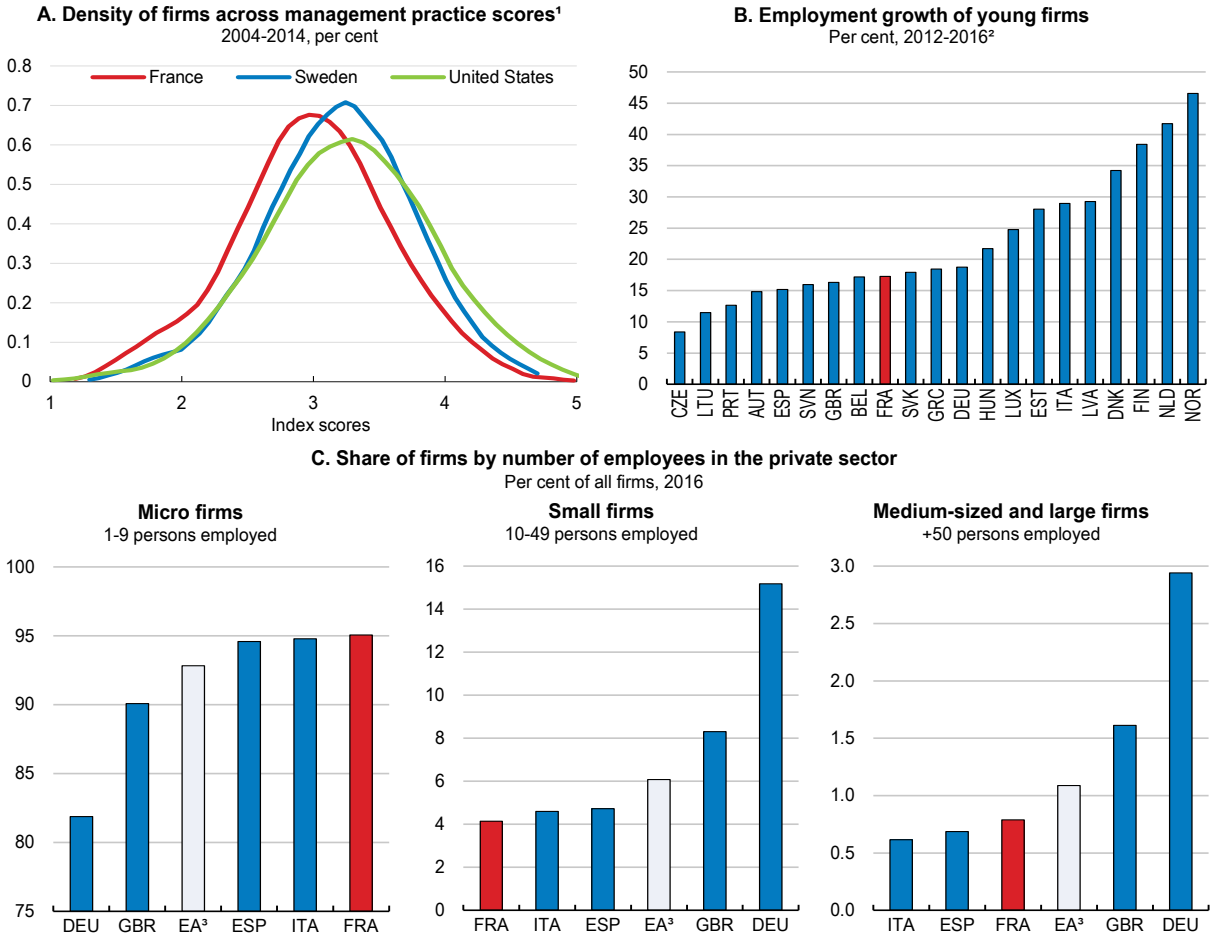
## Improving productivity, employment and social mobility

### *Product and services market reforms would boost growth*

Complementary product- and service-market reforms will generate synergies and boost competitiveness and long-run growth. The PACTE bill is expected to encourage firm growth, support competition and raise export performance (De Williencourt, Faci and Ray,

2018; Box 1). However, many services sectors are partly sheltered from competition, and business regulations remain complex. Compared to the United States and Sweden, France has a higher proportion of companies with poor management and human resources practices (Figure 28), which explains more than half of its shortfall in total factor productivity vis-à-vis the United States (Bloom, Sadun and Van Reenen, 2016).

**Figure 28. The distributions of management quality and firms size are skewed**



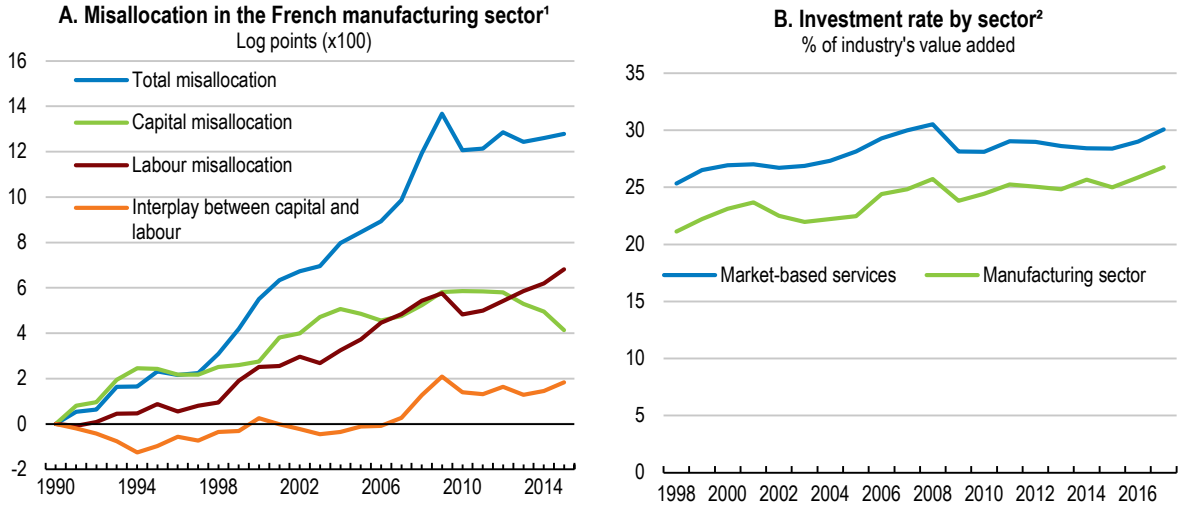

1. Index scale from 1 (worst practice) to 5 (best practice), manufacturing sector.
2. Young firms are those less than 2 years old (conditional on survival); average of available years.
3. Euro area member countries that are also members of the OECD (17 countries).
*Source*: World Management Survey Database; OECD (2018), *OECD Business Demography Statistics* (database).

StatLink https://doi.org/10.1787/888933949858

The difficulty for young firms to survive and grow and France's skewed firm distribution, where small businesses are numerous, also explain weak total factor productivity. This skewed firm distribution is partly explained by the self-employed ("*auto-entrepreneur*") regime. However, poor management skills and smaller firm size also strongly relate to the low share of exporting firms (Bacheré, 2018) and disappointing innovation and export performance, notably along the price-competitiveness dimension (Bloom et al., 2018).

Many regulations have hindered firm entry and growth, as well as more efficient resource allocation (Andrews and Cingano, 2014). After 2008, the reallocation of labour and capital towards the most productive firms slowed markedly (Libert, 2017; Figure 29). Even though factor reallocation towards firms whose productivity has increased remained dynamic (Ben Hassine, 2017), reforms of labour and product markets and housing regulations would enhance competition, skills matches and productivity (Figure 30). Regulations on start-ups and those in services sectors that hinder firm entry, competition and productivity are stricter than in many other OECD countries (Bourlès et al., 2013).

**Figure 29. Resource misallocation has increased, while investment disappoints**




1. Loss in multi factor productivity that can be imputed to misallocation of resources, as computed in Libert (2017).
2. Gross fixed capital formation as a percentage of gross value added, by industry.
*Source*: T. Libert (2017), "Misallocation Before, During and After the Great Recession", *Banque de France Working paper*, No. 658; INSEE (2018), *Annual national accounts* (database).

StatLink https://doi.org/10.1787/888933949877

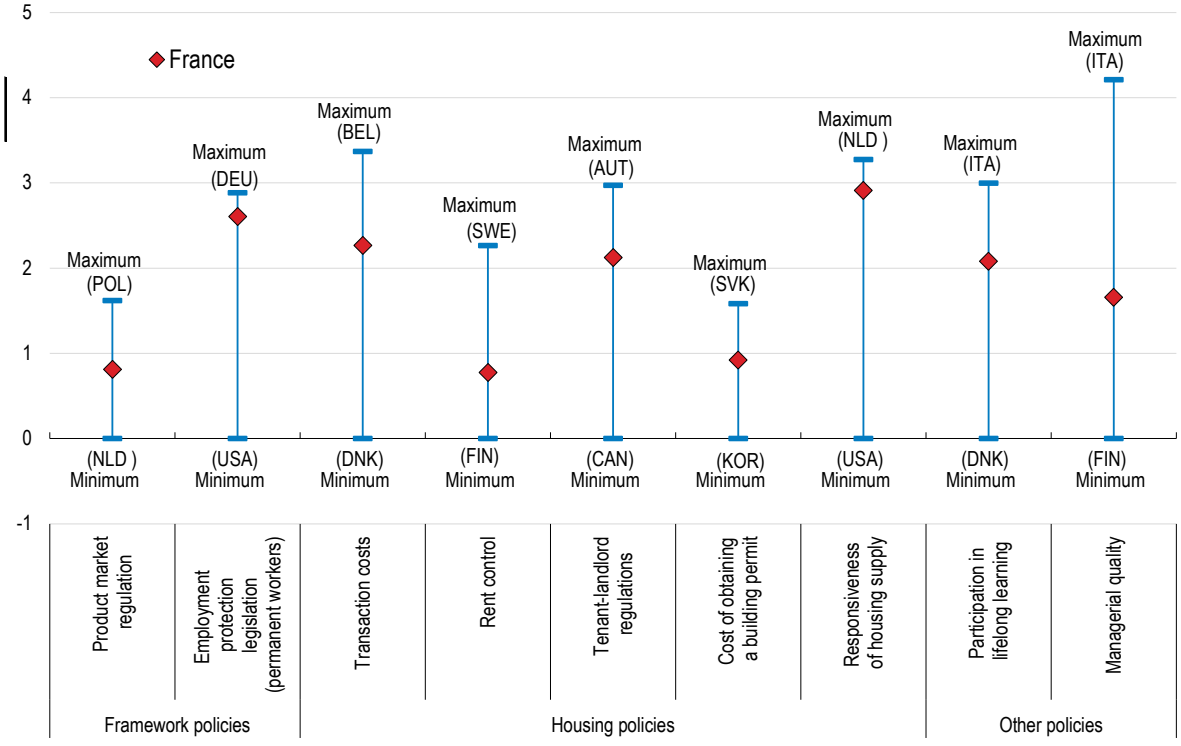
Housing and labour market reforms also hold significant potential to ease reallocation of workers and firms (Chapter 1). Past simplification schemes have insufficiently eased the regulatory burden (Lambert and Boulard, 2018). In particular, the regulatory framework lags more transparent and competitive regulatory alternatives in services (Figure 31). This setting weighs particularly on SMEs and potential exporters, in goods and services sectors, as larger firms are better equipped to succeed in complex regulatory environments and benefits of economies of scale to absorb overhead costs (Rouzet, Benz and Spinelli, 2017). More effective stakeholder engagement in the development of primary laws and subordinate regulations could help raise the effectiveness of regulations. France has a well-developed system of *ex-ante* impact assessments of regulations, but firms and households' engagement play a less important role than in best performing countries (OECD, 2018g).

Easing unduly restrictive regulations would also increase competition and stimulate innovation. Multiple regulatory and tax thresholds may still be a barrier to firm growth, as small firms may shy away from growing beyond them. Studies estimate the cost of such regulations at between 0.3 and 4% of GDP (Garicano, Lelarge and Van Reenen, 2016; Gourio and Roys, 2014), depending on the degree of downward wage rigidity, although

older research implies only a small impact on the firm-size distribution (Ceci-Renaud and Chevalier, 2011). Despite significant recent measures to smooth some of these thresholds included in the PACTE bill (Table 12), the new regulatory environment has tended to concentrate them on 11 and 50 employees and new labour-law regulations introduced differentiated treatments by firm size.

**Figure 30. Estimated labour productivity gains from policy reforms reducing skill mismatch**

Per cent increase in the level of labour productivity associated with aligning policies to best practice



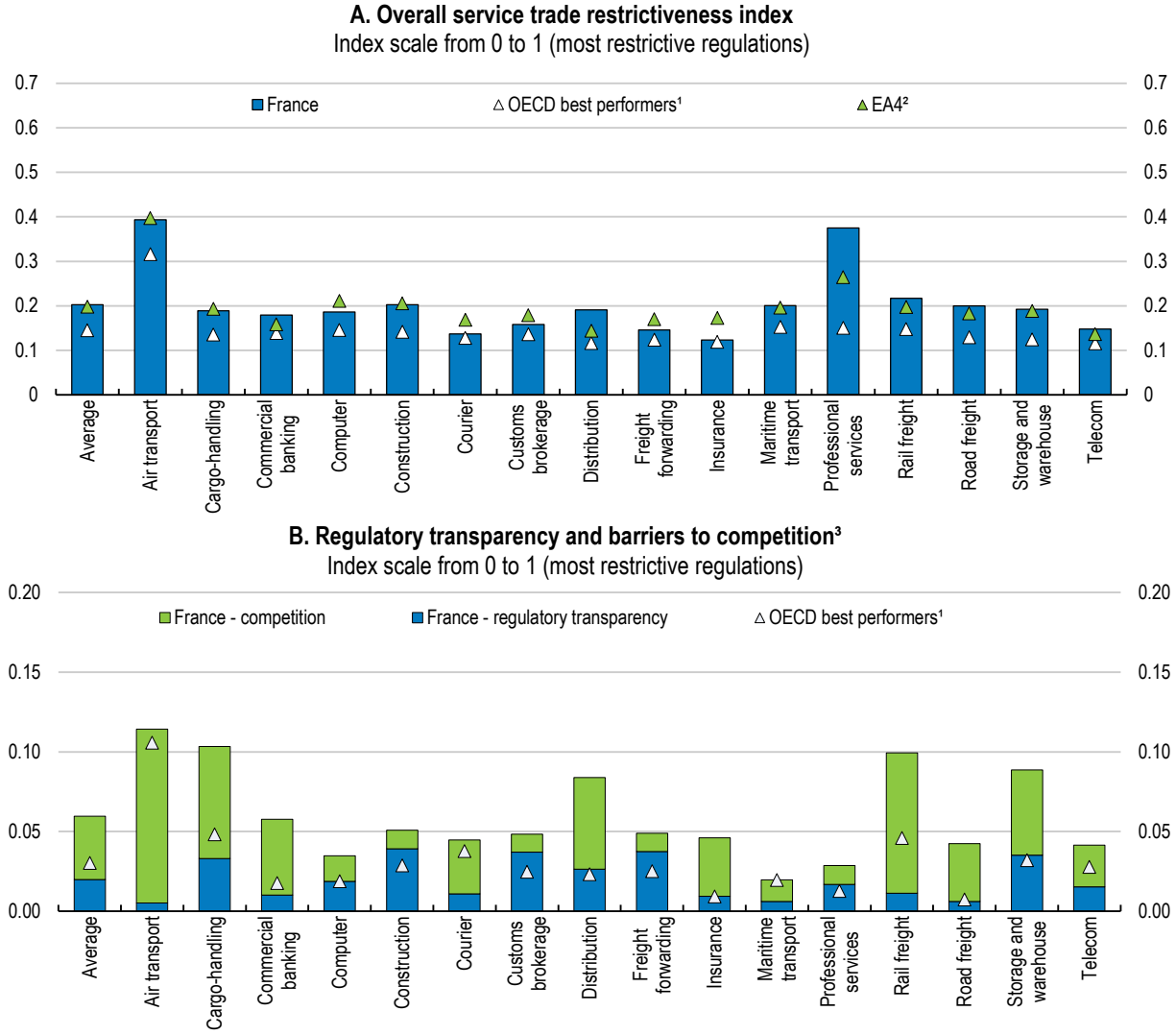

1. *Estimates are based on*: i) logit regressions of probability of mismatch controlling for age, marital and migrant status, gender, education, firm size, contract type, a dummy for working full-time and working in the private sector; and ii) OLS regressions of labour productivity on skill mismatch.
*Source:* Adalet McGowan, M and D. Andrews (2015), "Skill Mismatch and Public Policy in OECD countries", *OECD Economics Department Working Paper*, No. 1210. http://dx.doi.org/10.1787/5js1pzw9lnwk-en.

StatLink https://doi.org/10.1787/888933949896

Services play a key role in the economy, accounting for 68% of GDP, 75% of employment in France and 61% of gross exports (OECD, 2018h) without taking into account the growing output of services by manufacturers (Crozet and Milet, 2017). As, in most OECD countries, many professional services are subject to a raft of regulations (in the form of self-regulation and/or government-imposed regulation), some of which have a direct impact on entry include education requirements (such as minimum number of years of study) or practices (such as price controls or reserved tasks). In France, about 1.1 million persons works in a regulated profession. If France's regulations appear more conducive to trade in most services sector, this is not the case in professional services (Figure 31).

**Figure 31. Service trade barriers remain important in some key sectors**

Services Trade Restrictiveness Index, 2018



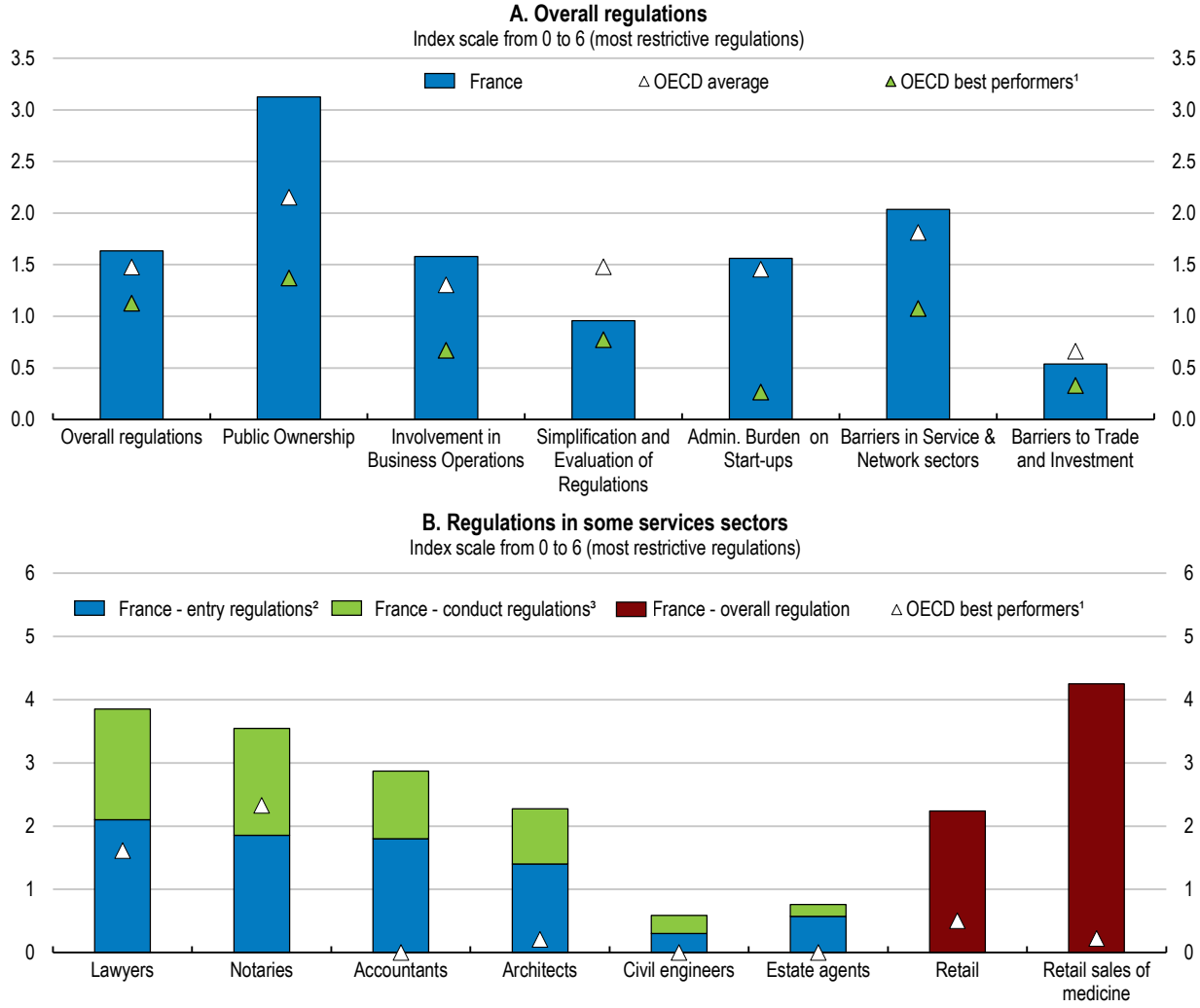

1. The OECD best performers is the average of the five OECD countries with the regulations the most conducive to trade.
2. EA4 is the unweighted average of Germany, Italy, the Netherlands and Spain.
3. Most of the measures recorded as barriers to competition and issues related to regulatory transparency apply equally to domestic and foreign firms.
*Source*: OECD (2019), *Services Trade Restrictiveness Index* (database).

StatLink https://doi.org/10.1787/888933949915

The 2014 Law on Consumer Affairs, the 2015 Law on growth, activity and equal economic opportunity and the 2018 PACTE bill currently in legislative process have tried to strike a better balance between consumer protection and competition. However, for notary, architectural, accountancy, real estate and legal services, barriers to entry and controls on practice in France remained among the highest in the OECD (Figure 32) suggesting that it should be possible to reach a better balance between quality control, integrity and competition. For example, the regulatory framework of accounting services limits the

ownership of auditing firms to licenced auditors, while in architecture services, the majority of shares in an architectural firm must be owned by licensed architects (OECD, 2017e).

**Figure 32. Product market regulations remain stringent in some sectors, 2018**




1. The OECD best performers is the average of the 5 OECD countries with less distortive regulations.
2. Entry regulation refers to the regulation of new entrants in the profession.
3. Conduct regulation refers to the regulation of the conduct of existing professionals.
*Source*: OECD (2019), *Product Market Regulation database* (Preliminary).

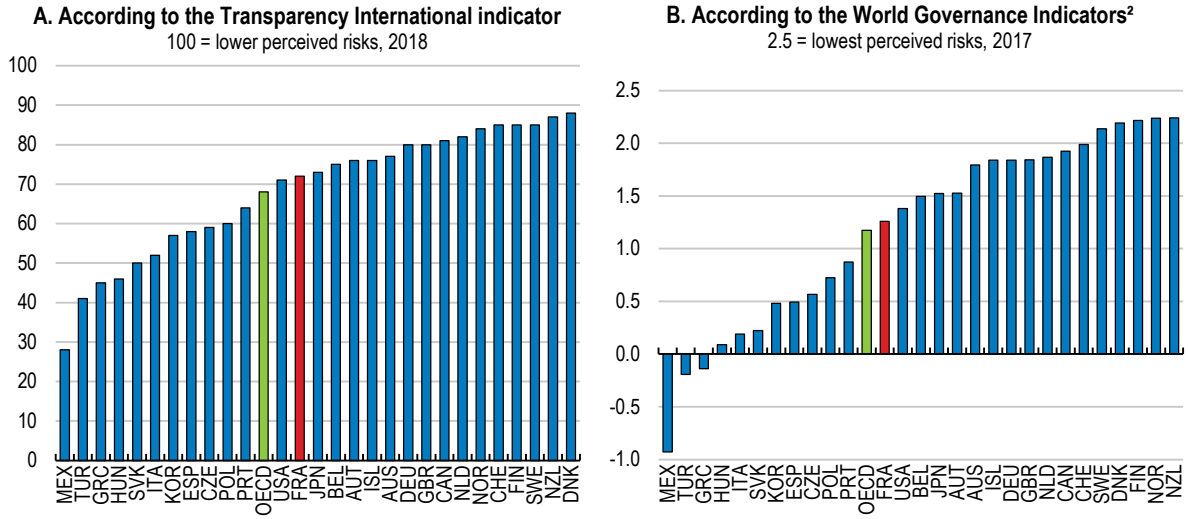
StatLink https://doi.org/10.1787/888933949934

More generally, a further opening of the capital of selected professions would ease new entry and allow economies of scale and scope. For example, France stands out as the country with the most restrictive regulations of retail sales of medicines (Figure 32; Autorité de la Concurrence, 2016). Pharmacies continue to retain a monopoly on the sale of basic drugs and are subject to strict restrictions on ownership and size, capital, distribution chains, and on-line sales. In addition, drivers of cabs and private-hire vehicles (VTC) have to hold some specific diploma to be able to transport passenger that are not justified by safety considerations (Autorité de la concurrence, 2017).

### *Continuing the efforts to prevent corruption*

Continuing efforts to fight corruption is important. Corruption can distort competition, damage the business climate and divert the use of public resources from the public interest, as well as foster a sense of mistrust towards public institutions. Transparency International's Corruption Perceptions Index and the World Bank's Corruption Control Indicator placed France around the median of OECD countries in 2017-18 (Figure 33), even though these indicators are subject to high uncertainty.

**Figure 33. Perception of corruption risks**




1. Transparency International's Corruption Perceptions Index.
2. Corruption Control index from the World Bank's World Governance Indicators.
*Source*: Transparency International (2019), *Corruption Perception Index 2018*; World Bank (2018), *World Governance Indicators* (database), The World Bank Group, Washington D.C.

StatLink https://doi.org/10.1787/888933949953

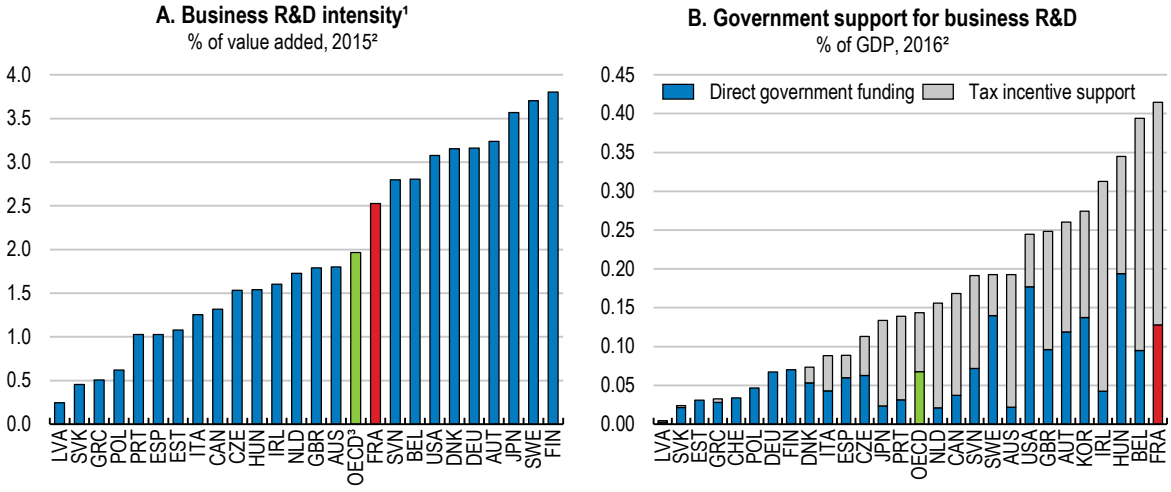
In recent years, France implemented significant reforms to contain the risks of corruption. Based on the recommendations of the OECD Working Group on Bribery, a 2016 law ("*loi relative à la transparence, à la lutte contre la corruption et à la modernisation de la vie économique*") introduced new procedures to criminalise influence peddling of foreign public officials and reinforced the resources allocated to the fight against transnational corruption (Table 12). It also imposed the creation of corruption prevention programmes for businesses and created the French Anti-Corruption Agency (AFA) to support them. In 2016, another law ("*loi relative à la déontologie et aux droits et obligations des fonctionnaires"*) also provided a framework, at the national level, to better monitor the risks of conflicts of interest (IMF, 2017). Moreover, a public procurement office at the central-government level (*direction des achats de l'État*) was set up in 2016 with the aim of professionalising public buyers. There is room to improve the knowledge of anticorruption mechanisms within small local governments (AFA, 2018), and thereby to further professionalise public procurement processes at the local level (Chapter 2).

### *Boosting innovative business investment*

Investment in R&D lags behind the OECD's top performers. This also holds for innovation output, particularly among SMEs, the quality of scientific publications and science-

industry collaboration (OECD, 2018i; Figure 34). This is partly related to the sectoral mix of the French economy, in which the more R&D-intensive high and especially medium-high tech sectors are under-represented in comparison with the most innovative economies such as Germany.

**Figure 34. Business investment has stagnated, despite generous R&D support**




1. R&D investment as a percentage of value added in all activities, except for real estate activities, public administration and defence, compulsory social security and education, human health and social work activities and activities of households as employers.
2. Or latest available year.
3. Unweighted average across 30 countries with available data.
*Source*: OECD (2018), *OECD Science, Technology and Innovation Outlook*, OECD Publishing, Paris; OECD (2018), *OECD R&D Tax Incentive Indicators* (database).

StatLink https://doi.org/10.1787/888933949972

France has a high rate of support for business R&D relative to countries with a similar business R&D-to-GDP ratio, at 0.4% of GDP in 2016, the second highest in the OECD. Support for R&D mostly takes place through two tax instruments: a volume-based tax credit whose increased significantly in 2008 and social security contribution exemptions targeted at young and innovative firms, while numerous grant schemes are available (CNEPI, 2016; OECD, 2018j). Moreover, a specific investment fund for supporting radical technological innovation (*Fonds pour l'innovation et la rupture*, FII) was created in 2018. In parallel, a new innovation council was set up in 2018 to provide guidance on innovation policies, including a review of existing measures with an objective of simplification.

Despite this significant progress, numerous measures could still improve innovation support. Young an innovative firms enjoy a good access to bank financing and a rapidly increasing venture capital market (Banque de France, 2018c; OECD, 2018k). However, delays to benefit from the refundable R&D tax credit are long for young and smaller firms (Kallenbach et al., 2018).

### *Leveraging the potential of cryptoassets to finance innovative business investment*

Blockchain technology can potentially provide large benefits for the settlement of securities, international payments, and trade finance (Landau and Genais, 2018). Given the

lack of EU regulation, the French authorities are in the process of finalizing a legal framework related to the primary (issuers of initial coin offering, ICOs, Box 3) and secondary (i.e., exchange) markets for cryptoassets. As technology evolves fast, there is a need to periodically review the legislation framework as foreseen in the PACTE bill. Moreover, to address the risks of regulatory competition, promoting an EU-wide approach to cryptoasset regulation appears warranted.

**Box 3. Initial coin offering**

ICOs allow start-ups to issue their own coins (also called tokens) to raise funding through blockchain technology and without an intermediary. They can be divided in three categories depending on their function:

- *Payment tokens* (often called cryptocurrencies) are mostly used for payments. Unlike official currencies, they are not backed by a central bank.
- *Security tokens* are similar to an initial public offering (but only on a blockchain). As such, they are regulated as traditional securities (Prospectus and MiFID Directives).
- *Utility tokens* represent a new form of funding: they offer the owner different future services or products in exchange for a payment (e.g., access to software, the use of storage space on a computer, or voting rights).

While reliable data about the total funds raised by ICOs is missing, the AMF – France's Financial Markets Authority – has information about 15 French ICOs that raised EUR 89 mln from November 2016 to October 2018 (compared to USD 185 mln in the UK and USD 547 mln in Switzerland over a similar period according to ICOWatchlist.com). In the first half of 2018, ICOs amounted to roughly 5 percent of equity capital raised by French firms, and 68 issuers were conducting or planning to conduct an ICO in France as of November 2018 (Le Moign, 2018).

The AMF should be transparent about its methodology for granting visa for utility tokens and provide comprehensive data about tokens that apply for a visa to attract investors. The PACTE bill offers the possibility for issuers of utility tokens to obtain a visa from the AMF based on the AMF's analysis of the ICO's information document (white paper), and this visa can be withdrawn if the issuer does not respect its commitments.

Evaluating the need to apply EU securities regulation for utility tokens would be welcome. According to the AMF, utility tokens cannot be considered as securities because they do not offer its owner the right to participate in the issuer's return (through dividends or fixed income) and do not represent an ownership title (AMF, 2017). However, utility tokens are typically used as investment products. They are issued by start-ups to raise funding and are afterwards traded on specialized cryptoasset exchanges. Since their future value is highly uncertain, they give rise to risks that are very similar to risks on other capital markets in terms of investor protection and market abuse (ESMA, 2018).

**Table 12. Past OECD recommendations to improve the business environment**

| Main OECD recommendations | Summary of actions taken since the 2017 *Survey* |
|---|---|
| Task an independent institution to conduct a thorough review of all existing and proposed regulations affecting firms, applying the OECD Competition Assessment Toolkit principles. | No action taken. |
| Continue to streamline burdensome permit procedures for large new stores. Eliminate restrictions on loss-leader selling, dates of discount sales and opening hours (for which time-off and salary compensation should be negotiated). | The 2017 ordonnances streamlined workers' representations for larger firms and required industry-level labour agreements to take into account the needs of smaller firms. By contrast, sale periods have been restricted. |
| Continue to liberalise the regulated professions by: reducing entry requirements to those needed to protect the public; narrowing professions' exclusive rights; eliminating regulated tariffs in potentially competitive activities; and gradually abandoning quotas. | The 2018 PACTE currently in legislative process aims to simplify firm entry requirements and reduce entry barriers in craft occupations. Quotas are to be eliminated for doctors. |
| Ensure non-discriminatory access to the rail network. In particular, modernise the process of allocating service slots for rail freight, and separate the rail infrastructure manager from the station manager. Pool regulatory powers for the various modes of transport under a single land transport regulator. | The 2018 reform reorganised the railway sector to open up the passenger-transport sector to competition. |
| Obtain an independent assessment of the impact on competition of laws and regulations, and increase dialogue on this subject between the competition authority and the Ministry for the Economy during the decision-making process. | No action taken. |
| Continue efforts to comply with the OECD convention on Combating Bribery of Foreign Public Officials in International Business Transactions. | The law of 9 December 2016 strengthened the anti-corruption framework. A new body, the French Anticorruption Agency, was set up in 2017 to identify and prevent corruption. |

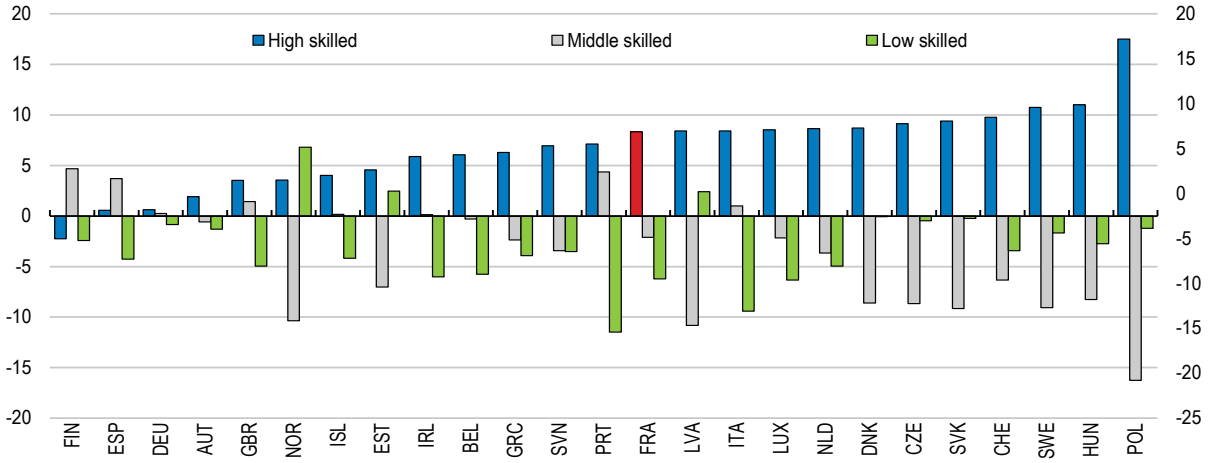
### *Strengthening skills through initial education*

The labour market is continuing to shift towards higher-skilled employment (Figure 35). This reflects that over the past decades, the service sector has expanded and industry has moved from heavy industries to higher value added production that links into global value chains, leading to an increase in medium and high technological intensive manufacturing, although manufacturing accounts for a rapidly decreasing part of employment. These changes are taking place as firms increasingly search for skilled workers. Thus, to sustain growth it is becoming increasingly important to adjust and enhance skills, improve allocation of labour and mobilise all underutilised labour resources (Chapter 1).

France does not strike the right balance in spending per pupil across education levels to best address inequalities in educational outcomes. Relative to the OECD average, spending per student is comparable to this average in tertiary education, above for upper secondary education (OECD, 2018l), but below for pre-primary and primary education levels (Figure 36). Moreover, children's academic performance heavily depends on parents' socio-economic background, hampering social mobility (OECD, 2016c), even though intergenerational mobility in terms of educational attainments has increased for the most recent generations. There is also extensive evidence that teachers are more inexperienced, more often on temporary contracts, and that staff turnover is stronger for schools in poor neighbourhoods (CNESCO, 2018).

**Figure 35. The shift towards high skilled employment is expected to continue**

Change in share of total employment between 2015 and 2025, in percentage points[1]

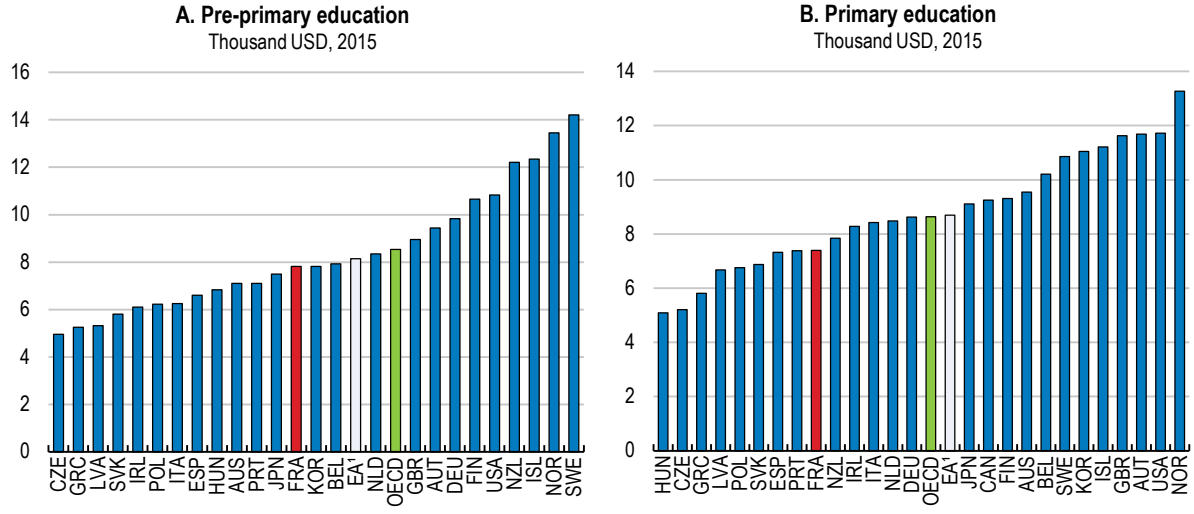



1 High-skill occupations include jobs classified under the ISCO-88 major groups 1, 2, and 3. That is, legislators, senior officials, and managers (group 1), professionals (group 2), and technicians and associate professionals (group 3). Middle-skill occupations include jobs classified under the ISCO-88 major groups 4, 7, and 8. That is, clerks (group 4), craft and related trades workers (group 7), and plant and machine operators and assemblers (group 8). Low-skill occupations include jobs classified under the ISCO-88 major groups 5 and 9. That is, service workers and shop and market sales workers (group 5), and elementary occupations (group 9). The ISCO-88 major group 6 for skilled agricultural, forestry and fishery workers is excluded.
*Source*: CEDEFOP (2017), "Forecasting skill demand and supply", European Centre for the Development of Vocational Training, http://www.cedefop.europa.eu/en/events-and-projects/projects/forecasting-skill-demand-and-supply/.

StatLink https://doi.org/10.1787/888933949991

**Figure 36. Expenditures on pre-primary and primary education are low**

Annual expenditure per child in PPPs-converted USD




1. Euro area member countries that are also members of the OECD (17 countries), excluding Estonia in Panel A.
*Source*: OECD (2018), *Education at a Glance 2018*, Tables B2.3a and C1.1, OECD Publishing, Paris.

StatLink https://doi.org/10.1787/888933950010

To address some of these concerns and to better tackle inequalities in education that start building up from early ages, pre-primary education will be compulsory for three year olds from the 2019 school year (loi "*pour une école de la confiance*"), class sizes are being halved in grade 1 and grade 2 in priority education of primary school networks (*Réseau d'éducation prioritaire*, REP), and the salary bonus for staff in those schools is increasing (Table 13). Yet, the number of teachers per child is low in pre-primary education in international comparison (23 children per teacher – 8 children more than the OECD average), even though assistants in pre-primary schools intervene along with teachers. One of the challenges for improving the quality of pre-primary education is to improve the initial training of assistants in pre-primary education. As early educational interventions for disadvantaged children are more efficient relative to interventions taking place at later stages (OECD, 2018m), the authorities could consider increasing staff at the pre-primary education level in disadvantaged neighbourhoods. Going forward, beyond a reduction in class sizes in poor neighbourhoods, efforts should also concentrate on professional-development policies to attract and develop high-quality educators and teachers where the challenges are the greatest.

**Table 13. Past OECD recommendations to improve learning outcomes of disadvantaged children**

| Main OECD recommendations | Summary of actions taken since the 2017 *Survey* |
|---|---|
| Offer attractive salaries and career prospects to teachers in schools with many pupils from disadvantaged backgrounds. | The annual salary bonus for staff in priority school networks is increasing by 3000 euros in steps. |
| Promote an innovative range of different practices in teacher training in order to meet the different needs of pupils. | The authorities strengthened teachers' initial training by setting up new institutes (*Instituts nationaux supérieurs du professorat et de l'éducation*) |
| Bring schools' human resource budgets into line with the number of their students, with top-ups for poor and foreign-language children. Publish both budgets and underlying formulae. | The reform of priority education and the revision of budget allocation rules in 2018 strengthened the role of social criteria in schools' funding. |
| Better target public spending at transportation, childcare services and face-to-face public services in poor neighbourhoods. | The class size in grade 1 and grade 2 in priority primary education school networks is being halved to 12 pupils. |

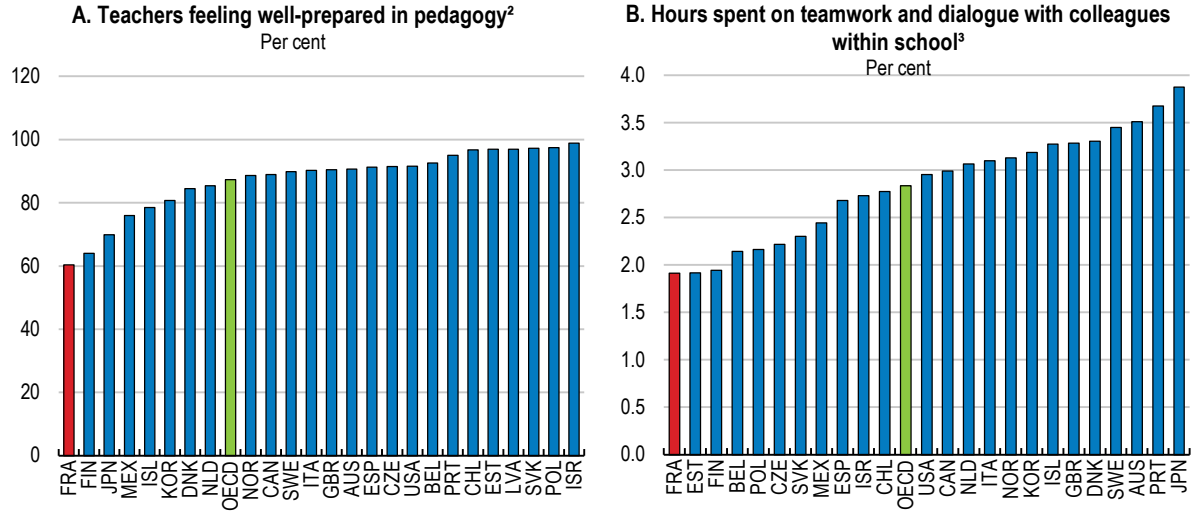
In higher education, the public funding advantage per student enjoyed by students preparing the entry exam of highly competitive elite schools (the *grandes écoles* and their preparatory classes, CPGE) is significant. Given the overrepresentation of children from privileged backgrounds in these courses (OECD, 2013b), measures (e.g., "*cordées de la réussite*") aim to introduce greater equity in access to these programs. Moreover, less than half of students complete their undergraduate studies (*licence*) in three years. A reform of access to higher education was initiated with a 2018 law (*loi relative à l'orientation et à la réussite des étudiants*). This reform aims to foster social and geographical mobility, and tackle school dropout in undergraduate studies, particularly in universities. It also customises guidance services through dedicated means.

Stepping up efforts to improve initial and ongoing career training of teachers is needed, as envisaged in a 2019 law (loi "*pour une école de la confiance*"), which sets up new institutes for teachers' initial training. Professional training is only compulsory for primary education teachers, and teachers tend to feel underprepared in pedagogical training and show little co-operation relative to other OECD countries (Figure 37). Putting in place teacher-appraisals mechanisms, for example by introducing an annual training review as currently done for other categories of civil servants, will be helpful to foster teachers' continuous improvements (Cour des comptes, 2017b). Moreover, granting greater autonomy to school principals in the teachers' hiring decision, teachers' performance appraisal and pay, could

also help attract the most talented teachers to the most challenging classrooms (OECD, 2018n). This will also entail better training for school principals to these new responsibilities. Moreover, the planned development of teachers' job openings for specific profiles ("*postes à profil*") should lead to a better match between the skills and the position of teachers.

**Figure 37. Pedagogical training and teacher teamwork are weak**

Teachers in public lower secondary education, 2013[1]




1. Belgium, Canada and the United Kingdom refer to, respectively, only Flanders, Alberta and England.
2. Share of lower secondary education teachers who feel well or really well prepared in the pedagogy of subjects being taught.
3. Average number of 60-minute periods that lower secondary education teachers report having spent on the mentioned activities during the most recent complete calendar week (not shortened by breaks, public holidays, sick leave, etc.)
*Source*: OECD (2013), *OECD Talis Statistics* (database).

StatLink https://doi.org/10.1787/888933950029

## Bibliography


Adalet McGowan, M. and D. Andrews (2015), "Skill Mismatch and Public Policy in OECD Countries", *OECD Economics Department Working Papers*, No. 1210, OECD Publishing, Paris, http://dx.doi.org/10.1787/5js1pzw9lnwk-en.

AFA (2018), *Enquête sur la prévention de la corruption dans le service public local Rapport d'analyse – Novembre 2018, Agence Française Anticorruption*, Paris.

Ahrend, R. et al. (2017), "What Makes Cities More Productive? Agglomeration economies and the role of urban governance: Evidence from 5 OECD Countries", *Journal of Regional Science*, Vol. 57/3, pp. 385-410, http://dx.doi.org/10.1111/jors.12334.

Ahrend, R. et al. (2017), "What Makes Cities More Productive? Evidence on the Role of Urban Governance from Five OECD Countries", *Journal of Regional Science*, Vol. 57/3, pp. 385-410, https://doi.org/10.1111/jors.12334.

Akgun, O., B. Cournède and J. Fournier (2017), "The effects of the tax mix on inequality and growth", *OECD Economics Department Working Papers*, No. 1447, OECD Publishing, Paris, https://dx.doi.org/10.1787/c57eaa14-en.

Alesina, A., S. Ardagna et F. Trebbi (2006), « Who Adjusts and When? The Political Economy of Reforms », *IMF Staff Papers*, vol. 53, pp. 1-29.

Allain-Dupré, D. (2018), "Assigning responsibilities across levels of government: Trends, challenges and guidelines for policy-makers", *OECD Working Papers on Fiscal Federalism*, No. 24, OECD Publishing, Paris, https://dx.doi.org/10.1787/f0944eae-en.

AMF (2017), *AMF public consultation on Initial Coin Offerings (ICOs)*, Autorité des marchés financiers, Paris. https://www.amf-france.org/en_US/Publications/Consultations-publiques/Archives?docId=workspace%3A%2F%2FSpacesStore%2Fa2b267b3-2d94-4c24-acad-7fe3351dfc8a.

Andrews, D. and F. Cingano (2014), "Public policy and resource allocation: evidence from firms in OECD countries", *Economic Policy*, Vol. 29/78, pp. 253-296, http://dx.doi.org/10.1111/1468-0327.12028.

Andrews, D., C. Criscuolo and N. Gal (2016), "The Best versus the Rest: The Global Productivity Slowdown, Divergence across Firms and the Role of Public Policy", *OECD Productivity Working Papers*, No. 5, OECD publishing, Paris, https://www.oecd-ilibrary.org/docserver/63629cc9-en.pdf?expires=1545044539&id=id&accname=guest&checksum=9E4DD2C38EB039DEC545403181DFDA33 (accessed on 17 December 2018).

Argouarc'h, S. and S. Picard (2018), "Les niveaux de vie en 2016", *Insee Première*, Vol. 1710, p. 4, https://www.insee.fr/fr/statistiques/3610277 (accessed on 17 December 2018).

Arnold, J. et al. (2011), "Tax Policy for Economic Recovery and Growth", *Economic Journal*, Vol. 121, pp. 59-80, https://doi.org/10.1111/j.1468-0297.2010.02415.x.

Autorité de contrôle prudentiel et de résolution (2018), *Le financement de l'habitat en 2017*, https://acpr.banque-france.fr/sites/default/files/medias/documents/2018_sa_92_financement_habitat_2017_pour_publication_v2.pdf.

Autorité de la Concurrence (2016), *Avis n° 16-A-09 du 26 avril 2016 relatif à deux projets d'arrêtés concernant le commerce électronique de médicaments*, Autorité de la Concurrence, Paris, http://www.bvdva.de (accessed on 13 December 2018).

Autorité de la concurrence (2017), *Avis 17-A-04 du 20 mars 2017 concernant un projet de décret relatif au transport particulier de personnes*, Autorité de la concurrence, http://www.autoritedelaconcurrence.fr/pdf/avis/17a04.pdf.

Bachelet, M. and M. Poulhes (2017), "Hausse des droits de mutation : quel impact sur le marché immobilier", Analyse Commissariat général au développement durable, http://www.statistiques.developpement-durable.gouv.fr/fileadmin/documents/Produits_editoriaux/Publications/Thema/thema-02-hausse-droits-mutation-immobilier-dec2017.pdf.

Bacheré, H. (2018), "Les petites et moyennes entreprises réalisent 17 % des exportations", *INSEE Première*, Vol. 1692, p. 4, http://dx.doi.org/10.1162/REST_a_00405.

Balestra, C. and R. Tonkin (2018), "Inequalities in household wealth across OECD countries: Evidence from the OECD Wealth Distribution Database", *Working paper Statistics and data directorate*, OEDCD Publishing, Paris, http://www.oecd.org/sdd/publicationsdocuments/workingpapers/.

Banque de France (2018a), *Évaluation des Risques du Système financier français - Décembre 2018*, Banque de France, Paris, https://publications.banque-france.fr/sites/default/files/medias/documents/ers_12_18_book_v5.pdf.

Banque de France (2018b), *Immobilier commercial : un risque de bulle financière ?*, https://publications.banque-france.fr/immobilier-commercial-un-risque-de-bulle-financiere.

Banque de France (2018c), "Enquête trimestrielle auprès des entreprises sur leur accès au crédit en France - 3e trimestre 2018", *Banque de France Stat Info*, Vol. 2018T3, p. 2, https://www.banque-france.fr/sites/default/files/medias/documents/acces_credit_pme_tpe_eti_t32018_v3.pdf.

Baranzini, A. and S. Carattini (2017), "Effectiveness, earmarking and labeling: testing the acceptability of carbon taxes with survey data", *Environmental Economics and Policy Studies*, Vol. 19/1, pp. 197-227, https://doi.org/10.1007/s10018-016-0144-7.

Bartolini, D. (2015), "Municipal Fragmentation and Economic Performance of OECD TL2 Regions", *OECD Regional Development Working Papers*, No. 2015/2, OECD Publishing, Paris, https://dx.doi.org/10.1787/5jrxqs60st5h-en.

Ben Hassine, H. (2017), *Croissance de la productivité et réallocation des ressources : le tissu productif français depuis 2000*, France Stratégie, http://www.strategie.gouv.fr.

Benzarti, Y. and D. Carloni (2018), "Who Really Benefits from Consumption Tax Cuts? Evidence from a Large VAT Tax Cut in France", *AEJ: Economic Policy.*, Vol. forthcoming..

Berlingieri, G., P. Blanchenay and C. Criscuolo (2017), "The great divergence(s)", *OECD Science, Technology and Industry Policy Papers*, No. 39, OECD Publishing, Paris, https://www.oecd-ilibrary.org/docserver/953f3853-en.pdf?expires=1545044757&id=id&accname=guest&checksum=2E63AF793650FC8AC0DCB98E8F42A402.

Bloom, N. et al. (2018), "Managing Trade: Evidence from China and the US", *NBER Working paper series*, No. 24718, NBER, http://www.nber.org/papers/w24718.

Bloom, N., R. Sadun and J. Van Reenen (2016), "Management as a Technology?", *NBER Working Paper*, No. 22327, National Bureau of Economic Research, Cambridge, MA, http://dx.doi.org/10.3386/w22327.

Boulhol, H. (2019), « Objectives and challenges in the implementation of a universal pension system in France », *OECD Technical Background Paper*, forthcoming.

Bourlès, R. et al. (2013), "Do Product Market Regulations In Upstream Sectors Curb Productivity Growth? Panel Data Evidence For Oecd Countries", *Review of Economics and Statistics*, Vol. 95/5, pp. 1750-1768, http://dx.doi.org/10.1162/REST_a_00338.

Bozio, A. et al. (2018), "Réforme Système De Retraite? Les grands enjeux", *Les notes de l'IPP*, Vol. 31, p. 8, https://www.ipp.eu/wp-content/uploads/2018/04/n31-notesIPP-avril2018.pdf (accessed on 18 December 2018).

Caldera Sánchez, A. and A. Andrews (2011), "Residential Mobility and Public Policy in OECD Countries", *OECD Journal: Economic Studies*, Vol. Vol. 2011/1, http://dx.doi.org/10.1787/eco_studies-2011-5kg0vswqt240.

Caldera Sánchez, A. and A. Johansson (2011), "he Price Responsiveness of Housing Supply in OECD Countries", *OECD Economics Department Working Papers*, No. 837, OECD Publishing, Paris, https://www.oecd-ilibrary.org/economics/the-price-responsiveness-of-housing-supply-in-oecd-countries_5kgk9qhrnn33-en.

Camatte, H. and G. Gaulier (2018), "Sectoral specialisation and the downturn in France's foreign trade between 2014 and 2016", *Rue de la Banque*, Vol. 71, p. 5, http://www.banque-france.fr.

Causa, O., M. Hermansen and N. Ruiz (2016), "The Distributional Impact of Structural Reforms", *OECD Economics Department Working Papers*, No. 1342, OECD Publishing, Paris, https://dx.doi.org/10.1787/5jln041nkpwc-en.

Ceci-Renaud, N. and P. Chevalier (2011), "L'impact des seuils de 10, 20 et 50 salariés sur la taille des entreprises françaises", *Économie et Statistique*, Vol. 437, pp. 29-45, https://www.insee.fr/fr/statistiques/1377040?sommaire=1377044.

Cette, G., S. Corde and R. Lecat (2017), "Stagnation of productivity in France: a legacy of the crisis or a structural slowdown?", *Economie et Statistique / Economics and Statistics* 494-495-496, pp. 11-36, http://dx.doi.org/10.24187/ecostat.2017.494t.1916.

CEV (2017), *Bilan d'activité*, Comité pour l'économie verte, https://www.ecologique-solidaire.gouv.fr/sites/default/files/CEV%20Bilan%20d%27activit%C3%A9%20sur%20la%20p%C3%A9riode%202012-2017.pdf.

CNEPI (2016), *Quinze ans de politiques d'innovation en France*, Commission nationale d'évaluation des politiques d'innovation, Paris, https://www.strategie.gouv.fr/sites/strategie.gouv.fr/files/atoms/files/fs_rapport_cnepi_21012016.pdf

CNESCO (2018), *Quartiers, Égalité, Scolarité : Des disparités territoriales aux inégalités scolaires en Ile-de-France*, http://www.cnesco.fr/fr/inegalites-territoriales/.

Conseil des prélèvements obligatoires (2018), *Les prélèvements obligatoires sur le capital des ménages*, https://www.ccomptes.fr/sites/default/files/2018-01/20180125-rapport-prelevements-obligatoires-capital-des-menages_0.pdf.

Conseil des prélèvements obligatoires (2010), *La fiscalité locale*, https://www.ccomptes.fr/sites/default/files/EzPublish/Rapport-fiscalite-locale-conseil-des-prelevements-obligatoires_2.pdf.

COR (2018a), *Évolutions et perspectives des retraites en France*, Rapport annuel du COR – Juin 2018, Paris, http://www.cor-retraites.fr/IMG/pdf/doc-4269.pdf.

COR (2018b), *Les notions de contributivité, de redistribution et de solidarité Secrétariat général du Conseil d'orientation des retraites*, Conseil d'orientation des retraites, http://www.cor-retraites.fr/IMG/pdf/doc-4231.pdf .

COR (2016), *La retraite dans la fonction publique et les autres régimes spéciaux*, Conseil d'Orientation des retraites, http://www.cor-retraites.fr/IMG/pdf/doc-3382.pdf.

Cour des comptes (2018), *Rapport sur l'application des lois de financement de la sécurité sociale*, Cour des comptes, http://www.ccomptes.fr.

Cour des comptes (2017a), *Les finances publiques locales : Rapport sur la situation financière et la gestion des collectivités territoriales et de leurs établissements publics,* Rapport Paris.

Cour des comptes (2017b), *Gérer les enseignants autrement : une réforme qui reste à faire*, Rapport, Paris. https://www.ccomptes.fr/fr/publications/gerer-les-enseignants-autrement-une-reforme-qui-reste-faire

Cour des comptes (2016), *Concours financiers de l'État et disparités de dépenses des communes et de leurs groupements*, https://www.ccomptes.fr/fr/publications/concours-financiers-de-letat-et-disparites-de-depenses-des-communes-et-de-leurs.

Crozet, M. and E. Milet (2017), "Should everybody be in services? The effect of servitization on manufacturing firm performance", *Journal of Economics & Management Strategy*, Vol. 26/4, pp. 820-841, http://dx.doi.org/10.1111/jems.12211.

De Williencourt, C., A. Faci and S. Ray (2018), "Quel effet macroéconomique du PACTE ? Premiers éléments de réponse", *Trésor-Éco*, Vol. 226, p. 8, https://www.tresor.economie.gouv.fr/Articles/5e0d3f19-ebf8-49ff-80b6-5552f72375f4/files/38cb1e6d-4444-43c5-9165-6bb91db9996f.

Dherbécourt, C. (2017), *Peut-on éviter une société d'héritiers ?*, https://www.strategie.gouv.fr/sites/strategie.gouv.fr/files/atoms/files/na_51-transmissions-ok_0.pdf.

Douenne, T. (2018), "Les effets redistributifs de la fiscalité carbone en France", *Notes de l'nstitut des Politiques Publiques*, Vol. 34, p. 6.

Duchêne, S. and D. Levy (2003), "Solde «structurel» et «effort structurel» : un essai d'évaluation de la composante «discrétionnaire» de la politique budgétaire", *DP Analyses Économiques*, No. 18, Ministère de l'Economie des Finances et de l'Industrie, https://www.tresor.economie.gouv.fr/Ressources/File/333588.

Emlinger, C., S. Jean et V. Vicard (2019), « L'étonnante atonie des exportations françaises : retour sur la compétitivité et ses déterminants Policy Brief Résumé », *CEPII Policy Brief*, vol. 24, p. 16, http://www.cepii.fr/PDF_PUB/pb/2019/pb2019-24.pdf.

ESMA (2018), *Own Initiative Report on Initial Coin Offerings and Crypto-Assets*, https://www.esma.europa.eu/sites/default/files/library/esma22-106-1338_smsg_advice_-_report_on_icos_and_crypto-assets.pdf.

European Central Bank (2017), *Financial Stability Review*, https://www.ecb.europa.eu/pub/pdf/other/financialstabilityreview201705.en.pdf.

European Commission (2018), *Assessment of the 2018 Stability Programme for France*, European Commission, https://ec.europa.eu/info/sites/info/files/economy-finance/10_fr_sp_assessment-corrected.pdf.

European Commission (2018), *The 2018 Ageing Report: Economic and Budgetary Projections for the EU Member States (2016-2070)*, European Commission Economic and Financial Affairs, Luxembourg, http://dx.doi.org/10.2765/615631.

European Commission (2018), "The 2018 Ageing Report: Economic and Budgetary Projections for the EU Member States (2016-2070)", *European Economy - Instiututional Paper*, Vol. 79, http://dx.doi.org/10.2765/615631.

European Commission (n.d.), "The 2018 Ageing Report", *European Economy - Institutional Paper*, No. 65, European Commission, http://dx.doi.org/10.2765/286359.

European Environment Agency (2018), *Municipal waste management across European countries*, https://www.eea.europa.eu/themes/waste/municipal-waste

European Environment Agency (2016), *Municipal waste management. Country note France*, https://www.eionet.europa.eu/etc-wmge/countryfiles/France_MSW_2016.pdf.

European Systemic Risk Board (2016), *Recommendation on closing real estate data gaps*, https://www.esrb.europa.eu/pub/pdf/recommendations/2016/ESRB_2016_14.en.pdf.

Flues, F. and K. van Dender (2017), "The impact of energy taxes on the affordability of domestic energy", *OECD Taxation Working Papers*, No. 30, OECD Publishing, Paris, http://dx.doi.org/10.1787/08705547-en.

Garicano, L., C. Lelarge and J. Van Reenen (2016), "Firm Size Distortions and the Productivity Distribution: Evidence from France", *American Economic Review*, Vol. 106/11, pp. 3439-3479, http://dx.doi.org/10.1257/aer.20130232.

Gourault, J. and O. Dussopt (2018), "Réunion du comité de suivi du dispositif de contractualisation financière entre l'Etat et les collectivités territoriales", *Communiqué du Ministère de l'Intérieur*, No. 13 July 2018, Ministère de l'Intérieur, https://www.interieur.gouv.fr/Actualites/Communiques/Contractualisation-financiere-entre-l-Etat-et-les-collectivites.

Gourio, F. and N. Roys (2014), "Size-dependent regulations, firm size distribution, and reallocation", *Quantitative Economics*, Vol. 5/2, pp. 377-416, http://dx.doi.org/10.3982/QE338.

Grundke, R. et al. (2018), "Which skills for the digital era?: Returns to skills analysis", *OECD Science, Technology and Industry Working Papers*, No. 2018/09, OECD Publishing, Paris, https://dx.doi.org/10.1787/9a9479b5-en.

Guichard, S., M. Kennedy and C. André (2007), "What promotes fiscal consolidation; OECD country experiences", *OECD Economics department working paper*, No. 553, OECD publising, Paris, http://www.oecd.org/eco/.

Guillemette, Y. and D. Turner (2018), "The long view: scenarios for the world economy to 2060", *OECD Economic Policy Paper*, No. 22, OECD Publishing, Paris.

Hanappi, T. (2018), "Corporate Effective Tax Rates: Model Description and Results from 36 OECD and Non-OECD Countries", *OECD Taxation Working Papers*, No. 38, OECD Publishing, Paris, http://dx.doi.org/10.1787/a07f9958-en.

Haut Conseil de stabilité financière (2018), *Rapport annuel 2018*, https://www.economie.gouv.fr/hcsf/rapports-annuels.

Haut Conseil de stabilité financière (2017), *Note "Immobilier commercial"*, https://www.economie.gouv.fr/files/files/directions_services/hcsf/HCSF-170331-Note_publique_CRE.pdf.

IMF (2017), *France : 2017 Article IV Consultation-Press Release; Staff Report; and Statement by the Executive Director for France*, International Monetary Fund.

INSEE (2018), "En octobre 2018, le climat des affaires reste stable dans l'industrie du bâtiment", *Informations rapides - INSEE.*, Vol. 274, p. 4, https://www.insee.fr/fr/statistiques/3636231.

INSEE (2018), "Revenu disponible brut et pouvoir d'achat en 2017", *INSEE chiffres clés* 30/05/2018, p. 1, https://www.insee.fr/fr/statistiques/2830244.

Kallbekken, S. and M. Aasen (2010), "The demand for earmarking: Results from a focus group study", *Ecological Economics*, Vol. 69/11, pp. 2183-2190, https://doi.org/10.1016/j.ecolecon.2010.06.003.

Kallbekken, S., S. Kroll and T. Cherry (2011), "Do you not like Pigou, or do you not understand him? Tax aversion and revenue recycling in the lab", *Elsevier Journal of Environmental Economics and Management*, Vol. 62/1, pp. 53-64, https://doi.org/10.1016/j.jeem.2010.10.006.

Kallenbach, S. et al. (2018), "Les aides à l'innovation", *Rapport au gouvernement*, No. 2017-M-075-01, http://www.igf.finances.gouv.fr/files/live/sites/igf/files/contributed/IGF%20internet/2.RapportsPublics/2018/rapport-innovation.pdf (accessed on 13 December 2018).

Kdher, M-B. and C. Rousset (2017), "Faut-il s'inquiéter de la hausse de l'endettement des entreprises en France ?", INSEE, Paris, https://www.insee.fr/fr/statistiques/3292331?sommaire=3292415.

Kim, J. and S. Dougherty (eds.) (2018), *Fiscal Decentralisation and Inclusive Growth*, OECD Fiscal Federalism Studies, OECD Publishing, Paris/KIPF, Seoul, http://dx.doi.org/10.1787/9789264302488-en.

Lambert, A. and J. Boulard (2018), *Rapport de la mission pour la simplification des normes applIcables aux collectIvItés terrItorIales*, Rapport au Premier Ministre, https://www.economie.gouv.fr/files/2018-09_rapport_Lambert-Boulard-simplification-normes-des-collectivites-territoriales.pdf (accessed on 14 December 2018).

Landau, J. and A. Genais (2018), *Les crypto-monnaies*, https://www.mindfintech.fr/files/documents/Etudes/Landau_rapport_cryptomonnaies_2018.pdf.

Le Moign, C. (2018), *ICO françaises : un nouveau mode de financement?*, https://www.amf-france.org/Publications/Lettres-et-cahiers/Risques-et-tendances/Archives?docId=workspace%3A%2F%2FSpacesStore%2F27604d2f-6f2b-4877-98d4-6b1cf0a1914b.

Libert, T. (2017), "Misallocation Before, During and After the Great Recession", *Banque de France working paper*, No. 658, Banque de France, https://publications.banque-france.fr/sites/default/files/medias/documents/wp_658.pdf (accessed on 14 December 2018).

Ministère de l'Écologie, du Développement durable et de l'Énergie (2014), *Programme national de prévention des déchets 2014-2020*.

Moretti, D. and D. Kraan (2018), "Budgeting in France", *OECD Journal on Budgeting*, Vol. 2, pp. 8-72, https://doi.org/10.1787/budget-18-5j8jt0pt4c0q.

OECD (2018a), *A Broken Social Elevator? How to Promote Social Mobility*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264301085-en.

OECD (2018b), *Rethinking Urban Sprawl: Moving Towards Sustainable Cities*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264189881-en.

OECD (2018c), *OECD Pensions Outlook 2018*, OECD Publishing, Paris, https://dx.doi.org/10.1787/pens_outlook-2018-en.

OECD (2018d), *The Role and Design of Net Wealth Taxes in the OECD*, OECD Tax Policy Studies, No. 26, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264290303-en.

OECD (2018e), *Effective Carbon Rates 2018: Pricing Carbon Emissions Through Taxes and Emissions Trading*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264305304-en.

OECD (2018f), *Taxing Energy Use 2018: Companion to the Taxing Energy Use Database*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264289635-en.

OECD (2018g), *OECD Regulatory Policy Outlook 2018*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264303072-en.

OECD (2018h), *Trade in value added: France*, OECD publishing, Paris, http://www.oecd.org/industry/ind/TIVA-2018-France.pdf.

OECD (2018i), *OECD Science, Technology and Innovation Outlook 2018: Adapting to Technological and Societal Disruption*, OECD Publishing, Paris, https://dx.doi.org/10.1787/sti_in_outlook-2018-en.

OECD (2018j), *Measuring Tax Support for R&D and Innovation: France 2017*, OECD publishing, Paris, http://www.oecd.org/stiFormoreinformation,pleasevisit:http://oe.cd/rdtax.

OECD (2018k), *Entrepreneurship at a Glance Highlights 2018*, OECD publishing, Paris, https://www.oecd.org/sdd/business-stats/EAG-2018-Highlights.pdf.

OECD (2018l), *Education at a Glance 2018: OECD Indicators*, OECD Publishing, Paris, http://dx.doi.org/10.1787/eag-2018-en.

OECD (2018m), *Engaging Young Children: Lessons from Research about Quality in Early Childhood Education and Care*, Starting Strong, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264085145-en.

OECD (2018n), *Effective Teacher Policies: Insights from PISA*, PISA, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264301603-en.

OECD (2017a), *OECD Economic Surveys: France 2017*, OECD Publishing, Paris, https://dx.doi.org/10.1787/eco_surveys-fra-2017-en.

OECD (2017b), "Spending review", in *Government at a Glance 2017*, OECD Publishing, Paris, http://dx.doi.org/10.1787/gov_glance-2017-42-en.

OECD (2017c), *Preventing Ageing Unequally*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264279087-en.

OECD (2017d), *Pensions at a Glance 2017: OECD and G20 Indicators*, OECD Publishing, Paris., http://dx.doi.org/10.1787/pension_glance-2017-en.

OECD (2017e), *OECD Services Trade Restrictiveness Index (STRI): France*, OECD publishing, Paris, http://oe.cd/stristri.contact@oecd.org@OECDtrade.

OECD (2016a), *Environmental Performance Review France.*

OECD (2016b), *PISA 2015 Results (Volume II): Policies and Practices for Successful Schools*, http://dx.doi.org/10.1787/9789264267510-en.

OECD (2015), *OECD Economic Surveys: France 2015*, OECD Publishing, Paris, https://dx.doi.org/10.1787/eco_surveys-fra-2015-en.

OECD (2014a), *Focus on Top Incomes and Taxation in OECD Countries: Was the crisis a game changer?*, OECD publishing, Paris, http://topincomes.parisschoolofeconomics.eu/.

OECD (2014b), *Ageing and Employment Policies: France 2014: Working Better with Age*, Ageing and Employment Policies, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264207523-en.

OECD (2013a), *Fiscal Federalism 2014: Making Decentralisation Work*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264204577-en.

OECD (2013b), *OECD Economic Surveys: France 2013*, OECD Publishing, Paris, https://dx.doi.org/10.1787/eco_surveys-fra-2013-en.

OECD (2011), *OECD Economic Surveys France*, OECD publishing, Paris, https://dx.doi.org/10.1787/eco_surveys-fra-2011-en.

OECD (2010a), *Making Reform Happen: Lessons from OECD countries*, OECD Publishing, Paris. http://www.oecd.org/env/making-reform-happen-9789264086296-en.htm.

OECD (2010b), *Taxation, Innovation and the Environment*, OECD publishing, Paris, http://www.sourceoecd.org/taxation/9789264087620.

Peyrol, D. and D. Bureau (2018), *Comment construire la fiscalité environnementale pour le quinquennat et après 2022 ?*, Comité pour l'économie verte, https://www.ecologique-solidaire.gouv.fr/sites/default/files/Comment%20construire%20la%20fiscalit%C3%A9%20environnementale%20pour%20le%20quinquennat%20et%20apr%C3%A8s%202022.pdf.

Rouzet, D., S. Benz and F. Spinelli (2017), "Trading firms and trading costs in services: Firm-level analysis", *OECD Trade Policy Papers*, No. 210, OECD Publishing, Paris, https://dx.doi.org/10.1787/b1c1a0e9-en.

Santé publique France (2016), Impacts sanitaires de la pollution de l'air en France : nouvelles données et perspectives, https://www.santepubliquefrance.fr/content/download/1003/9952/version/2/file/CP_pollution_atmospherique_210616.pdf

Simon, O. and W. Thao Khamsing (2016), "L'impact, pour les ménages, d'une composante carbone dans le prix des énergies fossiles", *Le point du Commissariat général au développement durable sur*, Vol. 225, p. 4, http://www.developpement-durable.gouv.fr.

Sorbe, S., Å. Johansson and Ø. Bieltvedt Skeie (2017), "Debt and tax planning by multinationals", *OECD Economics Department Working Papers*, No. 1357, OECD Publishing, Paris, http://dx.doi.org/10.1787/b524037b-en.

Vignon, C. (2018), "Régimes sociaux et de rertraite, pensions", *Commission des affaires sociales sur le projet de loi de finances pour 2019*, Assemblée nationale, http://www.assemblee-nationale.fr/15/pdf/budget/plf2019/a1305-tIV.pdf.

# Thematic Chapters

# Chapter 1.
# Improving labour market performance

## Implementing the OECD Jobs Strategy

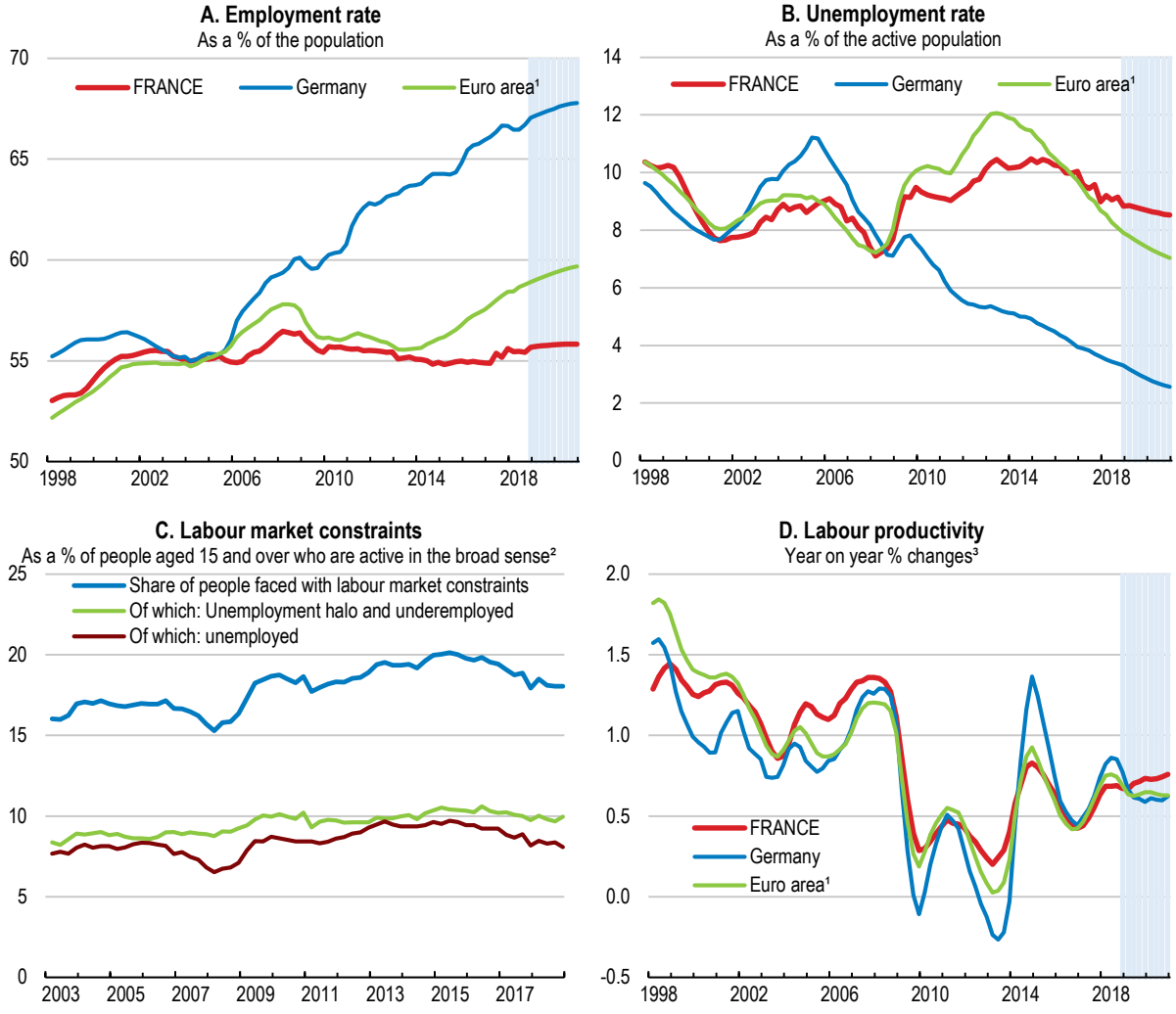
*This chapter presents a detailed analysis of the French labour market from the perspective of the OECD Jobs Strategy.*[1] *Since 2015, job creation has lowered unemployment and underemployment, but the French labour market still faces many challenges. Employment rates are increasing but remain low, the population is unevenly skilled, and job turnover on less-than-one month contracts has increased for part of the workforce. The economy has not created enough high-quality jobs for the economic and social integration of large numbers of young people and those with few qualifications. Ambitious reforms have been introduced to reduce the uncertainty over dismissal costs while improving training opportunities for those with low qualifications, and increasing resources for careers guidance and advice, in a way consistent with the OECD Jobs Strategy. The government has also restructured social dialogue at the firm and branch levels, reduced uncertainty over dismissal procedures and engaged a reform of unemployment benefits. In order to fully leverage these reforms, priority will have to be given to making continuous training more effective and limiting the perpetuation of inequalities and school drop-out rates. Simplifying the organisation of career and guidance services and facilitating professional mobility would also help to align the supply of labour with demand and generate sustained productivity gains. Firm-level social dialogue should be promoted, as well as business involvement in initial and lifelong training. Furthermore, the ongoing reform of the unemployment benefit system as well as merging the different support mechanisms for low-income households would improve the efficiency and transparency of the welfare system while offering stronger incentives for a return to stable employment.*

1. Several analytical contributions were prepared for this chapter: i) the quantification of the impact of recent reforms in the taxation of labour and social benefits, designed to improve the economic situation of low-wage workers; ii) an intermediate update of the OECD's Employment Protection Legislation (EPL) indicators; iii) an analysis of the impact of the cap on compensation for unfair dismissal; iv) an analysis of the reforms in collective bargaining practices and social dialogue, such as the reduction in the number of professional branches.

## The labour market has improved but challenges remain

The French labour market has improved slightly. The employment rate has risen steadily, while the unemployment rate has slowly begun to decline — a trend which is expected to continue (Figure 1.1, parts A and B) (OCDE, 2018a). Labour force participation has increased, and the share of full-time employment is growing (INSEE, 2018a). Underemployment has decreased, and the number of people who would like to work but are not actively looking for a job (i.e. people who are not accounted for in unemployment statistics) has also fallen, although the share of the population that is unemployed or would like to have more work still accounts for a greater share than before 2007 (part C).

**Figure 1.1. The labour market has improved**




1. Euro area member that are also members of the OECD (17 countries).
2. As a percentage of people aged 15 and over who are broadly active (either employed or unemployed according to ILO definitions or in the unemployment halo), mainland France.
3. Five-year moving average.

*Source*: OECD (2019), *Economic Outlook: Statistics and Projections* (database) and updates; INSEE (2019), Macroeconomic database.

StatLink https://doi.org/10.1787/888933950143

At the same time, productivity seem to have recovered, driven by renewed business investment (Figure 1.1, part D). These improvements reflect both enhanced growth prospects and reforms that, since 2014, have aimed to reduce the labour costs, especially for the low skilled, to secure professional transitions and strengthen training.

Despite this progress, the performance of the labour market remains uneven according to the indicators of the new OECD jobs strategy (Box 1.1 and Figure 1.2). France compares favourably to the OECD average for employment quality (OCDE, 2018b): hourly earnings, adjusted for inequality, are high. Some indicators of labour market inclusiveness are also positive. Income poverty and income inequality are moderate (Figure 1.3, parts A and B). Likewise, the gender pay gap is lower than in most OECD countries.

Indicators of job quantity, however, remain low (Figure 1.2), especially for the low-skilled and some vulnerable groups, which has a major impact on their social integration. Furthermore, the operation of the economy and the labour market reveal lower resilience and adaptability to changes than the OECD average. This leads to reduced productivity gains and weaker wage growth.

**Box 1.1. The OECD's new Jobs Strategy**

The digital revolution, globalisation and demographic change are transforming labour markets just when weak productivity growth is limiting the space for public action. These deep and rapid transformations raise new challenges for policy makers. The new OECD Jobs Strategy, launched in December 2018, provides a coherent framework of detailed recommendations in a wide range of policy areas to help countries addressing these challenges. The new Jobs Strategy, in particular, goes beyond job quantity and considers job quality and inclusiveness as central policy priorities, while stressing the importance of resilience and adaptability for good economic and labour market performance in a changing world of work. The key message is that policies that flexibility-enhancing policies in product and labour markets are necessary but not sufficient. Policies and institutions that protect workers, foster inclusiveness and allows workers and firms to make the most of ongoing changes are also needed to promote good and sustainable outcomes.

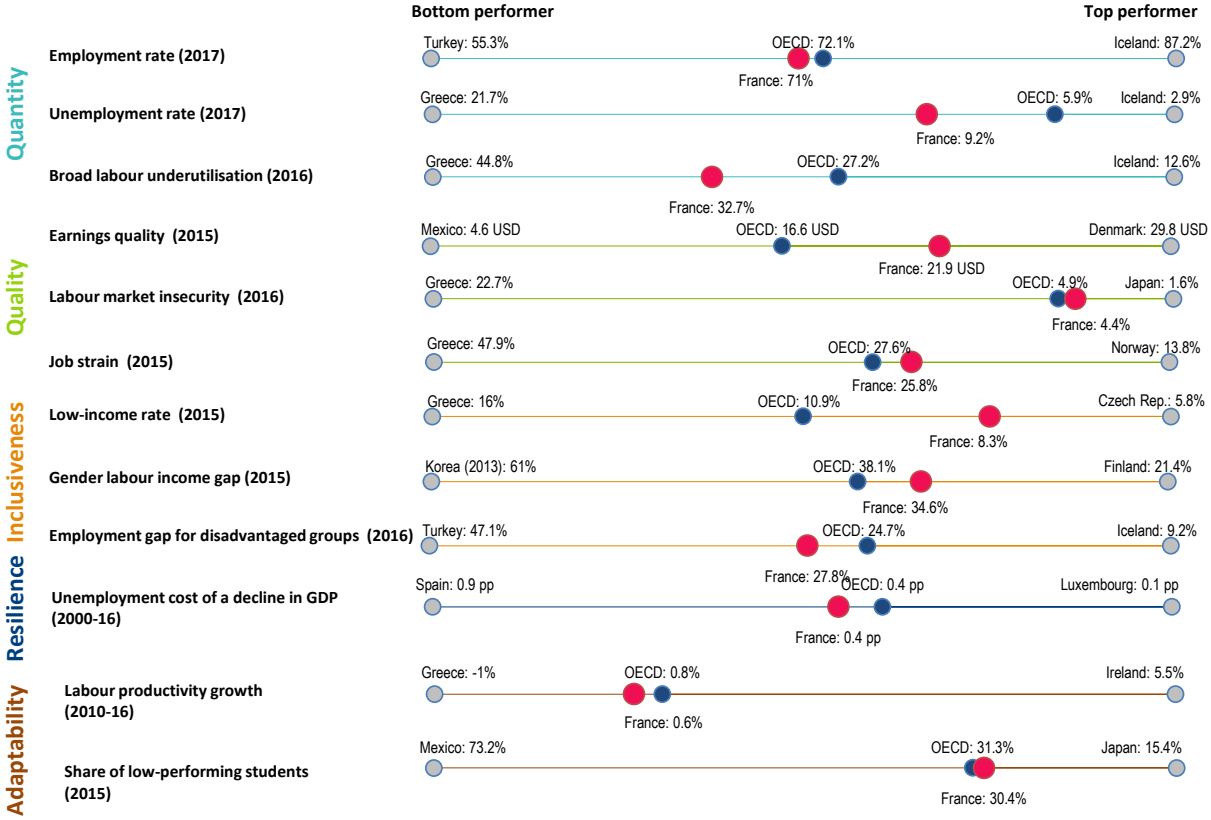
The OECD actively supports countries with the implementation of the OECD Jobs Strategy through the identification of country-specific policy priorities and recommendations. This is done through the preparation of chapters in the OECD Economic Surveys as well as more analytical background papers on the implementation of the OECD Jobs Strategy in specific countries. The process will be concluded with a synthesis report that will draw lessons from the country reviews and highlight good practices across the full range of policy tools identified by the OECD Jobs Strategy.

The OECD Jobs Strategy make use of a dashboard to assess the strengths and weaknesses of labour markets in different OECD and non-OECD economies. The principal weakness of the French employment market is employment: France ranks in the bottom third of OECD countries as a result of structurally high rates of unemployment and inactivity. France also ranks below the OECD average in terms of growth in labour productivity, which is slowing job creation.

*Source: OECD (2018), Good Jobs for All in a Changing World of Work - The OECD Jobs Strategy, OECD Publishing, Paris; Carcillo et al. (forthcoming), Implementing the OECD Jobs Strategy in France.*

**Figure 1.2. Some aspects of labour market inclusiveness show room for improvement**

Jobs Strategy Dashboard of labour market performance[1]




1. Employment rate: share of working-age population (20 to 64) in employment (%). Broad labour underutilisation: share of inactive, unemployed or involuntary part-timers (15 to 64) in the population (%), excluding youth (15 to 29) in education and not in employment. Earnings quality: gross hourly earnings in US dollars adjusted for inequality. Labour market insecurity: expected monetary loss associated with becoming and staying unemployed as a share of previous earnings. Job strain: share of workers in jobs in which there typically exists a high level of professional demand and insufficient resources to meet that demand. Low income rate: share of working-age persons living with less than 50% of median equivalised household disposable income. Gender labour income gap: difference between average annual earnings of men and women divided by average earnings of men (%). Employment gap for disadvantaged groups: average employment gap between prime-age male workers and five disadvantaged groups (women with children, young people not in education or full-time training, workers aged between 55 and 64, people born abroad, people living with disabilities), as a percentage of the employment rate for prime-age male workers. Resilience: average increase in unemployment rate over three years after a negative shock to GDP of 1% (2000-16). Labour productivity growth: average annual labour productivity growth per worker (2010-16). Share of low-performing students: share of 15-year-olds not in secondary school or scoring below Level 2 in PISA (%) (2015).

*Source:* OECD calculations based on statistics for 2017 or the last available year and various sources, OECD (2018), *Good jobs for all in a changing world of work: The OECD Jobs Strategy,* OECD Publishing, Paris.

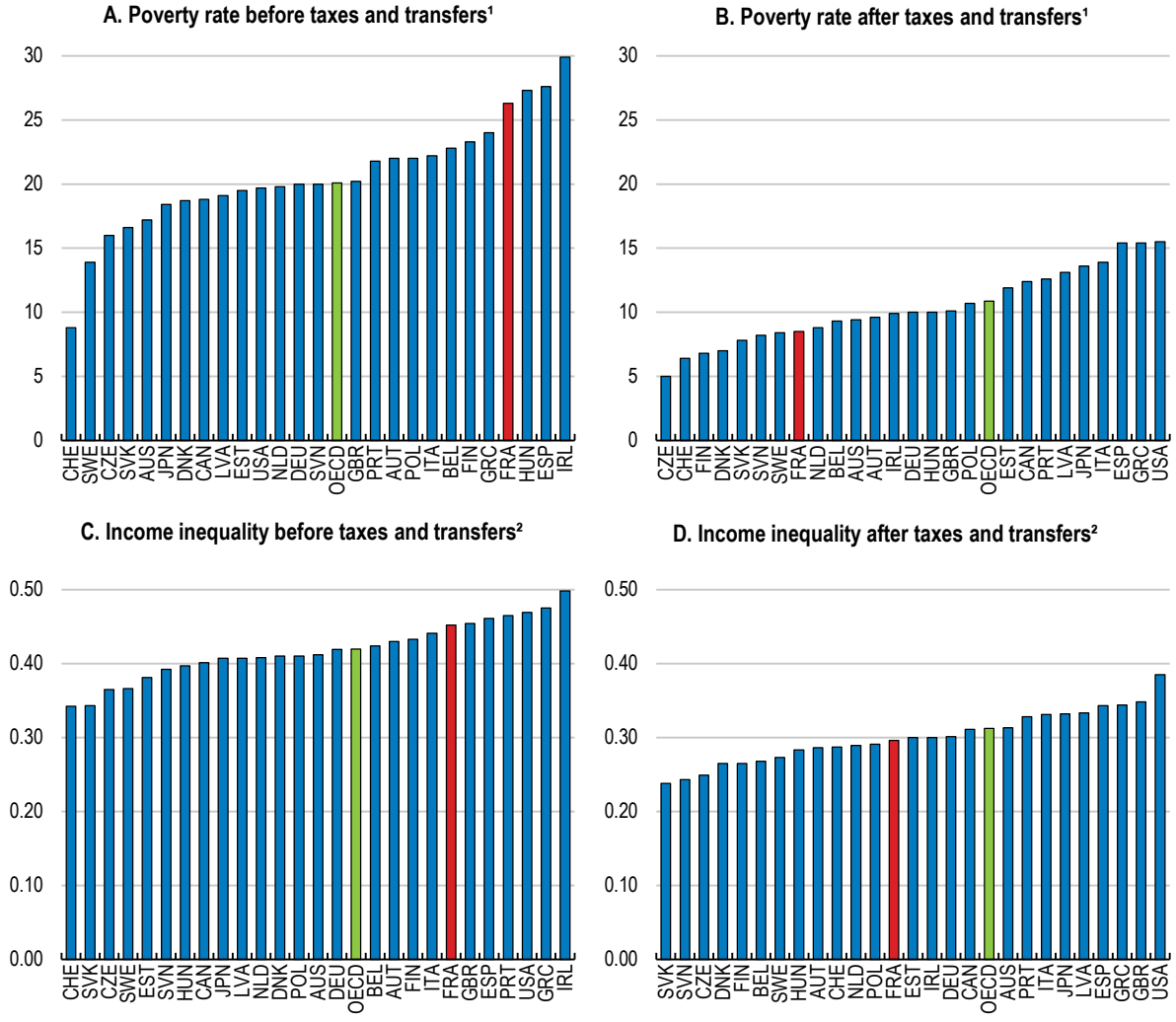
StatLink https://doi.org/10.1787/888933950162

Labour market inequality remains high. Before redistribution by taxes and social transfers, poverty rates and income inequality are above the OECD average (Figures 1.2 and 1.3, parts C and D). These disparities are linked to low employment rates and difficulties in labour market access. Structural and long-term unemployment rates are still high, and

employment is particularly low for young people, the oldest workers, the least qualified and immigrants (Figure 1.4) (INSEE, 2018b ; OCDE, 2018c). Almost one third of the adult population is low-skilled and affected by high unemployment, frequent recourse to non-standard contracts and poor training opportunities. The number of people who seem to be underqualified for their jobs is elevated (Figure 1.5), though the share of workers whose skills are well-matched to their position is higher than the OECD average.

**Figure 1.3. Inequality is attenuated by taxes and social transfers**

Population aged between 18 and 65, 2016 or latest available year




1. Poverty rate at the threshold of 50% of the median equivalised household income.
2. Gini coefficient

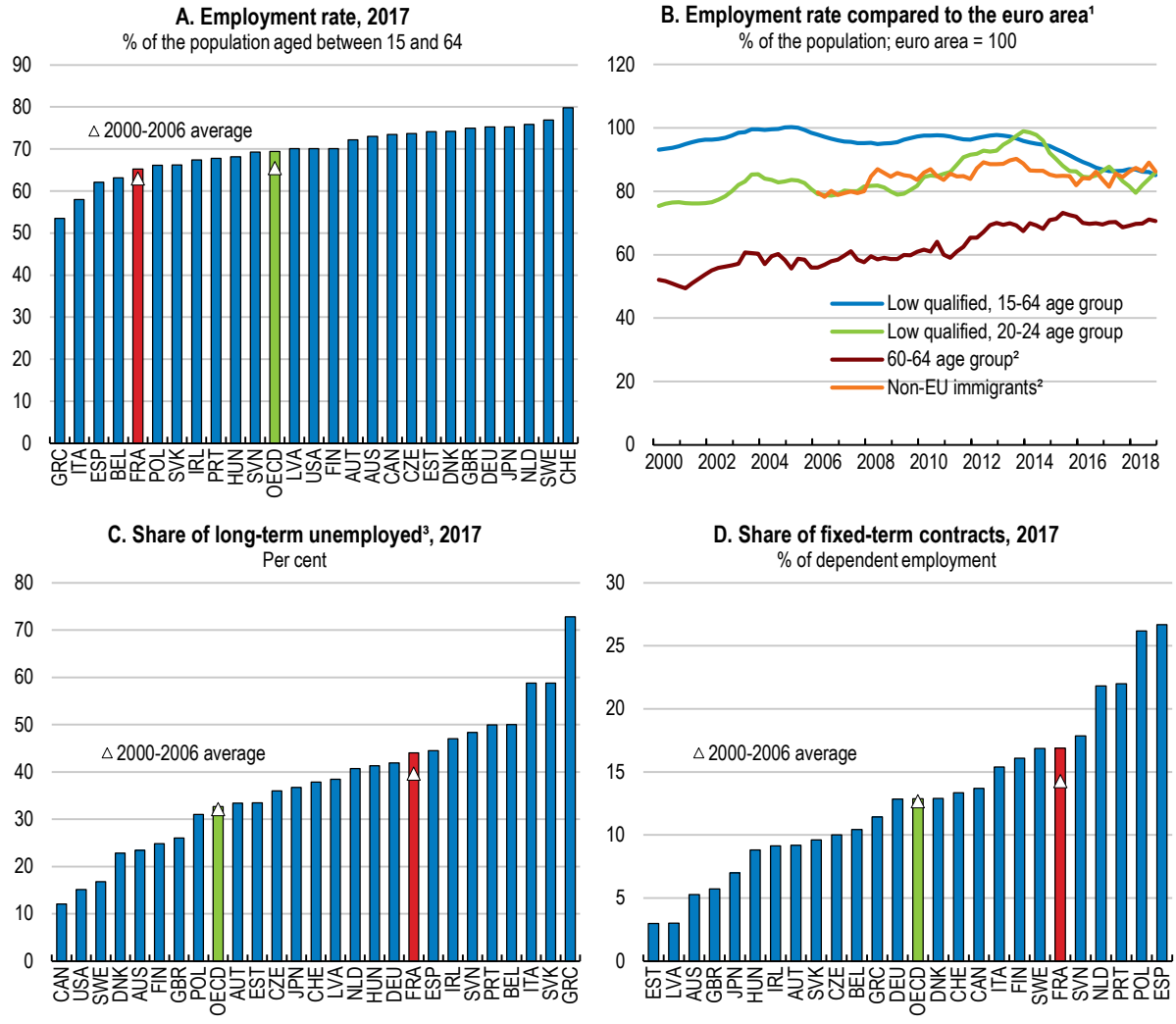
*Source*: OECD (2019), *OECD Statistics on Income Distribution and Poverty* (database).

StatLink https://doi.org/10.1787/888933950181

The government has launched several labour market reforms since September 2017 (OCDE, 2017a ; OCDE, 2018b), with the intention of giving more room to collective bargaining for firm-level negotiations on wages and working conditions, and

strengthening professional training and the apprenticeship system. These reforms also aim to improve employment prospects for low-skilled unemployed workers and to improve employment protection legislation and redundancy. Moreover, the unemployment benefit reforms launched in 2018 have provided new rights to self-employed workers and people resigning from their jobs and they aim to lower the insecurity of workers with frequent short-term contracts.

**Figure 1.4. The labour market presents some structural weaknesses**



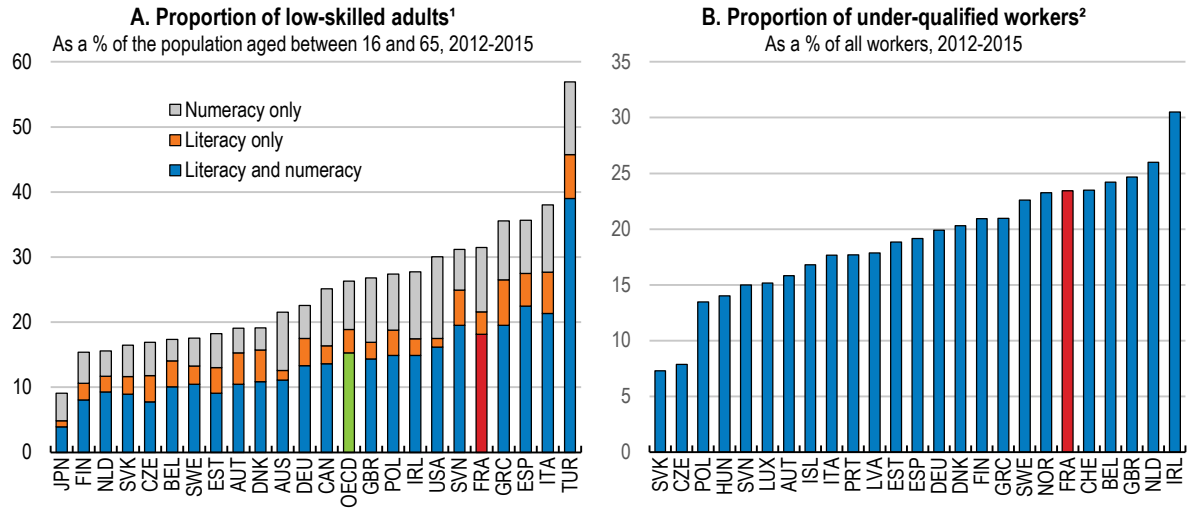

1. Yearly employment rates relative to the euro area average (19 countries). The missing quarterly data have been interpolated on a linear basis.
2. For all levels of education.
3. Share of unemployed who have been jobless for over one year.
*Source*: OECD (2019), *OECD Labour Force Survey Statistics* (database); Eurostat (2019), "Employment rates by sex, age, educational attainment level and citizenship", *Eurostat database*.

StatLink https://doi.org/10.1787/888933950200

This chapter examines developments in employment and job quality, and the implementation of the recent reforms, through the prism of the new OECD Jobs Strategy

(OCDE, 2018). It positions France in the long-term changes to the nature of work, such as automation and digitalisation, the need for new skills, an ageing population and the emergence of new forms of employment. It then looks at policies that could help to adapt to these changes and promote a more inclusive labour market. These policies include continuous and initial training and support for parts of the population with most difficulties, which would limit the mismatch between qualifications and skills, and improve the social and professional integration of young people, jobseekers and those with few qualifications. It will also be necessary to reduce the relative cost of hiring workers on permanent contracts and to give more support for mobility to ease professional transitions and promote quality of work. Simplifying the welfare system would improve social mobility for low-income households, by improving cover for disadvantaged populations and offering fairer incentives to work.

**Figure 1.5. Population's skills are unequally distributed**




1. Low-skilled adults, aged between 16 and 65, are defined as those with a score of less than 2 on the scales of written comprehension and numeracy considered by the OECD's Survey of Adult Skills.
2. Share of workers aged between 16 and 65 whose skills are considered to be lower than those required by their professional role (OECD, 2016).
*Source*: OECD (2016), *Skills Matter—Further results from the survey of adult skills. OECD skills surveys*, OECD Publishing, Paris.

StatLink https://doi.org/10.1787/888933950219

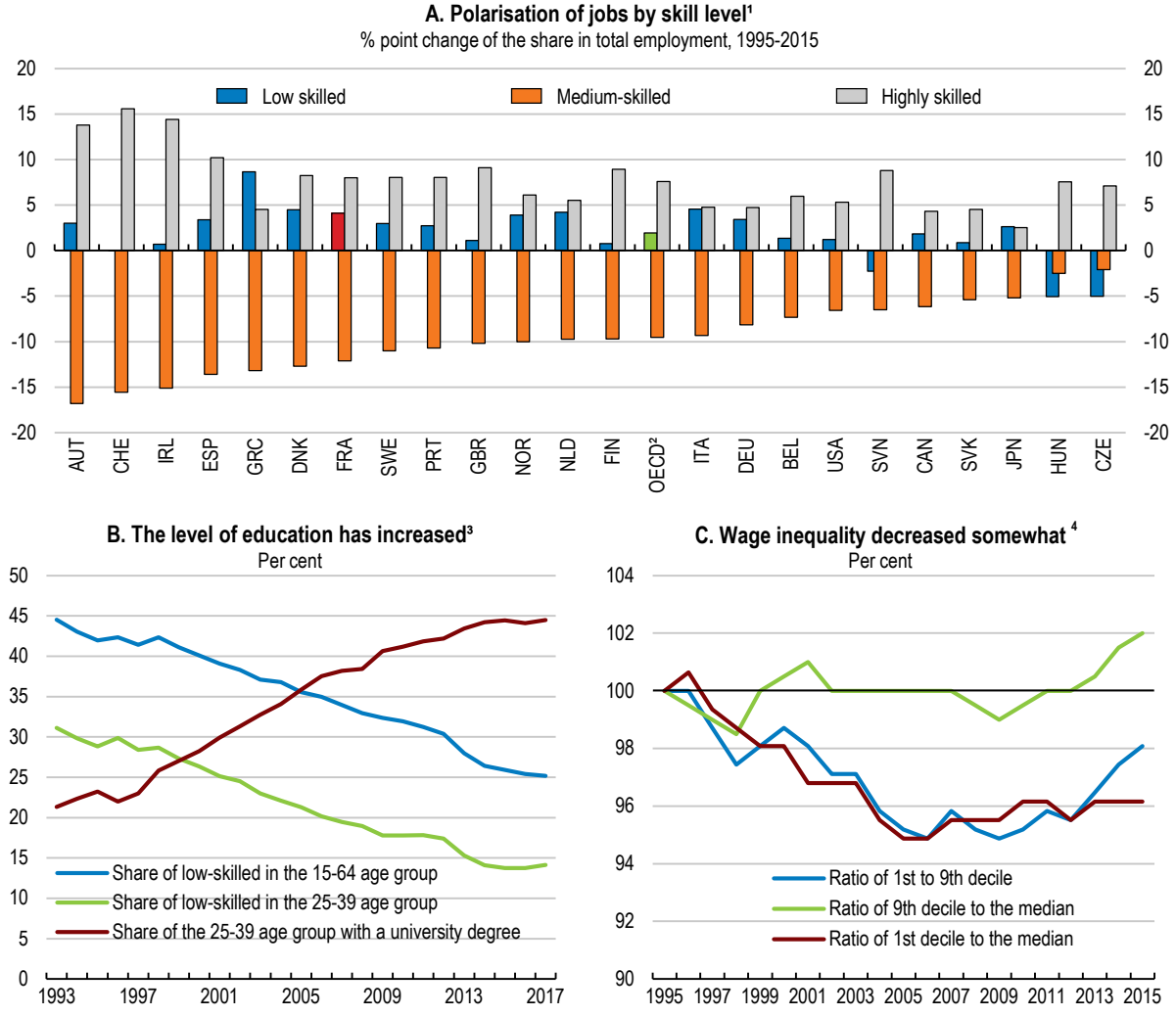
## Those with few qualifications and young people face the most difficulties

### *Employment and inequality have polarised*

The labour market in France, as in other OECD countries, has polarised in terms of qualifications (OCDE, 2018d ; Goos, Manning and Salomons, 2014). Driven by technological progress and the rise in imports from emerging countries (Malgouyres, 2017 ; Carluccio et al., 2017), the share of jobs requiring medium qualifications and/or those suitable for automation has fallen, leading to marked polarisation. At one end of the market, the productivity of jobs requiring highly qualified workers has benefited from new information and communication technologies, while at the other, low-qualified jobs in market services with low portability have proliferated, driven partly by tax measures (Figure 1.6, part A) (Carbonnier and Morel, 2018). The share of home help, cleaning

services and childcare in employment has increased strongly in France, while the share of workers in socio-economic categories that concentrated the greatest numbers of routine jobs has fallen (Berger and Pora, 2017; Ast, 2015).

**Figure 1.6. Employment is more polarised, but wage inequality has been contained**



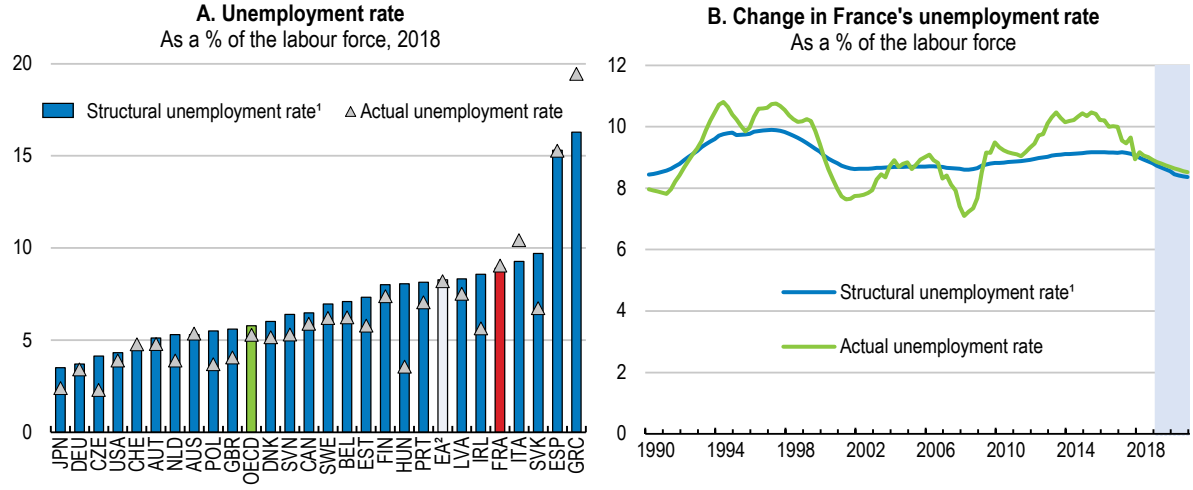

1. Highly skilled professions are defined as jobs that are classified in the broad groups 1, 2 and 3 of ISCO-88. Medium-skilled professions are defined as jobs that are classified in the broad groups 4, 7 and 8.
2. Simple average of the 23 countries for which data are available.
3. As a percentage of the population, low-skilled workers correspond to a level of education that is equal to or less than the first cycle of secondary education.
4. Decile ratios of net annual salary (full-time equivalent) for all workers. Mainland France until 2001, France excluding Mayotte as of 2002. All private-sector and state-enterprise workers, except agricultural workers, apprentices, interns and except for salaries paid by non-professional employers.
*Source*: OECD (2017), *OECD Employment Outlook 2017*, OECD Publishing, Paris; Eurostat (2018), "Population by sex, age and educational attainment level", *Eurostat database*; INSEE (2018), Annual salaries (database).

StatLink https://doi.org/10.1787/888933950238

Despite these labour market changes, wage inequality has remained stable or declined. Unlike in other OECD countries, the rising supply of qualified labour and public policies have contained disparities in terms of take-home pay levels, i.e. pay after employer and employee social security contributions, notably by supporting the net pay of workers at the bottom of the distribution (Figure 1.6, parts B and C). The rising number of university graduates has reduced upward pressure on pay in the highest-qualified jobs (Charnoz, Coudin and Gaini, 2013 ; Bittarello, Kramarz and Maitre, 2018). At the same time, the steady reduction in social security contributions on low wages has reduced the relative labour cost of the lowest-qualified workers, partially curbing productivity differences (Catherine, Landier and Thesmar, 2015 ; Bozio, Breda and Guillot, 2016), while welfare benefits and in-work benefits for those on low wages (the *Prime d'activité*) have supported purchasing power.

The polarisation of the labour market and falling employment rates among the low skilled are linked to a persistently high rate of unemployment which is mainly structural (Figure 1.7, parts A and B). However, the threat of job insecurity and labour market difficulties have concentrated. Over the long term, the rates of unemployment and inactivity by level of qualification have diverged (Figure 1.8, parts A and B). Long-term unemployment and the number of people entitled to claim benefits have climbed to particularly high levels for the low-skilled, whose chances of returning to work are poor (Grangier and Audrey, 2014). For those leaving the school system, the higher rates of unemployment of the least qualified have risen sharply since the financial crisis in 2008- earning close to the minimum wage (Bernard et al., 2018).

**Figure 1.7. The unemployment rate has remained stubbornly high**




1. Non-accelerating inflation rate of unemployment (NAIRU).
2. Euro area member countries that are also members of the OECD (17 countries).
*Source*: OECD (2018), *OECD Economic Outlook: Statistics and Projections* (database) and updates.

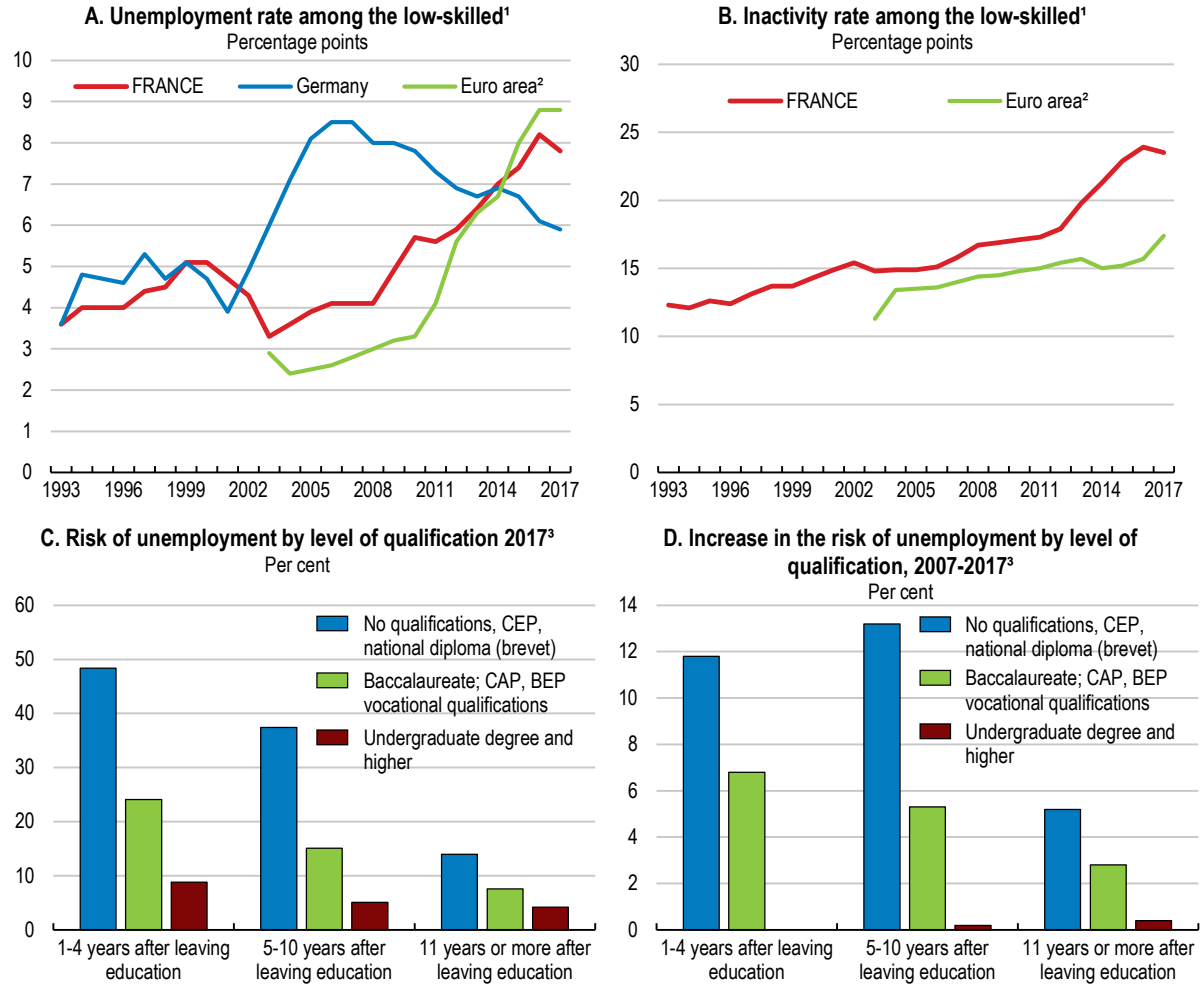
StatLink https://doi.org/10.1787/888933950257

Changes in job quality have been mixed. Alongside the rapid increase in the proportion of temporary contracts in the years leading up to 2000 (including temporary contracts or *CDD*, and temporary work agency employment), self-employment declined in all sectors (Figure 1.9, parts A and B). The use of temporary contracts increased for the less qualified, especially young people, and their terms also fell, with increasing turnover on very short

contracts (part C) (Flamand, 2016). Underemployment and part-time work are also more likely to affect the lower-qualified (INSEE, 2018a) (part D).

While the proportion of temporary contracts remained stable in France from the 2000s until recently, the proportion of contracts with a term of one month or less appears structurally higher than in most European countries according to Labour Force Surveys and has increased (Figure 1.10). Although short-term contracts may be repeatedly offered by the same employer, this affects workers' access to training, social advancement and well-being (OCDE, 2018c) with a substantial cost for public expenditures through unemployment benefits.

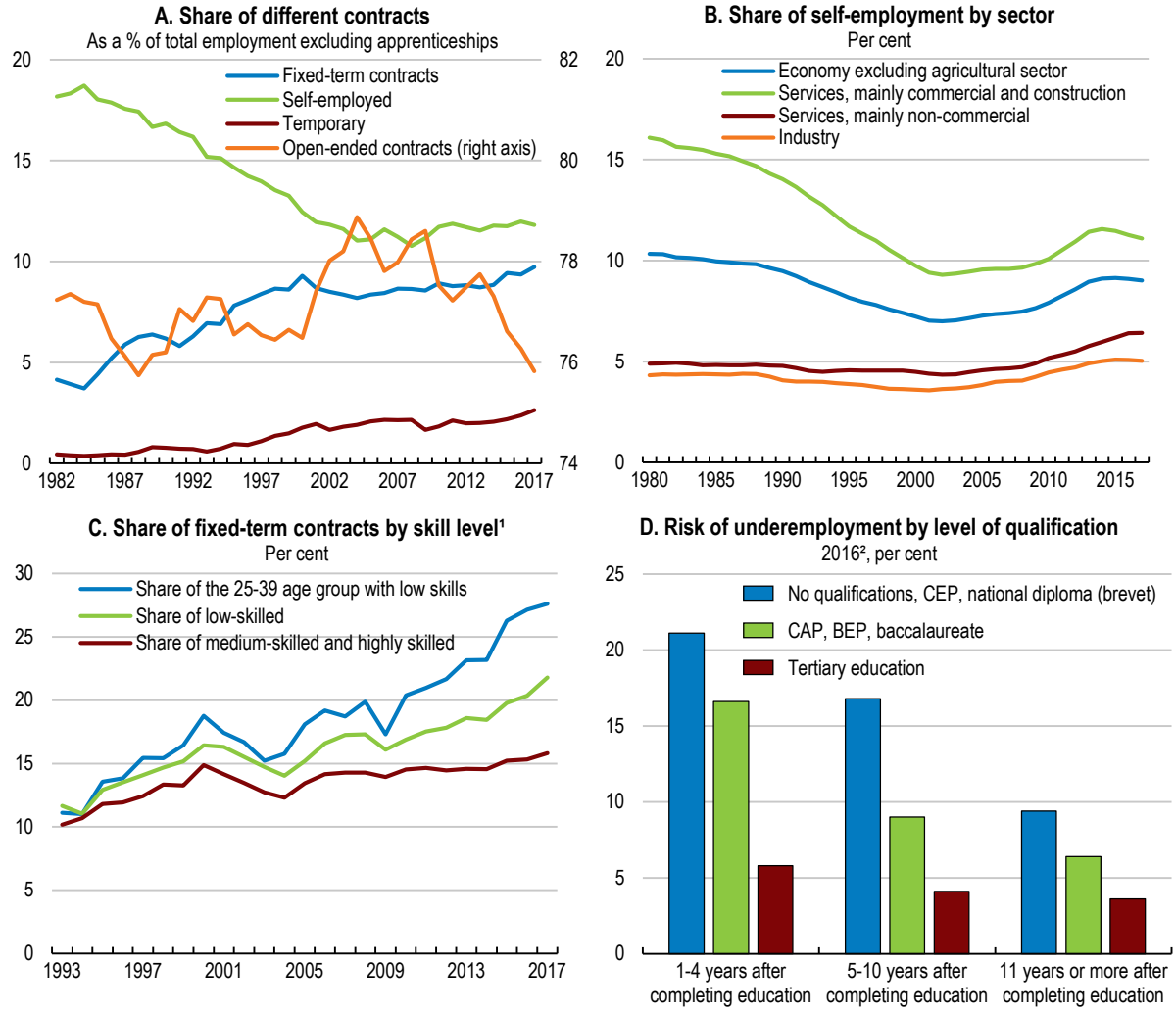
**Figure 1.8. Disparities by level of qualification have widened**




1. Compared to the average of the active population (Panel A) or of those aged between 15 and 64 (Panel B). Low-skilled workers have a level of education that is equal to or less than the first cycle of secondary education.
2. Euro area, 19 countries.
3. Mainland France excluding Mayotte, people aged 15 and older.
*Source*: Eurostat (2018), "Labour status by educational attainment level", *Eurostat Database*; INSEE (2018), "Taux de chômage selon le niveau de diplôme et la durée depuis la sortie de formation initiale en 2017", *INSEE database*.

StatLink https://doi.org/10.1787/888933950276

**Figure 1.9. The structure of employment has changed**



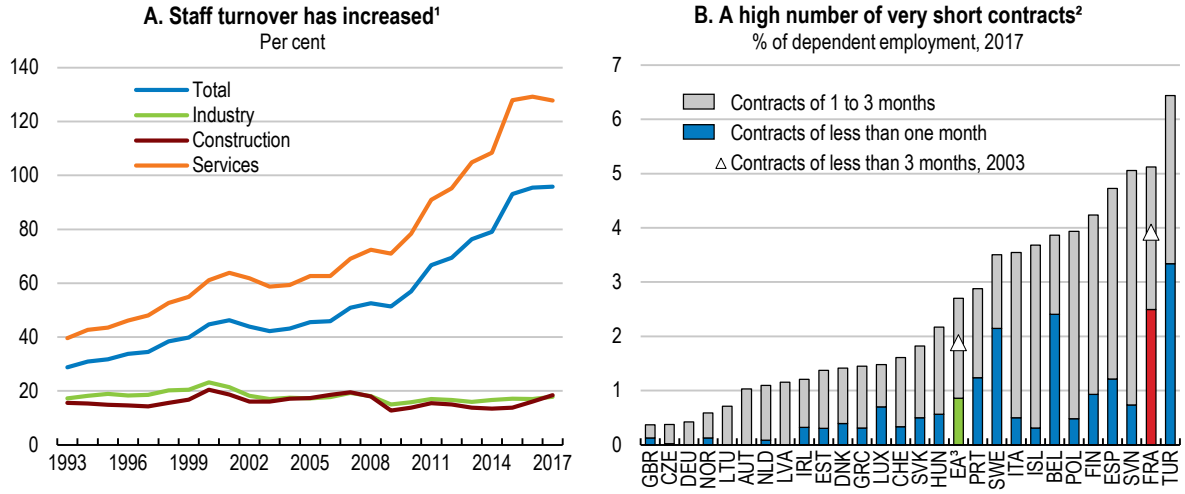

1. Low-skilled workers have a level of education that is equal to or less than the first cycle of secondary education.
2. Mainland France excluding Mayotte, population aged 15 and over.
*Source:* INSEE (2018), "Enquête emploi : Caractéristiques de l'emploi" and "Les Comptes de la Nation - Valeur ajoutée, rémunération et emploi en 2017", *INSEE database*; Eurostat (2018), "Detailed annual results of the labour force surveys", *Eurostat database*; INSEE (2018), *"L'insertion des jeunes - Formations et emploi"*, 2018 edition, Paris.

StatLink https://doi.org/10.1787/888933950295

In these conditions, the integration of young people into the labour market has worsened until recently. New labour-market entrants have seen years of weak economic activity, causing unemployment and downward mobility (Galland et al., 2017; CEREQ, 2018). Accessing employment has become a major difficulty for young people with the fewest qualifications. The rate of NEETs—young people not in employment, education or training—is persistently high, especially for low-skilled 25-29s, who rarely had access to a second chance in the French system (Figure 1.11). Qualifications and school tracks

(through academic or apprenticeship paths) have played an increasing role in the quality of integration into the labour market (Figure 1.8 and below).

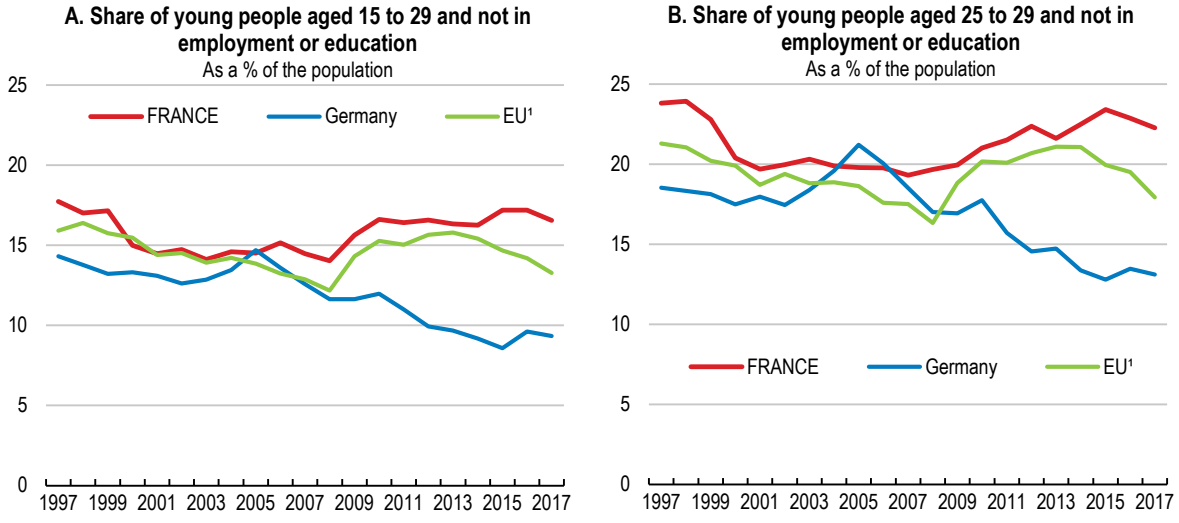
**Figure 1.10. The term of temporary contracts has fallen sharply**




1. The turnover rate is defined as the average of entry and exit rates for establishments with fifty employees or more in the private sector (excluding agriculture and temporary agency work).
2. Rate of very short contracts among temporary contracts.
3. Euro area, 19 countries.
*Source:* Milin, K. (2018), « CDD, CDI : comment évoluent les embauches et les ruptures depuis 25 ans », *DARES analyses*, No. 026 ; Eurostat (2018), "Detailed annual results of the Labour Force Survey", *Eurostat database*.

StatLink https://doi.org/10.1787/888933950314

**Figure 1.11. The number of young people not in employment or education is high**



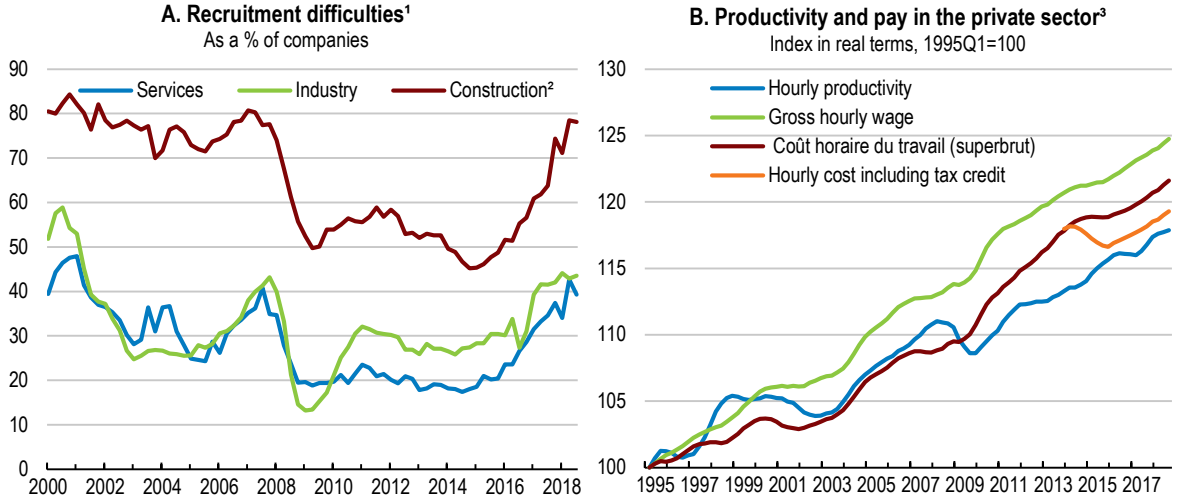

1. European Union member states that are also members of the OECD (23 countries).
*Source*: OECD (2018), *Education at a Glance 2018* (database).

StatLink https://doi.org/10.1787/888933950333

### *Wages have decoupled from productivity*

Access to employment and certain aspects of job quality rather than net wages or labour costs have served as margins of labour market adjustments. France stands out among OECD countries for its persistently high level of structural unemployment and relatively high wage growth. Hiring difficulties have increased during the recovery, caused largely by a lack of skilled staff, and in some sectors, such as construction, by unattractive wages and high turnover (Figure 1.12, part A) (INSEE, 2017). In the long term, this seems to have supported wage increases. Gross salaries and labour costs in business sectors have grown faster than productivity, though their rates of changes have partly converged since 2010-11. A series of cuts in employer contributions targeting low wages has limited the rise in labour costs (see below). As of 2013, the tax credit for competitiveness and employment (CICE), for salaries up to 2.5 times the minimum wage paid in the previous year, reduced corporate income tax bills. This measure implied lowered labour costs and it was replaced by a cut in employer contributions in January 2019 (part B).

**Figure 1.12. Wages have not tracked productivity**



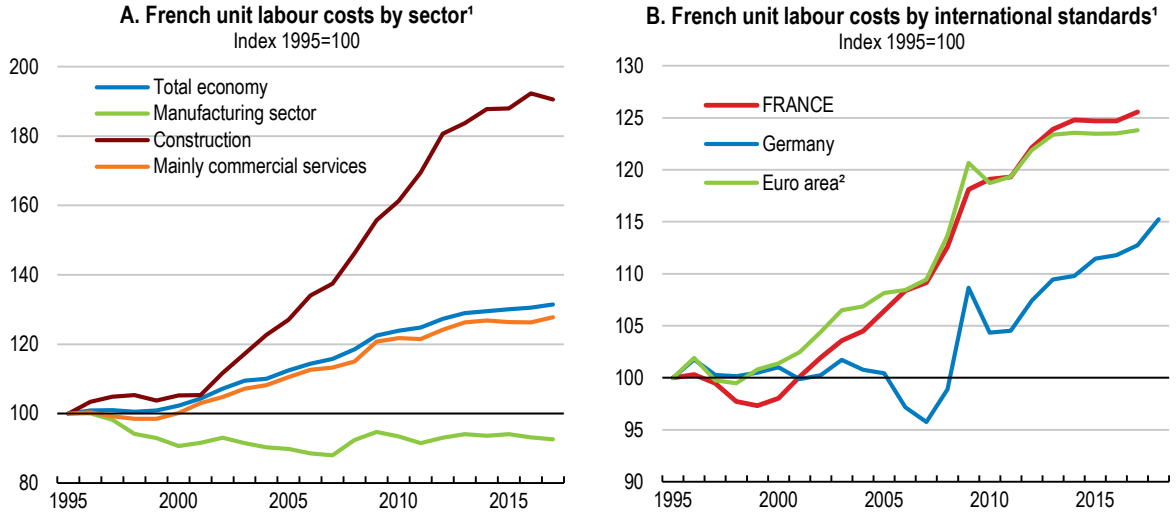

1. Businesses citing recruitment difficulties as a factor limiting output.
2. Finishing works.
3. Non-financial companies. The cost of work includes the payroll, employers' social contributions and taxes on labour, less subsidies such as the tax credit for competitiveness and employment (CICE). Current prices are deflated by the GDP deflator.

*Source*: OECD calculations using INSEE (2019), "Comptes de la Nation en base 2014 - Résultats détaillés" and "Enquêtes de conjoncture", *INSEE database*.

StatLink https://doi.org/10.1787/888933950352

The fact that wage growth outpaced productivity growth is affecting employment—especially the employment of the least qualified, which is more sensitive to labour costs—and exports and competitiveness. Although the rise in labour costs at the level of the minimum wage has been contained and low wages are not taxed heavily (see below), cost-competitiveness measured by unit labour costs has seen a relative deterioration, demonstrated by the fact that the gap between wages and productivity has widened more quickly in France than in the other Eurozone countries (Figure 1.13). This gap is particularly wide in sectors that are more sheltered from international competition, such as accommodation and catering, and business services.

**Figure 1.13. Changes in unit labour costs**



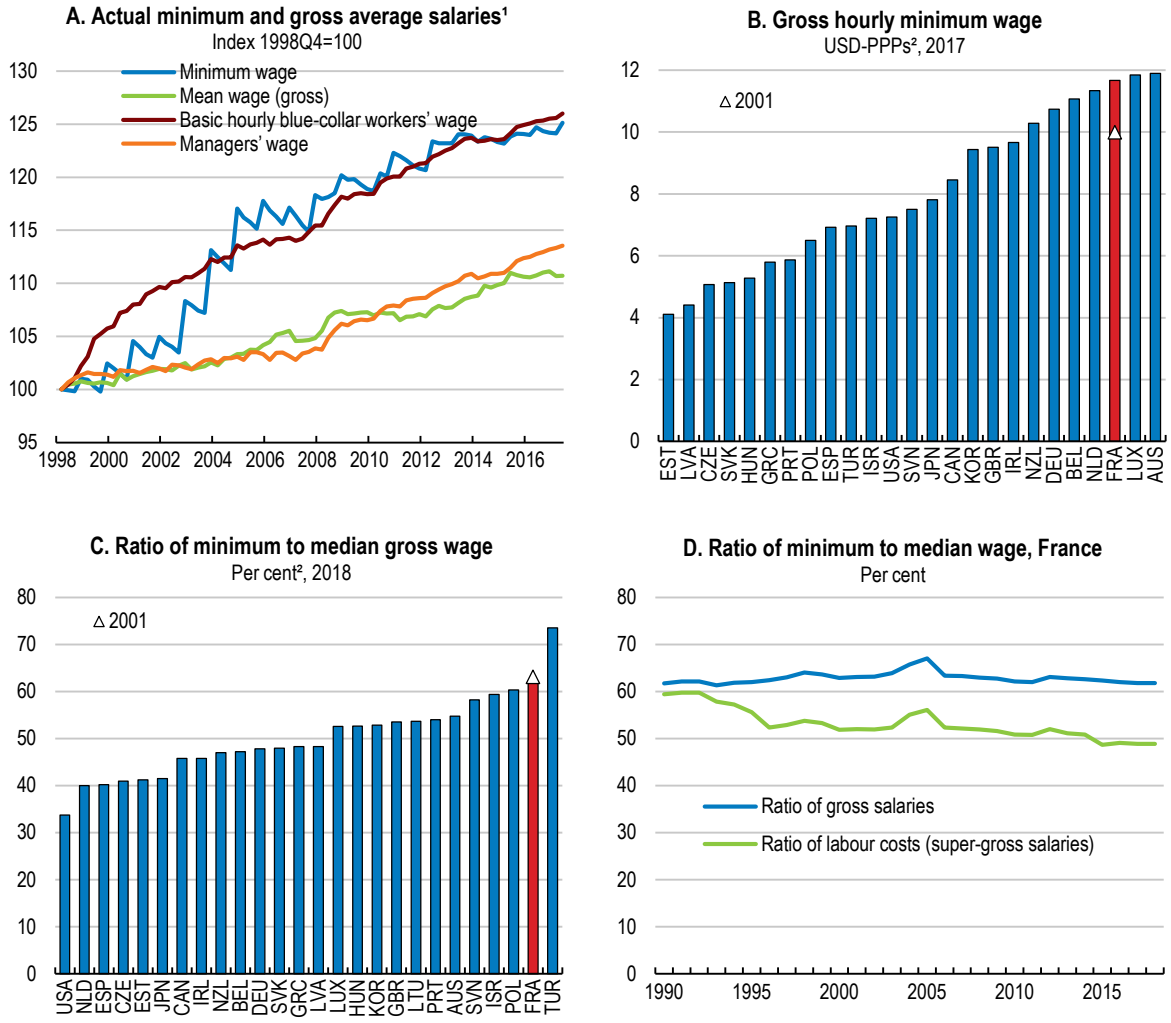

1. Unit labour costs (cost of work divided by real output) by sector (Panel A) and for the whole economy (Panel B). The tax credit for competitiveness and employment has not been factored in.
2. Euro area, 19 countries.
*Source*: OECD (2019), *Productivity and ULC by main economic activity– ISIC Rev.4* (database).

StatLink https://doi.org/10.1787/888933950371

The gap between wage growth and productivity growth increased during the 2008-09 recession and has not been closed since. A number of explanations have been put forward: first, staff retention led to a fall in labour output and an increase in total wage costs due to workforce composition. Businesses chose not to lay off their most highly qualified workers, whose training and hiring costs are relatively high (Askenazy and Erhel, 2017; Beatriz et al., 2018). Second, downward wage rigidity played a role (Verdugo, 2016). During a period of low inflation, growth of nominal salaries excluding bonuses did not slow as much, hampering the ability of businesses to adapt to economic conditions.

Wage-setting mechanisms have also affected wage growth. Until recently, firm-level wage negotiations were constrained. First, the minimum wage set at the national level affects 11% of workers (a stable share since the early 2010s). Minimum-wage increases have consequent effects on higher wages, with close to zero effect on wages above twice the minimum wage according to several studies (Goarant and Pinel, 2011; Aeberhardt, Givord and Marbot, 2016 ; Guichard and Pinel, 2018), notably through branch-level agreements (Fougère, Gautier and Roux, 2018). Automatic re-evaluations of the minimum wage, linked both to inflation and to the average wage of low-skilled workers, as well as the occasional discretionary minimum-wage increases that were common before 2006, therefore exerted upward pressure on wages. Since 2012, there was, however, no discretionary minimum-wage hikes and the minimum-wage growth has been slower than those of other wage indices. Second, each year, pay scales are renegotiated in different business sectors, notably when the minimum wage is adjusted. When this happens, firms have to apply the pay scale rises (OCDE, 2017b; Gautier, 2017). Last, in economic sectors that are particularly protected from competition, collective bargaining may also have pushed net wages up though rent-sharing mechanisms (Breda, 2015).

**Figure 1.14. Salaries and the minimum wage**




1. Deflated by the GDP deflator.
2. Estimates are based on a household of one single person without children, and factor in the CICE tax credit.
3. The ratios of the minimum and median wages, obtained using the OECD's TaxBEN model, are backcast using DARES data for the period from 1990 to 2001. The cost of work takes account of the tax credit for competitiveness and employment.
*Source*: OECD (2019), Labour market database and Secretariat calculations based on the OECD's TaxBEN model; DARES (2018), *Basic wage indices*; COSAPE (2017), *Les exonérations générales de cotisations*, Monitoring committee for public assistance to businesses and commitments.

StatLink https://doi.org/10.1787/888933950390

The low employment levels of low-skilled workers combined with robust wage growth have encouraged successive governments to lower labour costs for low wages to stimulate employment. By international standards, the gross hourly minimum wage still seems high, (Figure 1.14, parts B to D), but France occupies a median position in terms of its ratio of labour cost at the minimum wage compared to labour cost at the median wage (Figure 1.15, Part B). Increasing exemptions from social security contributions targeted at low wages, such as those from the Responsibility Pact, and the 2013-19 tax credit for

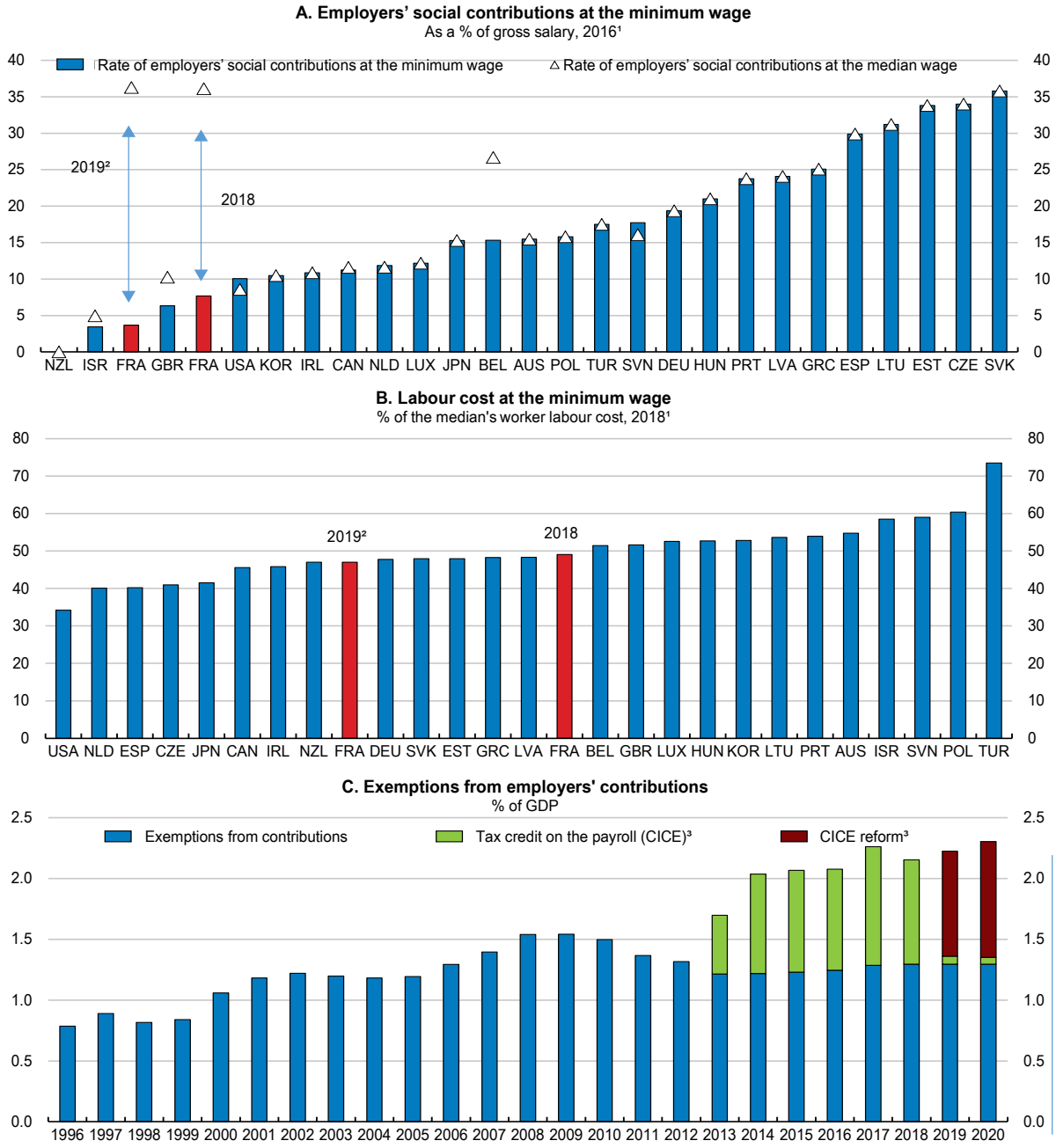
competitiveness and employment (CICE), based on payroll, have contained the rise in labour costs for low-wage workers.

Social contribution exemptions from for low wages have significantly reduced social security contributions around the minimum wage, while they remain high around the median wage. The difference between labour costs and gross salaries is thus very progressive at the lower end of the wage distribution (Figure 1.15, part A). The reforms launched in 2019 are expected to push the relative labour cost at the minimum wage to a low level in international comparison (part B and Box 1.3; Carcillo et al., forthcoming). The fiscal cost of these lower social security contributions for employers are estimated to be almost 2.3% of GDP in 2019-20 (part C).

More focused targeting on low wages should have a considerable positive impact on employment (COSAPE, 2017). In 2009, a temporary reduction of employers' social security contributions on recruitment targeting the same group as the 2019 reform boosted employment by 0.8% for a zero net cost, given the savings in social benefits (Cahuc, Carcillo et Le Barbanchon, 2018). Exemptions for low wages are less likely to push wages upwards than a reduction of contributions on higher wages. They reduce the cost of low-skilled labour, while the impact on (net) wages is limited because of the weak bargaining power of low-wage workers. By modifying the structural conditions of costs and prices, moreover, they make businesses relying more on low-skilled workers more competitive. Evaluations have shown that the positive impacts of the reduction of employers' social security contributions on employment are very weak for salaries higher than 1.6 times the minimum wage, which indicates that reduced social security contribution rates need to be targeted (L'Horty, Martin and Mayer, 2019).

However, the progressive wedge between net wages and labour costs may prompt businesses to substitute more highly qualified workers or investments with low-skilled workers. Furthermore, by amplifying the impact of an increase in gross wages on labour costs, this wedge could tend to hamper wage progression and training incentives at the lower end of the wage distribution and for young employees (CSERC, 1997; Groupe d'experts sur le SMIC, 2017). Although the existence of these low-wage traps is not fully proven in France, the reduction of employer contributions at the minimum wage is unparalleled in other OECD countries in 2019-20. Though it may in the short term be a response to a lack of opportunity and the problem of high labour costs for low-skilled workers, in the long term it could steer the economy towards a model in which businesses depend more on low-skilled workers and atypical employment, either directly or through their inputs and sub-contracting.

**Figure 1.15. Targeted exemptions from employer contributions have increased**



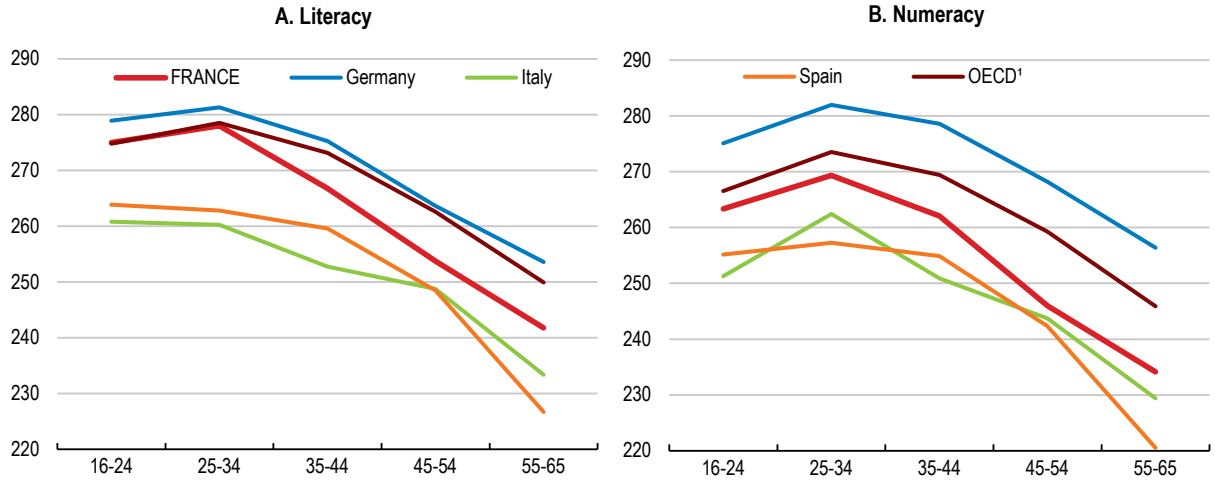

1. Including the amount of the CICE tax credit; estimates based on a household of one single person with no children.
2. The 2019 estimates for France factor in the reforms of employers' social security contributions which are to enter force between the beginning and the end of 2019, but they do not take account of the planned increase in the minimum wage for the same year (Box 1.4).
3. The amount of the CICE tax credit in the national accounts for the year $x$ +1 is included in year $x$.
*Source* : OECD (2019), Secretariat calculations based on the OECD's TaxBEN model; COSAPE (2017), *Les exonérations générales de cotisations*, Monitoring committee for public assistance to businesses and commitments; France Stratégie (2018), *Rapport 2018 du comité de suivi du Crédit d'impôt pour la compétitivité et l'emploi*; Finance bill for 2019.

StatLink https://doi.org/10.1787/888933950409

### *The labour market needs to be transformed successfully*

The relative persistence of inequality of access to good-quality jobs and the disconnect between wages and productivity raise concerns in light of predicted future changes to employment. Demand for qualified labour is rising steadily in France (OCDE, 2017d; Cedefop, 2018a), whereas initial education, continuous training and labour market inequality do not seem to allow people to acquire, maintain and adapt their skills. As a result, both numeracy and literacy skills are lower than in the average OECD country. This gap is larger for older workers, which seems to reflect both the higher quality of initial education for the younger generations and a strong skill depreciation for French workers (Figure 1.16).

**Figure 1.16. The skills of the active population fall off rapidly as people age**




1. Simple average of the 28 countries with data available; the latter refer to the 2012-2015 period.
Source: OECD (2016), *Skills Matter—Further results from the survey of adult skills. OECD skills surveys*, OECD Publishing, Paris.

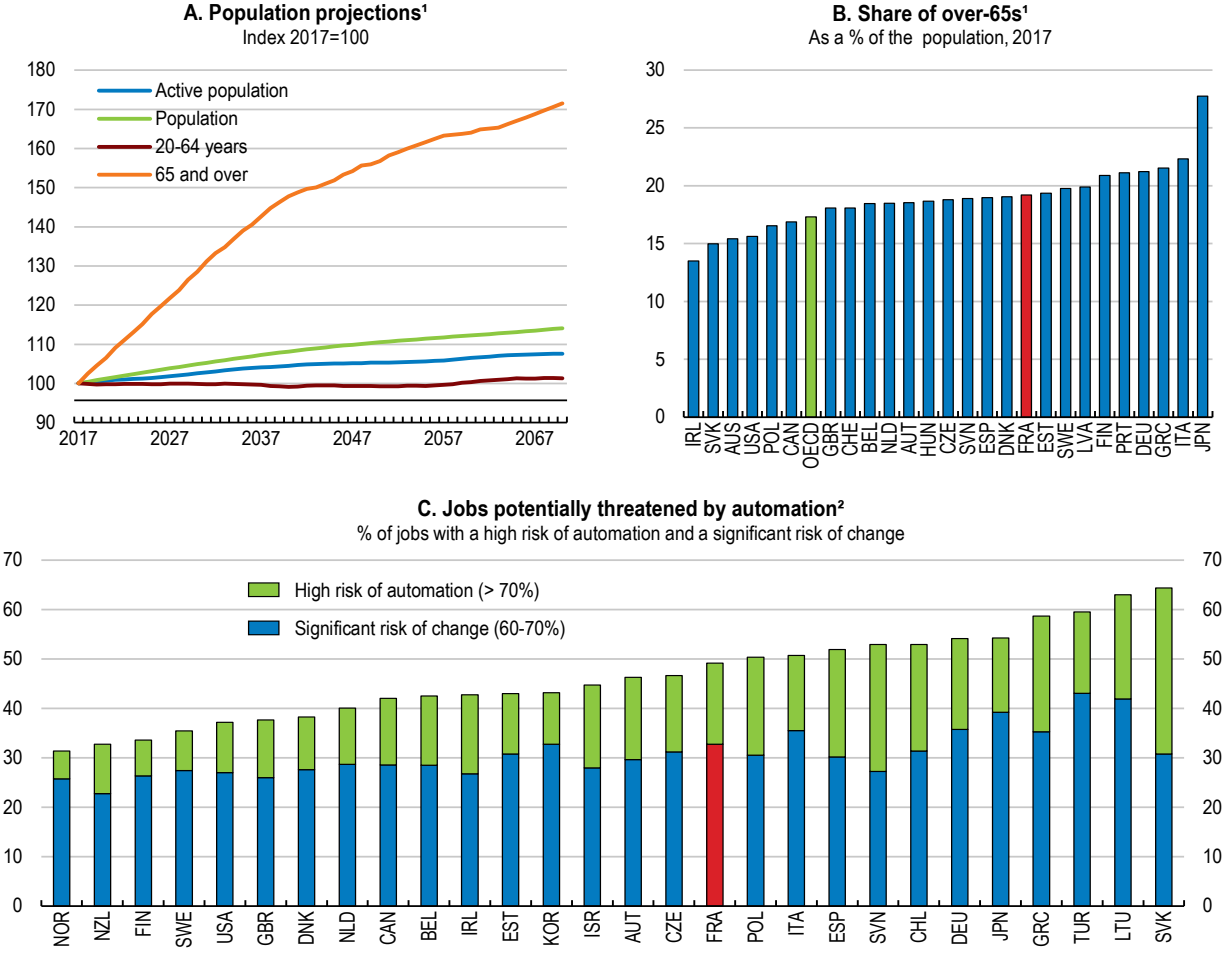
StatLink https://doi.org/10.1787/888933950428

The high rate at which skills become outdated makes it harder for seniors to find work, whereas the question of how to fund pensions and demographic ageing underscore the importance of the employability and working conditions of older workers. According to forecasts produced by INSEE, the national statistics institute, barring changes to the law, the rate of increase in the active population will be only just over half that of the global population between 2017 and 2070 (Figure 1.17, part A) (Koubi and Marrakchi, 2017). Seniors will therefore have to work until later in life, which questions their future employability and means they need to fight against stereotypes and discriminations.

Digitalisation may exacerbate the depreciation of skills for many workers, increasing inequality of income and opportunity. Almost 50% of jobs in France could become redundant or face risks of substantial changes due to new technologies (Figure 1.17, part C) (Nedelkoska and Quintini, 2018). Automation and digitalisation are set to further reduce demand for manual, repetitive tasks in the economy. At the same time, they will increase demand for interpersonal and problem-solving skills in order to ensure that machines and workers complement each other (OCDE, 2018e; COE, 2018).

The uncontrolled growth of the platform economy and new forms of employment could be another source of inequality. The development of platforms remains limited, and is estimated to account for 1% of total employment and 7% of independent employment in France (Gazier et Babet, 2018; Amar et Viossat, 2016). Its rise could be fast, however, driven by digitalisation and artificial intelligence. These platforms offer new employment opportunities, giving employees more freedom to organise their working hours, but they could also degrade job quality, as these new forms of employment partially replace salaried jobs with greater worker protection or, as market concentration in some sectors increases, by investing some employers with monopsonistic power (Montel, 2017; Schwellnus, 2018).

**Figure 1.17. Demographic ageing and automation are major issues**




1. Forecasts produced by the National institute of statistics and economic surveys (INSEE) up to 2070, central scenario.
2. Estimates by Nedelkoska and Quintini (2018) based on workers' tasks and data from the Programme for the International Assessment of Adult Competencies (PIAAC).
*Source*: OECD (2018), *OECD Population Statistics* (database); Koubi, M. and Marrakchi A. (2017), " Projections à l'horizon 2070 : Une hausse moins soutenue du nombre d'actifs", *INSEE Première*, No. 1646; Blanpain, N. and G. Buisson (2016), " Projections de population à l'horizon 2070", *INSEE Première*, No. 1619; Nedelkoska, L. and G. Quintini (2018), "Automation, skills use and training", *OECD Social, Employment and Migration Working Papers*, No. 202, OECD Publishing, Paris.

StatLink https://doi.org/10.1787/888933950447

In response to increasing inequality on the labour market, priority must be given to the development of quality jobs and the strengthening of productivity. Improving the prospects of high-quality jobs for the less-qualified and young workers would promote their professional and social integration, while ensuring that they continue to develop their skills. This priority will require more effective professional training and initial education, to support stronger and more inclusive productivity growth. It would also help to lower public spending thr reduced social contributions targeted at this part of the workforce.

It is also important to reduce labour market frictions to improve the use of skills, by better adapting employment protection and the support for workers' mobility. This will mean securing workers' labour market transitions and improving the geographical and social mobility of the most disadvantaged groups. Indeed, the sectors, occupations and regions affected by technological change are likely to be very concentrated (Jennequin, Miotti and Mouhoud, 2018). This would be based on existing schemes such as regional revitalisation programmes, support for employment and skill development (EDEC), the local experiments of "*territoires zéro chômeurs*" and the inclusion by economic activity (IAE). This programme would complement the ambitious reforms launched by the government, and would help to maximise their results.

## Strengthening and adapting people's skills

### *Promoting lifelong learning and skill acquisition*

Professional training and apprenticeships benefit from generous financing. Expenditures, including spending by businesses themselves, reach 1.6% of GDP every year (Mesnard, 2017 and 2018). Adults' access to formal training, however, is relatively low. As in a number of OECD countries, the lowest qualified, jobseekers and inactive workers struggle to access training, although ad hoc training plans have improved the situation for jobseekers (Figure 1.18 and 1.21) (OECD, 2017c; Balmat, 2018). Blue-collar workers and low-skilled employees still account for the majority of people who have had no further training beyond their original schooling (Guillemot and Melnik-Olive, 2018). There is also too little evaluation of the quality and effectiveness of training programmes.

A new reform was launched in 2018 to improve access to and the quality of training courses. The new system is scheduled to be ready in 2021, and is designed to mobilise workers' individual training entitlements (*droit individuel à la formation*—DIF) (Box 1.2), in addition to the implementation of a personal training account (*compte personnel de formation*—CPF) in 2014 which gave people individual rights which they could either bank or cumulate over different periods of employment (Brandt, 2015; OCDE, 2018f). It was hoped that these initiatives would promote access to training for the lowest-skilled workers and mobile workers who are more likely to change employer. The CPF, however, was not transparent enough, and implementing workers' rights was made more complex by the fact that other mechanisms for financing training were still in use. Furthermore, the use of these rights by jobseekers was being turned into nothing more than a funding scheme for training courses instead of helping to construct genuine career plan (IGAS, 2017).

The 2018 reform aims to develop access to training for low-skilled workers and jobseekers. The personal training account will now be established in euros instead of hours, a move that should correct the disparities in hourly training costs. In 2018, the average hourly cost of training came to ten euros for jobseekers and 23 euros for employees. The French national jobseekers' agency, Pôle emploi, applied a low hourly

cap of nine euros above which it was necessary to mobilise resources other than the CPF under complex conditions and with unreliable availability (IGAS, 2017; Martinot, 2018). The introduction of a single financing body in 2021, to replace the various authorities that currently organise training, will harmonise training funding. The hourly teaching costs that are covered currently vary according to the organising authority and have been a considerable source of complexity for users (Ministère du travail, 2018b; IGAS, 2017). Last, the monetisation of the CPF confirmed the hike in training rights for the least qualified workers which had already been introduced by the so-called Labour law in 2016.

**Box 1.2. The 2018 reform of continuous training**

The training section of the Act for the freedom to choose one's future career, which passed into law in September 2018, aims to simplify the training system, strengthen personal initiative and guidance, and to improve the quality and relevance of training.

First, regulation and governance have been intensified. A single body, *France Compétences,* encompasses both central and regional government, as well as workers' and employers' unions, and has replaced a governance system that was spread out across several sectors of industry. *France Compétences* has also been in charge of apprenticeships since the beginning of 2019. It will distribute financial resources to guidance, training and apprenticeship (within the legally set limits) and will organise professional accreditation, quality certification and training assessment. This law has also merged the collection of funds for training and apprenticeship, entrusting both to the collectors of social contributions as of 2021 (Box 1.3).

Second, there are changes to the operation of the CPF. The account was previously measured in training hours, but has now been monetised in euros. The amount of the annual payments is based on workers' skills and comes to between 500 and 800 euros; the total amount is capped at 5 000 and 8 000 euros. Part-time workers –if they work more than 50% of full-time hours - will also benefit from the same rights as full-time employees. An application will be launched in the autumn of 2019 to allow users to access training online. Under the reform, the hours accumulated in pre-existing CPFs will be converted into euros at a rate expected to be 15 euros per hour.

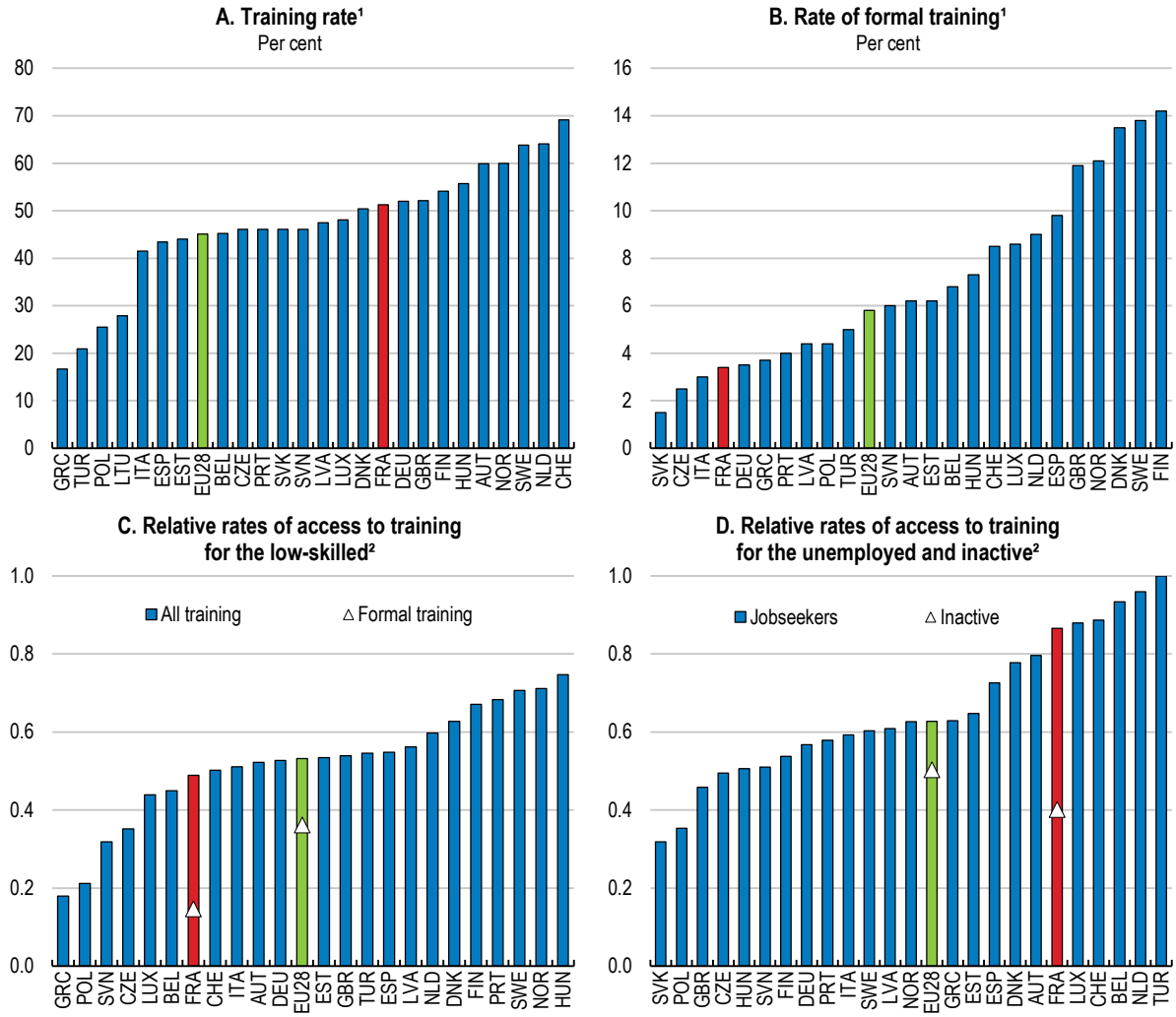
Third, the law introduces guidance for potential beneficiaries, as well as controlling the quality of and information about the training provided. Part of the funds dedicated to professional training and apprenticeship will now be earmarked for the careers advice offered (*conseils en évolution professionnelle*—CEP). Furthermore, improvements have been made to the monitoring of training quality. Training and apprenticeship bodies will have to be certified to obtain public financing as of 2021. The criteria for this certification, which will be harmonised, will replace an uneven quality system that was not sufficiently independent from the training bodies themselves (CNEFOP, 2017). These criteria have yet to be defined by decree.

*Source*: *Act for the freedom to choose one's future career*; CNEFOP (2017), *Rapport faisant synthèse des démarches Qualité menées dans le champ de la formation professionnelle, en liaison avec les financeurs*, National Council for Employment, Vocational Training and Careers Guidance (CNEFOP).

Fully mobilising this reform will mean facing three major challenges for the new institution in charge of the system, *France Compétences*. First, the price of training must be tracked very closely, as envisaged, in order to ensure sufficient access to training and

prevent price increases. Second, prices need to be much more transparent in order to allow potential users, especially the less qualified, to be able to compare them. Third, the question of the relevance of the training courses will become much more critical. Indeed, the restricted training lists issued until now have been discontinued, which will ease eligibility and access, but will require a quick implementation of certification mechanisms to improve information and orientation of potential beneficiaries.

**Figure 1.18. Access to professional training remains unequal, 2016**




1. Adults aged between 25 and 64 enrolled in education or training during the last twelve months.
2. Participation rate of adults with education up to the first cycle of secondary education (unemployed or inactive in panel D) compared to the participation rate of all adults.
*Source*: Eurostat (2019), "Adult training: Participation rate in education and training", *Eurostat database*.

StatLink https://doi.org/10.1787/888933950466

The set-up of an independent accreditation body represents a major opportunity to improve the transparency of and access to training. The 2014 reform provided for the implementation of quality control mechanisms; then, in 2017, training bodies were

required to publish and maintain the list of training courses funded based on six criteria. The "Labour" law of 2016 also introduced new monitoring requirements for those taking training courses, and the Pôle emploi agency publishes the figures of trained jobseekers subsequently finding work (CNEFOP, 2017). Information about training quality remains insufficient, however, and relatively inaccessible, owing largely to the lack of resources and independence of the bodies responsible for evaluation (Cour des comptes, 2017a; IGAS, 2017). The 2018 reform, which requires training bodies applying for funding to obtain independent certification by 2021, is a major step forward.

The selected quality criteria, as well as the transparency and access to the information collected will be vital for those taking the training courses (OECD, 2018f). There are currently almost 86 000 bodies offering training courses (Ministère du Travail, 2018a). All of the information available must be collated and made more accessible, and the impact of training on workers' careers needs to be accurately measured. The certification models applied in some OECD countries would be useful in establishing training specifications and quality criteria. Denmark, for example, has an independent evaluation agency for the entire education system, and in the Netherlands, the Kwaliteits Centrum Examinering assesses training providers and is responsible for their certification. Without the approval of this body, training providers lose the right to hold examinations (Cedefop, 2011).

Changing practice in the purchase of training courses would help to limit the risk of rejection of the most difficult candidates and the risk of fraud: in most cases, the purchase of training involves attendance hours, instead of packages for a given number of hours of training (Cour des comptes, 2018a). Yet, the least qualified trainees are more likely to drop out of training courses, and this reduces the payment to the training body. Purchasing conditions are also inflexible, preventing any changes to current training, because the funds are allocated to attendance hours on specific programmes.

The new monetisation system could encourage greater modularity. This will mean guiding trainees through modular training courses and setting up indicators to track the effectiveness of these courses over several years. Because of the increased simplicity in activating accounts, moreover, there will need to be more stringent controls of the quality and relevance of training in order to limit the risk of cost-sharing between training bodies and their trainees, especially the more senior trainees, whose training entitlement expires on retirement.

Other aspects of the training system remain imperfect; the financing of professional training is still provided by employer contributions and public money (Box 1.2). The co-financing of training by workers and businesses could be expanded in order to encourage increased individual initiatives and to better reflect the gains that individual workers can derive from training. In 2015, households only accounted for 5.6% of total spending on training in France, compared to 15% in Denmark, 16% in the United Kingdom and 35% in Germany (Cahuc, Ferracci and Zylberberg, 2011; Ministère du travail, 2017). These initiatives will be all the more important in the light of the fact that the financing of training for higher-skilled employees was actually cut by the 2018 reform since the total budget allocated to training remained unchanged. One such initiative might be that employees could be authorised to make voluntary payments by monetising their paid leave entitlements.

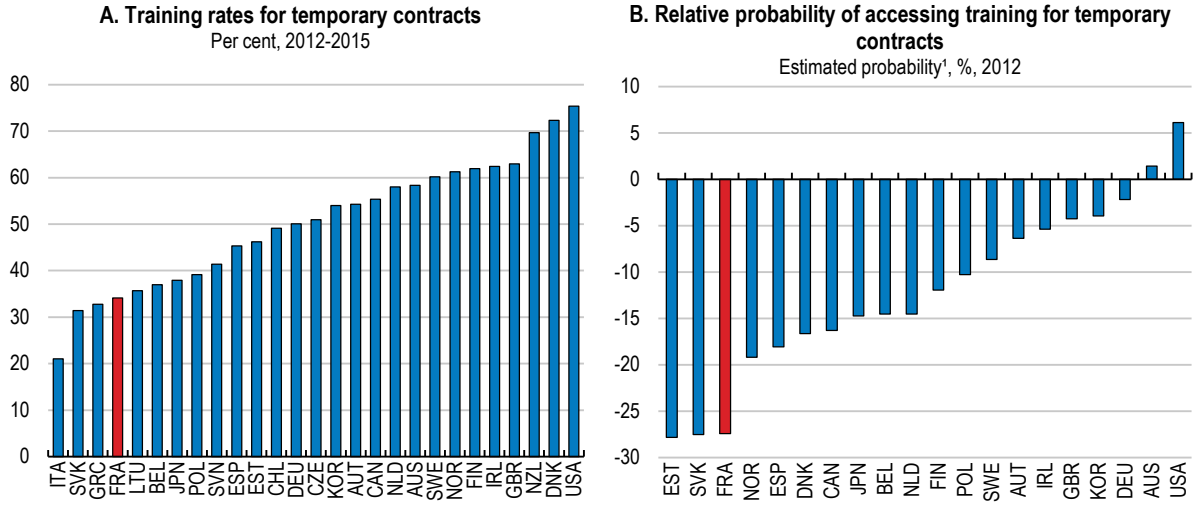
As careers grow longer, rolling out the validation of prior learning would support access to training. The validation of career experience has not expanded in any real sense since 2006 and the qualifications validated are focused on a narrow sector (Ministère du Travail,

2018; Abriac, 2018). Initiatives concerning basic skills and numeracy (CléA and PIX) and experimentation of innovative teaching practices, such as work-based learning (AFEST), are encouraging, but lengthy procedures, lasting an average of nine to sixteen months, act as a deterrent, caused by poorly prepared applications and the unavoidable organisation of local juries whose composition, financing and frequency can vary widely. The monetisation of the CPF could offer new financing options to support the validation of experience and improve the preparation of applications. But, local juries would continue to be a bottleneck, and it would help to shorten the procedures if remote systems and jury financing were further developed (Kaisergruber, Karim Komi and Rivoire, 2018).

Since 2014, the gradual roll-out of an approach by blocks of skills should allow a modular training offer to be developed, helping candidates to balance their professional duties with their training. However, the plan suffers from some inconsistency, with the blocks designed more like training modules than as a potential pooling of skills between different training courses (CEREQ, 2017; IGAS, 2016). Modular training in the form of online e-learning courses could be useful for people who cannot spend all the time they might wish to on their training or to those who are reluctant to return to traditional classroom training (OECD, 2017d). The digital applications designed for accessing the CPF could be useful in this context for the development of a wide range of digital training courses and the monitoring of the trainees; among OECD Member countries, in 2015, France ranked among those where this kind of training was least developed (OECD, 2017d).

More will also have to be done for employees on temporary contracts and the self-employed, who tend to have more frequent job mobility (Lhommeau and Michel, 2018), but are less likely to benefit from training (Figure 1.19). Under the reform of professional training in 2018, employers will continue to make a specific contribution of 1% of salary to employees on temporary contracts. For these employees, however, the training account will be credited according to the actual time worked, whereas part-time employees working more than half-time will enjoy the same entitlements as full-time employees. Moreover, for some training courses, the details concerning the seniority required to access some training courses remain to be determined. It will therefore be necessary to ensure that the specific contribution to employees on temporary contracts and any additional contributions fully allow employees on temporary contracts to access training courses.

**Figure 1.19. Access to training for workers on temporary contracts**




1. Percentage difference estimated in 2012 between workers on temporary contacts and those on permanent contracts in terms of the probability of having accessed a training course either paid for or organised by the employer during the year prior to the survey, obtained by factoring in their skills in reading, writing and arithmetic, as well as their individual characteristics. Data for Belgium concern Flanders only, while those for the United Kingdom concern only England and Northern Ireland.
Source: OECD (2019), *Getting Skills Right: Future-Ready adult learning systems,* OECD Publishing, Paris (forthcoming); OECD (2013), *OECD Skills Outlook 2013* (database).

StatLink https://doi.org/10.1787/888933950485

## *Increasing support for those in the greatest difficulty*

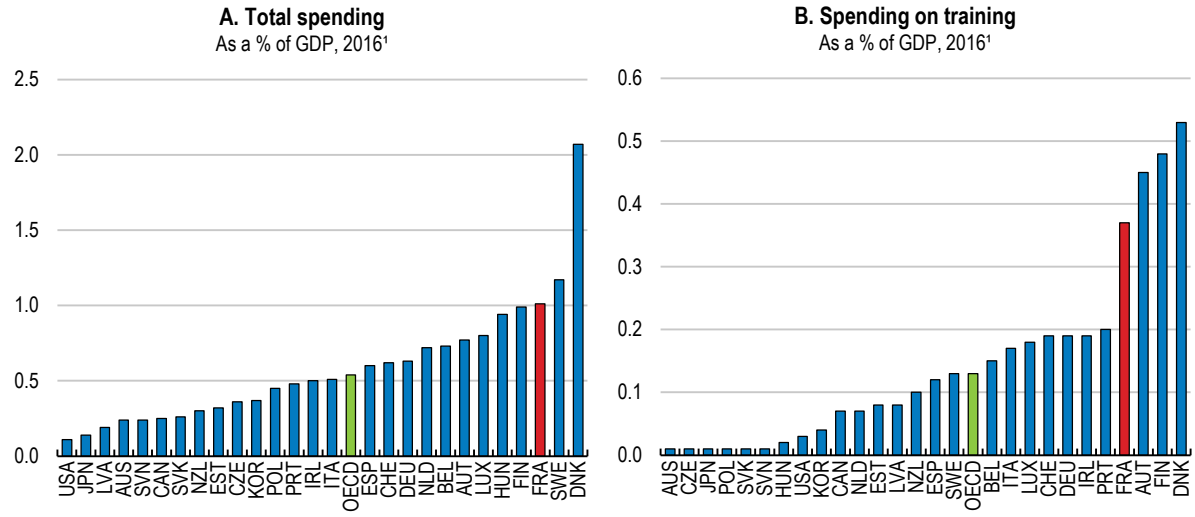
### *The government has focused on training the least qualified*

In a welcome move, the government has placed the focus firmly on the training of less qualified young people and jobseekers during the transition to the new professional training system. Under the skills investment plan (*Plan d'investissement dans les compétences*—PIC), EUR 15 billion will be spent on improving their access to long courses providing qualifications and providing personal guidance between 2018 and 2022, equivalent to 0.1% of GDP every year (Pisani Ferry et al., 2018). This will maintain France in the group of OECD countries where public spending on active employment policies, especially training – which is set to reach around 0.5% of GDP with the PIC -, is highest (Figure 1.20). The roll-out of this plan is based on regional commitments, contractualised over 2019-22; these funds will be added to the budget contributed by the regions themselves. This contractualisation between central and regional government asserts the leading role of the regions in training, and should generate synergies between guidance and training measures, and improve the tracking of credits.

Guidance in training will be especially important in ensuring that training is relevant to people's career paths. The funding dedicated to the CEP careers advice (*Conseil en Évolution Professionnelle*) as of 2019 represents an important step in this direction (Box 1.2). This careers advice system will be the go-to reference point for the entire workforce, and should provide a long-term link to the rest of the training sytem and the main stakeholders of labour market policies, whose absence had undermined previous schemes for jobseekers (Comité technique d'Evaluation - DARES, 2017; Cour des

comptes, 2018a). These services will be based on Pôle Emploi for jobseekers, and the network of local agencies for young people (*missions locales*). However, the resources allocated to the system remain low (around EUR 150 million for employed workers). This also raises the question of how to guide the most vulnerable groups who often struggle to identify the skills they need to acquire to achieve their professional goals (Cour des comptes, 2018), though numerous schemes, such as the youth guarantee programme, second-chance schools and centres for work-based insertion (EPIDE), already target the counselling of vulnerable workers through the PIC programme.

**Figure 1.20. Public spending on active labour market policies**




1. 2016 or latest available year (2015 for France).
*Source* : OECD (2018), *Statistics on Labour Market Programmes* (database).

StatLink https://doi.org/10.1787/888933950504

More generally, guidance for jobseekers and disadvantaged groups still needs to be increased. There urgently needs to be better co-ordination between the various agencies and greater numbers of better-trained staff—especially in terms of labour market knowledge and market needs for skills—to obtain high-quality jobseeking assistance. This will take close co-operation between national and local actors involved in measuring and planning for future needs for skills. The creation of a shared IT infrastructure that is common to Pôle emploi and other agencies with similar roles, such as local missions for young people, would help to improve the circulation of job vacancies.

In another positive move, the government is testing the merger of local missions with Pôle emploi in some regions. This will allow the pooling of knowledge about people's career paths, as well as about the agencies' administrative, financial and project engineering functions, which are often on too small a scale to be fully effective. Another option would be to roll out one-stop shops for different types of user, in which the different institutions would act as partners (Cour des comptes, 2016) like the centres for jobs and welfare in Norway. Whatever the case, Pôle emploi, the local missions and regional authorities need greater flexibility in their human resources in order to adapt local resources to the local situation and economic cycle.

### *Subsidised jobs have been refocused on the non-market sector*

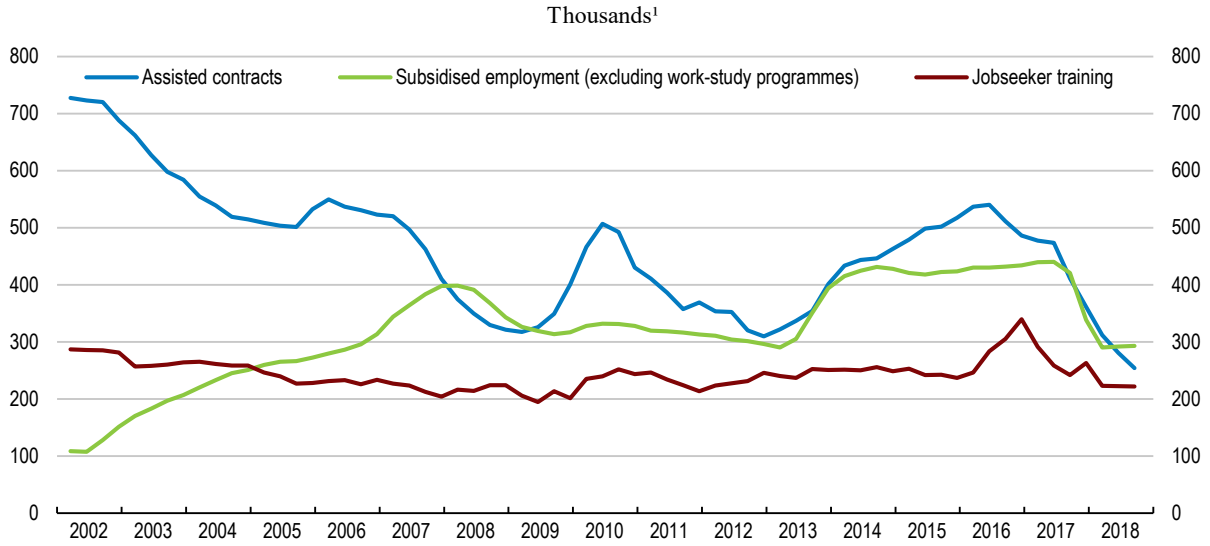
For groups that are the most estranged from the world of work, assisted contracts were replaced by the PEC (*Parcours Emploi Compétences*) in 2018 (Borello, 2018). This system, which reduces the cost of recruitment or training with either direct or indirect aid, has very wisely been aimed at the most marginalised groups, thereby limiting the possibilities that it will be used to replace existing jobs. It also officialises the requirements for training and guidance that have helped people back into work in the past. Jobseekers will be directed towards the scheme after a global assessment of their situation carried out by an advisor in the public employment department. The PEC is designed for jobseekers who lack experience and professional know-how rather than qualifications. The new contracts will be financed by regional employment integration funds (*fonds régionaux d'inclusion dans l'emploi*—FIE) into which the credits for assisted contracts and integration through economic activity have been paid since 2018. The authorities are expecting 100 000 jobseekers to enter the scheme in 2019.

Priority has been given to the non-commercial sector in order to limit windfall effects enjoyed by some employers in the commercial sector (Bernard and Rey, 2017), but this decision could incur the risk of falling out of step with the needs of the labour market (Cour des comptes, 2018b). Although no consensus has emerged from recent empirical research as to the relative effects of subsidised employment in the market and non-market sectors (Cahuc, Carcillo and Minea, 2017), these programmes must be assessed regularly.

If the results of the assessments were not conclusive, funds would have to be redeployed to work-study programmes in the commercial sector, with increased training and guidance, and new schemes such as the *emplois francs*, or zero-cost jobs. Under this scheme, which is currently being assessed, businesses and associations receive a grant if they hire jobseekers resident in priority urban areas (on the date the employment contract is signed), regardless of where the job is located, in order to improve social mobility. The scheme is currently targeted at these priority areas, but could be extended to the wider market, in order to take better account of economic difficulties.

The use of PECs must be closely watched, especially if there is a downturn in the economy. The rate of cover of the beneficiaries is limited to half the minimum wage (compared to an average of 76% in 2016 in the non-commercial sector) and the 2019 budget earmarked for assisted contracts is down by half the 2018 figure. This cut can be justified by the favourable economic conditions in 2017-19—experience in France and elsewhere has shown that subsidised employment programmes are more effective in periods of low growth (Card, Kluve and Weber, 2018 ; Cahuc, Carcillo and Le Barbanchon, 2018). If there were to be a downturn, however, the current scheme would have to be extended to the commercial sector for people closer to the world of work. In that case, employment grants could help to improve the opportunities of the low-qualified and to maintain their skills. But the individual costs of these programmes have also risen, with the additional requirements for monitoring and training, and this could keep employers' use of these contracts down after the low uptake seen in 2018 (Figure 1.21) (Viry, 2018).

**Figure 1.21. The number of beneficiaries of some employment policies has slumped**




*Note*: Thousands of beneficiaries at quarter-end (adjusted for seasonal variation). Assisted contracts include PEC, standard social integration contracts, *emplois d'avenir* and contracts in economic integration structures (*structure de l'insertion par l'activité économique*—SIAEs). Employment subsidies include schemes targeted at deprived areas, the *contrats de génération*—special contracts designed to combat age discrimination, exemptions from unemployment contributions when hiring young people on permanent contracts, grants to jobseekers setting up their own businesses and support for restructuring.
*Source*: DARES (2019), "Les dispositifs spécifiques d'emploi aidé et de formation au 3e trimestre 2018", *DARES database*.

StatLink https://doi.org/10.1787/888933950523

### *Improving young people's move into employment*

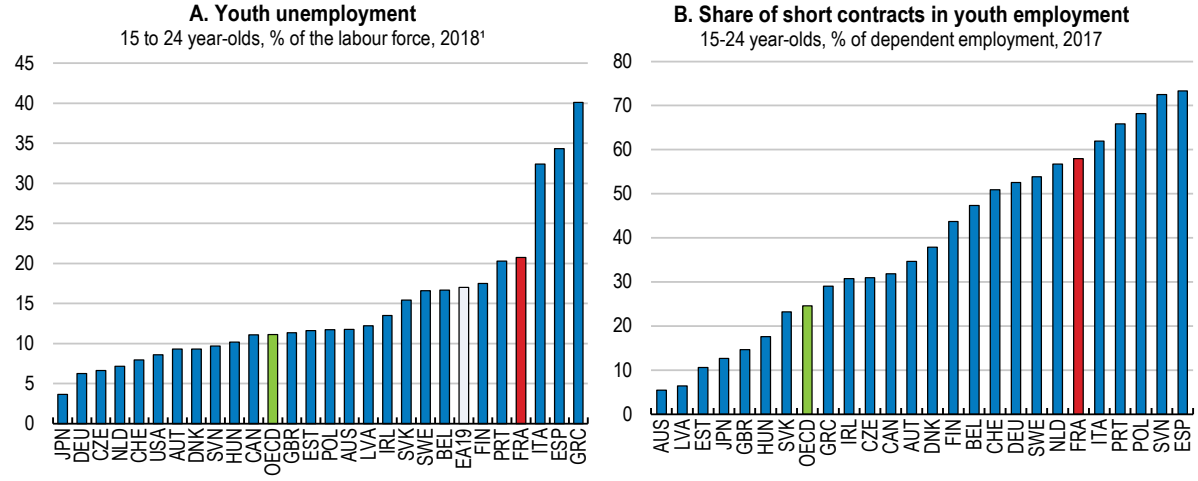
The workplace integration of young people with few qualifications is a specific issue. A very large number of the young unemployed have never worked (INSEE, 2018c) and the proportion of young people leaving school without jobs remains high (Figure 1.11). A combination of high unemployment and over-exposure to temporary contracts prevents labour market entrants from enjoying a satisfactory start to their career (Figures 1.22, 1.8 and 1.9).

By international standards, the French education system seems to be built on firm foundations, from a high rate of uptake at pre-school level, up to tertiary education which has seen substantial growth (OECD, 2015a ; OECD, 2017a). The results of the system are uneven, however, and closely reflect social inequality from generation to generation (Figure 1.23, parts A and B) (OECD, 2018g). The number of early leavers from the education system has steadily declined, but it remains close to 9% in 2017. Moreover, one in five young people has not mastered basic reading and arithmetic (PISA) (Galland et al., 2017). Integration into the labour market yields low employment rates, especially for those without higher education, and a mismatch between the qualifications obtained and the skills needed by employers (parts C and D).

Careers advice and individual guidance for the most disadvantaged youth should be strengthened in schools in order to prevent drop-out and improve both social and workplace integration. Support for vulnerable young people must continue to occupy a growing place in current concerns. The government has taken some positive steps towards

reducing class sizes in underprivileged areas. Several other measures would be advisable. According to the TALIS 2013 survey, French teachers do not feel that their training has given them sufficient preparation for teaching on receiving their qualification. A vast increase in the practice of positive teaching, by training the teaching staff in teacher training colleges—both during their studies and during continuous training—would be welcome (OECD, 2014 ; Algan, Huillery and Prost, 2018). The creation of new training centres (*instituts nationaux supérieurs du professorat et de l'éducation*) for teachers is a step in this direction. Teams of teachers should be encouraged to work together by restricting administrative tasks and by ensuring that they always have access to a meeting room (Florin and Guimard, 2017). It would also make sense to improve the assignment of teachers in order to respond to the different levels in students' schooling, by continuing to increase bonuses for teachers in the more challenging areas (OECD, 2017a) and tightening the links between school heads and their teaching staff.

**Figure 1.22. Young people struggle to enter the workplace**



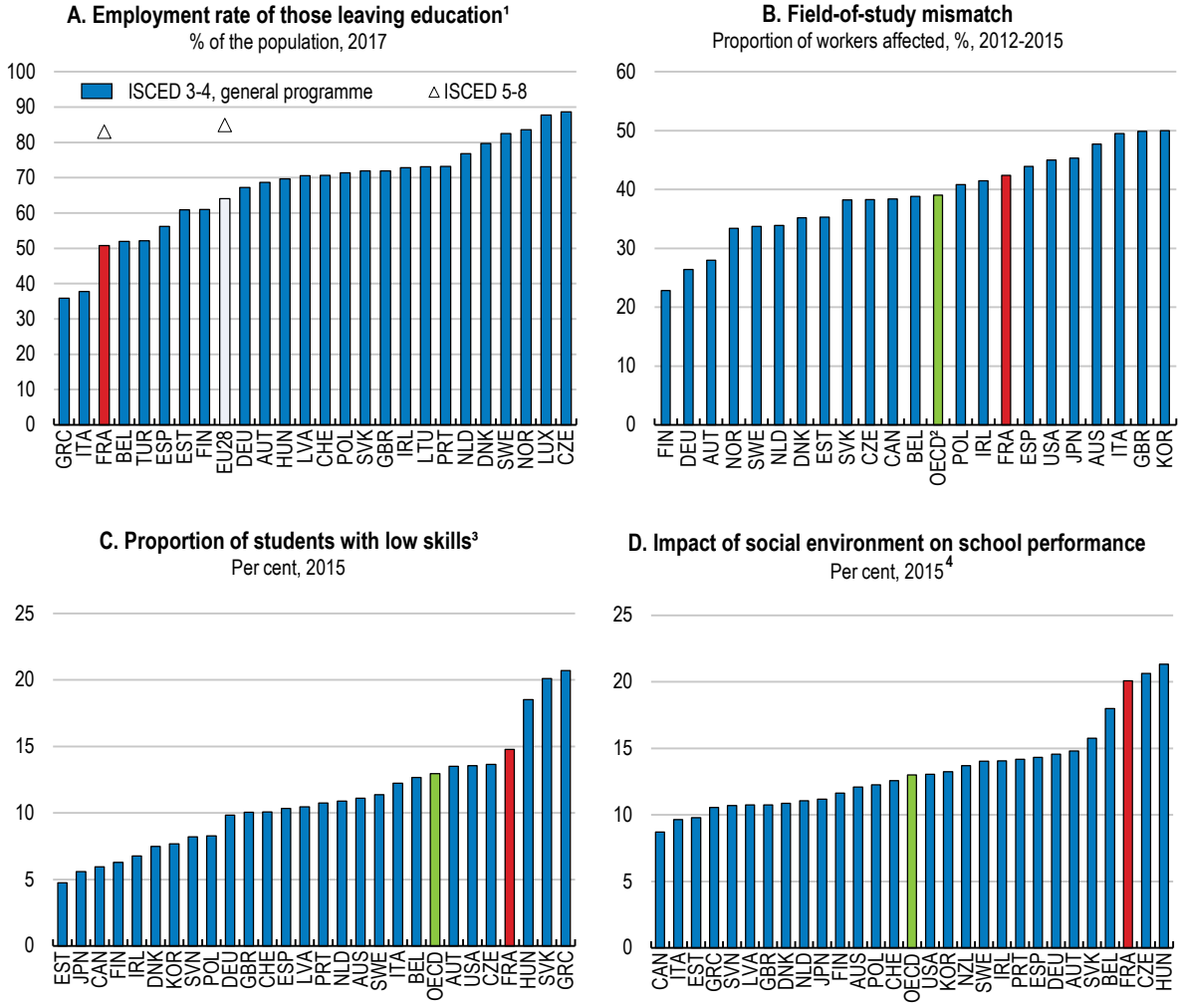

1. Average of the last four quarters.
*Source*: OECD (2019), *OECD Labour Force* and *Education Statistics* (databases).

StatLink https://doi.org/10.1787/888933950542

Careers guidance is decisive in ensuring that the supply and demand of labour are better aligned. Careers departments in schools have been updated to give them greater awareness of the world of work. The "parcours Avenir", created in 2013, allows every secondary student to draw up their information pathway during their years of secondary education, and the additional support from their middle-school work experience will also give them a greater understanding of businesses (Ministère de l'Education Nationale, 2018). Some *départements*, such as the Bouches-du-Rhône, have set up digital platforms to facilitate the first work experience placements (at age fourteen). In many cases, however, information on careers remains scattered between sources, and is disconnected from the needs of the labour market as assessed by other parties (OECD, 2017d). Furthermore, although collaboration between schools and employers allows students to discover the workplace, these practices are not universal. Encouraging them would also help students gain a better understanding of the different educational paths available (including vocational training and apprenticeships) and would help to correct the stereotypes and social inequalities that are perpetuated by people's career choices (Huillery and Guyon, 2014). The ongoing apprenticeship reform contains elements in this direction, such as

additional information on training quality, meetings with workers and employers and the set-up of job-specific preparatory tracks for middle school students. The generalisation and strengthening of student support in secondary education goes in this direction, with additional career guidance projects in lower secondary education and 54 hours per year of counselling in upper secondary education since 2018.

**Figure 1.23. The educational system perpetuates significant disparities**




1. Employment rate of the 20 to 34 age group, among workers who completed their studies with a mid-level qualification (ISCED levels 3 and 4, general programme) or a high-level qualification (ISCED levels 5 to 8) before the survey, and who are not currently enrolled in any other education or training, either formal or informal.
2. Simple average of the 22 countries for which data are available.
3. Percentage of students with poor results in the three PISA fields (science, reading and mathematics).
4. Change in students' performance in mathematics explained by the socio-economic context as measured by the PISA index of economic, social and cultural status.

*Source*: Eurostat (2018), "Labour status of young people by years since completion of highest level of education", *Eurostat database*; OECD (2013), *OECD Skills Outlook 2013* (database); OECD (2016), *PISA 2015 Results (Volume I), Excellence and equity in education*, OECD Publishing, Paris.

StatLink https://doi.org/10.1787/888933950561

Improvements have been made to the monitoring of school-leavers with no qualifications: the creation of a contractual framework (*Parcours Contractualisé d'Accompagnement vers l'Emploi et à l'Autonomie*—PACEA) in local agencies (*missions locales*) and the roll-out of the "youth guarantee" (*garantie jeune*) have given the 440 local missions a greater role to play in the guidance of the least-qualified young people. The youth guarantee, which is partly funded by EU money, combines refresher courses, closer monitoring and a (conditional) guarantee of income for the under-25s. Pilot schemes led to significant gains in terms of employment and employment quality for the most vulnerable candidates (Gautié, 2018). The new PEC (*Parcours emploi compétences*), and the creation of preparatory classes for apprenticeships (Box 1.3) and the expansion of some intensive refresher classes such as the *Écoles de la deuxième chance* (Second-chance schools, or E2C) and establishments for workplace integration (*établissements pour l'insertion dans l'emploi*—EPIDE) should also help open doors to qualifications and courses for students dropping out of school, while the requirement for young people having left school without having found a job to be on some kind of training course will apply up to age 18 instead of 16 as of 2020. The ongoing skills investment plan (PIC) also foresees the training of one million youth over five years.

It is important to ensure that the various schemes for groups facing different problems are consistent and are regularly evaluated. The governance of support systems for integration pathways is somewhat fragmented between local missions, regional government and other local players, which can sometimes lead to competition for funding between different programmes. The payment conditions for the different schemes in force vary, encouraging some candidates to base their choices on short-term interests. The assessment and monitoring of performance at local level would allow the authorities to ensure that the implementation of closer monitoring, such as the "youth guarantee", does not undermine the relevance of the recommendations of local missions and diminish quality.

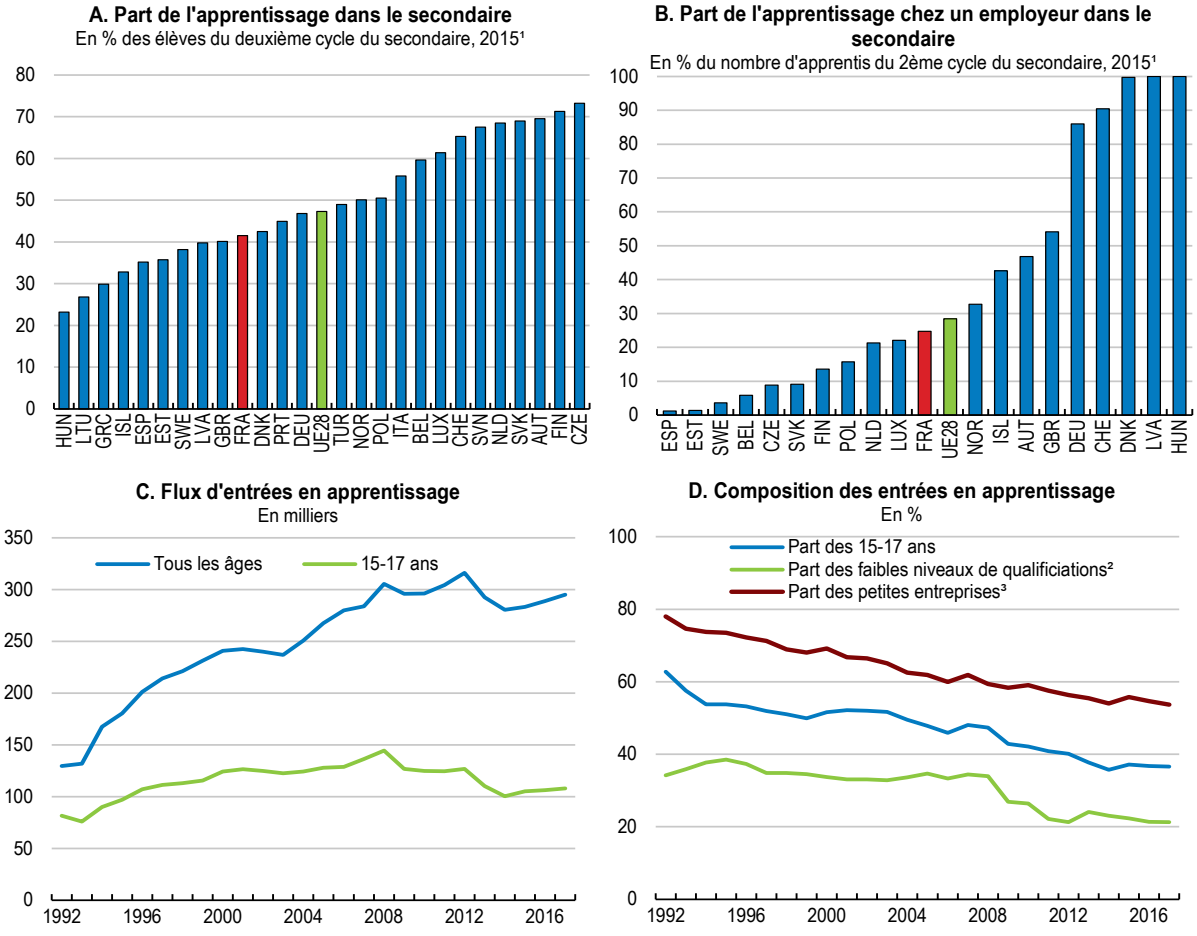
The expansion of work-study programmes is a promising route which can facilitate students' entry to the workplace (Charbonnier and Jamet, 2016), and numerous initiatives have been taken to encourage employers to offer apprenticeships (OECD, 2017d ; Centre Inffo, 2018). Apprenticeships and professionalisation remain underdeveloped by international standards, however, especially for young apprentices working in businesses (Figure 1.24, parts A and B) (Cedefop, 2018b). Even though the upturn in the economy has recently led to the numbers of new apprenticeships levelling off, the proportion of the youngest age groups in this figure, of the least qualified and of small businesses have continued to fall (parts C and D) (Pesonel and Zamora, 2017). Professionalisation contracts—an alternative scheme that allows candidates to take professional qualifications created by the professional sector—have also slumped for those aged 18 and under (Table 1.1) (Pesonel, 2018).

The government embarked on a new reform of apprenticeships in 2018 (Box 1.3). Under the terms of the reform, *France compétences* and the professional sectors will be responsible for apprenticeships, bringing them closer to the current professionalisation contracts. In the new framework, apprentice training centres (*centres de formations d'apprentis*—CFAs) will be funded on the basis of the number of signed contracts. This approach should reflect the effectiveness and attractiveness of the centres in their funding, and could partially correct the inequality in the use of apprenticeships created by the difference in financing between regions (Garrouste, Kramarz and Zizzo, 2018).

Sufficient account, however, will need to be taken of the different difficulties faced by the students, the quality of the training and fixed costs connected to location or the support

given to young people looking for host companies. Pilot schemes showed that the guidance of young people could play an important role in helping them obtain places in businesses (Crépon et al., 2017). Extra guidance in the search for host companies for young people enrolling in apprenticeships would be expensive, at an annual cost of almost 0.04% of GDP (Carcillo, Huillery and L'Horty, 2017). In order to improve the management of the total costs of work-study programmes and costs to employers, subsidies for apprentice training centres and host companies could be modulated according to the qualification being prepared for and the prior pathway of the prospective apprentice.

**Figure 1.24. Numbers of apprenticeship contracts and key trends**




1. Data for Ireland are not available; data for Italy, Latvia, Lithuania, Poland, Portugal and Slovenia are not available in Panel B.
2. Low qualification levels correspond to groups whose qualification on entry is a CAP or BEP (vocational qualifications).
3. Small businesses are those with fewer than ten employees.
*Source*: CEDEFOP (2018), "Statistics and indicators" (http://www.cedefop.europa.eu/fr/publications-and-resources/statistics-and-indicators/statistics-and-graphs); DARES (2018), "The characteristics of apprenticeship contracts from 1992 to 2017", *DARES database* (https://dares.travail-emploi.gouv.fr/dares-etudes-et-statistiques/statistiques-de-a-a-z/article/le-contrat-d-apprentissage).

StatLink https://doi.org/10.1787/888933950580

**Table 1.1. New apprenticeships and professionalisation contracts**

| | 2010 | 2012 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|---|
| **All ages** | | | | | | |
| Apprenticeships | 296107 | 315911 | 280321 | 283268 | 288809 | 294833 |
| Professionalisation contracts | 152920 | 178825 | 176308 | 185874 | 195326 | 209276 |
| Total | 449027 | 494736 | 456629 | 469142 | 484135 | 504109 |
| Annual change (%) | 3.3 | 3.8 | -1.8 | 2.7 | 3.2 | 4.1 |
| **Aged 18 and under** | | | | | | |
| Apprenticeships | 168781 | 169170 | 141989 | 146039 | 147902 | 151025 |
| Professionalisation contracts | 16188 | 16986 | 14747 | 13911 | 13972 | 14749 |
| Total | 184969 | 186156 | 156736 | 159950 | 161874 | 165774 |
| Annual change (%) | -1.5 | 2.8 | -5.7 | 2.1 | 1.2 | 2.4 |
| **Share of those aged 18 and under (%)** | | | | | | |
| Apprenticeships | 57 | 54 | 51 | 52 | 51 | 51 |
| Professionalisation contracts | 11 | 9 | 8 | 7 | 7 | 7 |
| Total | 41 | 38 | 34 | 34 | 33 | 33 |

*Note*: Recruitment flow, i.e. new contracts started during the course of the year.
*Source*: DARES (2018), New apprenticeships and professionalisation contracts.

**Box 1.3. The 2018 apprenticeship reform**

The 2018 law "Loi pour la liberté de choisir son avenir professionnel" entrusted a new operator—*France Compétences*—and the professional branches with responsibility for apprenticeship. Apprenticeships were previously managed by the regions.

All training bodies that have voiced a decision to set up a work-study programme will be able to do so without authorisation from and agreements with the regional government. Each contract will allow the training body to obtain funding at the contractual cost defined by the branch or by *France Compétences*. The funding of training bodies will be supplemented in 2019 through an equalisation mechanism between professional branches co-ordinated by *France Compétences*. The regions will still have the authority to intervene in operational and investment issues in the apprenticeship training centres.

Several measures aim to enhance the attractiveness of the main apprenticeship scheme (*apprentissage*) to apprentices and their potential employers. One such measure is the simplification of contractual procedures and available assistance, the raising of the age limit (from 25 to 29) and length of the working week, the increased net income received by apprentices and higher allowances to help apprentices take their driving test and the option to continue classroom training if the work contract is terminated. The professionalisation of the role of apprenticeship master, moreover, like the development of preparatory classes for apprenticeships, should ensure that apprentices receive better support.

The law also introduces changes to an alternative scheme (*contrats de professionalisation*) which prepare candidates for a professional qualification and are open to young people, jobseekers, claimants of some social benefits and those with a subsidised contract. From now on, contracts may be partly completed abroad and their maximum term has been increased from 24 to 36 months for groups facing the greatest difficulty in integrating into the workplace. For these same groups, local initiatives will also help to roll out professionalisation contracts in order to help them acquire qualifications.

Source: Loi pour la liberté de choisir son avenir professionnel.

The new model of apprenticeships by professional sector could help to meet the needs of businesses (Box 1.3), although other measures will also be necessary to ensure a better match for the need for skills. Increasing continuous training for the teachers of these students would help them to keep up with new business practices. Another useful step would be to adapt the validation of professional qualifications by cutting down the weighting of general subjects, which often prevents less motivated students obtaining professional status (Cahuc, Carcillo and Zimmermann, 2013). At the same time, the strategic capacity of the professional branches running apprenticeship programmes will have to be increased and supported (Cedefop, 2018b). This will mean increased collaboration between the different parts of the system because the financial and programming responsibilities of the regions, local missions and the Ministry of National Education in the field of apprenticeships and the workplace integration of young people remain dispersed, and this has undermined efficiency in the past (Cour des comptes, 2016).

Increasing work-study options for young people will have to take advantage of the ongoing reform of vocational schools to encourage on-the-job learning. Vocational schools take one third of students, but suffer from a poor reputation and offer fewer opportunities for work-study programmes (Calvez and Marcon, 2018). Often, students who are struggling at school are encouraged to follow a vocational course, which is problematic for their further study and requires stronger mastery of the basics on leaving primary school. Apprenticeships in training centres (CFAs), based on hands-on teaching in the workplace from the first day and on a more succinct theoretical curriculum, have had far better results in terms of workplace integration (OECD, 2015b). Welcome reforms are planned which will usher in these changes by offering access to apprenticeships in all vocational schools, encouraging greater modularity of curricula for students, joint activities between technical and general teachers and closer ties to the local economic fabric (Ministère de l'Education Nationale, 2018).

## Encouraging job quality and productivity gains

### *Improve incentives to work for low wage earners*

Restoring weak productivity growth, including through training and support, is a prerequisite to improve living standards and wages. Nevertheless, taxes and social benefits are also vital instruments for improving net incomes for low-wage workers, strengthening work incentives and ensuring a broader distribution of productivity gains. They can have a considerable influence on net wages and labour costs, especially in France, which has some of the highest labour taxation in the OECD (OECD, 2018h).

In 2018-2019, the government put in place and launched tax and benefit reforms with a view to reducing labour costs and increasing net incomes of low-wage workers, primarily by strengthening the *Prime d'activité* in-work benefit. The direct effects of these reforms, ignoring any behavioural effects, have been simulated using the OECD Tax-Benefit model (TaxBEN) (Box 1.4). The results show that the reforms lead to a significant increase in the net incomes and living standards of low-wage workers, as well as to stronger work incentives for jobless individuals. For 2019, the reforms result in an 8.6% increase in net income of a single-person household at the minimum wage level (without taking into account the increase in the minimum wage as of January 2019). Net household income at the minimum wage level relative to median net household income, work incentives for the unemployed, and incentives to work more hours at the minimum wage level are also strengthened, with France having one of the highest levels of net minimum

wage income in the OECD (Figure 1.25). However, the final impact of these reforms on labour costs and net wages will depend on the relative bargaining power of worker and companies (OECD, 2018c).

**Box 1.4. The 2018 and 2019 tax and benefit reforms, and their simulated effect**

The French government has implemented and announced four tax and benefit reform packages in 2018 and 2019. The direct effects of these reforms on net household income, labour cost, and work incentives, ignoring behavioural effects, have been simulated using the OECD Tax-Benefit model (TaxBEN) and are shown in Figures 1.15 and 1.25 (Carcillo et al., forthcoming).

The first reform concerned *employee social security contributions*. Between 2018 and January 2019, the contribution rate was reduced by around 3 percentage points for all employees, notably by abolishing health insurance and unemployment contributions. The rate of the *Contribution sociale généralisée* (CSG), an income levy for social security purposes, was increased by 1.7 percentage points, while the lower rates for benefit recipients remained unchanged.

The next two reforms concerned the *Prime d'activité*, an in-work benefit comprising a lump-sum amount that depends on family composition and a work bonus based on individual earnings. In October 2018, the monthly lump-sum amount was increased by 20 euros for a single-person household, whereas the phase-out of the *Prime d'activité* was made slightly steeper. The most significant reform, adopted in January 2019, extended the individual work bonus, increasing net monthly income by 90 euros at the full-time wage level for a single-person household.

Lastly, *employer social security contributions* will be reduced by around 4 percentage points throughout 2019 for full-time minimum wage earners. This reduction phases out to zero at 1.6 times the minimum wage. At the same time, the *Crédit d'impôt pour la compétitivité et l'emploi* (CICE), a tax credit on profits equal to 6% of wages below 2.5 times the minimum wage, will be abolished and offset by a general reduction in employer social security contributions for health.

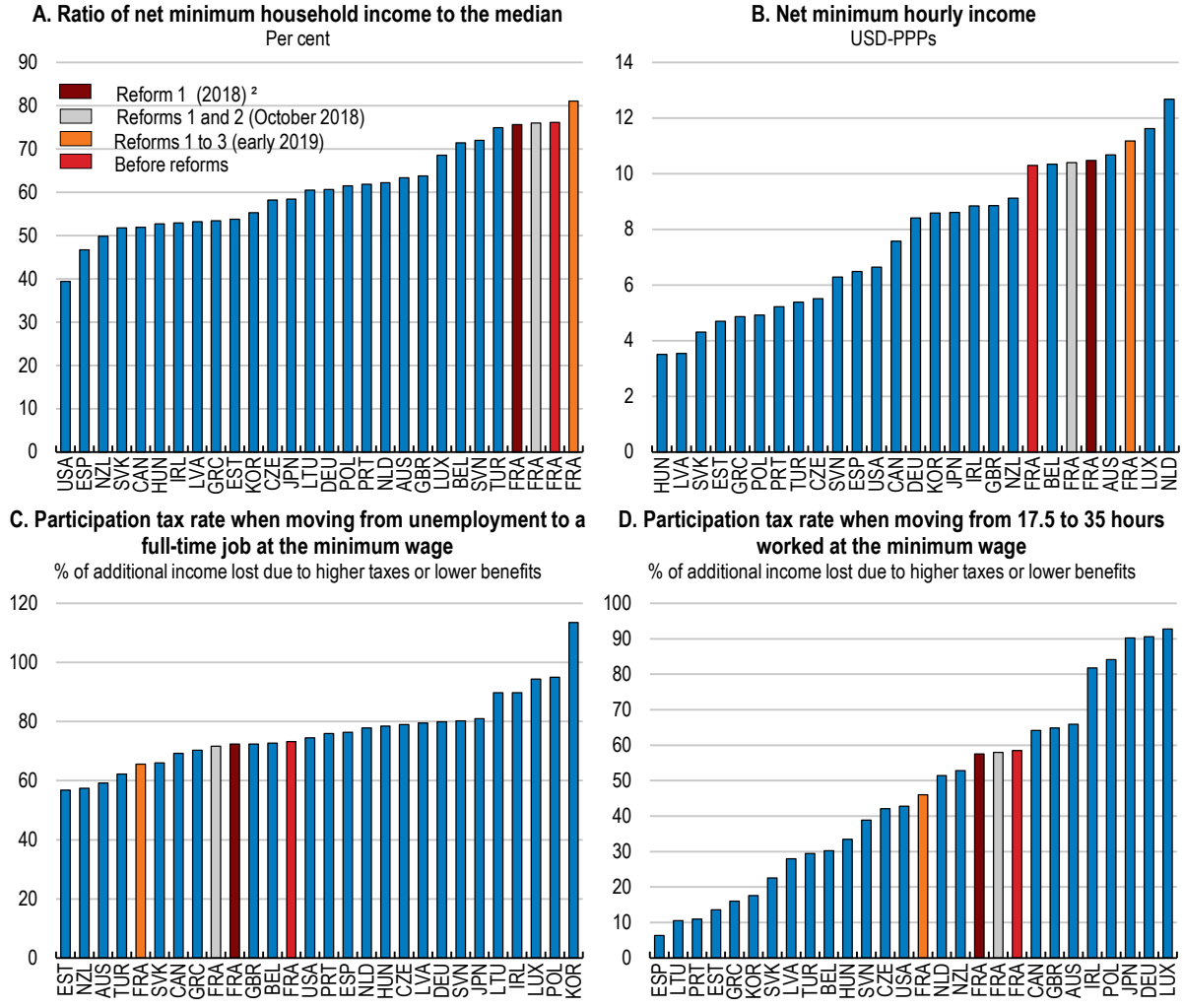
The simulations using the OECD TaxBen model are based on the following assumptions:

- Households are comprised of a single person aged 40 with no children who works in the private sector, generates all of his/her income from employment and possesses no other financial assets. His/her housing costs represent 20% of the average wage;
- The wealth tax, property taxes including the abolition of the *Taxe d'habitation* for 80% of households, indirect taxation, and (early) retirement benefits, sickness benefits and in-kind benefits such as subsidised transport and free healthcare are not taken into consideration;
- All earnings data are based on the situation in 2018 in order to isolate changes resulting from the reforms. Accordingly, the increase in the minimum wage in 2019 is not taken into account.

*Source: Carcillo et al., (forthcoming), Implementing the OECD Jobs Strategy – France.*

**Figure 1.25. The simulated effects of the 2018 and 2019 tax and benefit reforms**

2018[1]




1. Except for Canada (2017) and France. The simulations are based on a household comprising a single individual without children; they include the CICE but not the increase in the minimum wage in 2019.
2. Reform 1 includes the reforms (implemented and announced between 2018 and 2019) aimed at reducing employee social security contributions. Reform 2 concerns the first phase of the reform of the *Prime d'activité*, completed in October 2018 (20 euro increase in the monthly flat). Reform 3 covers the new measures which came into force on 1 January 2019 (further improvements to the *Prime d'activité* in order to increase net household income by 90 euros to the level of the minimum wage). See Box 1.4 for more details on the reforms.
*Source*: OECD (2019), Calculations by the Secretariat using the OECD's TaxBEN model; Carcillo et al., (forthcoming).

StatLink https://doi.org/10.1787/888933950599

The reforms are also expected to increase employment through behavioural effects. The French government has chosen to use the *Prime d'activité* as the main lever for increasing net incomes as it targets groups which are more sensitive to financial incentives in their behavioural reactions, notably by offering a higher lump-sum amount to single-parent households with low wages (Immervoll and Scarpetta, 2012). In addition, the fact that the *Prime d'activité* is allocated on a permanent basis to entitled households rather than for a limited duration is likely to elicit stronger labour supply responses (Van der Linden, 2016). Even if the relatively complicated design of the *Prime d'activité* may reduce labour

supply responses (Chetty, Friedman and Saez, 2013), the high rate of uptake (over 70% in 2016, well above the 32% uptake of its predecessor, the *RSA activité*), underpinned by online application forms and simulations to self-assess benefit eligibility, suggests that it is relatively easy to apply for this benefit (MSS, 2017).

The decision to support low-productivity workers mainly be extending the *Prime d'activité* is also expected to help reduce poverty. The *Prime d'activité* appears to be an effective instrument for fighting poverty, as it targets households with low incomes (Ministère des Solidarités et de la Santé, 2017; Schmitt and Sicsic, 2017). It is therefore welcomed that the reform is expected to increase the number of eligible individuals by 33% of individuals (CAF, 2018). In addition, its effectiveness in raising net incomes is ameliorated by the fact that France has a high minimum wage, which will prevent employers from capturing these new programme benefits through lower wages (OECD, 2018c). The *Prime d'activité* reforms, and the reform aimed at reducing employees social security contributions, are therefore likely to raise net incomes without increasing the labour costs, as recommended by the new OECD Jobs Strategy (OECD, 2018c).

The reforms targeting workers with earnings at the full-time minimum wage will have repercussions for those working part-time and/or with a higher hourly wage (Carcillo et al., forthcoming). Single person households with earnings around 1.3 times the full-time minimum wage will benefit substantially from the extensions to the *Prime d'activité*. The effects will be even stronger for households with children, who receive a higher lump-sum amount. Individuals with even higher earnings will gain relatively more from the employee social security contribution reductions. However, the incentives for part-time workers with a median or average hourly wage to increase their working hours could diminish significantly for some populations, as a transition from part-time to full-time employment can result in a relatively larger loss of benefits than previously.

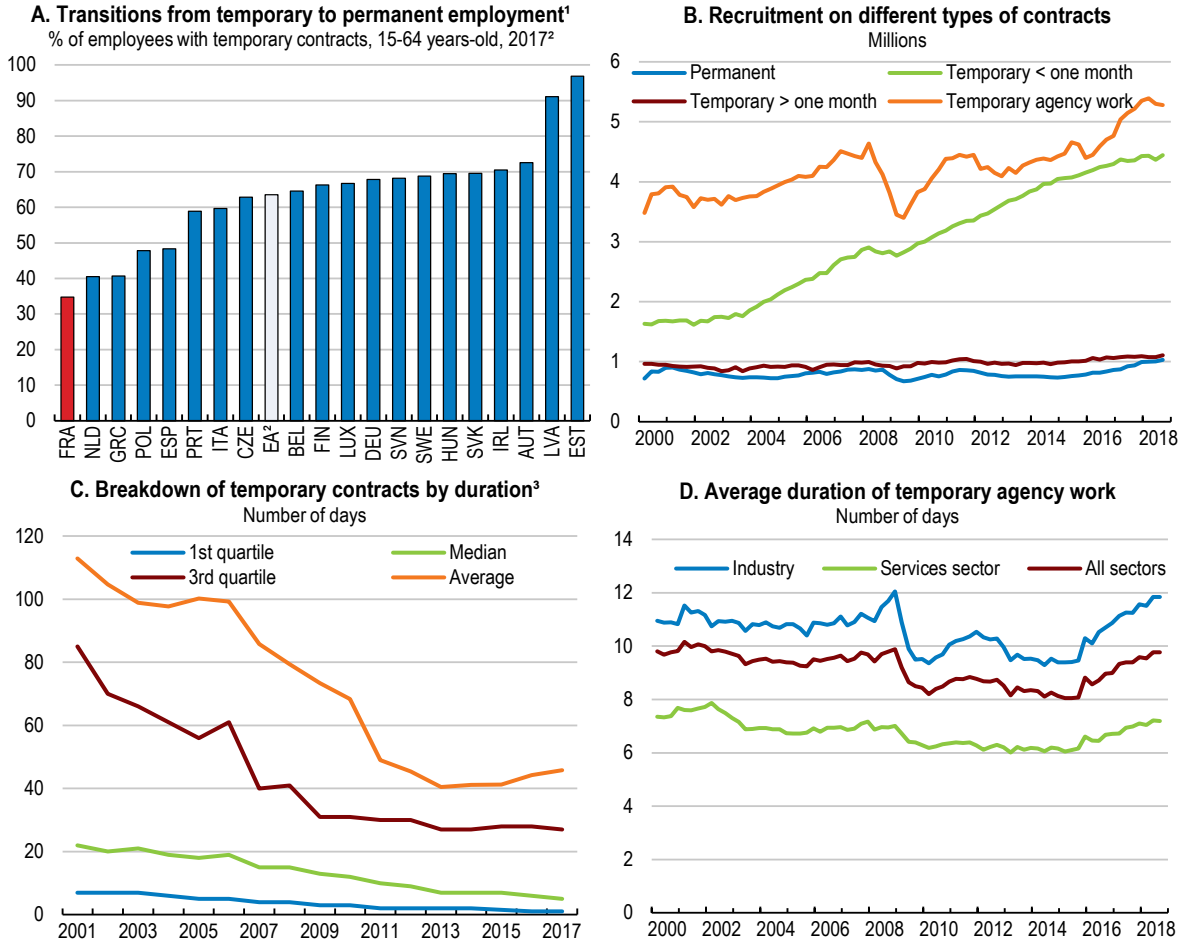
### *Reducing labour market duality*

A more inclusive and better performing labour market will also require improved matching of job offers to demand and mobility of the most efficient workers to the most productive enterprises to support productivity gains and the creation of high-quality jobs. Indeed, the frictions to matching job vacancies to jobseekers seem high by international comparison (Murtin and Robin, 2018). In the medium term, improved matching and worker mobility would create positive synergies with skills upgrading. According to OECD estimates, the level of French labour productivity, which is already high, could increase by 3% if frictions in the labour and product markets were to be reduced to levels of the best-performing OECD countries (Adalet-Mcgowan and Andrews, 2015).

A small part of the working population employed on temporary contracts bears a disproportionate brunt of labour market adjustment costs in France. The high proportion of temporary contracts does not imply a better chance of gaining access to permanent employment (Figures 1.4 and 1.26, part A). In fact, the higher the proportion of temporary contracts, the lower is the probability for a person with a temporary contract to to obtain a permanent contract three years later (OECD, 2018): In France, only one in three temporary workers obtain an permanent contract within three years, half as many as in Germany and Sweden. In addition, the use of successive temporary contracts over ever-shorter periods has increased their over-representation in hiring flows (parts B to D). As stated in the new OECD Jobs Strategy, these frictions between stable and unstable employment results in the latter absorbing adjustments in the event of shocks, limits the labour market integration of young people and undermines labour market resilience

(OECD, 2018). Employees on temporary contracts are overrepresented in occupations with more routine tasks (Kahn, 2018), and are generally less well-paid, enjoy lower job security and have fewer chances of receiving on-the-job training (OECD, 2015; Berson, 2018). This leads to difficulties in accessing housing and credit, which further complicates their career prospects.

**Figure 1.26. Temporary contracts provide little access to more stable jobs**




1. Probability over three years of transition from a temporary contract to permanent employment, as a percentage of salaried workers in temporary employment aged 15-64; average for 2004-15, except for Germany (2007-15).
2. Euro area member countries that are also members of the OECD, excluding Lithuania (16 countries).
3. Private firms, 50 or more employees (excluding agriculture and temporary work agencies), mainland France.
*Source*: OECD (2019), OECD estimates based on European Union Statistics on Income and Living Conditions (EU-SILC) and the German Socio-Economic Panel (SOEP) for Germany ; Milin, K. (2018), "CDD, CDI : comment évoluent les embauches et les ruptures depuis 25 ans", *DARES analyses*, No. 026; DARES (2018), L'emploi intérimaire; ACOSS (2018), *Déclarations préalables à l'embauche*.

StatLink https://doi.org/10.1787/888933950618

Several recent reforms have attempted to reduce the uncertainty regarding the termination of permanent contracts and to reduce the use of temporary contracts. The impact of these reforms has been assessed using the OECD Employment Protection Legislation index

(OECD EPL index) (Box 1.5). These reforms to employment protection and labour courts have sought to reduce legal uncertainty around dismissal procedures for both employees and employers. The regulations governing permanent contracts have been relaxed (Figure 1.27, part A). At the same time, the index for the regulations governing temporary contracts has remained at a high level (part B). However, in specific sectors, temporary contracts that are exempted from certain statutory restrictions (called *CDD d'usage*, Box 1.6) are not taken into account in the EPL index, and the 2017 Ordonnances have allowed branches to provide more flexible rules regarding the maximum number and duration of temporary contracts than foreseen by the law through the use of derogations in agreements. The decrease in employment protection legislation is even larger when considering the specific components of the index related to the difficulty of individual dismissal for permanent contracts (part C), as a mandatory schedule for compensation for unfair dismissal was introduced and procedural breaches were clarified.

**Box 1.5. The 2016 and 2017 employment protection reforms**

The OECD carried out a preliminary update of the OECD Employment Protection Legislation Index (OECD EPL Index) for France and other OECD countries which have implemented major reforms in this area (Figure 1.27 and Carcillo et al., forthcoming). The update indicates that the regulations governing permanent contracts have become more flexible, mainly as a result of the introduction of a binding schedule for compensation for unfair dismissal and the clarification of procedural breaches, while regulations for temporary contracts, with the exception of temporary contracts that are exempted from certain statutory restrictions allowed in specific sectors (*CDD d'usage*, Box 1.7) have remained high despite some slight easing.

In France, two major reforms have attempted to limit the use of temporary contracts by increasing incentives to hire on permanent contracts: the 2016 Law on employment, modernisation of social dialogue and safeguarding of professional careers (the "Labour" Law, so-called El Khomri Law) and the Ordonnance of September 2017 on the predictability and securing of employment relationships. These reforms clarified the definition of real and serious cause for the dismissal on economic grounds of employees on permanent contracts, and aimed to improve the predictability of compensation in the event of unfair dismissal, as recommended in the new OECD Jobs Strategy (OECD, 2018).

*Clarification of the definition of fair dismissal and procedural breaches*. The "Labour" Law introduced objective criteria for the definition of economic difficulties that give sufficient ground for dismissal for economic reasons in terms of a significant reduction of at least one of the indicators referred to in the Law. The Ordonnance limited the scope of assessment of an economic situation justifying a fair dismissal for companies in the same group and operating solely on national territory (thus excluding foreign companies in the same group). The Ordonnance also clarified the definition of a procedural breach. If there are no other reasons for considering the dismissal to be unfair, the procedural breach results in compensation which may not exceed one month's salary.

*Increased severance pay*. The *Ordonnances* reduced the minimum tenure required for entitlement to severance pay from 12 months to 8 months. It also increased severance pay by 25%, from 1/5 to 1/4 of the monthly salary per year of service.

*Establishment of a binding scale for compensation for unfair dismissal*. An indicative scale for compensation for unfair dismissals was introduced in 2016 and made obligatory in 2017. The maximum level is around one month of salary per year of service up to 10 years of tenure, followed by a declining increase up to 30 years of tenure. The minimum level increases with the tenure up to a maximum of 3 months of salary, and is lower for smaller firms. The scale is not applicable in the event of discrimination and harassment. Nevertheless, the actual scope of the scale still needs to be confirmed by case law. Indeed, some lower courts have ruled that a maximum level on compensation limits the ability for judges to award an adequate compensation in the event of unfair dismissal, which violates to Article 10 of ILO Convention No. 158 and Article 24 of the European Social Charter. However, some of the signatories of these texts have also introduced scales (Spain, Portugal, and Finland, for example, see Box 1.6).

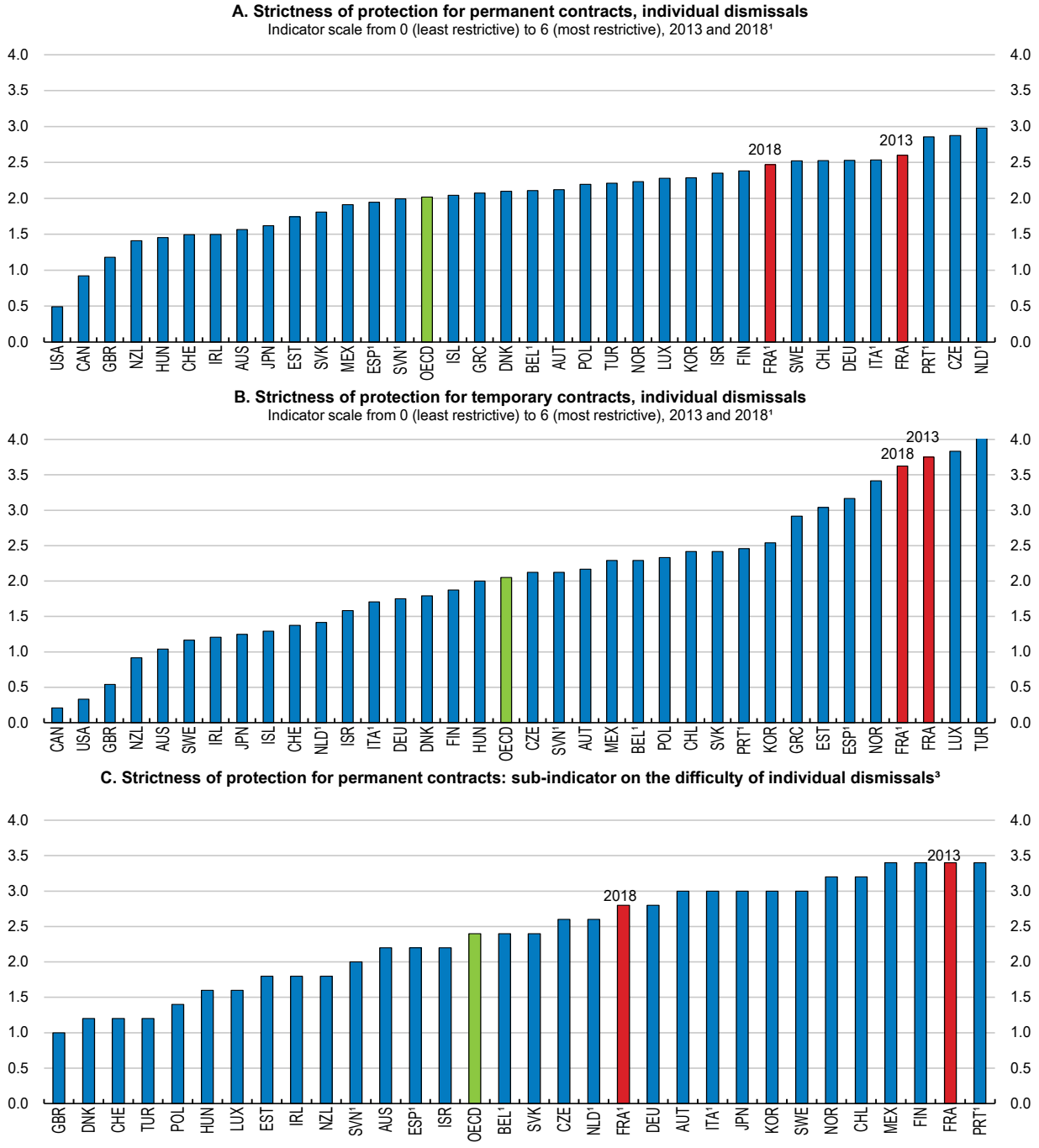
*Reduction in the maximum period to challenge dismissal in court*. The maximum period to challenge a dismissal in court was reduced from an average of 24 months to 12 months for dismissals on all grounds, after having been reduced to 2 years in 2013.

*Introduction of a collective scheme for termination by collective agreement ("rupture conventionnelle collective")*. These new voluntary departure plans are mutually agreed by workers and employers. They have to be approved by the regional directions of the Ministry of Labour. The agreements set notably the number of departures, the eligible workers, the rules to compute their severance pay and measures to ease their guidance and employment.

Source: The "loi relative au travail, à la modernisation du dialogue social et à la sécurisation des parcours professionnels du 8 août 2016" (Law No. 2016-1088) and the *Ordonnance* on the predictability and securing of employment relationships of 22 September 2017 (Ordonnance No. 2017-1387).

Uncertainty regarding the legal costs of dismissals has decreased significantly. The introduction of negotiated contract termination (*rupture conventionnelle individuelle*) in 2008 has proved very popular as a means of partially replacing dismissals. In addition, objective criteria for economic difficulties that give sufficient grounds for dismissals for economic reasons were specified in 2016 within the framework of the "Labour" Law, thereby limiting disputes and the courts' discretionary space. The scope of assessments of economic difficulties for dismissal were also limited to companies of the same group operating at the national level only in the *Ordonnances* in 2017. However, the obligation to redeploy a worker prior to economic dismissal was not abolished, even though the *Ordonnances* restricted this to the national territory, and simplified the procedure for presenting job vacancies.

**Figure 1.27. Comparative changes in employment protection restrictiveness**




1. Provisional estimates for 2018.
2. The indicator does not take into account derogatory contracts, such as the "CDD d'usage".
3. The subindicator assesses several dismissal difficulties: procedural inconveniences for employers engaging in a dismissal process, notice periods and severance pay in the case of fair dismissal and the permissible grounds for dismissal and the repercussions for the employer if a dismissal is found to be unfair.

*Source*: OECD (2018) *OECD indicators of employment protection* (database); Estimates by Carcillo et al. (forthcoming).

StatLink https://doi.org/10.1787/888933950637

A framework has been put in place for challenging grounds for dismissal. Since 2015, the so-called "Macron Law" (*loi pour la croissance, l'activité et l'égalité des chances économiques)* requires that challenges to dismissal procedures which are brought to labour courts should be substantiated and supported by comprehensive case files. In addition, the Law strengthened the ethics and training of members of labour courts. An indicative scale for compensations in the event of dismissals deemed to be unfair was introduced in 2016 and became mandatory in the *Ordonnances* in 2017 (Boxes 1.5 and 1.6). The scale is based on the employee's tenure and firm size (over or under 11 employees). At the same time, severance payments have increased by 25%. In addition, the maximum period to challenge a dismissal was reduced from 5 years to 2 years in 2013, and then to 1 year in 2017. Despite this substantial reduction, the maximum period to challenge a dismissal in France remains among the highest in the OECD, where the timeframe is often less than or equal to three months.

**Box 1.6. Legal limits on worker compensation in case of unfair dismissal in other countries**

Legal limits on the level of compensation that can be granted by judges in case of unfair dismissals (excluding cases of discrimination or harassment) exist in many OECD countries. Like France, Spain, Portugal, Finland, and Sweden impose restrictions on the level of compensation in the case of unfair dismissal and have also ratified ILO Convention no. 158 and the European Social Charter on termination of employment. In Sweden, for example, workers are entitled to reinstatement after unfair dismissal and compensation. Instead of reinstatement, the employer can provide an allowance of 16 months of salary for employees with less than 5 years of tenure, 24 months between 5 and 10 years, and 32 months for more than 10 years. In Finland, the allowance is set between 3 and 24 months of salary, depending on several factors including tenure, the age of the employee, the length of unemployment period, or the loss of income. However, Finland has been condemned by the European Committee of Social Rights for violation of the European Social Charter.

There are also OECD countries that have implemented binding compensation schedules and have ratified the European Social Charter, but not ILO Convention 158. Italy, with the introduction of the Jobs Act in 2014, specified a fixed scale according to the employee's tenure, preventing judges from any discretionary space to determine the level of compensation. However, the Italian Constitutional Court overruled this regulation in 2018. Belgium has also introduced an allowance between 3 and 17 weeks of salary, with no legal link with tenure.

Finally some countries that have ratified the European Social Charter, but not ILO Convention 158 make use of an indicative schedule. For example, in Germany, the indicative schedule depends on tenure with a maximum of 12 months of salary. This maximum is increased to 15 months if the worker is more than 50 years old and has more than 15 years of tenure, and 18 months if more than 55 years old with more than 20 years of tenure.

Source: Cahuc, P., Carcillo, S., Patault, B. (2018) "Are pro-worker judges detrimental to firm survival and employment?", Mimeo.

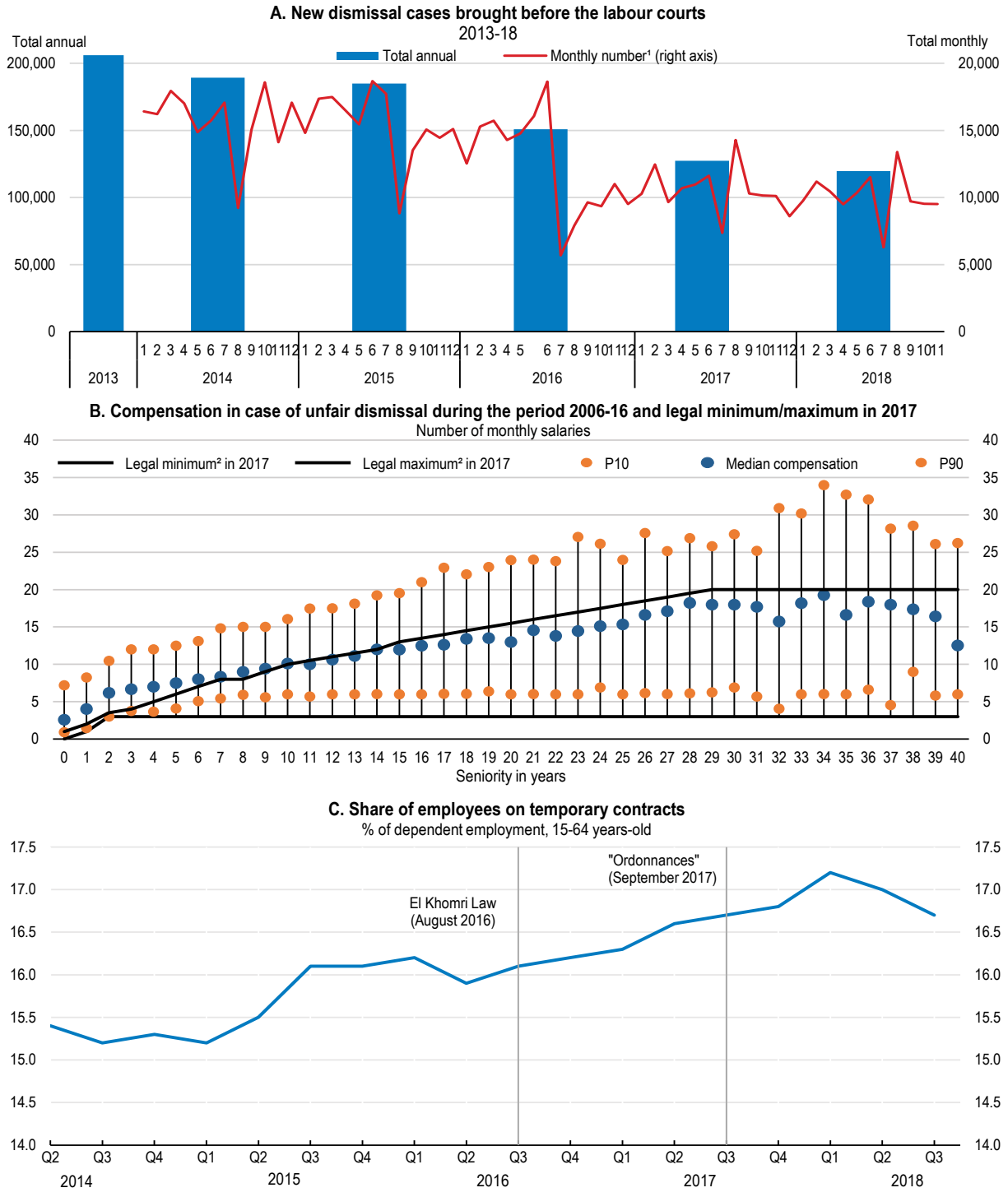
Better clarified and more predictable costs of ending permanent contracts are expected to encourage long-term recruitment, employment and productivity. Recent data for France are encouraging, even if it is difficult to isolate the effects of the *Ordonnances* in 2017 (France Stratégie, 2018): use of labour courts has continued to diminish and the incidence

of temporary employment has fallen since the start of 2018 (Figure 1.28, parts A and C). In addition, the entry into force of the obligatory scale for compensations granted by labour courts could also reduce uncertainties surrounding court decisions by restricting compensations awarded to a level close to the past median amount, and could have a significant positive impact on the performances of small companies (part B) (Cahuc, Carcillo and Patault, 2019). Similar reforms in other European countries such as Spain, Italy and Portugal, have had positive repercussions on the creation of stable jobs (European Commission, 2018; OECD, 2017e). Based on past experience in OECD countries, the changes in France's indicator of permanent employment protection between 2013 and 2018 (Box 1.5) are also linked with an increase in productivity of around 0.3% over a 10-year period (Égert and Gal, 2017).

Moreover, a form of taxation of short-term contracts was introduced between 2013 and 2017 to finance a premium for recruiting young people on permanent contracts. Employer social security contributions to unemployment insurance were increased by three percentage points (from 4 to 7%) for temporary contracts shorter than one month, and by 1.5 percentage point for temporary contracts of under three months. However, numerous exemptions have been granted. Employer social security contributions for *CDD d'usag*e, which are exempted from certain statutory restrictions and which account for most of the recent increase in short-term temporary contracts (Box 1.6), went up by only half a percentage point, and temporary agency work employment and seasonal contracts were fully excluded. Evaluations reveal the limited and even counterproductive impact of partial measures that differentiate contribution rates based on employee turnover (Berson and Ferrari, 2017 ; Cahuc et al., 2016), which may reflect the lack of targeting and the weak differentiation in social security contribution rates of these measures (Coquet and Heyer, 2019).

Three areas of reform could limit adjustment costs for employees and firms, and improve job quality, by partially replacing some short-term contracts by more stable contracts. Firstly, a review of sector regulations, especially the rules governing derogatory temporary contracts "*CDD d'usage*", would limit their excessive use (Box 1.7). Steps must be taken to ensure that regulations do not constitute unnecessary barriers to the development of permanent contracts (Marie and Jaouen, 2016). For example, initiatives such as permament contracts for temporary work agencies are interesting. Similarly, in the medical and welfare sector, recruitment on permanent contracts for replacement activities is limited and could be encouraged to offset multiple absences. Consultation with social partners until the end of 2018 is expected to help identify other practices. Moreover, a "total" duration or a cap on the number of successive times a derogatory temporary contract can be renewed, possibly on a sector basis, could be envisaged, as is already the case for *CDD de droit commun* for which the total duration is limited "for a same or equivalent position". An initial step could be to limit the total duration of all temporary contracts, including derogatory ones, regardless of the specific position held with the employer, as is the case in Italy for example.

**Figure 1.28. Referrals to labour courts and the rate of temporary contracts have decreased**




1. Estimates for the last four months of 2018.
2. The legal minima and maxima apply to companies with 11 or more employees.

*Source*: Cahuc, Carcillo and Patault, (forthcoming) based on 57 000 appeal court rulings ; Ministry of Justice - Statistics and Studies sub-directorate (SDSE); Eurostat (2018), "Monthly labour force survey", *Eurostat database*.

StatLink https://doi.org/10.1787/888933950656

### Box 1.7. Derogatory temporary contracts and TWA employment

Derogatory temporary contracts (*CDD d'usage*) are used in a limited number of sectors of activity, mainly in tertiary industries, which reflects and old and frequent practice of not using permanent contracts due to the nature of the work involved. These contracts can be renewed without limitation and do not need to include a contract expiry date. There is no waiting period between ending one contract and signing another, and there are no severance payment.

At the level of the economy, in 2014 these contracts represented 5% of paid employment (full-time equivalent) and 20% of recruitments, and in the tertiary sector these proportions rose to 7% and around 40% (Marie and Jaouen, 2016). Between 2000 and 2010, the sectors using the *CDD d'usage* accounted for two thirds of the increase in recruitments on temporary contracts of under one month (ACOSS, 2011). In 2017, recruitments on temporary contracts dominated recruitments in the tertiary sector. (Table 1.2).

**Table 1.2. Recruitment on temporary contracts and TWA employment per 100 employees, 2017**

| | Temporary contracts (CDD) | TWA (Intérim) | Combined[1] | Proportion of TWA (%) |
|---|---|---|---|---|
| Industry | 9 | 214 | 223 | 96 |
| Construction | 5 | 180 | 186 | 97 |
| Tertiary | 109 | 78 | 187 | 42 |
| **Total** | **77** | **120** | **197** | **61** |

1. Temporary contracts and TWA. Private-sector institutions of over 50 employees (excluding agriculture).
*Source*: Milin, K. (2018), "CDD, CDI : comment évoluent les embauches et les ruptures depuis 25 ans", *DARES analyses*, No. 026.

The industry and construction sectors have greater recourse to temporary contracts through TWA (*Intérim*). These contracts can only be used for fulfilling a specific and temporary task, called a mission. Workers on TWA contracts are employees of the temporary work agencies and are seconded to the user enterprise for a limited duration. TWA employment represented 3.0% of total private employment in 2017 but the majority of recruitments. In the second quarter of 218, the average duration of missions was 10 working days i.e. shorter than the average duration of temporary contracts. (Figure 1.24).

*Source*: Marie, E and V. Jaouen (2016), "Évaluation du contrat à durée déterminée dit d'usage (CDDU)", *Report by IGAS - Inspection générale des affaires sociales*; ACOSS (2011): "Les déclarations d'embauche entre 2000 et 2010 : une évolution marquée par la progression des CDD de moins d'un mois", *ACOSS-Stat*, No. 143.

Secondly, it would be useful to further reduce uncertainty surrounding labour court practices. The number of dismissal cases to labour courts fell by 38% between 2013 and 2017 but the average timeframe for processing cases increased from 15.8 to 17.3 months in 2017. This reflects the impact of selection towards the most conflictual cases, the underuse of simplified conciliation procedures, and the courts' lack of resources, as there are not enough arbitrating judges (*juges départiteurs*) to deal with all the cases, and IT resources are limited. In addition, in 2015 over two-thirds of the labour court rulings were appealed. (Rostand, 2017). France and Mexico are the only countries in the OECD to use

only lay judges in the initial phase of labour court procedures. Support for labour court members from professional members of the judiciary through mixed courts of lay and professional judges (*échevinage*) could help improve the quality of the decisions. This would complement the mandatory training for new judges introduced in 2018 and could initially be tested in the most backlogged jurisdictions. Early conciliation could also be strengthened by penalising parties which do not attend court in person, as is the case in the United Kingdom, using fines for example (Yazidi and Darmaillacq, 2014).

Thirdly, a review of the rules governing unemployment insurance could help put an end to incidences of optimising behaviour by employers and employees. Revising the rules on the cumulation of unemployment benefits and employment, and on the accumulation of entitlements, which had been relaxed in 2014, could reduce the incentive for employers and employees to use excessively short-term contracts. Indeed, these rules allow for the permanent cumulation of unemployment benefits and earnings, while continuing to create new entitlements to unemployment insurance for the current job. Though workers mostly endure the repetition of short-term contracts (*permittence*), the system encourages short-term employment as opposed to long-term contracts, and may act as an incentive to cumulate low earnings and benefits over the long term (Gonthier and Vinceneux, 2017). Restricting the current possibilities to cumulate benefits and earnings over time could preserve positive incentives for returning to work while limiting successive short-term contracts (Cahuc and Prost, 2015).

Moreover, as the new OECD Jobs Strategy points out (OECD, 2018c), integrating an incentive for longer-term contracts by varying "employer" insurance contributions by employment duration would encourage that employers internalise the costs of short-term contracts related to productivity and training, as well as to unemployment insurance expenditures. This could take the form of contributions that decrease with tenure for some contracts or a bonus/malus system incentivising users of short-term contracts to take into account their separation rates. Both these measures, however could lead to some workers losing their jobs.

### *Strengthening collective bargaining*

According to the OECD, the French collective bargaining system was relatively centralised and uncoordinated, making it similar to the systems in other countries such as Iceland, Italy, Portugal and Slovenia (OECD, 2017b). In the new organisation, sector-level agreements are dominant and there is limited space for active wage co-ordination for macro-economic purposes across sectors and firms. The French system also has some specific features. The legal space for collective bargaining is constrained by the minimum wage at the national level and at the sector level (Gautier, Roux and Suarez-Castillo, 2018). In addition, the government may extend sector-level agreements to firms which have not taken part in the negotiations, which leads to a high coverage rate of agreements compared to the number of enterprises involved in the negotiations (Figure 1.29). These extensions acted as economic and social regulations. However, the new and small firms are less involved in collective bargaining (Langevin, 2018) and these extensions could have acted as barriers to entry and distorted competition. Lastly, union membership rates are very low (Figure 1.29).

The 2016 reform and the 2017 *Ordonnances* changed the relationship between sector-level (*branches*) and firm-level agreements. Firm-level agreements now take the precdence in most negotiation areas (Box 1.8), which allows a better adaptation to firm needs. The precedence principle of these agreements is a clear progress in terms of

allowing firms to be more responsive to the economic situation. The 2017 *Ordonnances* have also confirmed the role of *branches* in social and economic regulations. Sector-level agreements take the precedence in some negotiation areas and can define default regulations in the areas where firm-level agreements have the precedence.

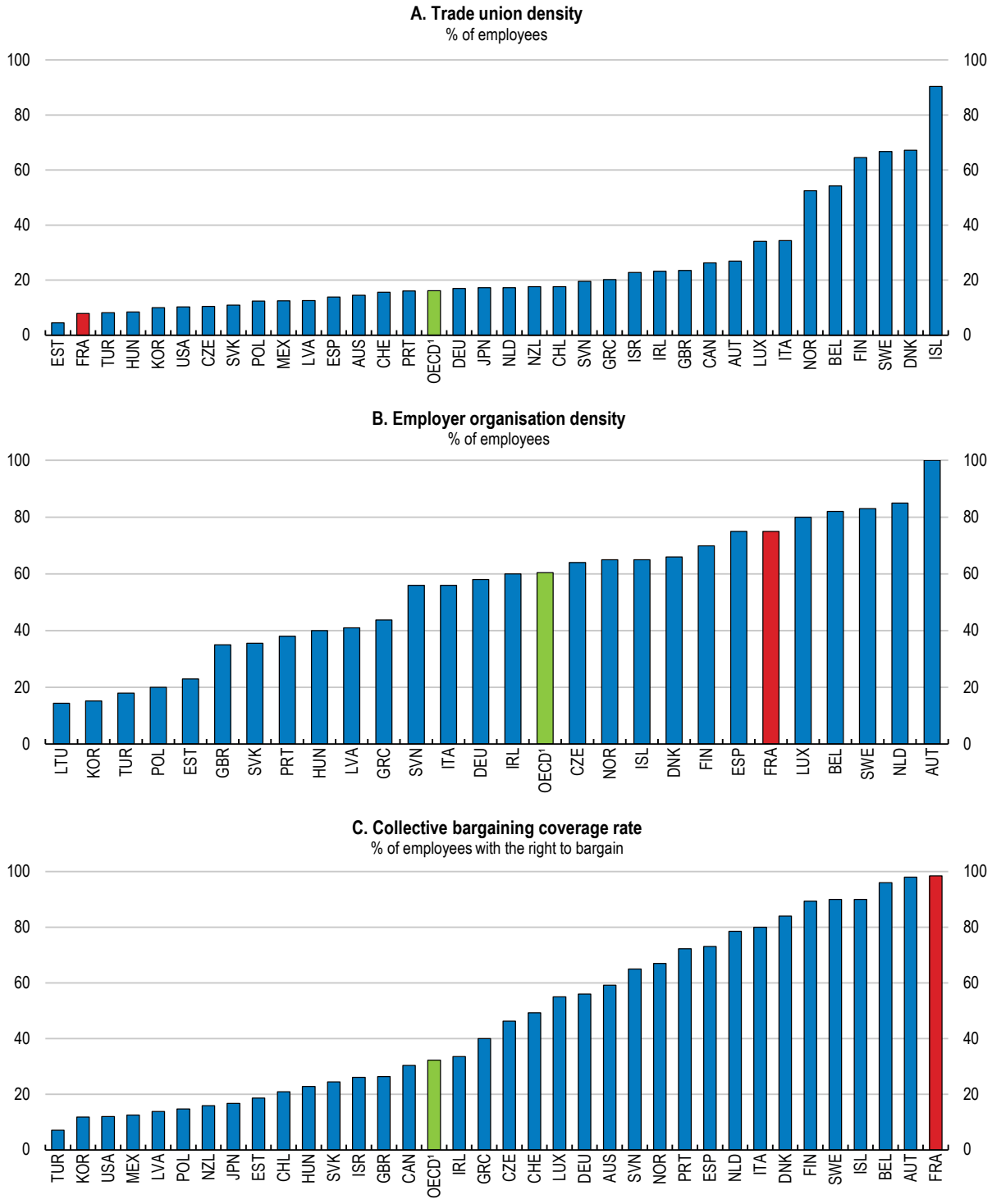
Moreover, the 2017 reforms gave more space to firm-level agreements as sector-level agreements will no longer be systematically extended if they pose a threat to economic and social efficiency, in accordance with OECD recommendations (OECD, 2018c ; OECD, 2017a). The Labour ministry can commission a group of experts to determine the opportunity to extend a sector-level agreement. This could make firms and wages more flexible in adapting to economic conditions and productivity gains, which would raise employment (Murtin, de Serres and Hijzen, 2014 ; Fougère, Gautier and Roux, 2018). The development of collective bargaining at the firm level could also make it easier to negotiate organisational changes, which would strengthen productivity gains and job quality.

Significant additional measures have been taken to reduce the number of *branches*. Many of the 687 *branches* in 2015 were small and did not contain enough firms to allow for efficient bargaining or were even inactive (with no agreement signed for the past ten years). Plans to reduce the number of *branches* to 200 at the end of 2019 have been boosted by new legislative powers for the government to encourage or impose restructuring. The reduction would help increase the quality of negotiations and the involvement of the *branches* in vocational training and apprenticeships, which require critical mass. A lower number of *branches* would put France in a situation more comparable to Germany and the Netherlands. Since 2016, 289 industries have been restructured, mainly by shutting down inactive *branches* or mergers. The ongoing efforts focus on additional mergers of *branches* with fewer than 5000 employees through ministerial decision or social partners' agreements.

A way to strengthen the use of social dialogue in larger branches would be to allow them to derogate from national employment protection legislation. This is possible in some OECD countries, such as Austria, Germany and Sweden (OECD, 2018b). These derogatory agreements in the case of employment protection could push negotiations on the distribution of costs and advantages of labour market flexibility. However, such derogatory agreements could potentially reduce the transparency and predictability of the system, and thus raise uncertainty about dismissal costs.

**Figure 1.29. Employer and union representation and collective bargaining coverage**

2016 or latest year available




*Note*: 1. Weighted average, with weights equal to the number of employees in the countries displayed.
*Source*: OECD (2018), *OECD Statistics on Trade Unions* and *Collective bargaining* (databases), http://www.OCDE.org/employment/collective-bargaining.htm. .

StatLink https://doi.org/10.1787/888933950675

In Sweden, sector-level collective agreements can derogate from statutory law, including by establishing levels of employment protection for permanent contracts that are lower than those foreseen in the law. Such derogations typically take the form of Collective Transition Agreements, implemented through Job Security Councils and financed through contributions from employers. These Councils complement public employment services by intervening early during the period of notification and focusing on workers with recent work experience (OECD, 2018c). In principle, France could partly import this model (Carcillo et al., forthcoming), this would require derogation from statutory law in the area of employment protection for sector-level agreements. This could be made conditional on the presence of a collective transition agreement and be limited to specific aspects of employment protection.

The reduction of the number of *branches* in France may also generate more flexibility at the firm level. Within the framework of sector-level agreements, this objective could be achieved through a process of "organised decentralisation" involving controlled opt-outs, like in Germany, or the implementation of framework agreements that leave further space for subsequent adaptation at firm level, like in the Netherlands (OECD, 2018); both these countries have a relatively low number of *branches*. The 2017 *Ordonnances* to strengthen social dialogue go some way in this direction. They made it mandatory to include specific conditions for smaller firms in new sector-level agreements, which open up possibilities to adjust minimum wages and themes in the negotiation areas for which sector-level agreements take precedence (Box 1.8).

The 2017 *Ordonnances* should also result in more flexibility at the firm level. The precedence of firm-level agreements in areas such as the award and the size of bonuses and working hours, as well as the increased possibilities in terms of collective bargaining for small firms without a union delegate represent significant progress. Indeed, the 2017 *Ordonnances* have introduced new derogatory negotiation options, which allow all firms, even those with less than 11 employees, to sign firm-level agreements.

In addition, the 2017 *Ordonnances* secured firm-level agreements to satisfy firm organisation needs or to increase or maintain employment for their negotiators. They made the refusals of the conditions of an agreement (compared to those in their initial individual contracts) by some employees a fair cause for dismissal. Lastly, the threshold effects associated with exceeding certain thresholds of employee numbers which had potentially negative effects on corporate growth (Garicano, Lelarge and Van Reenen, 2016) would be mitigated by the draft "PACTE" Law, which would introduce a 5-year standstill period that is expected to permit more sustainable social dialogue.

These measures will require social dialogue practices in France to adapt. The 2017 *Ordonnances* created observatories at *département* level for analysing and accompanying social dialogue and negotiation. However, fewer than 10% of enterprises with between 10 and 49 employees had negotiated an agreement in 2016, and many do not have employee representatives (Romans, 2018 ; Daniel, 2017). One barrier to putting in place an employee representative is the direct cost for enterprises, especially in terms of hours set aside for consultation, material resources and the provision of a union office.

**Box 1.8. The 2016 and 2017 collective bargaining reforms**

The 2016 "Labour" Law confirmed the precedence of firm-level agreements over sector-level agreements in the areas related to working time arrangements: the overtime premium rate, the introduction of on-call periods, exceeding of the maximum daily working time, the remuneration of meal and rest breaks. It also introduced the plan to merge *branches*.

The 2017 *Ordonnances* generalised the precedence principle of company-level agreements, while giving the possibility for *branches* to keep their prerogatives, notably over thirteen key aspects, including minimum hierarchical wages and working hours. They have the possibility of ensuring that the social dialogue takes place exclusively at their level by introducing clauses on some other aspects. The precedence of company-level agreements is maintained on the remaining aspects.

The agreements on employment were also unified in 2017 through the "*accords de performance collective*" scheme and concern the organisation and breakdown of working time, compensation and occupational mobility. Company-level agreements now take precedence over sector-level agreements on bonuses and hours worked. This should enable companies to better adapt to the economic situation.

The *Ordonnances* also modified the procedures for extending sector-level agreements to protect SMEs and preserve competition in three areas:

- It is no longer be possible to extend an agreement if it does not include specific stipulations for firms with fewer than fifty employees or the justification for the absence of these stipulations;
- The extension may be refused if they are deemed to impede competition in the sector;
- Employers' organisations and trade unions and the Minister now have the right to solicit the advice of a group of experts to assess the economic and social effects that might result from the extension of a collective agreement.

*Source*: Loi relative au travail, à la modernisation du dialogue social et à la sécurisation des parcours professionnels du 8 août 2016; *Ordonnance* No. 2017-1386 of 22 September 2017 on the new organization of social and economic dialogue in enterprises and favouring the exercise and promotion of union responsibilities.

The calculation of the hours reserved for union consultation is complicated and takes into account the number of hours worked and the size of the firm for a maximum of 2% of hours worked for a firm with around 80 employees (Cheuvreux, 2016). A social contribution could be used to externalise their financing (Breda, 2016) or it could be made more flexible through collective bargaining at sector level (Cette, 2018). It would also be useful to strengthen union representativeness (Figure 1.29). This would involve making the financing of the unions more dependent on their members, even though their current representativeness and financing are based on the outcomes of national and interprofessionnal elections.

In the medium-term, the development of collective bargaining at the firm level will also require giving more discretionary space to social partners. This would help establish a broader social dialogue and potentially one of better quality (Aghion, Algan and Cahuc, 2011). The draft PACTE Law encourages profit-sharing for employees in small- and medium-sized firms and in a welcome move develops standard agreements for sectors.

Eventually, this is expected to broaden the scope of negotiations beyond basic salaries. The *Ordonnances* also strengthened the areas in which the *branches* may intervene, notably by allowing social partners to implement through branch-level agreements some regulations that supersede the law in terms of the use of temporary contracts (for example, the maximum number of successive contracts, and their maximum total duration). Nevertheless, in the first year of the *Ordonnance*s, the social partners rarely used this option (France Stratégie, 2018), even if several *branches* have started to seize this opportunity. A review of the indexing of the national minimum wage, by removing the link to the average wage for workers and maintaining its indexation on inflation for example, (Groupe d'experts sur le SMIC, 2017), would also provide more room for collective bargaining at the sector and firm levels for negotiating pay scales. This would provide a better match between wages and productivity, and would give firms more flexibility to adapt to shocks. Supporting and easing mobility

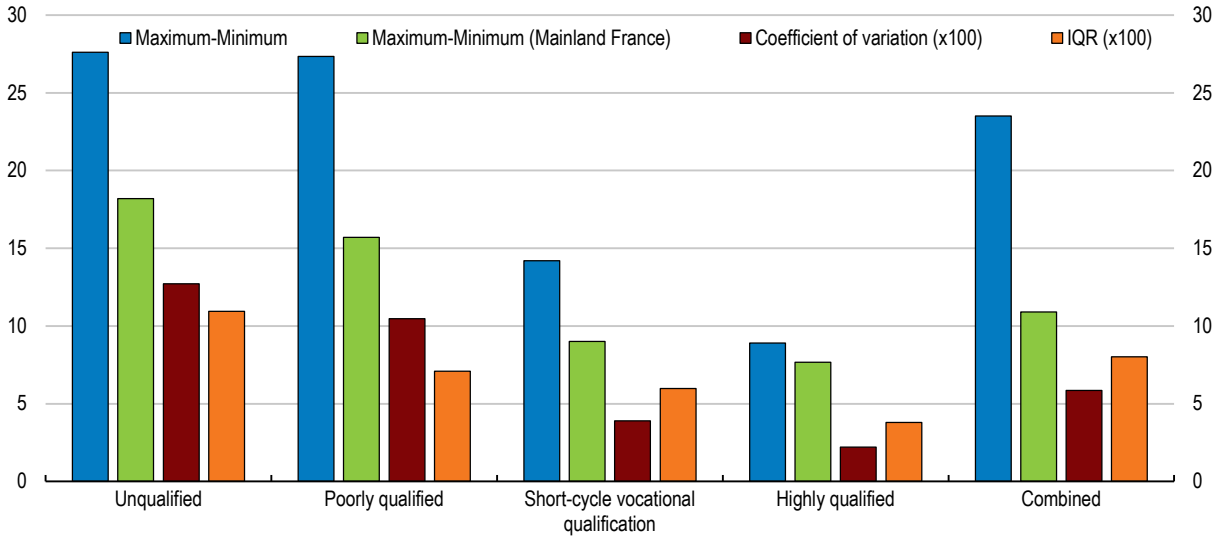
In order to strengthen productivity and access to employment, information on job vacancies and potential candidates will need to be improved, and geographic mobility facilitated. Employment rates vary significantly from one region to another, especially for the poorly qualified (Figure 1.30) and young people (Eyméoud and Wasmer, 2016). The availability of good information on job vacancies and candidates would have a downward effect on unemployment and would be relatively cheap to put in place (Algan et al., 2018 ; Skandalis, 2018). This involves supporting and providing greater assistance to the most struggling population groups (see above), as well as adapting job search methods. Public employment service *Pôle emploi* has developed an application called "La Bonne Boîte" which allows jobseekers to target their unsolicited applications at enterprises which would be likely to employ them. In addition, the outcomes of an ongoing local-level trial designed to provide help in finding candidates for small- and medium-sized enterprises should help enhance *Pôle emploi*'s services for corporates, which still have room for improvement despite the existence of 4 300 dedicated consultants.

Numerous shortcomings in the housing market act as barriers to occupational and geographic mobility, especially for the less skilled and young people (Amara et al., 2016), but also for enterprises (Bergeaud and Ray, 2018). Geographic mobility among unemployed young people and inactive people is particularly low (Figure 1.31, part A).

Many measures could be taken to improve flexibility in the rental market. A state guarantee was put in place in 2016 for young people moving into privately rented accommodation. More flexible "mobility" leases were also introduced in 2018. However, the rental market remains relatively restricted (Trannoy and Wasmer, 2013 ; Andrews, Caldera Sánchez and Johansson, 2011). Without diminishing the current protection afforded to tenants, the introduction of more flexible lease periods and a default end of lease period, such as the month of August, would help significantly improve the provision of accommodation by creating a larger market over a period of the year (Ngai and Tenreyro, 2014). In addition, social housing needs to take into greater consideration the specific issues of young people and short-term contracts. The creation of a right to social housing which would be transferable from one municipality to another would help avoid penalising tenants planning to move to accept a job a long way from their place of residence (Carcillo, Huillery and L'Horty, 2017).

**Figure 1.30. Local labour markets are extremely varied**

Regional differences in employment rates, percentage points[1]



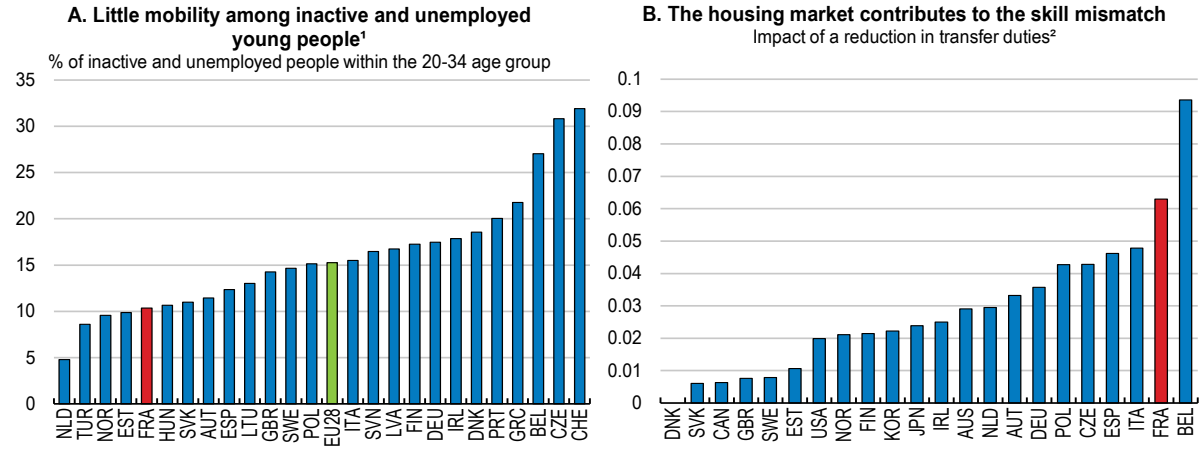

1. Regional differences in employment rates (in percentage points) of 25 to 64 year-olds by qualification (according to the census classification) and ISCED levels of educational attainment. The ranking covers 26 regions, and 22 regions in Mainland France.
*Source*: Poulet-Coulibando, P. (2014), "Face à l'emploi, les inégalités entre régions sont plus fortes pour les moins diplômés", *DEPP Information Note,* No. 03.

StatLink https://doi.org/10.1787/888933950694

Moreover, the taxation of housing and land transfers while imposing relatively low taxes on property assets, as is the case in France, prevents them from being used more effectively, while limiting residential mobility. Reducing registration fees and increasing periodic taxes on land and property by gradually aligning them with market prices would encourage owners to sell construction land (Trannoy and Wasmer, 2013 ; Bérard and Trannoy, 2018). According to OECD estimates, this would help absorb tensions on the housing market and limit the mismatch of expertise (Figure 1.31, part B) which in turn would lead to a fall in local unemployment rates as, all else being equal, a higher proportion of owners is linked with higher unemployment in France (Chevalier and Lardeux, 2018).

Daily mobility also needs to be supported, as is planned. In places with a good quality transport infrastructure (Chapter 2), the labour markets for the lower skilled workforce and young people are extremely local. Since the 1970s, daily commutes to and from work have got steadily longer, and are mainly by car (72%). 44% of unemployed young people have turned down a job because of transport issues, and 25% of the lowest income bracket of the working population do not have a car (Tallet and Vallès, 2017). The *Grand Plan d'Investissement* (GPI) initiative and draft legislation on mobility aim to redefine the transport policy by focusing, most propitiously, on mobility in the large urban hubs and on network maintenance.

**Figure 1.31. The impact of property market restrictions on the mobility of young people**




1. Proportion of 20 to 34 year-olds who have moved or would be willing to move within the country to take up a job.
2. The impact of the alignment with OECD best practices is estimated using cross-sectional international data. The transaction costs include the tax on property transfers, administrative registration costs, fees paid to notaries and other legal professions, and the remuneration of real estate agents for a standard transaction. The baseline year is 2009.
*Source:* Eurostat (2018), "Labour Force Survey Statistics", *Eurostat database*; Adalet McGowan, M. and D. Andrews (2015), "Labour Market Mismatch and Labour Productivity: Evidence from PIAAC Data", *OECD Economics Department Working Papers*, No. 1209, OECD Publishing, Paris.

StatLink https://doi.org/10.1787/888933950713

## Limiting inequality and improving support for low incomes

### *Better co-ordinating and simplifying support for low income households*

The poverty rate after taxes and transfers has been relatively contained (Figure 1.3). However, non-take-up of monetary assistance to help those on low incomes is substantial (Sirugue, 2016; Cloarec-Le Nabour and Damon, 2018), whereas the benefits of returning to work could be made clearer in order to increase incentives to work, even if the latter already seem relatively high by international standards (Chagny et al., 2018).

At present, France has ten minimum social benefits granted to four million recipients. The current ten minimum social benefits are characterised by the complexity and diversity of the rules governing the recipients of this welfare. The complexity concerns both the general understanding of the system as a whole, and the links between the various benefits in place. Reforms to housing benefits, the implementation of a withholding tax on income, and the plans announced in 2018 for a universal basic income are expected to optimise automatic means-tested payments and limit non-take-up. The government has also launched an ongoing revaluation of the main in-work benefit programme to incentivise work, the *Prime d'Activité* benefit (see above).

A unification of minimum social benefits (and long-term unemployment insurance) could simplify claims for those furthest away from the labour market and help develop more effective pathways to employment. When combined with more systematic integration programmes for the jobless, this would provide better support towards employment (Pitollat et Klein, 2018). In this scenario, the minimum income benefit (RSA), the non-contributory benefit for long-term unemployment (ASS) and housing subsidies would be

integrated into a single benefit linked with the *Prime d'Activité* (Bargain et al., 2017 ; Bozio, Fack and Grenet, 2015). This would also limit the cost of managing these schemes by harmonising the bases of calculation. However, the experience of the United Kingdom which recently introduced a single benefit scheme in the form of *Universal Credit* shows that the implementation of such reform is complex and requires deep changes in institutional practices (Pareliussen et al., 2018 and Box 1.9).

**Box 1.9. The implementation of *Universal Credit* in the UK**

*Universal Credit* merges the six main non-contributory social benefits of the British welfare system into one social benefit: (1) income support; (2) income-based jobseeker's allowance; (3) income-related employment and support allowance; (4) housing benefits; and (5) child and (6) in-work tax credits. The merger has two objectives:

- Increase benefit take-up, by unifying and simplifying procedures;
- Strengthen work incentives, by a combination of making work pay more, removing fiscal cliffs because of different eligibility thresholds, and improving sanctioning and support by a work coach to find work or work more hours.

*Universal Credit* targets people of working age with low or no wages. The benefit level depends mainly on earnings, age and household composition, with a number of top-ups including for people with children, disabilities, or with housing and childcare expenses. The benefit is phased in gradually over 2018-23.

Early evaluation results seem to indicate a small positive effect of *Universal Credit* on employment, while the implementation has proven to be more complicated than anticipated. However, higher work incentives are also likely to be the result of the additional budget allocated to the in-work bonus part of the benefit as announced in the 2018 Budget. *Universal Credit* is also expected to reduce poverty, by increasing take-up by an additional 700 000 households. The reform makes, however, some households worse off. In addition, the integration of information and support systems has resulted in delays, with substantial administrative costs, and payment errors, which have fuelled public debates.

The British example suggests that the move to a single benefit is by itself not enough to remove administrative complexity, given the complexity of the economic situation at the worker and household level, as well as of the administrative system.

Source: Gonthier, P. (2017), « Fusion des minima sociaux : Les défis du Universal Crédit britannique », DARES document d'études no. 206 ; Finch, D. et Gardiner, L. (2018), « Back in credit ? Universal Credit after Budget 2018 », Resolution Foundation Briefing.

The effectiveness of the unification of national social benefits will depend on a proper architecture of associated rights, especially at the local level, for which knowledge is incomplete. Local associated rights are allocated by local authorities and social bodies (school catering, community centre for children, assistance for holidays, payment of unpaid debts, aid for transport and mobility, social tariffs for public facilities) and are defined by reference to a level of resources or a status, and are not systematically co-ordinated with national level benefits. A regular and accurate knowledge of these schemes is required to ensure an appropriate level of benefits and satisfactory incentives to work. Indeed, the rare studies available indicate the significant impact on national transfers and incentives to work (Anne, L'Horty and Dollé, 2002 ; Cour des comptes, 2013). Regular

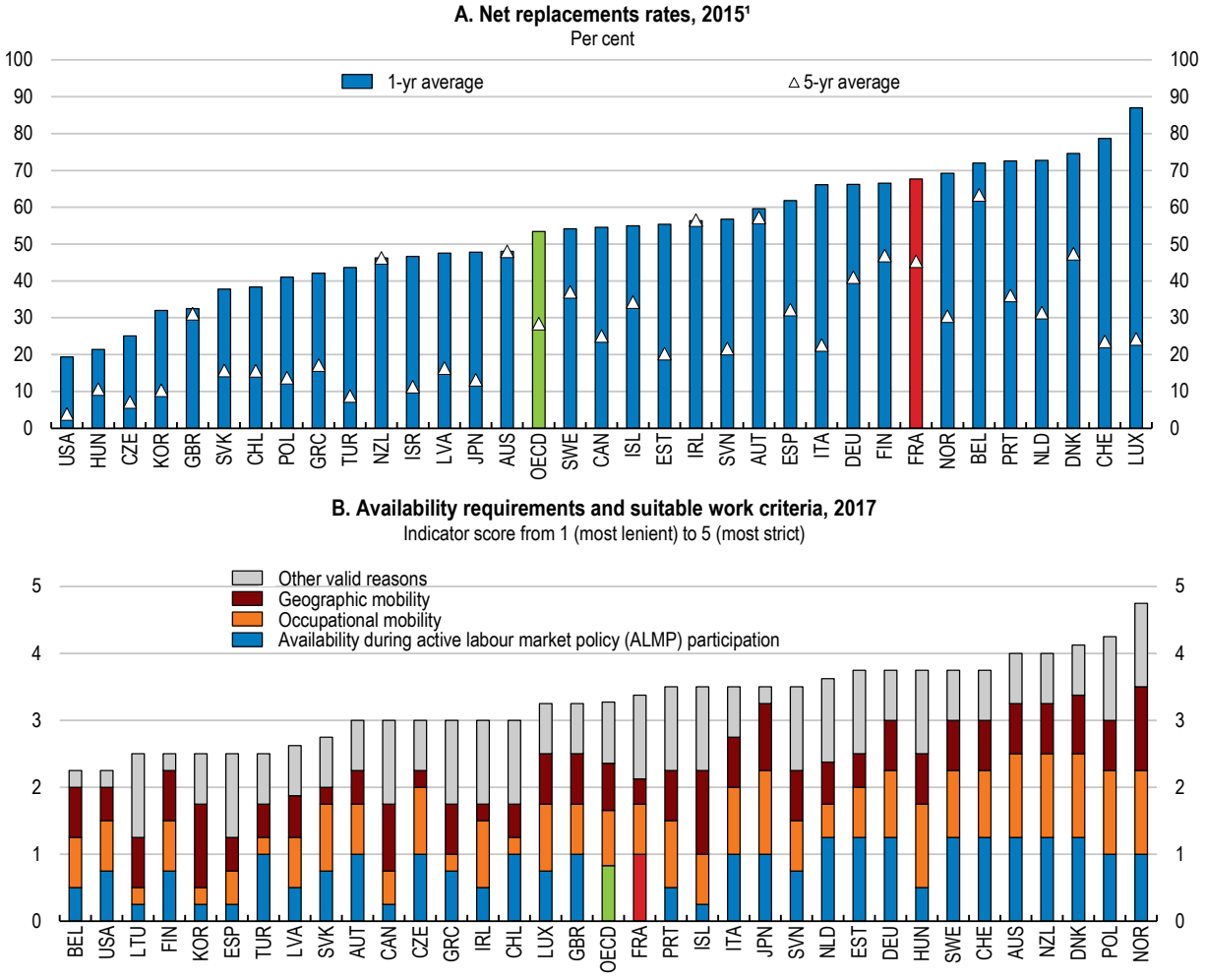
surveys of these schemes, for example using annual selections of a cross-section of communes and *départements*, would help increasing awareness among local policy makers when determining their scales for levels of assistance (Desmarescaux, 2009).

Moreover, a better interlinking of minimum social benefits and social housing would be advisable. The monthly financial benefit of occupying social housing –including housing benefits–, i.e. the difference between the rent required by the social landlord and the value of the accommodation in the private rental market upon moving in, is substantial, at an average of around 261 euros per month in 2016. This figure decreases slightly to 230 euros if housing over-consumption is taken into consideration (Trevien, 2014 ; Cour des comptes, 2017b).

The reform of minimum social benefits will need to be accompanied by necessary transformations of the unemployment insurance system (Figure 1.32). Unlike other OECD countries, the net income replacement rate at the start of the allowance period in France is therefore only slightly dependent on the family status of the jobseeker. This comes with favourable conditions for assessing the eligibility to unemployment benefit (in particular through past employment - 4 months worked in a 28-month reference period - and other criteria such as the registration to the unemployment agency and active job search) and long allowance periods in international comparison. In addition, France was mid-table in terms of the severity of benefit sanctions (Immervoll and Knotz, 2018) with a partial hardening thereof at the end of 2018.

Several other measures would be useful, in addition to moves designed to strengthen support for jobseekers and reduce misuse of short-term contracts (see above). Firstly, the level of unemployment benefits and their maximum duration seem high for the more skilled workers who can find employment rapidly. A reduction in their replacement rate could be envisaged. Secondly, the ongoing reform of unemployment insurance has resulted in the integration of self-employed workers, in return for a broader revenue base encompassing more than salary income, which may help to ensure the sustainability of the system. That said, unemployment insurance coverage for self-employed workers will remain very fragmented as the conditions for entitlement have been restricted in order to limit possibilities of moral hazard and excessive budgetary costs. For example, only cases of bankruptcy give right to unemployment benefits, thereby excluding dissolution prior to bankruptcy and voluntary terminations of activity. Thirdly, reducing age-related discriminations and easing access to training, while continuing to align the conditions for unemployment benefit for the oldest recipients on general conditions, would pave the way for longer careers in line with the increase in healthy life expectancy.

**Figure 1.32. Replacement rates and eligibility criteria for unemployment insurance**




1. The net replacement rates for insurance benefits and unemployment assistance (as a proportion of the net income from final earnings) take into consideration cash income (excluding employers' social security contributions and transfers in kind), income tax, family-related benefits and mandatory social contributions. Social aid and housing benefits are not included, nor are severance payments. The net rates are calculated on the basis of a 40-year old worker in continuous employment since the age of 22. They represent the averages of 4 family types (single, single-parent family, and single-income couple, with and without children) and two salary levels (67% and 100% of average full-time salary).

*Source*: OECD (2018), *OECD Benefits and Wage Statistics* (database); Immervoll, H. and C. Knotz (2018), "How demanding are activation requirements for jobseekers", *OECD Social, Employment and Migration Working Papers*, No. 215, OECD Publishing, Paris.

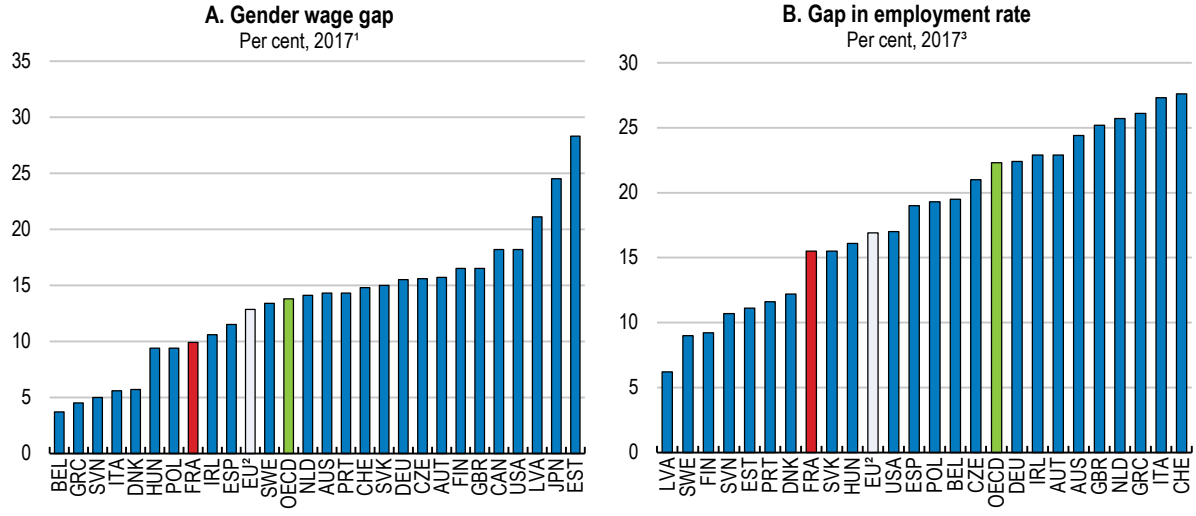
StatLink https://doi.org/10.1787/888933950732

### *Reducing gender bias at work*

Gender bias in the labour market remains significant, albeit relatively low by international standards (Figure 1.33). In 2018, the government took a series of notable measures to fight unequal treatment between men and women. In particular, enterprises are required to implement equal pay, be transparent on outcomes in this area, and develop initiatives designed to combat stereotypes and support victims of gender-based and sexual violence.

Provision of childcare services could be further developed for the lowest income households. France has a wide range of early childcare services which are relatively affordable (OECD, 2017f). However, the first child increases inequalities in terms of labour market participation, particularly for the least qualified (Briard and Valat, 2018), and most mothers receiving minimum social benefits blame child care for their failure to look for work (HCFEA, 2018a). There are fewer available spaces in child care in underprivileged areas and the previous targets for increased numbers of day care places were not met (ONAPE, 2017 ; HCFEA, 2018b). As a result, little use is made of formal and group child care by the lowest income households make (Figure 1.34), whose labour market participation is more sensitive to the child care options available (Goux and Maurin, 2010).

**Figure 1.33. Gender disparities are moderate**

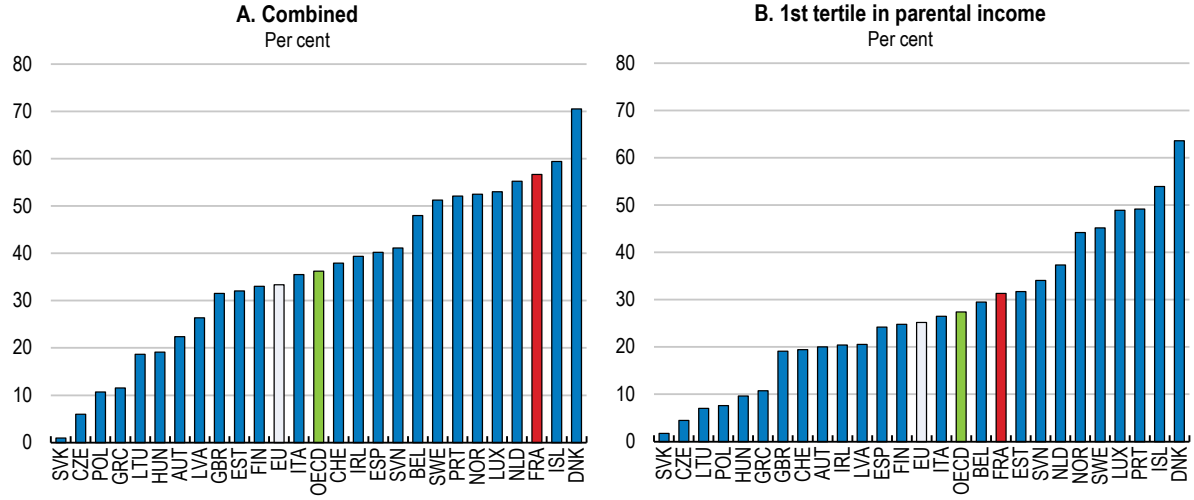



1. Or latest available year. The gender wage gap is defined as the difference between median earnings of men and women relative to median earnings of men, for full-time employees.
2. Gap in full-time equivalent employment rate.
*Source*: OECD (2019), *OECD Labour Force Statistics* (database).

StatLink https://doi.org/10.1787/888933950751

**Figure 1.34. Participation in formal child care**

0- to 2-year olds[1], 2016




1. Attendance of day care centres and pre-schools.
*Source*: OECD (2019), *OECD Family Statistics* (database).

StatLink https://doi.org/10.1787/888933950770

Improving access to formal and group care, and adapting it to the working hours of less skilled workers, would have a significant impact in terms of encouraging less-qualified mothers to return to work while allowing for better social and economic mobility in the long term. In a welcome move, the government has made enrolment in early childhood education mandatory as of the age of three in 2019, and plans to increase financing for day care centres in underprivileged areas (MSS, 2018). However, national resources set aside for creating day care centres have regularly been underutilised (Ravanel-Vassy et al., 2017). Indeed, the financing of public group child care facilities primarily depends on the communes and municipal groupings, and involves significant operating expenditure (Mayeur et al., 2017). In addition, the attribution of child care places at the local level also needs to be reviewed, with more transparent criteria which depend more on household resources and are less subject to political pressure (CRC d'Île-de-France, 2017). In many cases, standard opening hours remain an obstacle for less-qualified parents, as their working hours are often staggered and unpredictable.

The reforms to the provision of child care also need to improve the quality of the care and development of young children (de Bodman et al., 2017). This means having the same quality requirements and minimum standards across all the different forms of care, and introducing quality incentives into the remuneration of the actors involved. The training of early childhood professionals also needs strengthening, as is currently planned. This could take the form of a greater integration of child development policies, as is the case in Sweden, New Zealand, and Norway (Taguma, Litjens and Makowiecki, 2013). To this end, the creation of a continuum of child care services for 0-6 year olds under a unified system would deliver a better co-ordinated early childhood policy and a more consistent learning curve (OECD, 2017).

A significant reduction in the gender bias in careers will inevitably require fathers to play a greater role at home (Carcillo and Valfort, 2018). Indeed, in France only 4.4% of fathers took advantage of the prolonged parental leave offer (PREPARE) in 2016 because of the low amount of the allowance (392 euros) in comparison with the practices in other

European countries and despite the long potential duration of parental leave in France (OECD, 2017g; Collombet, 2017). The reform of parental leave planned between now and 2022 will therefore have to be prompt and ambitious. It needs to generate a much higher take-up by fathers with better compensation for leave taken (at least half or more of previous earnings) and more flexible leave arrangements in terms of stopping work completely (OECD, 2016). One possibility would be to extend the initial paternity leave (for birth), which is currently taken by 70% of fathers and lasts eleven days, to three or four weeks with the possibility of splitting the period (Gosselin and Lepine, 2018).

**Box 1.10. Recommendations for improving labour market performance**

**Strengthening job quantity and quality**

Key recommendations

Mainly focus employer social security contribution exemptions on low wages.

Restrict the possibility of receiving unemployment benefits during repeated periods of temporary employment and the reloading of rights over short employment spells.

Modulate labour costs to reduce the excessive use of short-term contracts.

Strengthen apprenticeship in secondary vocational schools, and social and on-the-job programs for inactive youth.

Other recommendations

Allow firms and sectors more flexibility to set basic salaries and the number of hours set aside for staff consultation by limiting occasional discretionary minimum wage increases.

Reduce labour market duality by evaluating the necessity of the existing contract types that benefit from exemptions, and the sector-level constraints to the development of permanent contracts.

Encourage collaboration between schools and employers.

**Improving labour market inclusiveness**

Key recommendations

Merge welfare programmes and in-work benefits (*Prime d'Activité*), taking into account housing benefits and public housing in overall household resources.

Speed up the development of additional childcare services for the poorest households and in poor neighbourhoods.

Other recommendations

Streamline employment training for young people and those most in need by merging some local support structures or by associating them via shared contact points.

Continue to focus intensive support schemes on the most in need and carry out regular assessments of the various schemes.

Reinforce the new subsidised contracts in the non-commercial sector with schemes for a broader public in the event that growth weakened.

Regularly assess the impact of local associated rights on work incentives, and publish the findings.

Encourage the use of paternity leave.

**Stimulating labour market adaptability and resilience**

Key recommendations

Ensure access to transparent information and effective monitoring of the quality of lifelong learning programmes through additional evaluations and counselling.

Encourage a more flexible rental market by developing shorter contracts and the use of rental guarantees.

Other recommendations

Take greater account of the quality and modular aspect of courses when financing training.

Encourage personal initiative in the purchasing of training by allowing employees and employers to top up individual training accounts in a discretionary manner.

Complete the development of a digital application for access to training entitlements via a portal of modular on-line training programmes.

Strengthen conciliation in labour courts.

Reduce uncertainty of labour court procedures by aiming to increase the courts' resources and testing support for industrial tribunal members from professional members of the judiciary through mixed courts of lay and professional judges (*échevinage*).

Make public transportation and maintenance an investment priority, and reduce transaction costs in the housing market.

## Bibliography

Abriac, A. (2018), "Dispositif académique de validation des acquis : 12 700 diplômes délivrés en 2017", *DEPP Information Note*, vol. 18/30, p. 4, http://cache.media.education.gouv.fr/file/2018/94/5/depp-ni-2018-18-30-Dispositif-academique-validation-acquis-12_700-diplomes-delivres-en-2017_1038945.pdf.

Adalet-Mcgowan, M. and D. Andrews (2015), "Skill Mismatch and Public Policy in OECD Countries", *OECD Economics Department Working Papers*, No. 28, OECD Publishing, Paris.

Aeberhardt, R., P. Givord and C. Marbot (2016), "Spillover effect of the Minimum Wage in France: An Unconditional Quantile Regression Approach", *Working paper Series*, No. 2016-05, CREST, http://crest.science/RePEc/wpstorage/2016-05.pdf.

Aghion, P., Y. Algan and P. Cahuc (2011), "Civil Society and the State: The Interplay between Cooperation and Minimum Wage Regulation", *Journal of the European Economic Association*, vol. 9/1, pp. 3-42.

Algan, Y. et al. (2018), "The Value of a Vacancy: Evidence from a Randomized Evaluation with Local Employment Agencies in France", *Chaire sécurisation des parcours professionnels*, No. 2018-05.

Algan, Y., É. Huillery and C. Prost (2018), "Confiance, coopération et autonomie : pour une école du XXIe siècle", *Les notes du conseil d'analyse économique*, vol. 48, p. 12.

Amara, F. et al. (2016), " La mobilité géographique des travailleurs", *IGF-IGAS Report*, No. 2015, IGF-IGAS, http://www.igas.gouv.fr/IMG/pdf/2015-095R.pdf.

Amar, N. and L. Viossat (2016), "Les plateformes collaboratives, l'emploi et la protection sociale", *Rapport de l'IGAS*, No. 2015-121R, Inspection Générale des Affaires Sociales, Paris.

Andrews, D., A. Caldera Sánchez and Å. Johansson (2011), "Housing Markets and Structural Policies in OECD Countries", *OECD Economics Department Working Papers*, No. 836, OECD Publishing, Paris, https://dx.doi.org/10.1787/5kgk8t2k9vf3-en.

Anne, D., Y. L'Horty and M. Dollé (2002), "Transferts sociaux locaux et retour à l'emploi ; suivi d'un commentaire de Michel Dollé, et d'une réponse au commentaire, de Denis Anne et Yannick L'Horty.", *Economie et statistique*, vol. 357-358, p. 34, https://www.persee.fr/docAsPDF/estat_0336-1454_2002_num_357_1_7664.pdf.

Askenazy, P. and C. Erhel (2017), *Qualité de l'emploi et productivité*, http://www.cepremap.fr/depot/2017/06/Opuscule_CEPREMAP43-Emploi_Productivite.pdf.

Ast, D. (2015), "En 30 ans, forte progression dans les métiers qualifiés et dans certains métiers peu qualifiés de services", *DARES analyses*, vol. 28, p. 11.

Balmat, C. (2018), "Le compte personnel de formation", *DARES Résultats*, vol. 4, p. 10.

Bargain, O. et al. (2017), "Mieux lutter contre la pauvreté par des aides monétaires", *Les notes du conseil d'analyse économique*, vol. 41, p. 12.

Beatriz, M. et al. (2018), "Ralentissement de la productivité du travail et prévision de l'emploi en France", *INSEE Note de conjoncture − Ciel voilé en Europe* , June. https://www.insee.fr/fr/statistiques/3567821?sommaire=3567845.

Bérard, G. and A. Trannoy (2018), "L'impact de la hausse des droits de mutation immobiliers de 2014 sur le marché du logement français", Economie et Statistique / Economics and Statistics, vol. 500, pp. 187-209, https://www.insee.fr/fr/statistiques/3622035?sommaire=3622116.

Bergeaud, A. and S. Ray (2018), "Coûts d'ajustement et demande de facteurs : les enseignements de l'immobilier d'entreprise", Rue de la Banque, vol. 64, p. 5.

Berger, E. and P. Pora (2017), "Y a-t-il eu polarisation de l'emploi salarié en France entre 1988 et 2014 ?", INSEE Références − France, portrait social.

Bernard, C. et al. (2018), Les trajectoires des individus payés au voisinage du Smic pendant la crise, DARES, https://dares.travail-emploi.gouv.fr/IMG/pdf/de_219_trajectoires_des_individus_payes_au_smic.pdf.

Bernard, S. and M. Rey (2017), "Les contrats aidés : quels objectifs, quel bilan ?", DARES Analyses, vol. 21, p. 7, https://dares.travail-emploi.gouv.fr/IMG/pdf/2017-021v2.pdf.

Berson, C. (2018), "Fixed-Term Contracts and Labor Market Duality in France", De Economist, vol. 166/4, pp. 455-476, http://dx.doi.org/10.1007/s10645-018-9318-y.

Berson, C. and N. Ferrari (2017), "Une simulation sur un modèle d'appariement : l'impact de l'article 4 de l'ANI de 2013 sur la segmentation du marché du travail", Économie et Prévision, vol. 211-212, pp. 115-130, https://extranet.dgtresor.gouv.fr/ecoprev/resumes/ep211212/pdf/rsf211-212a5.pdf.

Berson, C. and E. Jousselin (2018), "Négociation salariale en Europe : des modèles différents, de plus en plus décentralisés depuis la crise", Bulletin de la Banque de France, vol. 217/2, p. 9.

Bittarello, L., F. Kramarz and A. Maitre (2018), "The Task Content of Occupations*", CREST Working paper, CREST.

Borello, J. (2018), Donnons-nous les moyens de l'inclusion - Rapport à la Ministre du travail, http://travail-emploi.gouv.fr/IMG/pdf/donnons-nous_les_moyens_de_l_inclusion-rapport_de_jean-marc_borello.pdf.

Boulhol, H. (2013), "Improving the Economic Situation of Young People in France", OECD Economics Department Working Papers, No. 1041, OECD Publishing, Paris, https://dx.doi.org/10.1787/5k4840dqcbjc-en.

Bozio, A., T. Breda and M. Guillot (2016), "Taxes and Technological Determinants of Wage Inequalities: France 1976-2010. PSE Working Papers", PSE Working Papers, No. 2016-05, PSE.

Bozio, A., S. Cottet and C. Malgouyres (2018), "Quels effets attendre de la transformation du CICE en réductions de cotisations employeurs", Les notes de l'IPP, vol. 36, p. 10, http://crest.sciencewww.parisschoolofeconomics.eu.

Bozio, A., G. Fack and J. Grenet (2015), Les allocations logement - Comment les réformer ?, Cepremap, http://www.cepremap.fr/depot/opus/OPUS38.pdf.

Branche-Seigeot, A. and C. Ballini (2017), "La validation des acquis de l'expérience en 2015 dans les ministères certificateurs", Dares Résultats, vol. 38, p. 8, http://dares.travail-emploi.gouv.fr/IMG/pdf/2017-038v2.pdf.

Brandt, N. (2018), "France: Promoting economic opportunities and well-being in poor neighbourhoods", OECD Economics Department Working Papers, No. 1454, OECD Publishing, Paris, https://dx.doi.org/10.1787/266e91e1-en.

Brandt, N. (2015), "Vocational training and adult learning for better skills in France", OECD Economics Department Working Papers, No. 1260, OECD Publishing, Paris, https://dx.doi.org/10.1787/5jrw21kjthln-en.

Breda, T. (2016), *Les représentants du personnel en France*, Presses de Sciences Po.

Breda, T. (2015), "Firms' Rents, Workers' Bargaining Power and the Union Wage Premium", The Economic Journal, vol. 125/589, pp. 1616-1652, http://dx.doi.org/10.1111/ecoj.12198.

Briard, K. and E. Valat (2018), "À quels moments les inégalités professionnelles entre les femmes et les hommes se forment-elles ?", Document d'Etudes de la Dares, vol. 215, p. 50.

CAF (2018), Hausse de 100 Euros au SMIC: Extension de la Prime d'activité, CAF.fr.

Cahuc, P., S. Carcillo and T. Le Barbanchon (2018), "The Effectiveness of Hiring Credits", The Review of Economic Studies, http://dx.doi.org/10.1093/restud/rdy011.

Cahuc, P., S. Carcillo et A. Minea (2017), "The Difficult School-To-Work Transition of High School Dropouts: Evidence from a Field Experiment", IZA Discussion Paper series, vol. 10842, p. 56.

Cahuc, P., S. Carcillo et B. Patault (2019), "The Uncertainty of Severance Payments and Firms' Survival", mimeo, http://crest.science/event/berengere-patault-crest-the-uncertainty-of-severance-payments-and-firms-survival%E2%80%8B.

Cahuc, P., S. Carcillo and K. Zimmermann (2013), "L'emploi des jeunes peu qualifiés en France", Les notes du conseil d'analyse économique, vol. 4, p. 12.

Cahuc, P. et al. (2016), "Taxation of Temporary Jobs: Good Intentions with Bad Outcomes?", *Discussion Paper*, N 10352, IZA, Bonn.

Cahuc, P., M. Ferracci and A. Zylberberg (2011), *Formation professionnelle : pour en finir avec les réformes inabouties*, Institut Montaigne, Paris.

Cahuc, P., F. Malherbet and J. Prat (2019), "The Detrimental Effect of Job Protection on Employment: Evidence from France", mimeo, http://www.oecd-ilibrary.org/employment/data/employment-protection-legislation_lfs-epl-.

Cahuc, P. and C. Prost (2015), "Améliorer l'assurance chômage pour limiter l'instabilité de l'emploi", Les notes du conseil d'analyse économique, vol. 24, p. 12.

Calvez, C. and R. Marcon (2018), La voie professionnelle scolaire, Viser l'excellence, http://www.ladocumentationfrancaise.fr/var/storage/rapports-publics/184000109.pdf.

Carbonnier, C. and N. Morel (2018), "Etude sur les politiques fiscales et sociales pour les services à la personne", LIEPP policy brief, vol. 38, p. 8, https://spire.sciencespo.fr/hdl:/2441/7dil7sqnc49n0a1pgmf0q3bju8/resources/pb38-carbonnier-morel.pdf.

Carcillo, S., Goujard, A., Hijzen, A. and S. Thewissen. (forthcoming), "Assessing recent reforms and policy directions in France: Implementing the OECD Jobs Strategy", *OECD Social, Employment and Migration Working Paper*, No. 226, OECD Publishing, Paris.

Carcillo, S., É. Huillery and Y. L'Horty (2017), "Prévenir la pauvreté par l'emploi, l'éducation et la mobilité", Les notes du conseil d'analyse économique, vol. 40, p. 12.

Carcillo, S. and M. Valfort (2018*), Les discriminations au travail : femmes, ethnicité, religion, âge, apparence, LGBT*, Presses de Sciences Po.

Card, D., J. Kluve and A. Weber (2018), "What Works? A Meta Analysis of Recent Active Labor Market Program Evaluations", Journal of the European Economic Association, vol. 16/3, pp. 894-931, http://dx.doi.org/10.1093/jeea/jvx028.

Carluccio, C. et al. (2017), "Les gagnants et les perdants de la mondialisation : la délocalisation profite aux travailleurs qualifiés et nuit aux travailleurs moins qualifiés", *Rue de la banque*, vol. 51, p. 5.

Catherine, S., A. Landier and D. Thesmar (2015), *Le marché du travail; La grande fracture*, Institut Montaigne, Paris.

Cedefop (2018a), *Skills forecast trends and challenges to 2030*, Cedefop.

Cedefop (2018b), Volume 5: education and labour market outcomes for graduates from different types of VET system in Europe The changing nature and role of vocational education and training in Europe The changing nature and role of vocational education and training in Europe Volume 5: education and labour market outcomes for graduates from different types of VET system in Europe, European Centre for the Development of Vocational Training, Luxembourg, http://dx.doi.org/10.2801/730919.

Cedefop (2011), Assurer la qualité dans l'enseignement et la formation professionnels, http://www.cedefop.europa.eu/files/3061_fr.pdf.

Centre Inffo (2018), Guidance and outreach for inactive and unemployed – France, Cedefop , Luxembourg, http://www.cedefop.europa.eu/en/events-and-projects/networks/refernet/thematic-perspectives/guidance-outreach.

CEREQ (2018), 20 ans d'insertion professionnelle des jeunes : entre permanences et évolutions, http://www.cereq.fr/index.php/actualites/20-ans-d-insertion-professionnelle-des-jeunes-entre-permanences-et-evolutions.

CEREQ (2017), "Les blocs de compétences dans le système français de certification professionnelle : un état des lieux", Céreq Echanges, vol. 4, p. 110, http://www.cereq.fr/actualites/Les-blocs-de-competences-dans-le-systeme-francais-de-certification-professionnelle-un-etat-des-.

Cette, G. (2018), "La réforme des institutions représentatives du personnel demeure inachevée", Le Monde, vol. 4 May, p. 1, https://www.lemonde.fr/idees/article/2018/05/04/la-reforme-des-institutions-representatives-du-personnel-demeure-inachevee_5294278_3232.html.

Chagny, O. et al. (2018), "The minimum wage: from labour costs to living standards. Comparing France, Germany and the UK", Sciences Po OFCE Working Paper, No. 11, OFCE..

Charbonnier, É. and S. Jamet (2016), "Formation professionnelle et employabilité dans les pays de l'OCDE : promesses et défis", Revue internationale d'éducation de Sèvres 71, pp. 43-52, http://dx.doi.org/10.4000/ries.4599.

Charnoz, P., E. Coudin and M. Gaini (2013), "Une diminution des disparités salariales en France entre 1967 et 2009", INSEE - Emploi et salaires 2013, p. 13, https://www.insee.fr/fr/statistiques/1374085?sommaire=1374092

Chetty, R., J. Friedman et E. Saez (2013), "Using Differences in Knowledge Across Neighborhoods to Uncover the Impacts of the EITC on Earnings", American Economic Review, vol. 103/7, pp. 2683-2721, http://dx.doi.org/10.1257/aer.103.7.2683.

Cheuvreux, M. (2016), "30 ans de modernisation du dialogue social en France", Trésor-Éco, vol. 160, p. 12, https://www.tresor.economie.gouv.fr/Articles/6e50a820-a809-42d2-9541-e7d28fff6071/files/57c8c120-8e49-4762-8914-cd0e24b9747c.

Chevalier, C. and R. Lardeux (2018), "Plus de propriétaires depuis cinquante ans : des effets secondaires défavorables à l'emploi ?", Insee Analyses, vol. 37, p. 4, https://www.insee.fr/fr/statistiques/3536038.

Clerc, D. and M. Dollé (2017), "Remarques complémentaires sur le rapport " Investissons dans la petite enfance "", Note de Synthèse - Terra Nova, p. 6, http://tnova.fr/system/contents/files/000/001/454/original/26092017_Remarques-compl_mentaires-rapport-petite-enfance.pdf?1506357191.

Cloarec-Le Nabour, C. and J. Damon (2018), La juste prestation pour des prestations et un accompagnement ajusté, Report to the Prime Minister, https://www.gouvernement.fr/sites/default/files/document/document/2018/09/rapport_de_christine_cloarec-le_nabour_et_julien_damon_sur_la_juste_prestation.pdf

CNEFOP (2018), CEP 4 ans de mise en oeuvre - CNEFOP, CNEFOP, http://www.cnefop.gouv.fr/rapports-139/cep-4-ans-de-mise-en-oeuvre.html.

CNEFOP (2017), Rapport faisant synthèse des démarches Qualité menées dans le champ de la formation professionnelle, en liaison avec les financeurs, Conseil national de l'emploi, de la formation et de l'orientation professionnelles, http://www.cnefop.gouv.fr/rapports-139/rapport-qualite-du-cnefop.html.

COE (2018), Automatisation, numérisation et emploi, Conseil d'orientation pour l'emploi, Paris, http://www.coe.gouv.fr/Automatisation_numerisation_et_emploi_Tome_3_Synthese-249c0.pdf?file_url=IMG/pdf/Automatisation_numerisation_et_emploi_Tome_3_Synthese-2.pdf.

COE (2016), L'accompagnement vers et dans l'emploi, Conseil d'Orientation pour l'emploi, http://www.coe.gouv.fr/download.php%3Ffile_url=IMG%252Fpdf%252F2016_06_14_Rapport_accompagnement_VD.pdf.

Collombet, C. (2017), "La place des pères dans les congés destinés aux", CNAF, https://dx.doi.org/10.1787/5k4dlw9w6czq-en.

Comité technique d'Evaluation - DARES (2017), Rapport d'évaluation du plan "500 000 formations supplémentaires", http://statistiques.pole-emploi.org/formation/static/500000.

COSAPE (2017), Les exonérations générales de cotisations - Rapport du COSAPE, Comité de suivi des aides publiques aux entreprises et des engagements, 114, https://www.strategie.gouv.fr/sites/strategie.gouv.fr/files/atoms/files/fs_rapport_cosape_2017.pdf.

Coquet, B. et E. Heyer (2019), *Pour une régulation économique des contrats courts sans contraindre les entreprises, en préservant l'Assurance chômage*, Rapport de l'OFCE pour le Sénat.

Cour des Comptes (2018a), *La formation des demandeurs d'emploi*, Cour des comptes, Paris.

Cour des comptes (2018b), *Le Rapport public annuel 2018 : la mise en oeuvre des contrats aidés*, Cour des comptes, Paris.

Cour des comptes (2017a), *Le rapport public annuel 2017*, Cour des comptes, Paris .

Cour des Comptes (2017a), *Référé - Le congé individuel de formation (CIF)*, Cour des comptes, Paris.

Cour des comptes (2017b), *Rapport public thématique, Le logement social face au défi de l'accès des publics modestes et défavorisés*, Cour des comptes, Paris.

Cour des comptes (2016), *L'accès des jeunes à l'emploi*, Cour des comptes, Paris.

Cour des comptes (2013), *Rapport public annuel 2013, tome I, Le RSA "activité" : une prestation peu sollicitée, un impact restreint*, Cour des comptes, Paris.

CRC d'Île-de-France (2017), L*'attribution des places en crèche par la Ville de Paris - Rapport de la Chambre régionale des comptes*, https://www.ccomptes.fr/sites/default/files/EzPublish/IFR-2017-18-et-sa-r--ponse_reduit.pdf.

Crépon, B. et al. (2017), "Faut-il accompagner davantage les jeunes à la recherche d'un contrat d'apprentissage ?", DARES Analyses, vol. 36, p. 8, https://dares.travail-emploi.gouv.fr/IMG/pdf/2017-036.pdf.

CSERC (1997), L'allègement des charges sociales sur les bas salaires, Conseil supérieur de l'Emploi, des Revenus et des Coûts, http://www.cerc.gouv.fr/rapports/cserc/cserc2.pdf.

Daniel, C. (2017), "La négociation collective d'entreprise en 2015", DARES Résultats, vol. 66, p. 9, https://dares.travail-emploi.gouv.fr/IMG/pdf/2017-066.pdf.

de Bodman, F. et al. (2017), "Investissons dans la petite enfance - L'égalité des chances se joue avant la maternelle", Rapport Terra Nova, p. 54, http://www.tnova.fr.

Desmarescaux, S. (2009), Mission parlementaire sur les droits connexes locaux dans le cadre de la généralisation du RSA, French Republic, Paris, http://www.cnle.gouv.fr/IMG/pdf/Rapport_Desmaresceaux.pdf.

Égert, B. et P. Gal (2017), "The quantification of structural reforms in OECD countries: A new framework", OECD Journal: Economic Studies, vol. 2016/1, http://dx.doi.org/10.1787/eco_studies-2016-5jg1lqspxtvk.

European Commission (2018), *Labour market and wage developments in Europe - Annual review 2018*, European Commission.

Eyméoud, J. and E. Wasmer (2016), *Vers une société de mobilité : les jeunes, l'emploi et le logement*, Les Presses de Sciences Po.

Flamand, J. (2016), " Les transitions professionnelles, révélatrices d'un marché du travail à deux vitesses", La Note d'Analyse - France Stratégie, vol. 50, p. 8, http://www.strategie.gouv.fr.

Florin, A. and P. Guimard (2017), La qualité de vie à l'école, CNESCO, http://www.cnesco.fr/wp-content/uploads/2017/10/170929_QDV_FLorin_Guimard.pdf.

Fougère, D., E. Gautier and S. Roux (2018), "Wage floor rigidity in industry-level agreements: Evidence from France", Labour Economics, vol. 55, pp. 72-97, http://dx.doi.org/10.1016/J.LABECO.2018.09.001.

France Stratégie (2018), Évaluation des ordonnances relatives au dialogue social et aux relations de travail, Progress report on the work of the assessment committee, https://www.strategie.gouv.fr/sites/strategie.gouv.fr/files/atoms/files/fs-rapport-ordonnances-travail-final-web-14122018.pdf.

Galland, O. et al. (2017), La machine à trier - Ou comment la France divise sa jeunesse, https://www.eyrolles.com/Loisirs/Livre/la-machine-a-trier-9782212566932.

Garicano, L., C. Lelarge and J. Van Reenen (2016), "Firm Size Distortions and the Productivity Distribution: Evidence from France", American Economic Review, vol. 106/11, pp. 3439-3479, http://dx.doi.org/10.1257/aer.20130232.

Garrouste, M., F. Kramarz and C. Zizzo (2018), "Le choix de la formation en apprentissage : une question de ressources régionales ?", Formation et Emploi, vol. 2, pp. 15-33, http://www.crest.fr/ckfinder/userfiles/files/Pageperso/MGarrouste/Garrouste_Kramarz_Zizzo.pdf.

Gautié, J. (2018), Rapport final d'évaluationévaluation de la Garantie Jeunes, Comité scientifique en charge de l'évaluation de la Garantie Jeunes, https://dares.travail-emploi.gouv.fr/IMG/pdf/1-rapport_final_corps_fev2018.docx.pdf.

Gautier, E. (2017), "Les salaires minima de branche en France", Revue française d'économie, vol. XXXII/1, p. 42, http://dx.doi.org/10.3917/rfe.171.0094.

Gautier, E., S. Roux and M. Suarez-Castillo (2018), Rigidités nominales et réelles des salaires en France : Quel rôle des accords collectifs ?, mimeo,

https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnxlcndhbmdhdXRpZXJlY29ub21pY3N8Z3g6MmFiZmVlOTFkY2FhMzExYQ.

Gazier, B. and D. Babet (2018), "Nouvelles formes d'emploi liées au numérique et mesure de l'emploi", Colloque du CNIS - L'économie numérique , https://www.cnis.fr/wp-content/uploads/2018/03/presentation-complete-V8_Gazier_Babet.pdf.

Givord, P., S. Quantin and C. Trevien (2018), "A long-term evaluation of the first generation of French urban enterprise zones", Journal of Urban Economics, vol. 105, pp. 149-161, http://dx.doi.org/10.1016/J.JUE.2017.09.004.

Goarant, C. et L. Mueller (2011), « Les effets des hausses du Smic sur les salaires mensuels dans les entreprises de 10 salariés ou plus de 2006 à 2009 », *INSEE Références*.

Gonthier, P. and K. Vinceneux (2017), "Des demandeurs d'emploi qui travaillent ? Les 7 visages de l'activité réduite", Working paper, no. 212, DARES, https://www.epsilon.insee.fr/jspui/bitstream/1/60853/1/DE212.pdf.

Goos, M., A. Manning and A. Salomons (2014), "Explaining Job Polarization: Routine-Biased Technological Change and Offshoring", American Economic Review, vol. 104/8, pp. 2509-2526.

Gosselin, H. and C. Lepine (2018), Evaluation du congé de paternité, La place des pères dans les congés destinés aux parents en Europe– évolutions et réformes récentes, http://www.igas.gouv.fr/IMG/pdf/2018-022R.pdf.

Goux, D. and E. Maurin (2010), "Public school availability for two-year olds and mothers' labour supply", Labour Economics, vol. 17, pp. 951-962, http://dx.doi.org/10.1016/j.labeco.2010.04.012.

Grangier, J. and I. Audrey (2014), "Situation sur le marché du travail et accès à l'emploi des bénéficiaires du RSA et de l'ASS", Dares Analyses, vol. 69, p. 14, https://dares.travail-emploi.gouv.fr/IMG/pdf/2014-069_v2.pdf.

Groupe d'experts sur le SMIC (2017), Salaire minimum interprofessionnel de croissance - rapport 2017, Groupe d'experts sur le SMIC, https://www.tresor.economie.gouv.fr/Ressources/File/444185.

Guichard, A. and C. Pinel (2018), "La revalorisation du Smic au 1er January 2018", DARES Analyses, vol. 52, p. 9, https://dares.travail-emploi.gouv.fr/IMG/pdf/2018-052.pdf.

Guillemot, D. and E. Melnik-Olive (2018), "Se former tout au long de la vie, quel rôle du parcours professionnel ?", INSEE Formations et emploi, vol. 2018, p. 12, https://www.insee.fr/fr/statistiques/3526062?sommaire=3526086.

HCFEA (2018a), *Lutter contre la pauvreté des familles et des enfant*s, Haut Conseil de la famille, de l'enfance et de l'âge, http://www.hcfea.fr/spip.php?rubrique11.

HCFEA (2018b), *L'accueil des enfants de moins de trois ans*, Haut Conseil de la famille, de l'enfance et de l'âge.

Huillery, E. and N. Guyon (2014), Choix d'orientation et origine sociale : mesurer et comprendre l'autocensure scolaire, Sciences Po - LIEPP, https://spire.sciencespo.fr/hdl:/2441/4masrhna3682s816k3ru6r3oov?_ga=2.186356714.291131660.1543834628-130871299.1541425936.

IGAS (2017), Bilan d'étape du déploiement du compte personnel de formation (CPF), Inspection générale des affaires sociales, http://www.igas.gouv.fr/IMG/pdf/2016-140R.pdf.

IGAS (2016), Evaluation de la politique de certification professionnelle, Inspection générale des affaires sociales, https://www.defi-metiers.fr/sites/default/files/users/225/igas.pdf.

Immervoll, H. and C. Knotz (2018), "How demanding are activation requirements for jobseekers", OECD Social, Employment and Migration Working Papers, no. 215, OECD Publishing, Paris, https://dx.doi.org/10.1787/2bdfecca-en.

Immervoll, H. and S. Scarpetta (2012), "Activation and employment support policies in OECD countries. An overview of current approaches", IZA Journal of Labor Policy, vol. 1/1, p. 9, http://dx.doi.org/10.1186/2193-9004-1-9.

INSEE (2018a), Formations et emploi 2018, https://www.insee.fr/fr/statistiques/3526080?sommaire=3526086.

INSEE (2018b), Les revenus et le patrimoine des ménages, INSEE, Paris, https://www.insee.fr/fr/statistiques/3549440?sommaire=3549502.

INSEE (2018c), Emploi, chômage, revenus du travail - Édition 2018, https://www.insee.fr/fr/statistiques/3573876 (accessed on 19 July 2018).

INSEE (2018d), "Le taux de chômage diminue de 0,1 point au deuxième trimestre 2018", Informations Rapides, vol. 211, p. 4, https://www.insee.fr/fr/statistiques/3598305.

INSEE (2017), Que nous disent les entreprises sur les barrières à l'embauche ?, INSEE, https://www.insee.fr/fr/statistiques/2871900?sommaire=2872027.Jennequin, H., L. Miotti and E. Mouhoud (2018), "Measurement and anticipation of territorial vulnerability to offshoring risks: An analysis on sectoral data for France", Economie et Statistique Vol. 497-498, pp. 123-144.

Kahn, L. (2018), "Permanent Jobs, Employment Protection, and Job Content", Industrial Relations: A Journal of Economy and Society, vol. 57/3, pp. 469-538, http://dx.doi.org/10.1111/irel.12209.

Kaisergruber, D., A. Karim Komi and D. Rivoire (2018), "Comment mieux diplômer l'expérience", Note de Synthèse Terra Nova, vol. February, p. 54, http://www.tnova.fr/note/entrer-et-rester-dans-l-emploi-un-levier-de-comp-titivit-un-enjeu-citoyen.

Koubi, M. and A. Marrakchi (2017), "Projections à l'horizon 2070: Une hausse moins soutenue du nombre d'actifs", INSEE Première, vol. 1646, p. 4.

L'Horty, Y., P. Martin and T. Mayer (2019), "Baisses de charges : stop ou encore ?", Notes du conseil d'analyse économique, vol. 49/1, p. 1, http://dx.doi.org/10.3917/ncae.049.0001.

Langevin, G. (2018), "Les extensions des accords de branche : quels sont les entreprises et les salariés concernés ?", DARES Analyses, vol. 53, p. 8.

Le Gallo, J. et al. (2017), "Les discriminations dans l'accès au logement en France : Un testing de couverture nationale", Rapport de recherche TEPP, no. 2017-11, TEPP - Travail, Emploi et Politiques Publiques.

Lhommeau, B. and C. Michel (2018), "Changer de métier : quelles personnes et quels emplois sont concernés ?", DARES Analyses, vol. 49, p. 12, https://dares.travail-emploi.gouv.fr/IMG/pdf/2018-049.pdf.

Malgouyres, C. (2017), "The Impact of Chinese Import Competition on the Local Structure of Employment And Wages: Evidence from France", Journal of Regional Science, vol. 57/3, pp. 411-441.

Marie, E. and V. Jaouen (2016), Evaluation du contrat à durée déterminée dit d'usage (CDDU), IGAS - Inspection générale des affaires sociales, http://www.igas.gouv.fr/spip.php?article548.

Martinot, B. (2018), Réforme de la formation professionnelle : allons jusqu'au bout !, https://www.institutmontaigne.org/ressources/pdfs/publications/reforme-de-la-formation-professionnelle-allons-jusqu-au-bout-note.pdf.

Mayeur, P. et al. (2017), La politique d'accueil du jeune enfant - Revue de dépenses, IGAS-IGF, Paris, http://www.igas.gouv.fr/IMG/pdf/RdD2017-enfant.pdf.

Mesnard, O. (2018), "La dépense nationale pour la formation professionnelle continue et l'apprentissage en 2015", Dares Résultats, vol. 34, p. 11, http://dares.travail-emploi.gouv.fr/IMG/pdf/2018-034.pdf.

Mesnard, O. (2017), "La dépense nationale pour la formation professionnelle continue et l'apprentissage en 2014", DARES Résultats, vol. 41, p. 11, https://dares.travail-emploi.gouv.fr/IMG/pdf/2017-041.pdf.

Ministère de l'Éducation Nationale (2018), T*ransformer le lycée professionnel Former les talents aux métiers de demain*, http://cache.media.education.gouv.fr/file/05_-_Mai/55/7/2018_DP_voiePro_bdef_953557.pdf.

Ministère des Solidarités et de la Santé (2017), *Rapport d'évaluation de la Prime d'activité*, https://solidarites-sante.gouv.fr/IMG/pdf/rapport_d_evaluation_prime_d_activite.pdf.

Ministère du Travail (2018a), *Annexe au projet de loi de finances pour 2019 - Formation professionnelle, République Française*, Paris, https://www.performance-publique.budget.gouv.fr/sites/performance_publique/files/files/documents/jaunes-2019/jaune2019_formation_professionnelle-W.pdf.

Ministère du travail (2018b), Réalisation d'une étude qualitative à partir de 2 régions sur le compte personnel de formation - tome 1, Ministère du travail - Direction de l'animation de la recherche, des études et des statistiques, https://dares.travail-emploi.gouv.fr/IMG/pdf/pluricite_-_itinere_conseil_rapport_final_cpf_-_version_finale.pdf.

Ministère du Travail (2017), Formation professionnelle - Annexe au Projet de loi de finances pour 2018, République Française, https://dares.travail-emploi.gouv.fr/IMG/pdf/jaune2018_formation_professionnelle.pdf.

Montel, O. (2017), "L'économie des plateformes : enjeux pour la croissance, le travail, l'emploi et les politiques", Document d'études de la DARES, no. 213, DARES, Paris, https://www.uberisation.org/sites/default/files/etude_dares_economie_collaborative.pdf.

MSS (2018), Stratégie de prévention et de lutte contre la pauvreté des enfants et des jeunes - Cloture de la concertation, Ministère des Solidarités et de la Santé, Paris, http://solidarites-sante.gouv.fr/IMG/pdf/1503_doc_participants_vf.pdf.

MSS (2017), *Rapport d'évaluation de la Prime d'activité*, Ministère des Solidarités et de la Santé, Paris, https://solidarites-sante.gouv.fr/IMG/pdf/rapport_d_evaluation_prime_d_activite.pdf.

Murtin, F., A. de Serres and A. Hijzen (2014), "Unemployment and the coverage extension of collective wage agreements", European Economic Review, vol. 71, pp. 52-66, http://dx.doi.org/10.1016/J.EUROECOREV.2014.06.010.

Murtin, F. and J. Robin (2018), "Labor market reforms and unemployment dynamics", Labour Economics, vol. 50, pp. 3-19, http://dx.doi.org/10.1016/j.labeco.2016.05.025.

Nedelkoska, L. and G. Quintini (2018), "Automation, skills use and training", OECD Social, Employment and Migration Working Papers, No. 202, OECD Publishing, Paris, https://dx.doi.org/10.1787/2e2f4eea-en.

Ngai, L. and S. Tenreyro (2014), "Hot and Cold Seasons in the Housing Market", American Economic Review, vol. 104/12, pp. 3991-4026, http://dx.doi.org/10.1257/aer.104.12.3991.

OECD (2018a), OECD Economic Outlook, Volume 2018 Issue 2, OECD Publishing, Paris, https://dx.doi.org/10.1787/eco_outlook-v2018-1-en.

OECD (2018b), OECD Employment Outlook 2018, OECD Publishing, Paris, https://dx.doi.org/10.1787/empl_outlook-2018-en.

OECD (2018c), Good Jobs for All in a Changing World of Work: The OECD Jobs Strategy, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264308817-en.

OECD (2018d), Draft Skills Strategy Update, OECD, Paris, https://one.oecd.org/document/DELSA/ELSA(2018)23/en/pdf.

OECD (2018e), Putting faces to the jobs at risk of automation, OECD publishing, Paris, http://www.oecd.org/employment/future-of-work.htm.OECD (2018f), Getting Skills Right: Future-ready adult learning systems, OECD Publishing, Paris, https://one.oecd.org/document/DELSA/ELSA(2018)15/en/pdf.

OECD (2018g), A Broken Social Elevator? How to Promote Social Mobility, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264301085-en.

OECD (2018h), Taxing Wages 2018, OECD Publishing, Paris, https://dx.doi.org/10.1787/tax_wages-2018-fr.OECD (2018i), Skills Strategy Implementation Guidance for Portugal: Strengthening the Adult-Learning System, OECD Skills Studies, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264298705-en.

OECD (2017a), OECD Economic Surveys: France 2017, OECD Publishing, Paris, https://dx.doi.org/10.1787/eco_surveys-fra-2017-en.

OECD (2017b), Les extensions administratives des accords de branche en France : Effets et pistes de réformes, OECD, Paris, https://www.oecd.org/fr/france/extensions-administratives-des-accords-de-branche-en-France.pdf.

OECD (2017c), Getting Skills Right: Good Practice in Adapting to Changing Skill Needs: A Perspective on France, Italy, Spain, South Africa and the United Kingdom, Getting Skills Right, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264277892-en.

OECD (2017d*), Getting Skills Right: France*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264284456-en.

OECD (2017e), Labour Market Reforms in Portugal 2011-15: A Preliminary Assessment, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264269576-en.

OECD (2017f), *Starting Strong 2017: Key OECD Indicators on Early Childhood Education and Care, Starting Strong*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264276116-en.

OECD (2017g), The Pursuit of Gender Equality: An Uphill Battle, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264281318-en.

OECD (2017h), Financial Incentives for Steering Education and Training, Getting Skills Right, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264272415-en.OECD (2016), *Policy Brief Parental leave: Where are the fathers?*, OECD Publishing, Paris.OECD (2015a), "France - Vers un système d'éducation plus inclusif en France", OCDE - Série politiques meilleures, No. July, OECD, Paris, http://www.oecd.org/about/publishing/corrigenda.

OECD (2015b), OECD Economic Surveys: France 2015, OECD Publishing, Paris.

OECD (2015c), OECD Employment Outlook 2015, OECD Publishing, Paris.OECD (2014), *TALIS 2013 Results: An International Perspective on Teaching and Learning, TALIS*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264196261-en.

OECD (2013), The 2012 labour market reform in Spain: a preliminary assessment, OECD Publishing, Paris, http://www.oecd.org/els/emp/SpainLabourMarketReform-ExecutiveSummary.pdf.

ONAPE (2017), Rapport de Observatoire national de la petite enfance - L'accueil du jeune enfant 2016, http://www.caf.fr/presse-institutionnel/recherche-et-statistiques/observatoire-national-de-la-petite-enfance/rapport-annuel-de-l-observatoire.

Pareliussen, J., H. Hwang and H. Viitamäki (2018), "Basic income or a single tapering rule? Incentives, inclusiveness and affordability compared for the case of Finland", *OECD Economics Department Working Papers*, No. 1464, OECD publishing, Paris, https://doi.org/10.1787/d8c0fbc4-en.

Pesonel, E. (2018), " Le contrat de professionnalisation en 2016", DARES résultats, vol. 9, p. 8, http://www.handipole.org/IMG/pdf/-282.pdf.

Pesonel, É. and P. Zamora (2017), « Quelles sont les causes de la baisse de l'apprentissage dans l'enseignement secondaire ? », Emploi, chômage, revenus du travail, INSEE, https://www.insee.fr/fr/statistiques/2891699?sommaire=2891780.

Pisani Ferry, J. et al. (2018), *Le grand plan d'investissement 2018-2022 - Rapport au Premier Ministre*, Republique Française, Paris

Pitollat, C. and M. Klein (2018), *L'accompagnement des bénéficiaires du RSA - Rapport au Premier Ministre*, https://www.gouvernement.fr/sites/default/files/document/document/2018/09/rapport_de_claire_pitollat_et_mathieu_klein_sur_laccompagnement_des_beneficiaires_du_rsa.pdf.

Ravanel-Vassy, M. et al. (2017), Evaluation de la convention d'objectifs et de gestion 2013-2017 de la Cnaf, IGF-IGAS, Paris, http://www.igas.gouv.fr/IMG/pdf/2017-056R_Tome_I.pdf.

Romans, F. (2018), "Les relations professionnelles en 2017 : un panorama contrasté du dialogue social dans les établissements ?", DARES Analyses, vol. 15, p. 8.

Rostand, C. (2017), Mission de soutien et d'accompagnement à la réforme de la justice prud'homale, Report to the Prime Minister, http://www.justice.gouv.fr/_telechargement/Rapport_mission_Rostand.pdf.

Schmitt, K. and M. Sicsic (2017), "Estimation avancée du taux de pauvreté et des indicateurs d'inégalités - I – 96", No. 96, Insee Focus, https://www.insee.fr/fr/statistiques/3137028#consulter.

Schwellnus, C. (2018), "Gig economy platforms: Boon or bane?", OECD Working Paper, OECD Publishing, Paris, https://one.oecd.org/document/ECO/CPE/WP1(2018)23/en/pdf.

Sirugue, C. (2016), Repenser les minima sociaux, Report to the Prime Minister, Paris, https://www.gouvernement.fr/sites/default/files/document/document/2016/04/18.04.2016_rapport_de_christophe_sirugue_-_repenser_les_minima_sociaux_-_vers_une_couverture_socle_commune.pdf.

Skandalis, D. (2018), "Breaking News: Information About Firms' Hiring Needs Affects the Direction of Job Search", mimeo.

Taguma, M., I. Litjens and K. Makowiecki (2013), "Quality Matters in Early Childhood Education and Care: Sweden 2013", OECD Publishing, Paris.

Tallet, F. and V. Vallès (2017), "Partir de bon matin, à bicyclette...", Insee Première, vol. 1629, p. 4, https://www.insee.fr/fr/statistiques/2557426.

Trannoy, A. and É. Wasmer (2013), "La politique du logement locatif", Les notes du conseil d'analyse économique, vol. 10, p. 12.

Trevien, C. (2014), "Habiter en HLM : quel avantage monétaire et quel impact sur les conditions de logement ?", Economie et statistique, vol. 471/1, pp. 33-64.

Van der Linden, B. (2016), "Do in-work benefits work for low-skilled workers?", IZA World of Labor, http://dx.doi.org/10.15185/izawol.246.

Verdugo, G. (2016), "Real wage cyclicality in the Eurozone before and during the Great Recession: Evidence from micro data", European Economic Review, vol. 82, pp. 46-69.

Viry, S. (2018), Financement national du développement et de la modernisation de l'apprentissage, Commission des Affaires Sociales de l'Assemblée Nationale, http://www.assemblee-nationale.fr/15/pdf/budget/plf2019/a1305-tIII-v1.pdf.

Yazidi, K. and C. Darmaillacq (2014), "Le traitement des litiges en droit du travail : constats et perspectives économiques", Trésor-Éco, vol. 137, p. 12.

# Chapter 2.
# Improving the efficiency of public investment

*Public investment can stimulate demand in the short term and suitable infrastructure can also raise productivity and contribute to more inclusive economic growth by ensuring equal access to the labour market, education and health care. France makes substantial public investments and its stock of public capital is large. In particular, France's infrastructure network is well developed and ranks favourably in international comparison. Yet, the capital efficiency of existing infrastructure may have been hampered by a lack of maintenance and upgrading investments in some sectors. To take full advantage of its public investment, France must strengthen and develop its strategy to meet several challenges, including by promoting socioeconomic-efficiency considerations in the selection of investment projects, harmonising procedures extending over the life-cycle of investment projects between sectors and administrative levels, and concentrating investments of some sectors on the maintenance and quality of the capital stock. Moreover, as local governments are responsible for most of public investment, continuing efforts to clearly allocate responsibilities across the different levels of government will be helpful to reap the benefits of economies of scale and scope. Public investment should also be geared towards fulfilling environmental, digital, and research and innovation objectives to meet France's domestic and international commitments and secure stronger and more sustainable growth. Public investment choices will need to crowd-in private investment to meet these objectives and raise potential growth, including by developing a pipeline of ready-to-finance projects and dynamically adjusting public support to energy and climate change policies.*

Public investment can spur private investment and contribute to more inclusive growth. Boosting public investment can thus support growth and raise well-being. At the same time, public resources are constrained, which limits the size of public investment. This calls for the need to maximize the return on public investment through an improved selection of investment projects. This chapter reviews policies to improve the efficiency of public investment.

Defining public investment is not straightforward, however (Box 2.1). From a purely accounting perspective, public investment refers to capital expenditure on physical infrastructure and soft infrastructure with a productive use that extends beyond a year (i.e., gross fixed capital formation, GFCF). However, the issues discussed in this chapter extend beyond the narrow definition of public GFCF, either because transactions could be classified as intermediate consumption (such as maintenance operations) or because the entity performing investments is outside the public sector from a statistical standpoint. Moreover, the infrastructure investments discussed in this chapter exclude publicly provided private goods such as education, health care and public housing. Instead, following Cournède and Ziemann (2019), the sector-specific policies presented in sections 2.3 and 2.4 concentrate on infrastructure investments that benefit sectors outside the industry possessing the assets; that is, transport, energy, digital and research infrastructures.

**Box 2.1. Illustrating the challenges in defining and measuring public investment**

Depending on their magnitude, maintenance operations can be classified either as intermediate consumption or GFCF. For example, for road maintenance performed by local governments in France, it is estimated that roughly 25% of maintenance operations are classified as intermediate consumption rather than investment (Gouvernement, 2017a). Moreover, France has a large number of state-owned enterprises, representing about 7% of total employment in 2015 (OECD, 2017a). Investments by SOEs that are not classified as part of the general government for statistical purposes because their commercial revenues exceed half of their production costs reach about 1.1 per cent of GDP a year (Gouvernement, 2017b). Public-private partnerships are also not necessarily included in public GFCF depending on the nature of the contract. For example, investments from all-inclusive government pay contracts (*marchés de partenariat*) where the private sector is responsible for designing, building, financing and maintaining a structure or facility for a public-service mission is usually included in public GFCF, while other public-private partnership contracts, such as service concession arrangements, are typically not.

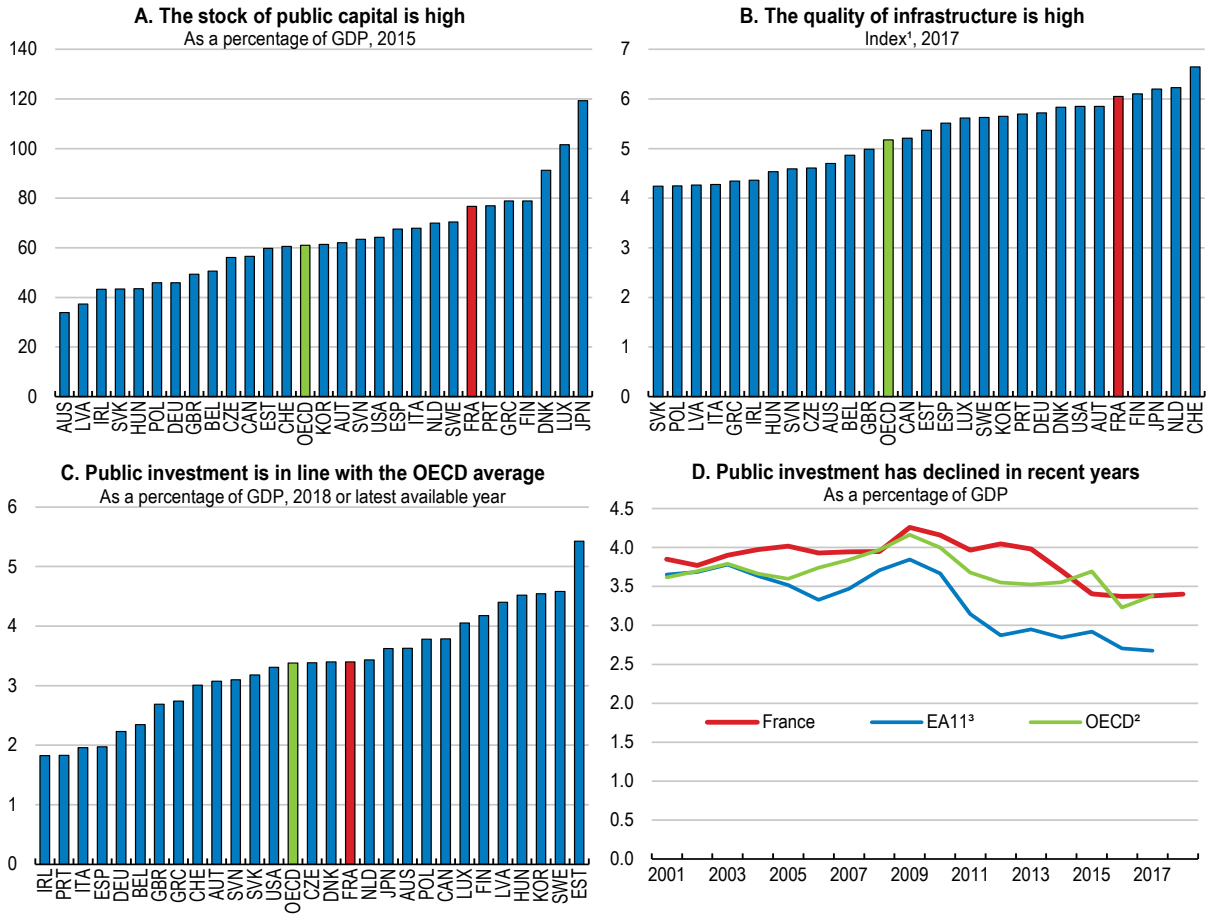
The first section of the chapter provides an overview and challenges to public investment in France. The following section describes framework conditions for improving the effectiveness of public investment, focusing on the greater role to give to socio-economic efficiency considerations to help prioritise investment projects, the role of the private sector in the provision of infrastructure, and institutional and fiscal decentralisation reforms that could help make the most out of subnational investment and foster growth. The third section concentrates on two sectors where the stock of capital is extensive in France – transport and energy – and where investment priorities should be geared towards maintenance and meeting environmental objectives. Finally, public support to foster the transition to a digital economy and to boost research and innovation are discussed in the last section.

## Overview and challenges to public investment

### *The stock of public capital is extensive and its quality is high…*

France's stock of public capital is elevated and the quality of its infrastructure ranks highly according to some indicators (Figure 2.1, Panels A and B). While public investment has declined in recent years and is now in line with the OECD average, it has been noticeably higher than in other euro-area countries (Panels C and D). Public investment by main economic function fairly closely mirrors the average OECD country public investment profile (Table 2.1). When comparing France to an average of euro-area countries, public investment is substantially higher in France, reflecting in part the decline in public investment from 2011 that took place in former euro-area crisis countries, but also higher defence investment (Figure 2.1, Panel D).

**Figure 2.1. Stock of public capital and public investment**




1. Index from the lowest perceived quality (0) to the highest (7); the score is based on the assessment of business leaders operating in the country in response to the question: "How do you assess the general state of infrastructure (e.g. transport, communications and energy) in your country?"
2. Excluding Chile and Mexico due to limited data availability; unweighted average.
3. EA-11 is the unweighted average of the following countries: Austria, Belgium, Finland, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal and Spain.
*Source:* IMF (2017), *Investment and Capital Stock Statistics* (database), International Monetary Fund, Washington D.C.; WEF (2018), *The Global Competitiveness Report 2017-2018* (database), World Economic Forum, Geneva; OECD (2019), *OECD Economic Outlook: Statistics and Projections* (database) and updates.

StatLink https://doi.org/10.1787/888933950789

**Table 2.1. Public investment by main function**

As a percentage of GDP, average over the period extending from 2001-2016[1]

| | France | OECD[2] | France vs. OECD Difference | EA-11[3] | France vs EA-11 Difference |
|---|---|---|---|---|---|
| **Total** | **3.9** | **3.7** | **0.2** | **3.3** | **0.6** |
| General public services | 0.5 | 0.5 | -0.0 | 0.5 | -0.0 |
| Defence | 0.3 | 0.3 | 0.0 | 0.2 | 0.1 |
| Public order and safety | 0.1 | 0.1 | 0.0 | 0.1 | 0.0 |
| Economic affairs | 1.3 | 1.3 | -0.1 | 1.2 | 0.0 |
| Environment protection | 0.2 | 0.2 | 0.0 | 0.2 | 0.0 |
| Housing and community amenities | 0.3 | 0.2 | 0.1 | 0.2 | 0.1 |
| Health | 0.4 | 0.3 | 0.1 | 0.2 | 0.1 |
| Recreation, culture and religion | 0.3 | 0.2 | 0.1 | 0.2 | 0.1 |
| Education | 0.4 | 0.5 | -0.1 | 0.4 | 0.0 |
| Social protection | 0.1 | 0.1 | 0.0 | 0.1 | 0.0 |

1. Numbers may not add to totals because of rounding.
2. OECD is the unweighted average of 27 OECD countries for which data are available (excluding France). Hence, it does not exactly correspond to the OECD country grouping shown in Figure 1, which includes all OECD countries.
3. EA-11 is the unweighted average of the following countries: Austria, Belgium, Finland, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal and Spain.
Source: OECD (2018), *OECD National Accounts Statistics* (database).

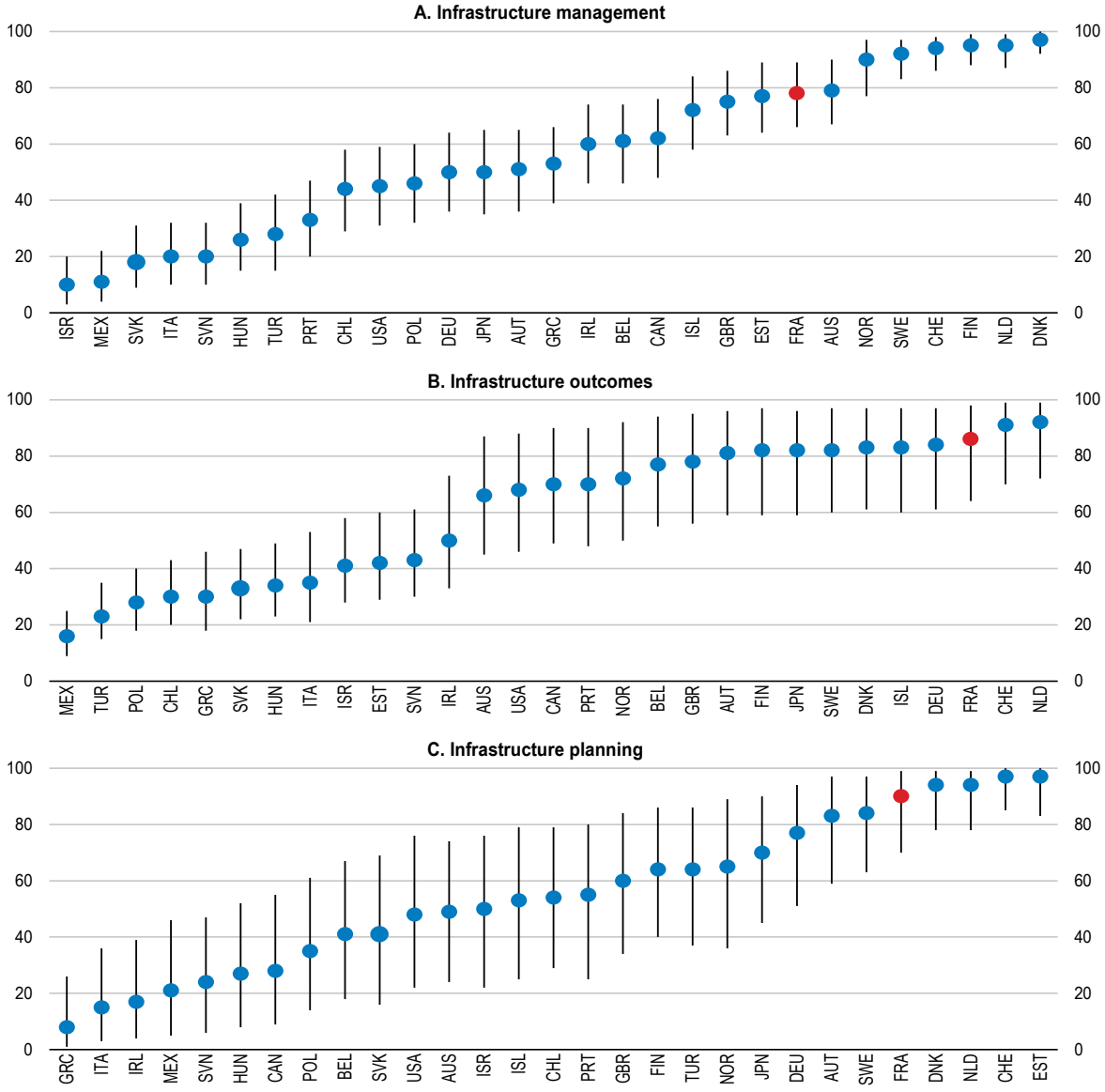
### *…but a stronger focus on maintenance and on a thorough selection of investment projects is needed*

While infrastructure quality and governance ranks highly by international standards (Figure 2.2), investment in maintenance may not always have been adequate in some sectors such as railway where priorities were set in favour of new investment projects at the expense of investments in the maintenance of the existing network (Cour des comptes, 2014). Moreover, one third of the university building stock is rated as being of poor quality. One-off investment plans, for example for renovating hospitals and universities, were also set up to make up for a lack of maintenance and upgrading investments in the past. Yet, overall investment needs may be reduced and capital efficiency improved through good operation and maintenance of existing infrastructure. The benefits of new public investments may also decrease when the stock of public capital is high, and the risks of crowding-out private investment may be greater.

Rigorous strategic planning of investments to prioritise investment projects is a necessary condition for sound public investments, and France has a long-standing tradition of strategic planning of investments in the energy and transport sectors. To foster an increased prioritisation of investments, all large public investment projects (excluding defence investments and those financed in full by local authorities) are subject to a mandatory *ex-ante* socio-economic appraisal since 2013. The practice of socio-economic *ex-ante* assessments is widely spread in the transport sector since they are mandatory in that sector since 1982, and the health sector has developed specific procedures to ensure the quality of the evaluation of investment projects since 2013. Moreover, even if the practice of socio-economic appraisal of investment projects starts to spread in sectorial ministries, the quality of assessments remains uneven across sectors and the environmental appraisal is not systematic (Gouvernement, 2018; France Stratégie, 2019).

**Figure 2.2. Infrastructure governance indicators**

2016, index scale from 0 (least performant) to 100 (most performant)




*Note*: These governance indicators measure countries' performance on each of the three dimensions of infrastructure planning, management and outcomes. The circles show the countries' scores while the vertical lines represent the statistical uncertainty around the scores. The governance indicators are constructed using the results of a survey of public infrastructure experts.

*Source:* Hertie School of Governance (2016). *The Governance Report 2016*: *Infrastructure Governance Indicators*, Hertie School of Governance: Berlin.

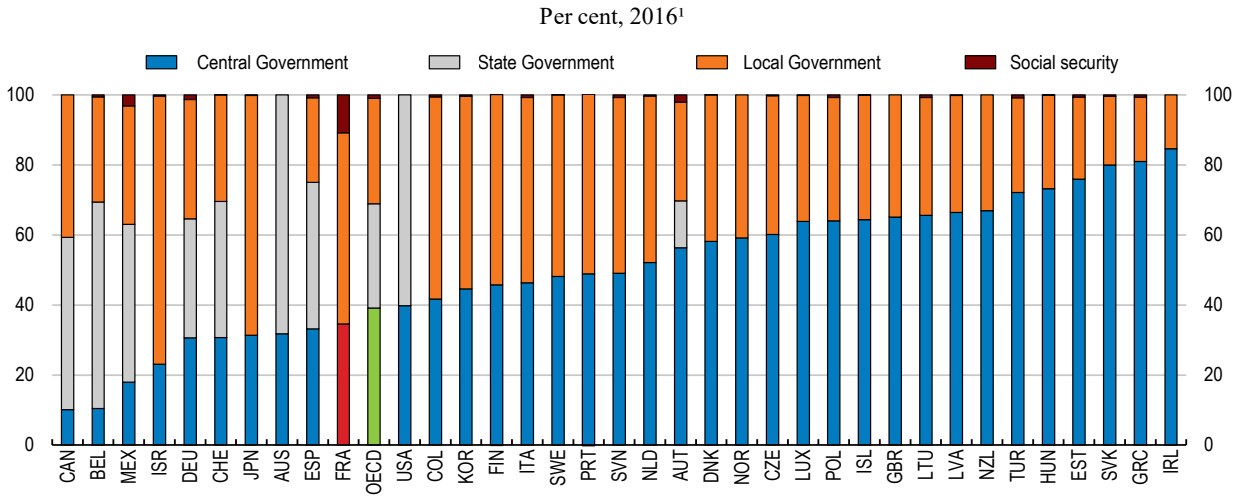
StatLink https://doi.org/10.1787/888933950808

### *Local governments are responsible for the majority of public investment and the private sector could play a bigger role*

Public investment is a shared responsibility across levels of governments with subnational governments investing the most (Figure 2.3). Hence, policies to improve public

investment efficiency rely in large part on local governments. Local governments invest in a broad range of sectors, while investment from the central government is heavily tilted toward economic affairs (particularly transport), defence and health care (Figure 2.4, Panel A). France has three layers of local governments: regions, *départements* and municipalities (*communes*). On top of this, all French municipalities belong to an inter-municipal co-operation structure (EPCI for *établissement public de coopération intercommunale*), which in practice represents an additional level of local government in between municipalities and *départements*. Municipalities and EPCIs account for the majority of local government investment followed by higher administrative levels that roughly each invest the same amount (Panel B).

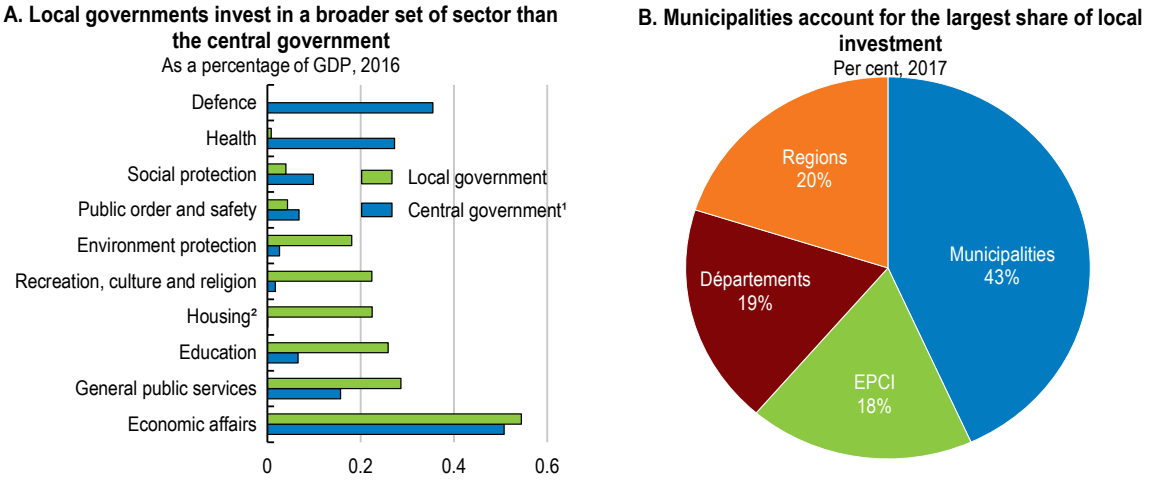
**Figure 2.3. Distribution of investment spending across levels of government**




*Note*: Or latest year available. Local government is included in state government for Australia and the United States. State government is only applicable to the nine OECD countries that are federal states: Australia, Austria, Belgium, Canada, Germany, Mexico, Spain (considered a quasi-federal country), Switzerland and the United States. Australia does not operate government social insurance schemes. Social security funds are included in central government in Ireland, New Zealand, Norway, the United Kingdom and the United States.
*Source*: OECD (2017), *OECD Government at a Glance* (database).

StatLink https://doi.org/10.1787/888933950827

**Figure 2.4. Local government investment**




1. Including social security funds.
2. And community amenities.

*Note:* In Panel B, figures are presented without netting transfers across local governments.

*Source*: OECD (2018), *OECD National Accounts Statistics* (database); DGCL (2018), *Les chiffres-clés des collectivités locales*, Direction générale des collectivités locales, Paris, https://www.collectivites-locales.gouv.fr/files/files/statistiques/brochures/chiffres_cles_2018.pdf.

StatLink https://doi.org/10.1787/888933950846

The private-sector involvement in the provision of infrastructure is increasing since 2004 when all-inclusive government-pay contracts (*contrats de partenariat*) were introduced. Other public-private arrangements exist as reflected in recent large urban development projects. Public-private partnerships have long existed in France in commercial sectors based on user funding of infrastructure where the private sector is responsible for the management and maintenance of the asset. Yet, the collection of information on the financial and operational performance of infrastructure assets across the different models of public-private partnerships is insufficient (Saussier and Tirole, 2015), hampering a more informed decision-making regarding the involvement of the private sector in the provision of infrastructure. Moreover, given the large financing requirements needed to develop low-carbon infrastructure, better mobilising the private sector by clearly identifying investment opportunities in low-carbon infrastructure projects in long-term sectorial plans should be considered (see below).

### *Investing for the future*

Public investment should aim at meeting France's domestic and international commitments regarding the environment as foreseen in the latest investment plan by the authorities (*Grand plan d'investissement*, Box 2.2). Bolstering more sustainable transport modes will be key to tackle air pollution that contribute to climate change and lead to considerable health costs. France is one of the few countries that has developed a low-emission long-term strategy, and the challenge is to ensure that the authorities' support for the environmental transition is appropriately geared towards fulfilling these objectives. The role of subnational governments will be critical in this respect as they account for the vast majority of environmental and climate-related investment in France (OECD/The World Bank/UN Environment, 2018). Moreover, making transport infrastructure

investment plans consistent with the infrastructure requirements for deep decarbonisation will be important to avoid government spending in high carbon infrastructure. The revision of the shadow price of carbon used in the socio-economic assessments of large investment projects is a step in this direction. The authorities also face the challenge of reducing the share of nuclear energy to 50% in the electricity mix in the medium-run, while ensuring a continuous security of energy supply and maintaining a low-carbon footprint in energy production.

**Box 2.2. The Grand plan d'investissement and the Fonds pour l'innovation et l'industrie**

The *Grand plan d'investissement* (GPI), which extends over 2018-22, is an interdepartmental investment plan under the authority of the Prime Minister that have mechanisms for adjusting investment decisions to increase its efficiency. The *Secrétariat général pour l'investissement* (SGPI) must annually propose, using evidence-based assessments, an appraisal of the GPI and suggests changes. The GPI integrates the last part of the previous investment plans (*programmes d'investissement d'avenir*, PIA) with the aim of preserving their strengths.

The GPI consists of 26 measures gathered into four main priorities for a total investment of EUR 57 bn (2.5% of 2017 GDP). The first priority relates to the environment and concentrates on improving buildings' energy efficiency, developing renewable energies and sustainable transport modes (EUR 20 bn). The second is devoted to investing in skills targeted at the long-term unemployed and the youth not in employment, education or training as discussed in Chapter 1 (EUR 15 bn). Innovation and higher education are the focus of the third priority (EUR 13 bn), which includes schemes previously meant to be funded by the PIA. The last priority concentrates on the digitalisation of public services and hospital renovation projects (EUR 9 bn).

Sectorial ministries will be in charge of distributing credits, and 3% of the funds are set aside each year to steer funds to the best performing actions. The *Secrétariat général pour l'investissement* provides a general oversight over the GPI with the aim of preserving the strengths of the PIA such as the focus on evaluations, selectivity in the allocation of resources and public-private co-operation (OECD, 2014a). About EUR 24 bn of the GPI is financed by new budget measures with knock-on effects on the public deficit, while the remainder of the investment plan is obtained by reallocating existing credits, using mechanisms from the COPERMO for ranking investment priorities (Box 2.3).

A new innovation fund (*Fonds pour l'innovation et l'industrie,* FII) has been set up in 2018 to provide funding for deep tech innovations through additional support to meet the needs of start-ups that operate in high-tech capital-intensive sectors, and through a new initiative called the "*grands défis"* that will fund disruptive innovation projects at the technological frontier that address societal challenges.

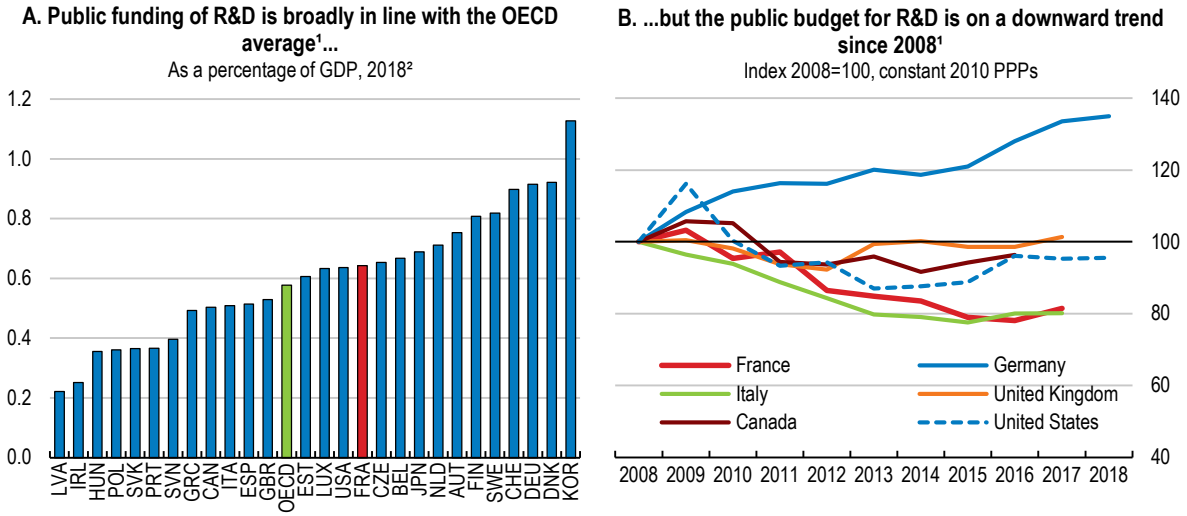
*Source*: Le Grand Plan d'Investissement 2018-2022, *Rapport au Premier ministre,* https://www.gouvernement.fr/action/le-grand-plan-d-investissement-2018-2022, and Séance inaugurale du Conseil de l'Innovation, https://www.entreprises.gouv.fr/files/files/directions_services/politique-et-enjeux/innovation/dossier-presse-conseil-innovation.pdf.

Efficient, reliable and widely accessible digital infrastructure is key to reap the full benefits of the digital revolution, and digitalisation is central to improve public sector efficiency. Digitalisation and its most advanced variants can reduce the costs of scaling up production and foster trade with knock-on effects on innovation, technology diffusion and productivity. Against this background, the authorities aim at providing high-speed

broadband internet to all households, firms and public offices by 2022 through a mix of public and private investments (*Plan France Très Haut Débit*). Digital technologies in public administration are developing, but their use remains low relative to the best performing countries, weighing on the ability of the authorities to use digitalisation as a tool to meet their medium-term fiscal targets. For example, digital investment in tax administration is poor (Cour des comptes, 2018a), hampering the ability of the authorities to reform tax services. However, the *Grand plan d'investissement* also aims at the digital transformation of public services.

Research and development (R&D) is a key driver of long-term economic performance, and R&D will be vital to address climate change. France's public funding for R&D is comparable to the OECD average, while government budget allocations for R&D have significantly declined since 2008 as in most other G7 countries (Figure 2.5). As elsewhere in the OECD, the French authorities concentrated on offering R&D tax incentives (particularly the R&D tax credit) and R&D subsidies to firms (OECD, 2018a). Business R&D tends to favour development over pure research. In that respect, business R&D is helpful to boost business competitiveness, while less directly focused research implied by public R&D will also be important to boost innovation and address global challenges, including social and environmental concerns. Yet, well-designed one-off investment plans by the French authorities partially compensated the decline in government funding for research, and the latest investment plan includes welcome measures for supporting major research universities (Box 2.2).

**Figure 2.5. The government funding of research is broadly in line with the OECD average**




1. The data represented are government budget allocations for R&D (GBAORD), excluding tax incentives. These data differ from the government-financed GERD data, which indicate that, in France, R&D spending from the higher education and government sectors has been broadly stable in relation to GDP since 2008. Government-financed GERD and GBAORD differ in two main respects. First, GERD data are based on reports by R&D performers, whereas GBAORD is based on reports by R&D funders. This could explain the discrepancy between GBAORD and government-financed GERD data in France, since the one-off investment plans (PIA) were subject to a particular budgeting framework. Second, the GERD-based series cover only R&D performed on the national territory, whereas GBAORD also include payments to foreign R&D performers.
2. Or latest year available.
*Source*: OECD (2018), *OECD Research and Development Statistics* (database).

StatLink https://doi.org/10.1787/888933950865

## Strengthening framework conditions for effective public investment

Large-scale investments involve different sectors, policy areas and have long-lasting effects, which results in a complex decision-making process spanning different government levels and multiple stakeholders. The OECD has developed recommendations to help governments assess the strengths and weaknesses of their public investment capacity (Table 2.2), and the implementation of these recommendations is monitored (OECD, 2018b). Building on these principles, the OECD's framework for the Governance of Infrastructure underlines good practice for infrastructure investment (OECD, 2017b), including the need to define a strategic vision for long-term infrastructure needs.

**Table 2.2. OECD's principles for effective public investment**

| Pillar | Principles |
|---|---|
| Co-ordinate public investment across levels of government and policies | Invest using an integrated strategy tailored to different places |
| | Adopt effective instruments for co-ordinating across national and sub-national levels of government |
| | Co-ordinate horizontally among sub-national governments to invest at the relevant scale |
| Strengthen capacities for public investment and promote policy learning at all levels of government | Assess upfront the long-term impacts and risks of public investment |
| | Engage with stakeholders throughout the investment cycle |
| | Mobilise private actors and financing institutions to diversify sources of financing and strengthen capacities |
| | Reinforce the expertise of public officials and institutions involved in public investment |
| | Focus on results and promote learning from experience |
| Ensure proper framework conditions for public investment at all levels of government | Develop a fiscal framework adapted to the investment objectives pursued |
| | Require sound and transparent financial management at all levels of government |
| | Promote transparency and strategic use of public procurement at all levels of government |
| | Strive for quality and consistency in regulatory systems across levels of government |

Source: Recommendation of the OECD council on Effective Public Investment across Levels of Government (OECD, 2014).

### *Towards a better prioritisation and selection of investment projects*

#### *Promoting the use of socio-economic assessments prior investment decisions*

To help identify priority projects, France introduced in 2013 requirements related to the socio-economic assessments of all public investments – excluding those from the defence sector and those financed in full by local authorities. In particular, when the central government funding exceeds EUR 20 million, investment projects have to undergo an *ex-ante* socio-economic appraisal and be gathered in a single inventory to monitor them consistently across sectors. Moreover, an independent counter-expertise of the *ex-ante* evaluation by a central government agency (*Secrétariat général pour l'investissement* – SGPI) is mandatory for projects whose values exceed EUR 100 million. Using this counter-expertise report, an opinion is issued by the SGPI, which is circulated to the

Parliament and different stakeholders in the central government. The SGPI's opinion must also be part of the public inquiry file if applicable, and must be considered before the final decision on the investment project.

Even though processes for evaluating public investment projects differ across countries, this EUR 100 million threshold triggering the counter-expertise report appears to be somewhat higher relative to other OECD countries. For example, in Norway, public investment in transport infrastructure must undergo a quality check for investments above NOK 750 million; and, in Australia, a public agency – Infrastructure Australia – performs cost-benefit analyses of infrastructure projects above AUD 100 million (which is above EUR 20 million, but lower than the EUR 100 million threshold triggering the counter-expertise in France).

The number of counter-expertise varies from year to year. Opinions issued (60 since 2013), even when they are favorable (26 since 2013), typically include recommendations. Two unfavorable opinions have been issued since 2013. When the project manager's socio-economic assessment proves to be insufficient, the SGPI's opinion includes reservations, which have sometimes led to changes in projects. Transport projects represent less than a quarter of projects subject to a counter-expertise and hospital projects a third.

To set guidelines for socio-economic analyses and give project managers tools (spreadsheets, shadow prices, macroeconomic scenarios), a committee of experts has been set up in 2016. This is much needed as the lack of well-defined sector-specific methodologies has been a barrier to the socio-economic evaluation of large investments (Inspection générale des Finances, 2016). Efforts to develop evaluation methodologies of investment projects should be encouraged and strengthened and the use of socio-economic analyses when planning investments should be promoted further by developing a strategy to reach out to all relevant stakeholders.

However, despite sound regulatory features for the selection of investment projects, economic efficiency considerations often have a limited influence in actual project selection. In particular, project selection can be dominated by practices that reflect interested parties pushing projects for approval, and political motivations are often significant drivers of infrastructure governance. For example, the high-speed railway network is well-developed, but with an excessive number of stations (France has over 230 train stations accommodating high-speed trains), and not all high-speed rail lines are profitable investments (Cour des comptes, 2014). Economic efficiency considerations also play little role in the decision to maintain low-traffic rail lines (Spinetta, 2018).

While public investment is ultimately a political choice, requiring policymakers to formally and publicly justify their decisions when they diverge from the results of the counter-expertise of large investment projects would help improve transparency and strengthen the role of socio-economic analyses in the selection process of investment projects. This would entail to systematically publish the counter-expertise of the *ex-ante* assessment by the SGPI, which is not the current practice even though most counter-expertise reports are eventually published. The authorities could also consider splitting the counter-expertise activity from the SGPI, which is also in charge of promoting investment and depends on the Prime Minister office. This would prevent any conflict of interest that could potentially arise under the current institutional setting. Australia's planning body – Infrastructure Australia – is an example of an independent agency benefitting from cross-partisan and stakeholder support that is in charge of publishing

technical analyses that the government has to formally address before making decisions about large infrastructure projects.

### *Spreading good practices to all relevant stakeholders*

The selection procedures of investment projects and the use of socio-economic *ex-ante* assessments vary substantially across sectorial ministries. It was thereby necessary to establish a common analysis and decision framework to investment projects in each ministry. This can help better identify priority projects and speed-up spreading best practices related to *ex-ante* appraisals. In that respect, the United Kingdom's Green Book is an example of the principles that public investments must follow whereby gateway reviews that investment projects must clear to proceed intervene at sequential stages to ensure their strategic fit, economic value for money, financial affordability, commercial achievability and management of benefits (HM Treasury, 2015). In 2017, a similar guide (*Guide de l'évaluation socioéconomique des investissements publics*) has been published in France by France Stratégie and the French Treasury.

To standardise procedures for investment selection, France could use the framework in place in the health sector in other sectors in charge of large investment projects. Since 2013, all large hospital investments are supervised by a committee (COPERMO), which is providing inputs at different stages of the investment cycle (Box 2.3). This also includes an evaluation of the cost-benefit analyses by the COPERMO, which can lead to a refinement of investment projects. Investment projects from the health sector are also subject to a counter-expertise of their *ex-ante* appraisal by the SGPI (which is also a member of the COPERMO). Hence, the SGPI acts as an additional gatekeeper for the quality of evaluations when the public funding of the project exceeds EUR 100 million.

**Box 2.3. Decision-making process for large hospital investments**

Despite falling since 2013 due to the completion of one-off investment plans aimed at modernising hospitals (*plans Hôpital* 2007 and 2012), public health-care investments remain sizeable and stood at EUR 6.2 bn in 2016 (0.3% of 2016 GDP), 80% of which are hospital investments. In 2013, the health ministry set up a committee (COPERMO for *Comité interministériel de performance et de la modernisation de l'offre de soins*) in charge of monitoring and evaluating large hospital investments to address new requirements related to the socio-economic assessments of large investments, but also to help better prioritise investments. This committee includes representatives from the health and budget ministries, and the SGPI. It intervenes twice in the decision-making process of all hospital investments exceeding EUR 50 million:

- At the initial stage of a project, the institution or the regional health authority (ARS, *Agence régionale de santé*) submits the project proposal for its eligibility to the COPERMO, which represents a first opportunity to gather feedbacks on the project;
- The COPERMO then intervenes at the approval stage of the financing mechanism of the project before the health ministry decides on the extent of its financial support for the project.

In either stages, the COPERMO can request modifications to the project or postpone the examination of the project until appropriate changes have been made. An annual review of investment projects is then used to keep track of the ongoing investment projects, including to follow up on the recommendations issued by the COPERMO.

The health ministry also set up methodological notes – which are largely based on feedbacks from the COPERMO – to spread good practices related to the efficiency of hospital investments to relevant stakeholders.

Source: Inspection générale des Finances (2016) and ministère des Solidarités et de la Santé (http://solidarites-sante.gouv.fr/professionnels/gerer-un-etablissement-de-sante-medico-social/performance-des-etablissements-de-sante/efficience-hospitaliere).

Making *ex-post* evaluations mandatory in all sectors for large investment projects would provide helpful inputs into future investment decisions. *Ex-post* assessments are mandatory since 1982 in the transport sector where a comparison of the projects' *ex-post* results in light of their *ex-ante* objectives is compulsory. These requirements apply to transport projects exceeding EUR 83.1 million and the *ex-post* evaluation must take place between three to five years after the project is completed. Applying similar requirements to all sectors – for example, for investments above EUR 100 million as in the case of the quality control of the *ex-ante* socio-economic appraisals by the SGPI – would help translate into higher quality *ex-ante* appraisals going forward.

Estimating the wide-ranging benefits of investments may be challenging; that is, going beyond assessing that a project is successful if completed on time and on budget. For example, it has been found that the wide-ranging benefits to society in terms of employment gains from transport infrastructure projects were often based on simple correlation analyses (CEREMA, 2018). In such cases, leveraging the expertise of independent bodies with the capacity of conducting high-quality evaluation may be necessary.

Large investment operations from local governments should be subject to the same requirements than those from the central government. Local governments represent the majority of public investment, but the extent of planning of investment operations differ substantially across local governments, even among the largest ones (Cour des comptes, 2015a). Moreover, survey-based evidence shows that France is one of the EU countries where municipalities tend to little use *ex-ante* assessments of infrastructure projects (European Investment Bank, 2017). A 2015 bill (NOTRé for *nouvelle organisation territoriale de la République*) prescribes that all exceptional investment decisions from local authorities – in practice those above EUR 5 million – should be subject to an evaluation of their impacts on future operating expenses, and it is mandatory for investment projects above EUR 100 million. Yet, these impact studies do not correspond to a proper socio-economic analysis that evaluates the wide-ranging benefits and costs of the investment project unless the co-financing of the investment project by the central government exceeds EUR 20 million.

Extending the requirements of socio-economic analyses in place for the central government to investments from local government and local state-owned enterprises would be welcome, including the mandatory counter-expertise of the *ex-ante* evaluation for investments with EUR 100 million or more of public funding. This would strengthen the case for separating the counter-expertise office from the SGPI to neutralise the concerns of local governments regarding their autonomy vis-à-vis the central government. Moreover, this would notably entail to develop guidelines for socio-economic assessments tailored to the needs of local governments. Denmark is an example of an OECD country that set up an easy-to-use spreadsheet for performing socio-economic assessments of transport projects.

### *Raising public awareness of economic efficiency considerations to improve investment decisions*

Raising public awareness about economic efficiency in investment projects is needed, since public opinion often carries a large weight in project selection and implementation. Large urban planning projects must undergo a public survey (*enquête publique*) that aims at fostering public information about planned investment projects, but also allow decision makers to collect information from third-parties about the risks – notably environmental – stemming from a particular project. In that respect, making greater use of e-communication in public surveys, as foreseen in a 2010 bill (*Engagement national pour l'environnement*), would help achieve greater awareness from the public about value-for-money issues into investment projects as long as the quality of public surveys is not lowered. Selected local governments – e.g., the *métropole* of Bordeaux – systematically provide comprehensive information about investment projects that require a public survey on dedicated websites.

Engaging media and civil society is another key channel to strengthen public awareness of economic efficiency. Providing courses on cost-benefit analyses to economic journalists, as done in Norway by a government agency, is another example of measures that can strengthen public awareness of economic efficiency in investment projects by increasing the demand for value-for-money considerations into the selection and implementation of public investment projects.

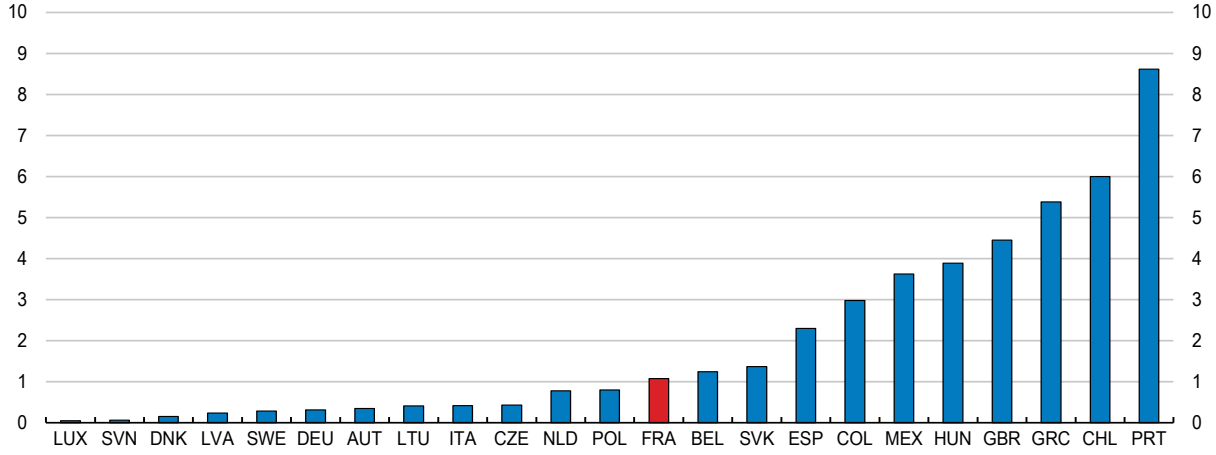
### *Leveraging the private sector in the provision of infrastructure*

The delivery of most infrastructure projects has used a standard public project contracting procurement process (*maîtrise d'ouvrage publique*). Nonetheless, private-sector involvement in the provision of infrastructure is possible since 2004 when all-inclusive government-pay contracts were introduced (PPP for public-private partnerships, "*marchés de partenariat*"). A number of sectors, including health, education, sports facilities, defence and transport, have used PPP contracts ("*marchés de partenariat*") (Bergère, 2016).

In a broader sense, public-private partnerships have long existed in France in commercial sectors based on user funding of infrastructure where the private sector is responsible for the management and maintenance of the asset. For example, for water utilities, where the private sector provision of water supply stood at 61% of the population in 2014 (Observatoire des services publics d'eau et d'assainissement, 2017), or motorways where about 80% of the network has been conceded to private firms. Opening markets up to competition in certain sectors, such as telecommunications, has also fostered the role of the private sector in the financing of infrastructure. Overall, however, the PPP capital stock is not very large in relation to GDP (Figure 2.6).

**Figure 2.6. The capital stock from public-private partnerships is fairly limited**

As a percentage of GDP, 2015[1]




*Note*: Or latest year available. For European countries, the PPP capital stock is measured based on data from the European Investment Bank, which also include concession arrangements that feature a construction element, the provision of a public service and genuine risk sharing between the public and the private sector for transactions over EUR 10 million.
*Source*: IMF (2017), *Investment and Capital Stock Statistics* (database), International Monetary Fund, Washington D.C.

StatLink https://doi.org/10.1787/888933950884

Developing a ready-to-finance pipeline of infrastructure projects would help to attract private investors. This is particularly important for meeting climate-change mitigation objectives that will require substantial shifts in investment to deploy infrastructure for the energy transition and for cutting $CO_2$ emissions. The annual infrastructure investment needs to 2030 to deliver on economic and development goals and limit global warming to below 2 degrees are estimated at USD 6.9 trillion world-wide, roughly 10% more than a scenario without response to climate change (OECD, 2017c). In particular, investment in

high-carbon investment will need to be scaled down and investment in energy efficiency and renewables will need to increase. It is often not the lack of capital that is impeding investments in support of long-term climate objectives, but instead the lack of investment-ready and bankable projects to which private sector investors and project developers can commit time, effort and funding (OECD, 2018c). In this respect, France could do more to clearly identify low-carbon investment opportunities in infrastructure assets in long-term sectorial plans (see Section 2.3). The United Kingdom is an example of an institutional framework that identifies ready-to-finance projects through its Infrastructure and Projects Authority (IPA), which creates a pipeline of priority projects to meet its long-term infrastructure needs.

The choice of public-private partnerships should be grounded in value-for-money considerations. There should be no institutional, procedural or accounting bias in favour of or against public-private partnerships and the decision to invest should be separate from how to procure and finance the project (OECD, 2017d). PPPs are not without risk for government finances in that failure to manage them properly can lead to contingent liabilities for public finances, as it has been the case in Portugal (Araújo and Sutherland, 2010). They are difficult tools to manage, particularly for local governments that may not necessarily have the administrative capabilities to use them efficiently (Sénat, 2014), and a 2016 decree has somewhat restricted the use of PPPs (*marchés de partenariat*) by introducing minimum thresholds for accessing them and by limiting the number of public entities that can directly use such contracts.

When used properly, however, public-private partnerships can help the government make the most of private-sector know-how in the development of public services involving both the construction and long-term maintenance of complex infrastructure requiring specific technical knowledge and expertise. ITF analyses underline the conditions under which one of the two broad models of private financing is the most suitable depending on the asset and market under consideration (International Transport Forum, 2018). On the one hand, in the regulatory asset base (RAB) model, there are periodic negotiations between the private operator and an economic regulator based on efficiency targets. On the other hand, under a PPP model, the price of the infrastructure and incentives for efficiency derive from the competition for the contract or concession. Heathrow airport is an example of an incentive-based regulation (RAB) operated by the U.K.'s Civil Aviation Authority. When the private operator is not subject to competition, the RAB model is typically to be preferred. Moreover, in the case of airport infrastructure, clearly defining the set of rules governing the monitoring and supervision of the private operator by the economic regulator also seems to be warranted (Cour des comptes, 2018b).

Enhancing access to comparable data available to the public and investors about the performance of infrastructure projects across delivery modes and improving capacity building to public-sector officials involved in public procurement choices would be good moves. A technical advisory unit in the Ministry of Finance (*Fin Infra*) is in charge of providing guidance and technical support for all types of complex public-private contracts, and several line ministries have dedicated PPP units (e.g., the Transport ministry). Yet, ensuring appropriate capacity building to public-sector officials interested or engaged in PPPs appears necessary as in the past resources for the planning of infrastructure projects managed by PPPs may not always have been sufficient (Cour des comptes, 2015b; Saussier, 2017). Enhancing access to comparable data available to the public and investors about the performance of infrastructure assets across modes of delivery could be done by setting up an agency to collect such data. This institution could also advise local governments on their public procurement choices and follow up on PPPs'

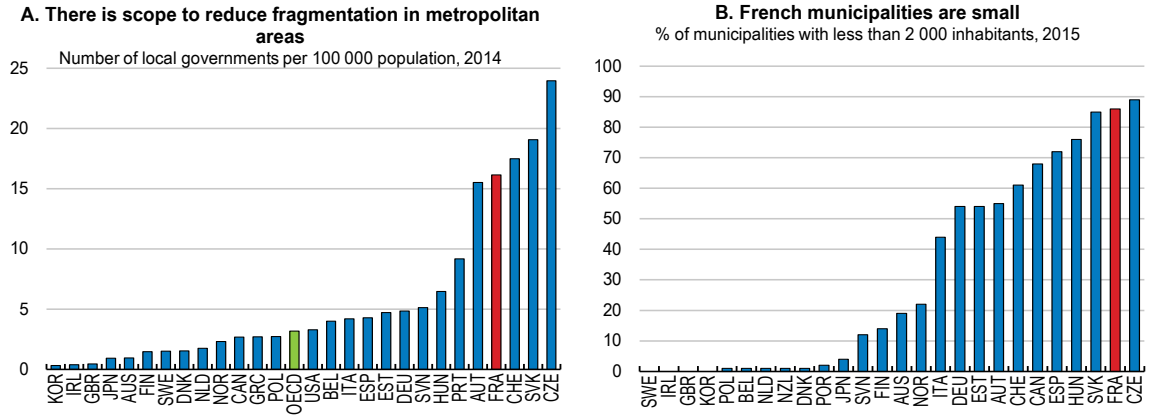
performance once they are signed (OECD, 2018d). More extensive data on past performance of infrastructure investment would also improve investors' risk pricing, which could in turn lower the total cost of projects (International Transport Forum, 2018).

### *Strengthening local government capacities for public investment*

#### *Continuing institutional reforms would help achieve efficiency gains*

France is one of the OECD countries with the largest number of local governments (Figure 2.7, Panel A). Territorial reforms in 2015 reduced the number of regions in mainland France from 22 to 13, the number of inter-municipal co-operation structures was also cut by about half in subsequent years to reach 1263 in 2018, including by creating *métropoles* covering metropolitan areas. Moreover, a 2015 law also clarified responsibilities across the different levels of local governments. However, France still distinguishes itself among other OECD countries by the small size of its municipalities. More than half of the municipalities have less than 500 inhabitants, about 85% of municipalities have less than 2000 inhabitants, and the median municipal population size is the second smallest in the OECD (Panel B).

**Figure 2.7. Territorial fragmentation is sizeable**




*Source*: OECD (2015), *OECD Metropolitan Areas Statistics* (database); OECD (2017), *Subnational Government Structure and Finance* (database).

StatLink https://doi.org/10.1787/888933950903

Municipal public investment is generally higher in the most mountainous and touristic areas, reflecting the differentiated cost of goods and collective services in those areas (Figure 2.8, Panel A). However, a consolidated view of investment at the municipal level is not available – that is, investments from higher administrative levels into municipalities – which complicates the analysis of spatial disparities in investment at the municipal level. Municipal public investment per capita also exhibits a U-shape pattern in that it is higher in the smallest and largest municipalities (Table 2.3), which is only explained in part by the mountainous and touristic status of municipalities (Panel B). While a U-shape pattern for local government spending is not unusual in OECD countries (OECD, 2013), France is characterised by its large number of small municipalities, suggesting that there is scope for reaping economies of scale for investment spending by reducing administrative fragmentation for the smallest municipalities.

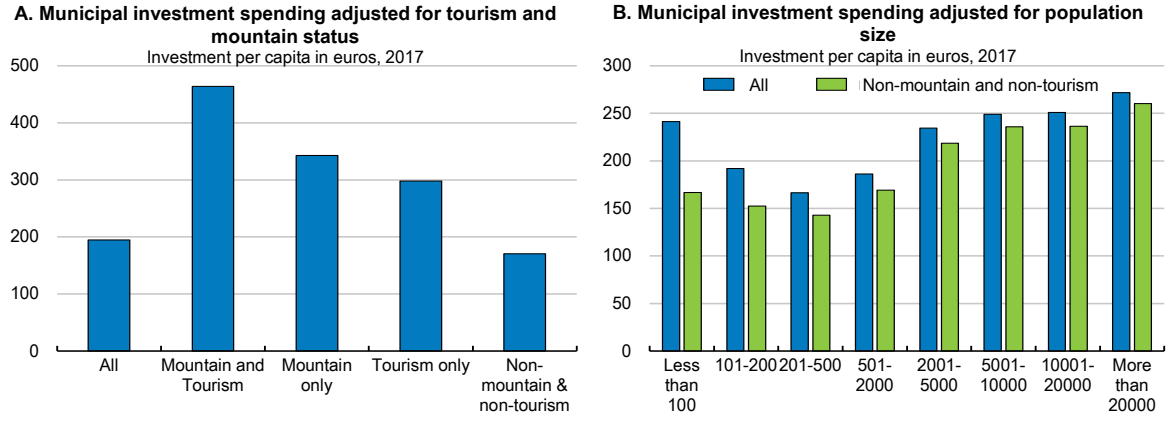
**Table 2.3. Municipal investment**

Median municipal investment per capita, 2017

| Size of municipalities (number of inhabitants) | Less than 100 | [101-200] | [201-500] | [501-2000] | [2001-5000] | [5001-10000] | [10001-20000] | More than 20000 |
|---|---|---|---|---|---|---|---|---|
| Investment spending per capita | 241.4 | 191.9 | 166.5 | 186.2 | 234.6 | 249.0 | 250.8 | 271.7 |
| Number of municipalities | 3251 | 5468 | 9827 | 11402 | 3201 | 1140 | 515 | 437 |
| Population share | 0.3% | 1.2% | 4.9% | 17.2% | 15.1% | 12.1% | 10.8% | 38.2% |

Note: Investment spending per capita includes main and supplementary budgets (budgets principaux et budgets annexes), but excludes debt reimbursements. Data are for metropolitan France only.
Source: L'Observatoire des finances et de la gestion publique locales, https://www.collectivites-locales.gouv.fr/ofgl.

**Figure 2.8. Municipal investment spending by category of municipalities**




*Note*: Municipal investment spending does not include investments from inter-municipal co-operation structures. Assuming that the smallest municipalities tend to delegate relatively more their investment operations to their inter-municipal co-operation structure than larger municipalities, panel B would thereby be a conservative estimate of the excessive investment carried out by the smallest municipalities. In panel B, municipal investment spending is shown for all municipalities and non-mountain and non-tourism municipalities, since there are too few municipalities in the other categories in some population brackets.
*Source*: L'Observatoire des finances et de la gestion publique locales, https://www.collectivites-locales.gouv.fr/ofgl.

StatLink https://doi.org/10.1787/888933950922

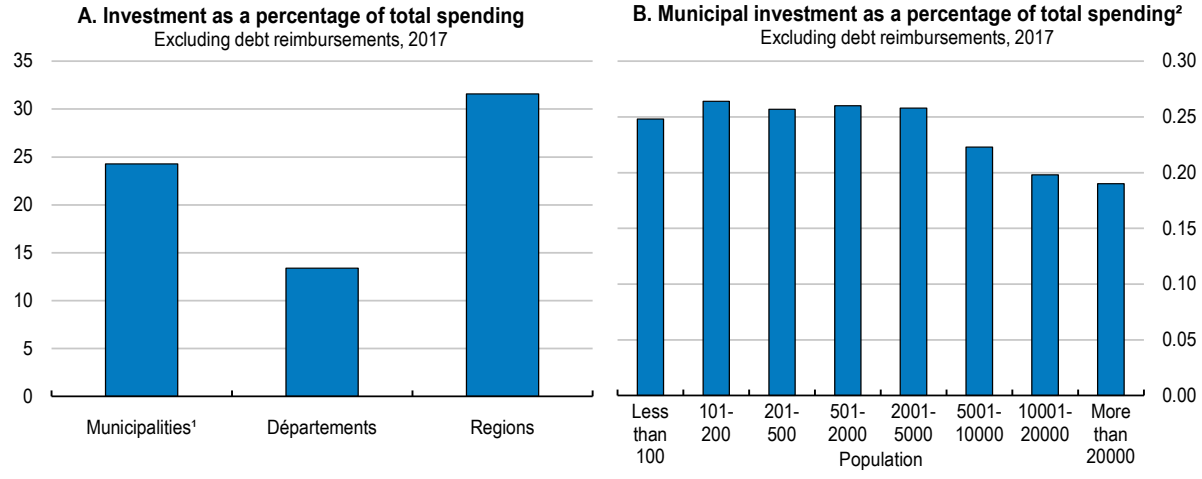
In the short run, strengthening the role of inter-municipal co-operation structures in the provision of infrastructure would help achieve efficiency gains for local investment spending. Making the inter-municipal co-operation structures the mandatory body for all large public infrastructure operations would be beneficial, since infrastructure and large-scale capital investments exhibit strong economies of scale in that unit costs fall sizeably if a larger population is served. Asymmetric arrangements, in which responsibilities for municipalities are differentiated based on population size or urban/rural criteria, could be further developed in that respect (Allain-Dupré, 2018). In France, the differentiation of responsibilities depending on the category of inter-municipal cooperation structures is a step in that direction. Pilot experiments, as done in Denmark as part of the "Free municipality" programme, would also be helpful to identify asymmetric arrangements with the strongest benefits.

In the longer run, support for municipal mergers could be fostered by demonstrating potential improvements to public services; for example, by publishing indicators of municipal performance, such as outcomes of services and efficiency of service provision. Small municipalities compound co-ordination problems by spreading expertise more thinly. Many OECD countries achieved sizeable municipal mergers such as Japan, Denmark and New Zealand through mandatory or voluntary schemes (OECD, 2017e). Regions could also help municipalities understand the financial case for a merger or act as a mediator as in the Netherlands or Switzerland. While there is no consensus on the optimal size of municipalities, the benefits of municipal amalgamations are likely to be the largest in urban areas where municipal fragmentation has been found to have adverse effects on economic performance (Bartolini, 2015).

*Transfers to local governments should better reflect their spending needs*

There is a need to give a stronger role to standard unit cost approaches when defining intergovernmental transfers to support an efficient allocation of resources. Investment represents a substantial share of local government spending particularly for municipalities and regions (Figure 2.9); hence, the efficiency of local investment hinges on the need to ensure that local resources match local needs. Moreover, the fiscal decentralisation system is undergoing sizeable changes with knock-on effects on local investment. The decline in central government transfers to sub-national governments from 2014 has amplified the effects of the electoral cycle on local investment, and the gradual repeal of the housing tax (*taxe d'habitation*) risks reducing fiscal autonomy of local authorities. The authorities plan to compensate the repeal of the housing tax by reallocating other local direct taxes and earmarking national taxes to local governments (or by increasing marginally transfers from the central government). However, this reform somewhat undermines local government accountability that is favourable for public investment and growth (Kim and Dougherty, 2018).

**Figure 2.9. Local government investment spending as a share of total spending**




1. Municipalities also include inter-municipal co-operation structures.
2. Adjusted by the size of municipalities.

Source: DGCL (2018), Les chiffres-clés des collectivités locales, Direction générale des collectivités locales, Paris; *L'Observatoire des finances et de la gestion publique locales,* https://www.collectivites-locales.gouv.fr/ofgl.

StatLink https://doi.org/10.1787/888933950941

Transfers to local governments would benefit from relying more on standard unit costs and less on past expenditures to better reflect actual spending needs. The main transfer to local governments (*dotation globale de fonctionnement,* DGF) is attributed to municipalities, inter-municipal co-operation structures and *départements*. It includes a lump-sum component and, depending on the level of government, one or several equalisation components, obeying to a large number of criteria. Municipalities are the largest recipients of central government transfers, but these transfers are partly based on past tax-raising ability, on outdated cadastral values used for property taxation and other historical factors, which tend to perpetuate past public spending patterns that are no longer necessarily warranted and can be a sizeable source of inequalities across similar jurisdictions (Cour des comptes, 2016a). In this respect, lump sum transfers to the municipal sector would gain to be better based on standard cost approaches to assess true local government spending needs for a basic set of collective goods and services. Italy is a recent example of an OECD country that is gradually transitioning to a cost-based approach to reduce the role of past expenditures for transfers to municipalities (Brosio, 2018; Marchionni et al., 2017).

Municipal equalisation transfers need to be revamped to better address disparities in tax-raising abilities and the differentiated costs of providing public goods and services. The share of vertical equalisation transfers received by local governments has increased in recent years which is welcome, albeit this largely reflects a decline in the lump sum transfer. Yet, the equalisation transfer system is complicated. In 2017, there were 15 equalisation funds across all administrative levels, both vertical funds corresponding to transfers from the central government to local governments and horizontal funds corresponding to transfers within a given level of local government. Moreover, in 2018, 97.5% of municipalities received at least one type of vertical equalisation transfer, suggesting that there is ample room to better target equalisation transfers by ascribing well-defined objectives to equalisation transfers. Horizontal equalisation could be increased further as it represents a relatively low share of equalisation (about 25% in 2018), even though horizontal transfers tend to be more efficient than vertical equalisation in terms of redistribution achieved per monetary unit spent (OECD, 2013).

Direct support for local investment mostly takes place through a VAT refund grant. The FCTVA (*fonds de compensation pour la taxe sur la valeur ajoutée*) refunds value added tax (VAT) payments to local governments for investment and maintenance spending related to public buildings and road maintenance for the VAT expenses that cannot be recovered through taxation, as in other EU countries. It represents about two-third of the central government support for local investment. The FCTVA refund mechanism was intricate, largely because refund operations had to be completed predominantly manually, which created excessive complexity for both central and local governments. In that respect, the move to an online management of the FCTVA in 2020 is welcome. This reform will make it possible for the FCTVA to rely on a set of eligible accounts and could thus gear local investments towards specific sectors that will benefit from the VAT refund.

*Improving public procurement*

The administrative territorial fragmentation is a barrier to more professional modes of management regarding public procurement with knock-on effects on the efficiency of public investment. Public procurement is estimated at 15% of GDP with local governments accounting for about half of it. Recent efforts to improve public procurement

include making the online submission of procurement contracts compulsory across all administrative levels in 2018. Moreover, the data related to public procurement contracts awarded were also made publicly available in 2018 to foster the prevention and fight against corruption and promote competition.

Centralising further the purchasing activities of standard goods and services bought by the public sector would help reap economies of scale and enhance integrity. Promoting an effective organisation of public procurement offices is critical to improve infrastructure delivery and maintenance, while fostering integrity in public purchases since public procurement is one of the government activities most vulnerable to corruption (OECD, 2016a). Online procurement platforms with different requirements currently co-exist at different administrative levels (from municipalities to regions), which entails costs for potential bidders, particularly for SMEs that have to tailor their bids to different online platforms. The operations of the main public purchasing body in France – UGAP (*Union des groupements d'achats publics*) – is rather modest (about EUR 3 bn in 2017 or less than 4% of public purchases) compared with other OECD countries such as Korea where the central purchasing body concentrates about a third of public-sector purchases (Saussier and Tirole, 2015). Regions could help co-ordinate joint purchasing solutions among lower-level public bodies, including municipalities.

There is room to improve the governance of local state-owned enterprises (SOEs), notably by clarifying the scope of their operations and strengthening their control mechanisms. There are about 1250 local SOEs (usually *société d'économie mixte*) that operate in a broad range of sectors, typically tourism, housing, urban planning, and network industries such as water distribution. Their shareholder structure is oftentimes fragmented across different layers of local governments and their scope of operations is often wide, which can lead to conflict of interest and hinder competition (Cour des comptes, 2017a). Increasing transparency about the compensation of local SOEs' board members would increase their accountability, while strengthening external audit mechanisms would be important for safeguarding their integrity and ensuring an effective allocation of their resources.

## Better maintenance and greener investment in transport and energy

France's stock of capital is high in transport and energy. However, maintenance needs for the road network are substantial, and investment priorities in the rail network have been heavily tilted towards the high-speed rail network, weighing on the capital efficiency of existing rail infrastructure. In the energy sector, the most important maintenance issues are in the electricity sector with ageing nuclear plants. Investing in maintenance is thus a priority for those sectors. At the same time, new investments should be geared towards meeting environmental objectives.

### *Improving transport infrastructure investment*

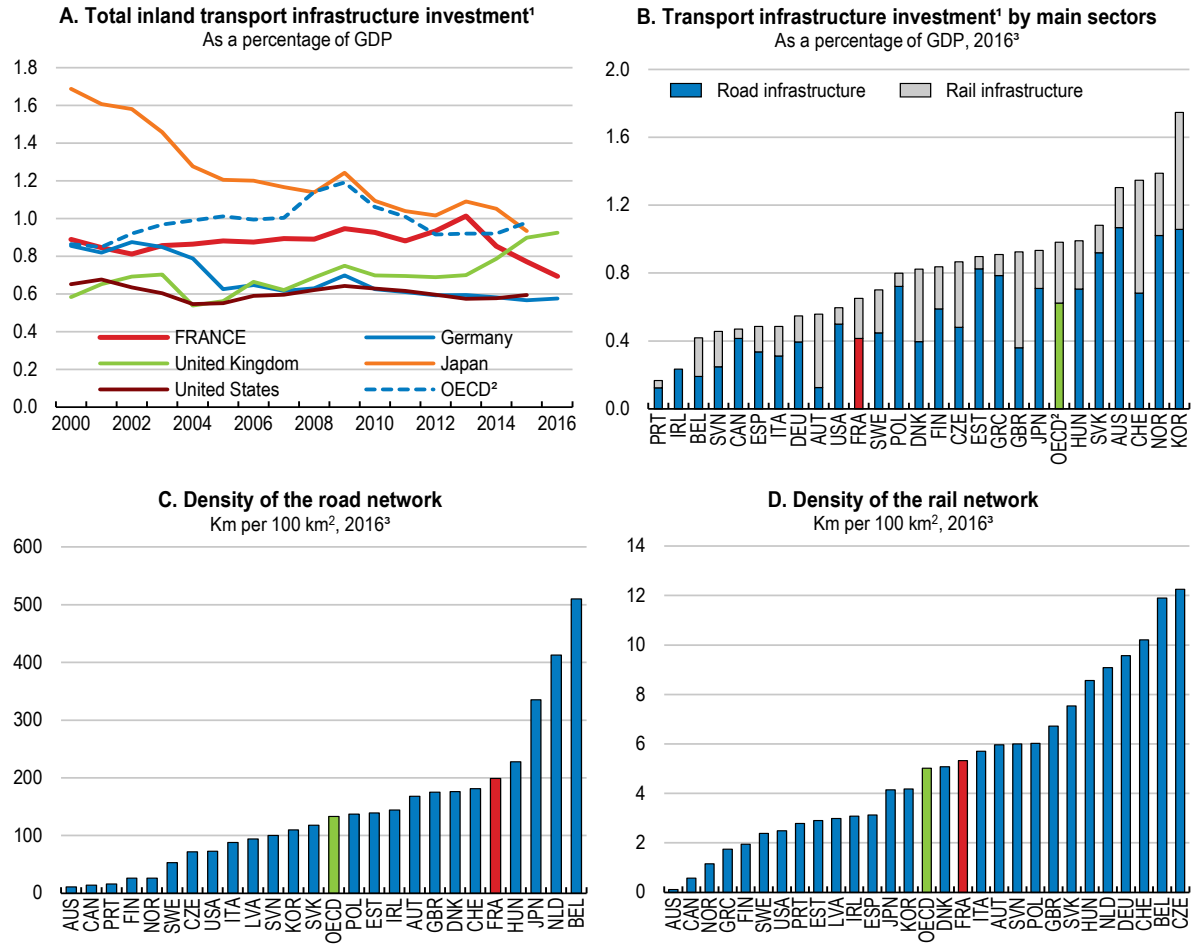
Total spending on transport investment has slowed down since 2013, and it is now below the OECD average (Figure 2.10). This slowdown in transport infrastructure investment reflects in part the mature state of transport networks in France, fiscal constraints that have led France to reprioritise projects and the local electoral cycle. As in most other OECD countries, road infrastructure accounts for the majority of transport infrastructure investment (Panel B). The analysis below focus on road and rail investments as these account for about 90% of inland transport infrastructure investment.

The rail density network is broadly in line with the OECD average and the French road network is more extensive than the OECD average (Figure 2.10, Panels C and D), which can loosely be explained by population density. Strategic transport infrastructure planning is increasingly obeying to a multimodal approach to transport infrastructure, including with the aim to better account for the environmental externalities of transport modes (Box 2.4).

France's approach to project appraisal and selection for large transport infrastructure projects is broadly consistent with good practices, but it would benefit from a stronger emphasis on interdependencies across transport modes, scenario-based analyses and increased scrutiny over operating and maintenance costs. The modelling tools developed by the Ministry of Transport for forecasting traffic flows – that are key in determining transport infrastructure needs – and are used in *ex-ante* cost-benefit analyses are well-suited for long-distance road projects, but less so for urban roads and multimodal projects, suggesting the need to better tailor the modelling tools to the specific project under consideration (CEREMA, 2018).

Moreover, better documenting the underlying assumptions about future traffic flows in *ex-ante* analyses and a systematic use of modelling tools would improve the quality of evaluations, since this would help to pin down the source of the forecast errors and help to formulate better analyses going forward. Scenario-based approach to project appraisal would also help to characterise uncertainty and risks for policy makers, in particular for construction and maintenance costs that are subject to frequent cost overruns in both road and rail infrastructure projects (CEREMA, 2018; Crozet, 2013).

**Figure 2.10. Investment in transport infrastructure**




1. Transport infrastructure investment includes public and private sector spending.
2. Unweighted average excluding Chile, Ireland, the Netherlands and Portugal, due to unavailable or limited data coverage, in Panel A; unweighted average across the 30 member countries reporting data for both series, in Panel B.
3.Or latest year available.
*Source*: OECD (2018), *International Transport Forum Statistics* (database).

StatLink https://doi.org/10.1787/888933950960

**Box 2.4. Distribution of responsibilities and transport planning**

The central government is responsible for building and maintaining motorways and national roads, but most of the motorway network has been conceded to private sector operators that are responsible for its maintenance and are operating tolls systems. The *départements* are responsible for sub-regional roads (*routes départementales*) and part of the network of national roads, while municipal roads are under the supervision of the relevant municipality or inter-municipal co-operation structure. Rail infrastructure investment is run by the state-owned railway company (SNCF for *Société nationale des chemins de fer français*).

The 2011 national transport infrastructure plan (SNIT for *Schéma national d'infrastructures de transport*) superseded sectoral master plans to develop a comprehensive multimodal approach to transport infrastructure planning. It was subsequently updated in 2013 and 2018 with the goal of identifying priority projects in a financially sustainable way (*commission Mobilité 21* in 2013 and *Conseil d'orientation des infrastructures* in 2018), and a bill updating the 1982 LOTI law is under preparation (*Loi d'orientation des mobilités, LOM*). These strategic infrastructure plans aim at providing long-term objectives, but are not programmes for investment as those are decided in framework plans (*contrats de plan*) and master plans are not exhaustive, since they do not include large-scale projects such as the Grand Paris Express Project (construction of new subway lines in the Paris region for a total cost estimated at EUR 35 bn or 1.6% of 2017 GDP with knock-on effects on public finance) or airport infrastructure planning.

### *Zero-carbon transport infrastructure should be better included in investment plans*

Zero-carbon transport infrastructure are not fully fledged into long-term transport infrastructure plans, even though they are reflected in recent one-off investment plans (Box 2.2). Yet, according to technology deployment scenarios by the International Energy Agency consistent with the 2015 Paris climate agreement, across major economies world-wide, nearly all 2- and 3-wheelers need to be electric by the mid-2040s, and around 90% of all cars by 2060 (International Energy Agency, 2017). High-income countries like France need to reach zero net emissions economy-wide more quickly – and in 2017, France committed to reach carbon neutrality by 2050 –, implying an earlier roll out of the needed infrastructure, including electrification, the use of hydrogen and synthetic fuels (Climate Action Tracker, 2018). Formulating scenarios consistent with meeting these objectives in transport infrastructure plans would be a good move. As foreseen in the LOM bill, local investment also needs to support the shift to public transport, walking and cycling. The increase in the shadow price of carbon that will be used from 2019 in the socio-economic assessments of large projects is helpful in that respect.

### *The increasing focus on maintenance spending is welcome*

Strengthening efforts to perform an inventory of the quality of the road network and developing a strategy to spread good practices for its maintenance is necessary. France's road network is extensive and mostly managed by local governments (Table 2.4). Since 2016, an agency is tasked to monitor the quality of the road network (ONR, *Observatoire national de la route*). The first ONR report in 2017 showed that further efforts are needed to gather data on the quality of the road transport network – particularly at the local government level – and on improving data analytics for maintenance spending. Spreading good practices for the maintenance of the road network, for example related to multi-annual spending plans or policies to pool resources among local governments, could generate sizeable savings (Conseil général de l'environnement et du développement durable, 2017). For the road network under the responsibility of the central government, maintenance spending appears limited relative to other European countries such as the Netherlands or the United Kingdom, and maintenance spending on infrastructure also seems low to fully maintain their quality (Ministère de la Transition écologique et solidaire, 2018). It is worth noting that the *Grand plan d'investissement* includes measures to increase spending on road and railway maintenance, renovate public buildings, and foster soft mobility.

**Table 2.4. France's road transport network: selected figures**

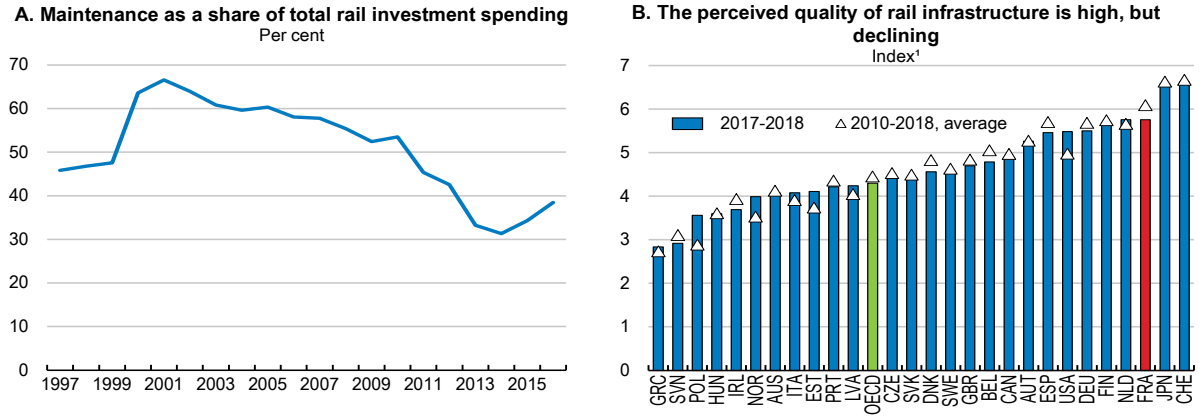
| Road network, total km | 1 064 862 | Maintenance responsibility |
|---|---|---|
| of which conceded motorways | 9 048 | Private sector |
| non-conceded motorways | 2 601 | Central government |
| national roads | 8 898 | Central government |
| departmental roads | 377 965 | *Départements* |
| municipal roads | 666 350 | Municipalities or inter-municipal co-operation structures |

Source: Observatoire national de la route, https://www.idrrim.com/ONR/.

Rail investment heavily focused on the development of the high-speed rail network at the expense of investments in maintenance, which appears to have had adverse effects on the perceived quality of the rail network (Figure 2.11). Priorities for investment were decided according to economic rates of return of the different projects, and a sectoral master plan for the planning of future high-speed rail lines was adopted in 1992. However, the expansion of the high-speed rail network is now subject to increased scrutiny as newly built high-speed rail lines are less profitable, and their financing is more difficult to secure owing to the budget constraints facing the authorities (Cour des comptes, 2014).

Following the LOM bill, rail investment is now expected to be geared towards investment in maintenance and alleviating the congested rail links around selected large cities, which is welcome. Yet, efforts to improve the framework conditions related to the planning of investments in maintenance in the railway sector are needed. In that respect, the reporting from the state-owned railway company in charge of the rail infrastructure (*SNCF Réseau*) to the central government has to improve to better steer maintenance investment where it is needed the most, which is likely to require using external audits (ARAFER, 2018).

**Figure 2.11. Rail investment spending**




*Note*: Index from the lowest perceived quality (0) to the highest (7).
*Source*: ITF (2018), *Transport Infrastructure Statistics* (database), International Transport Forum, Paris; WEF (2018), *The Global Competitiveness Report 2017-2018*, World Economic Forum, Geneva.

StatLink https://doi.org/10.1787/888933950979

### *Promoting car-sharing services can relieve investment needs in public transport*

Improving the use of digital-based ride sharing could decrease the number of total kilometres driven, lower emissions, and reduce road congestion substantially, provided it substitutes for individual car use in metropolitan areas. It would also free up expensive

urban space taken up by on-street parking and provide good quality public transport at a low cost. ITF analyses on shared mobility also suggest that ride-sharing services would improve access to jobs and public services, notably in suburban areas, while they can serve as feeders to high-capacity public transport networks such as metro or rail lines that can be underused due to difficulty of users to reach stations in an efficient way (International Transport Forum, 2017).

In that respect, including shared mobility solutions in urban planning would be a good move as foreseen in the LOM bill. The authorities responsible for regulating local transport modes could consider the introduction of a single dispatcher tasked to match demand and supply for rides across different operators, which could be organised as a regulated time-bound private concession selected through a competitive process. Reviewing regulatory hurdles applying to new urban transport services such as private hire vehicles, notably by ensuring that entry requirements are not overly restrictive, that the time span when enforcing new regulatory measures is long enough, and that the examinations organised by trade associations (*chambre des métiers et de l'artisanat*) are fair in all *départements* would be welcome (Autorité de la concurrence, 2017).

Digital-based on-demand ride-sharing services can also improve transport offers in rural areas, even when population density is low. They have shown promising results in Norway by providing door-to-door bus services at the user's desired time rather than with a fixed route and timetable (Dotterud and Skollerud, 2015). These services have improved wellbeing by improving access to social and cultural events, particularly among the young and the old, and improved access to health services.

### *Developing an efficient pricing for the use of road infrastructure would help finance maintenance needs and promote alternative transport modes*

Promoting further an efficient pricing for the use of road infrastructure would be a good move. A tax on heavy-goods vehicles (the "eco-tax") was abandoned in October 2014 as road pricing proved to be a divisive issue. Yet, a large part of the maintenance cost of road infrastructure is typically due to heavy vehicles and such vehicles contribute relatively strongly to air pollution. A number of OECD countries such as Belgium, Germany or Slovakia price the use of road networks for trucks through metering systems. Going forward, the public acceptance of such pricing mechanism could be encouraged by more widespread advertising campaigns explaining the maintenance needs of the road network, the benefits of reduced traffic congestion, and the adverse health effects of elevated urban air pollution.

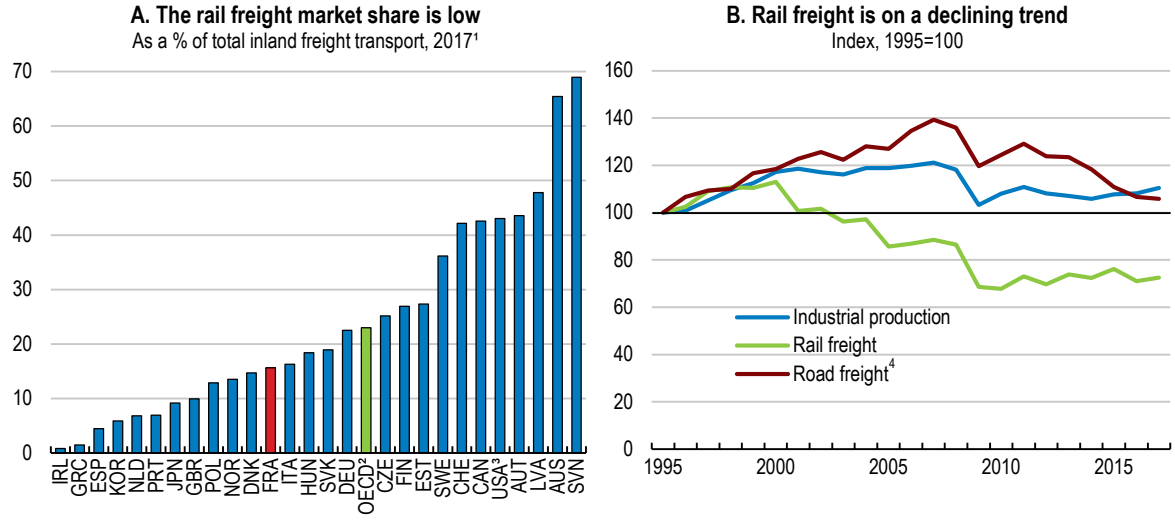
Moreover, promoting urban road tolls whereby all inbound trips to a certain bounded area are charged could tackle congestion and provide funding for public transport. The draft LOM bill foresaw to ease the implementation of urban tolls, but this measure was abandoned following the yellow vest protests. European cities such as London, Stockholm or Milan put in place congestion charges with positive outcomes (Eliasson, Hultkrantz and Smidfelt Rosqvist, 2009). In that respect, removing the restriction that only allows local governments to experiment urban tolls for three years would be a good move given the time needed for local authorities to break even the investments required to set up road tolls. Flanking measures for low-income households, as done in Stockholm or Rome, will also be necessary to foster public acceptance in favour of urban road tolls.

Rail freight, a low-emission alternative to road freight, is on a declining trend even though its market share has stabilised in recent years (Figure 2.12). Austria and Switzerland are two OECD countries that have succeeded in developing a substantial market share of rail

freight transport without favourable prior conditions for this transport mode such as the presence of heavy industries or by being commodity producers. Austria's and Switzerland's results were achieved by a combination of regulatory policies – e.g., a tax on heavy goods vehicles, restrictions on the maximum weight and dimension of trucks, and driving bans for trucks at night and on weekends – and investment policies to renovate or build rail lines to enhance the performance of rail freight (European Court of Auditors, 2016).

Improving the performance of the rail freight services and ensuring a consistent support to rail freight from the authorities would support its development. In the past, some domestic policies ran against the objective of rail freight development (e.g., the removal of the eco-tax on trucks in 2014 and an increase in the maximum weight for trucks implemented in 2012). Improving the quality of services through a better quality rail network will also be important, since deficient quality customer service is related to a lack of maintenance on rail lines heavily used by freight (Cour des comptes, 2017b).

**Figure 2.12. Rail freight is not on the right track**




1. Or latest year available.
2. Unweighted average for 2015, computed excluding Belgium, Iceland and Israel, for which data are unavailable or incomplete.
3. Total inland freight transport excludes pipelines.
4. Road freight refers to transport by trucks over 3.5 tons from French carriers.
*Source:* ITF (2018), *Inland Freight Transport* (database), International Transport Forum, Paris; Ministry of Environment (2018), *Mémento de statistiques des transports* (*http*://www.statistiques.developpement-durable.gouv.fr/donnees-densemble/1869/873/memento-statistiques-transports.html).

StatLink https://doi.org/10.1787/888933950998

Investments should also aim at enhancing the provision of loading/unloading terminals of rail freight and improve multi-modal connections. The selection of projects should be based on the results of cost-benefit analyses, but it appears to be particularly important to upgrade rail connections that connect sea ports to hinterlands. For example, rail linkages to the two largest French seaports – Le Havre and Marseille – are much slower than road transport, with the average reported speed for rail freight between Paris and Le Havre as low as 6 km/h (European Parliament, 2015). The recent development of rail motorways

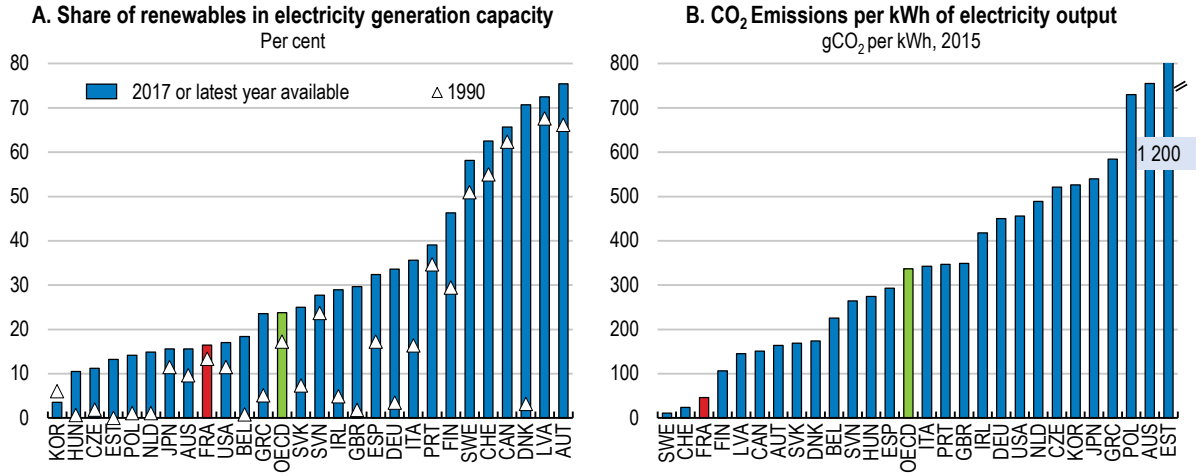
(*autoroutes ferroviaires*) – a particular form of rail freight that takes place on the same rail infrastructure than other rail transports and that permits an easy and flexible loading of trucks on rail cars as opposed to other forms of rail freight transports that tend to load containers – is welcome. Stepping up efforts to develop rail motorways with neighbouring countries as foreseen by the authorities also appears warranted.

### *Promoting appropriate energy infrastructure*

To align with its international and European commitments, the 2015 Energy Transition Act set up France's energy and climate targets. The share of renewable in final energy consumption is expected to reach 32% by 2030, in line with the European Union baseline objective of 27%, while greenhouse gases (GHG) are expected to be cut by 40% between 1990 and 2030. At the same time, the share of nuclear power in electricity production is foreseen to be cut to 50% by 2035 (from 72% in 2017) with installed nuclear capacity capped at 63.2 GW in the revised Multi-Annual Energy Review (*programmation pluriannuelle de l'énergie,* PPE). In 2017, the Climate Plan defined updated objectives and measures, including the aim of a net zero carbon emission by 2050 and the ban of sales of fossil fuel vehicles from 2040.

The environmental objectives are, however, multiple and at times conflicting with each other given the challenges faced by the authorities to meet the target of reducing the share of nuclear energy to 50% in the electricity mix in the medium-run, while ensuring a continuous security of energy supply and maintaining a low-carbon footprint in energy production (OECD, 2016b). The share of renewables in electricity production has only slightly increased since 1990 even though heavy reliance on nuclear energy has led to low emissions of $CO_2$ (Figure 2.13).

**Figure 2.13. The share of renewables is small, but the CO2 emission content of electricity generation is low**



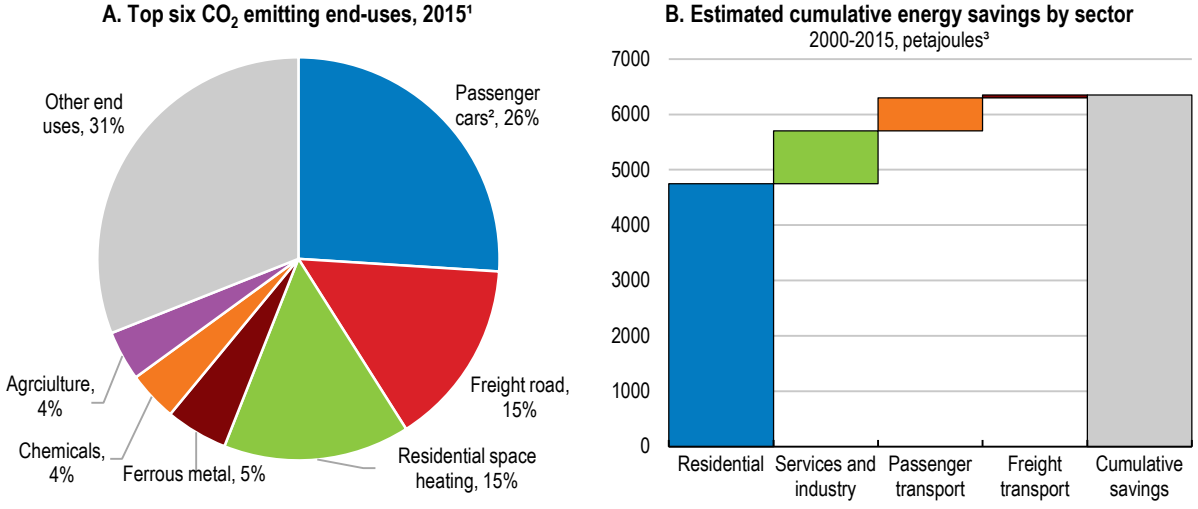

*Source*: OECD (2019), *OECD Green Growth Indicators* (database); IEA (2019), "Emissions per kWh of electricity and heat output", *IEA CO2 Emissions from Fuel Combustion Statistics* (database).

StatLink https://doi.org/10.1787/888933951017

### *Raising energy efficiency to mitigate energy demand*

Raising the energy-efficiency of residential and public buildings is a key component of the *Grand plan d'investissement* (Box 2.2). Investment in energy efficiency provides multiple benefits such as reducing energy demand and associated costs and can facilitate the achievement of other objectives, for example, by making indoor environments healthier when substituting for open biomass use. Residential space heating remains one of the most important CO2-emitting end-uses, albeit it has contributed the most to energy savings since 2000 (Figure 2.13). The *Grand plan d'investissement* has earmarked EUR 9 bn to improve the energy efficiency of residential and public buildings over 2018-22, which come on top of existing measures to improve the energy performance of the residential sector (energy savings certificates, thermal regulations for new buildings and subsidised loans). Social housing and public sector buildings, notably those from local governments, would receive about 85% of these EUR 9 bn. Yet, to maximise the benefits of these additional funding, continuing efforts to raise the skills and the certification of professionals operating in the energy performance sector is needed, since in the past the quality of the energy diagnostics and renovation were uneven (OECD, 2016b). Ensuring support measures are conditional on an overall improvement in the energy performance of buildings is also important.

**Figure 2.14. Energy-efficiency gains are driven by the residential sector**




1. Includes emissions reallocated from electricity and heat generation.
2. Passenger cars include cars, sport utility vehicles and personal trucks.
3. Results from a decomposition analysis made by the IEA and covering approximately 98% of final energy consumption in France.
*Source:* IEA (2017), *Energy Efficiency Indicators*: Highlights, International Energy Agency, Paris.

StatLink https://doi.org/10.1787/888933951036

### *The economic challenges of nuclear power*

The refurbishing costs of the nuclear fleet are large and the economic rationale for doing so depends on the lifetime operation of nuclear power plants. Nuclear power has the largest share in the French electricity mix (Figure 2.15). Electricité de France (EDF) – a publicly listed utility in which the French state holds 83.7% of capital – is operating all

France's 58 commercial nuclear power units on 19 sites. Most nuclear power units were built in the 1980s within a fifteen-year window, when a widely shared assumption was they would have an operational lifetime of 40 years (Table 2.5). However, the French nuclear safety regulator, Autorité de sûreté nucléaire (ASN), does not set a maximum limit on the number of operating years. Instead, it performs for every reactor every ten years an in-depth examination during which the conformity with applicable safety references and the ageing of materials are assessed.

To continue to obtain ten-year lifetime extension for its reactor fleet beyond the original lifetime of 40 years of operation, and to perform safety updates following the Fukushima Daiishi accident in 2011, EDF launched from 2014 a large-scale long-term investment programme (*Grand carénage*). EDF estimates the cost of this program that notably aims at extending the lifetime of the majority of nuclear power reactors to 50 years, with the perspective of extending lifetimes up to 60 years, which is standard, for instance in the United States, at EUR 48 bn over the period 2014-2025. This corresponds to an increase in maintenance investment for nuclear power plants from about EUR 3bn a year to roughly EUR 4.2 bn a year.

**Table 2.5. The nuclear fleet is ageing**

History of commissioning pressurised water reactors in France, 1977-99

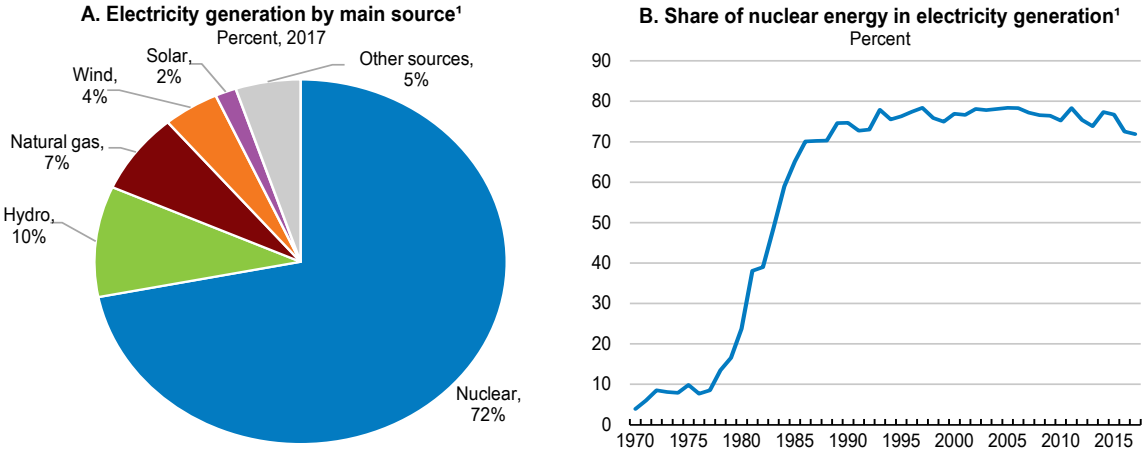
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1977 | Fessenheim 1 | Fessenheim 2 | | | | | |
| 1978 | Bugey 2 | Bugey 3 | | | | | |
| 1979 | Bugey 4 | Bugey 5 | | | | | |
| 1980 | Tricastin 1 | Gravelines 1 | Tricastin 2 | Tricastin 3 | Gravelines 2 | Dampierre 1 | Gravelines 3 St-Laurent B 1 |
| 1981 | Dampierre 2 | St-Laurent B 2 | Blayais 1 | Dampierre 3 | Tricastin 4 | Gravelines 4 | Dampierre 4 |
| 1982 | Blayais 2 | Chinon B 1 | | | | | |
| 1983 | Cruas 1 | Blayais 4 | Blayais 3 | Chinon B 2 | | | |
| 1984 | Cruas 3 | Paluel 1 | Cruas 2 | Paluel 2 | Gravelines 5 | Cruas 4 | |
| 1985 | St-Alban 1 | Paluel 3 | Gravelines 6 | Flamanville 1 | | | |
| 1986 | Paluel 4 | St-Albans 2 | Flamanville 2 | Chinon B 3 | Cattenom 1 | | |
| 1987 | Cattenom 2 | Nogent 1 | Belleville 1 | Chinon B 4 | | | |
| 1988 | Belleville 2 | Nogent 2 | | | | | |
| 1990 | Cattenom 3 | Penly 1 | Golfech 1 | | | | |
| 1991 | Cattenom 4 | | | | | | |
| 1992 | Penly 2 | | | | | | |
| 1993 | Golfech 2 | | | | | | |
| 1996 | Chooz B 1 | | | | | 900MW | |
| 1997 | Chooz B 2 | Civaux 1 | | | | 1300MW | |
| 1999 | Civaux 2 | | | | | 1450MW | |

*Note*: A generation III EPR with 1630MW is expected to be commissioned in Flamanville (Normandy) in 2020 or 2021.
*Source*: RTE (2016), *Bilan prévisionnel*, Paris. https://www.rte-france.com/sites/default/files/bp2016_complet_vf.pdf

The existing nuclear fleet is producing affordable electricity –including the cost of the long-term operation programme – that presently compares favourably relative to other low-carbon sources (International Energy Agency, 2016). Yet, uncertainties on future production cost of electricity from nuclear power loom large (Cour des comptes, 2016b). The production cost of nuclear energy is heavily dependent on the volume of electricity produced per kW, load factor, and uncertainties relate in part to the future level of safety

standards. Delays and technical challenges have abounded for the construction of the latest EPR in Flamanville (that is supposed to be launched in 2020 or 2021 compared with 2012 as initially expected). Large cost overruns in the construction of an EPR in Finland have also led to a restructuring of the French nuclear power sector.

**Figure 2.15. Electricity generation predominantly originates from nuclear power**




*Note*: Gross electricity production.
*Source*: IEA (2018), *Electricity Information Statistics - OECD Electricity and Heat Generation* (database), International Energy Agency, Paris.

StatLink https://doi.org/10.1787/888933951055

There is a need to continue closely monitoring and developing the adequacy of the funding mechanism for decommissioning and long-term waste management. The social acceptance of nuclear power hinges on the need to ensure that the decommissioning and long-term waste management is properly handled, and that the necessary funds will be available when the time comes. At the end of 2016, EDF estimated the total charge for the decommissioning and long-term waste management of all its nuclear facilities at EUR 75 bn, but this amount is likely to be underestimated (Assemblée Nationale, 2018). Moreover, the amount of provisioning for decommissioning and long-term waste management is heavily dependent on the discount rate used, and the government is imposing a revised discount rate to reflect a more market-based pricing and to get closer to discount rates applied by other jurisdictions (e.g., Belgium or Switzerland) for such provisioning. The Nuclear Safety Authority underlined that the information provided by EDF is not complete enough for a fair assessment of its financial provisions for decommissioning and long-term waste management (Autorité de sûreté nucléaire, 2017), suggesting that efforts are needed to improve the transparency of the adequacy of the provisions for decommissioning and long-term waste management.

### *Promoting renewable energy sources*

Support for renewables is based on feed-in tariffs, tax benefits and a carbon tax. The use of renewables for electricity generation is encouraged based on purchase obligations for small installations and calls for tenders for larger installations, while investment subsidies from a heat fund and a tax credit for households (CITE for *crédit d'impôt pour la transition énergétique*) are used to promote renewable heat production. Public support for

renewable energies disproportionally benefits renewables for electricity generation even though they presently contribute relatively less to the attainment of emission reduction objectives than renewable heat production, suggesting the need to increase support for the latter (Cour des comptes, 2018c).

Continuing to review the adequacy of the funding for the heat fund (*fonds Chaleur*) would be welcome. The heat fund – managed by the French Environment and Energy Management Agency (ADEME) – is the main public policy for supporting investment in renewable heat production. It is aimed at local governments, collective housing and firms. Renewable heat production typically replaces fossil energy sources, while renewable electricity production tends to replace electricity obtained from nuclear energy that already has a low carbon content. Yet, renewable heat production receives only 10% of the public support for renewables, which disproportionally benefits renewable electricity production. Moreover, the development of renewable heat installations has been hampered by the limited resources of the heat fund in recent years (CGEDD and CGE, 2018). Hence, the planned increase in the budget of the heat fund in 2019 is welcome, and the adequacy of support for renewable heat production should be dynamically adjusted going forward.

The Multi-annual Energy Review and the National Low-Carbon Strategy (*stratégie nationale bas-carbone*) – introduced in 2015 – are regular updates with all relevant stakeholders that aim at developing an integrated framework for planning investment in the energy sector and ensuring compliance with energy and climate objectives. They extend over a ten-year horizon for the former and a fifteen-year horizon for the latter and are scheduled to take place every five years with the next update due to be published by mid-2019. They are used to steer public support for renewables by formulating detailed trajectories to fulfil the long-term environmental targets.

Formal mechanisms for adjusting support measures for renewables when annual performance indicators wander away too much from the trajectories set out in the Multi-annual Energy Review and the National Low-Carbon Strategy are missing (OECD, 2016b). In this respect, tasking an institution to conduct annual reviews and long-term scenarios would be helpful to dynamically revise public support to climate change and energy transition policies. This institution would come in replacement of the different structures that are currently operating in this area with insufficient synergies, and it could be modelled along the lines of the Committee on Climate Change from the United Kingdom or the French *Conseil d'orientation des retraites* that provides in-depth analyses about the French pension system and benefits from broad stakeholder support. The Higher Council for Climate (*Haut Conseil pour le Climat*) introduced in late 2018 appears to address this concern, albeit it remains to be seen how effective it will be.

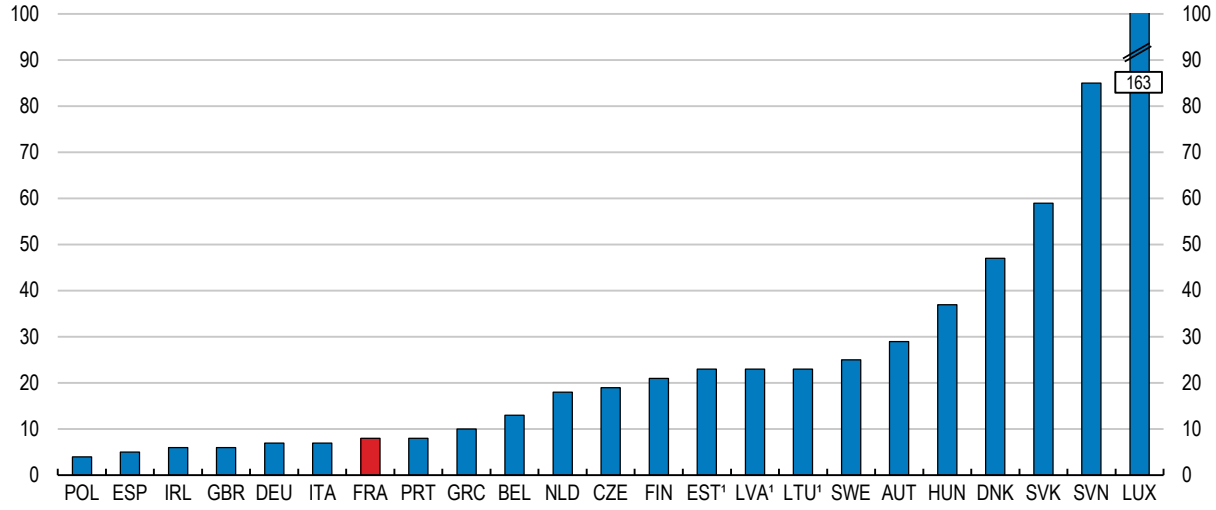
### *Developing electricity interconnections*

There is a need to continue investing in the interconnection to the European electricity grid to ensure the security of energy supply and better integrate renewable production. While the availability of French power generation is good given its large share of nuclear baseload, a sizeable import capacity is necessary to maintain the security of supply in times of peak demand even though France is traditionally a net exporter of electricity (International Energy Agency, 2016). France is interconnected with six neighbouring countries. However, the electricity cross-border flows to and from Spain and Italy remain highly congested (IEA, 2016). Moreover, according to data from the European Commission, France is one of the eleven EU Member States with an import

interconnection share that stood below 10% in 2017, albeit this is in line with other large European countries and France is expected to reach the 10% target set by the EU by 2020 (Figure 2.16; European Commission, 2017). Against this background, RTE – the electricity transmission system operator of France – opened a new interconnection line with Spain in 2015. New interconnection lines with Italy and the United Kingdom are being constructed (RTE, 2017), but further increasing interconnection capacity is warranted provided that new interconnection lines have favourable socio-economic assessments.

**Figure 2.16. Interconnection capacity with the European electricity market is low**

Per cent of the installed electricity generation capacity, 2016




*Note*: The value of 23% displayed for Estonia, Latvia and Lithuania refers to the interconnectivity of the entire Baltic zone with the European electricity market, as the three countries are not yet fully synchronised with the European grid.
*Source*: European Commission (2017), Monitoring progress towards the Energy Union objectives - key indicators, Second Report on the State of the Energy Union, European Commission, Brussels; based on ENTSO-E data.

StatLink https://doi.org/10.1787/888933951074

## Encouraging digitalisation and innovation

### *Fostering a faster transition towards digitalisation*

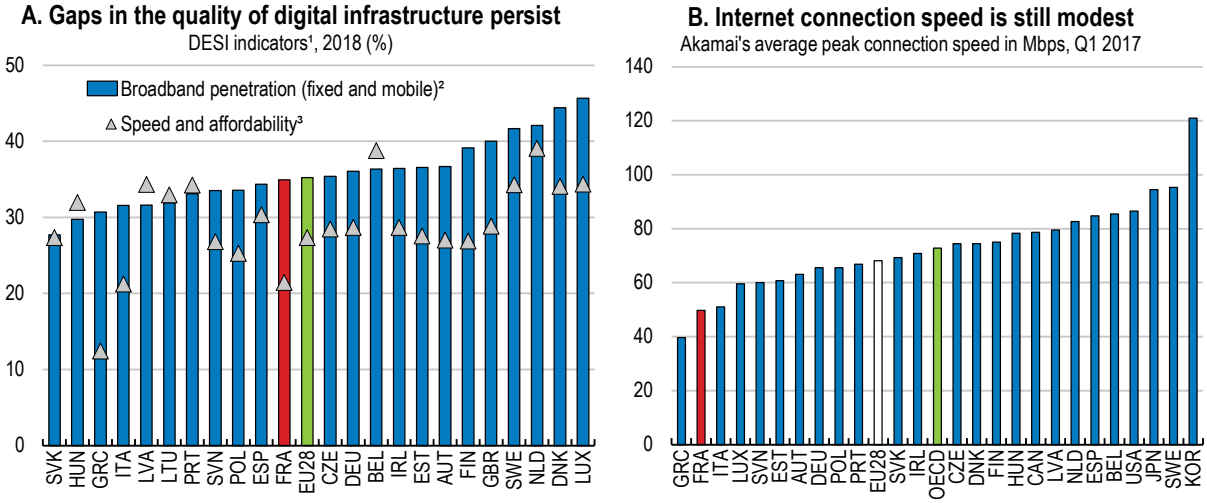
#### *The quality of digital infrastructure is modest*

The quality of the digital infrastructure as measured by broadband penetration, speed and affordability is lagging relative to best performing countries (Figure 2.17). Yet, high-speed broadband networks are key to reap the full benefits of the digital revolution that is transforming the interactions between individuals, businesses and governments. It requires suitable physical infrastructure, notably its most advanced variants that are necessary for high-volume data services.

As in other OECD countries, France set national broadband targets in 2013 according to which all households, businesses and public offices will be covered by high-speed

broadband networks – of at least 30 Mbps – by 2022 (*Plan France Très Haut Débit*). Investments in urban areas are financed in full by private firms, while investments in rural areas are split between public and private sectors. Investments required to achieve these targets – in both rural and urban areas – amount to 20 billion euros, two-thirds of which will be financed from the private sector and the remainder being financed by the central and local governments as well as EU structural funds. Nevertheless, the targets outlined in France's national broadband plan fall short of those by the top performing OECD countries such as Korea and Japan, or those of the EU connectivity targets to be achieved by 2025 (OECD, 2018e).

**Figure 2.17. There is room to improve the quality of broadband infrastructure**




1. The Digital Economy and Society Index (DESI) is a composite indicator computed as the weighted average of five main dimensions: connectivity, human capital, use of internet, integration of digital technology and digital public services; higher values correspond to better performances.
2. Cumulated score of the fixed and mobile broadband indicators of the DESI "Connectivity" dimension.
3. Cumulated score of the fast broadband, ultrafast broadband and broadband price index indicators of the DESI "Connectivity" dimension.
*Source*: European Commission (2018), *Digital Economy and Society Index 2018*, available at https://ec.europa.eu/digital-single-market/digital-economy-and-society-index-desi; Akamai (2017), "Akamai's state of the Internet report: Q1 2017 report", https://www.akamai.com.

StatLink https://doi.org/10.1787/888933951093

Continuing efforts to review the regulatory framework to ensure that incentives for private-sector investments in high-speed broadband infrastructure are adequate would be welcome. The weak performance of France in terms of internet connection speed in international rankings suggests that incentives for private investment into broadband infrastructure may not have been adequate in the past. To bolster the development of broadband infrastructure, the French regulator (ARCEP) encourages network sharing to avoid the need to duplicate infrastructure and provides incentives for co-investment into broadband infrastructure. In addition, in January 2018, the central government accepted to freeze rental fees for mobile networks, and licences to private operators will not be renegotiated from 2021 as originally planned. In exchange, private operators committed to extend their mobile coverage in predefined rural and remote areas, and the ARCEP ensures compliance with these targets based on a quarterly monitoring.

Going forward, replicating this approach that grants lower access fees to service providers that commit to undertake productive investments – e.g., in 5G-networks – may be a fruitful way to ensure high-quality network infrastructures. Spectrum prices should not be set with the aim of maximising income for governments, but rather through market mechanisms that provide an appropriate rate of return based on market valuations, and the regulatory framework should be periodically revised to ensure that it encourages the investments needed to achieve policy goals based on transparent and evidence-based assessments (OECD, 2017f).

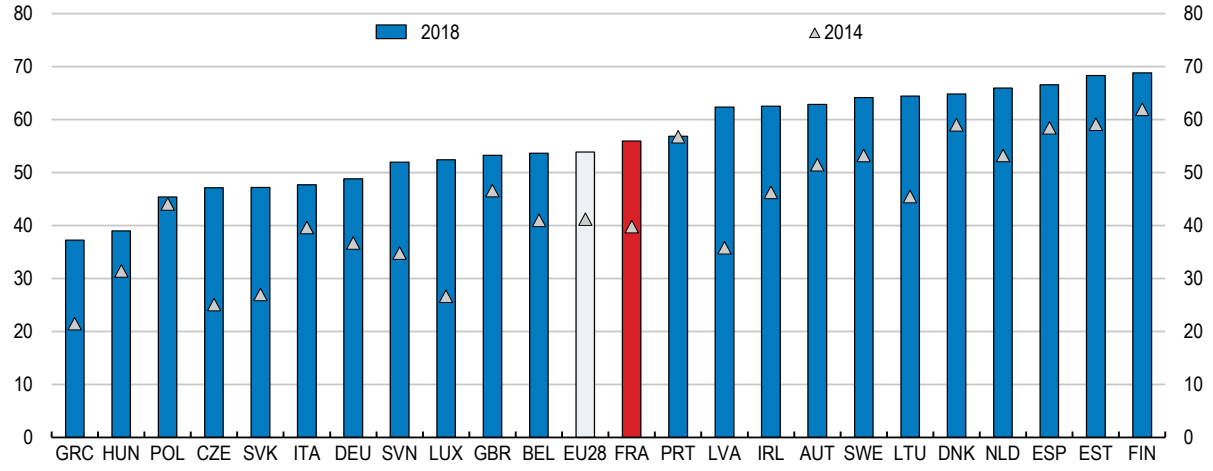
### *Leveraging digital investment to improve public-sector efficiency*

Increasing public investment in digital technologies to foster their use in public administration can cut costs for governments, citizens and businesses, and improve policy outcomes. France's performance in digital administration is broadly in line with the EU average (Figure 2.18), suggesting room for improvement. The limited use of digital administration reflects in part end-users choices, suggesting that campaigns to promote online government form submissions could be strengthened and increasing the use of pre-filled forms would be welcome. Moreover, there are government functions such as tax administration where information systems are partly outdated as investment in digital technologies shrunk by more than half since 2009 (Cour des comptes, 2018a). Using digital investment strategically, for example to mutualise the face-to-face delivery of public services, could help achieve productivity gains in public administration. In that respect, making sure that the funding of the project-based investment fund for modernising public service (*fonds de transformation pour l'action publique*) is adequate would be welcome.

Boosting e-government as foreseen in the *Grand plan d'investissement* (Box 2.2) would also benefit from strengthening efforts to provide attractive career prospects for IT specialists (Algan, Bacache and Perrot, 2016). Attracting private sector or academic IT or data science specialists to provide expertise to the public service for short-term missions as done in the United States as part of the Presidential Innovation Fellowship programme could foster innovation in digital public administration. Initiatives to develop the diffusion of digital technologies in public administration are moving ahead – for example, beta.gouv.fr that is an incubator of projects aiming at the digitalisation of public services – but accelerating their developments will be key to reap the full benefits of digital tools in public administration.

**Figure 2.18. Penetration of digital technologies in public administration is improving**

Digital Economy and Society Index (DESI)[1], higher values correspond to better performance



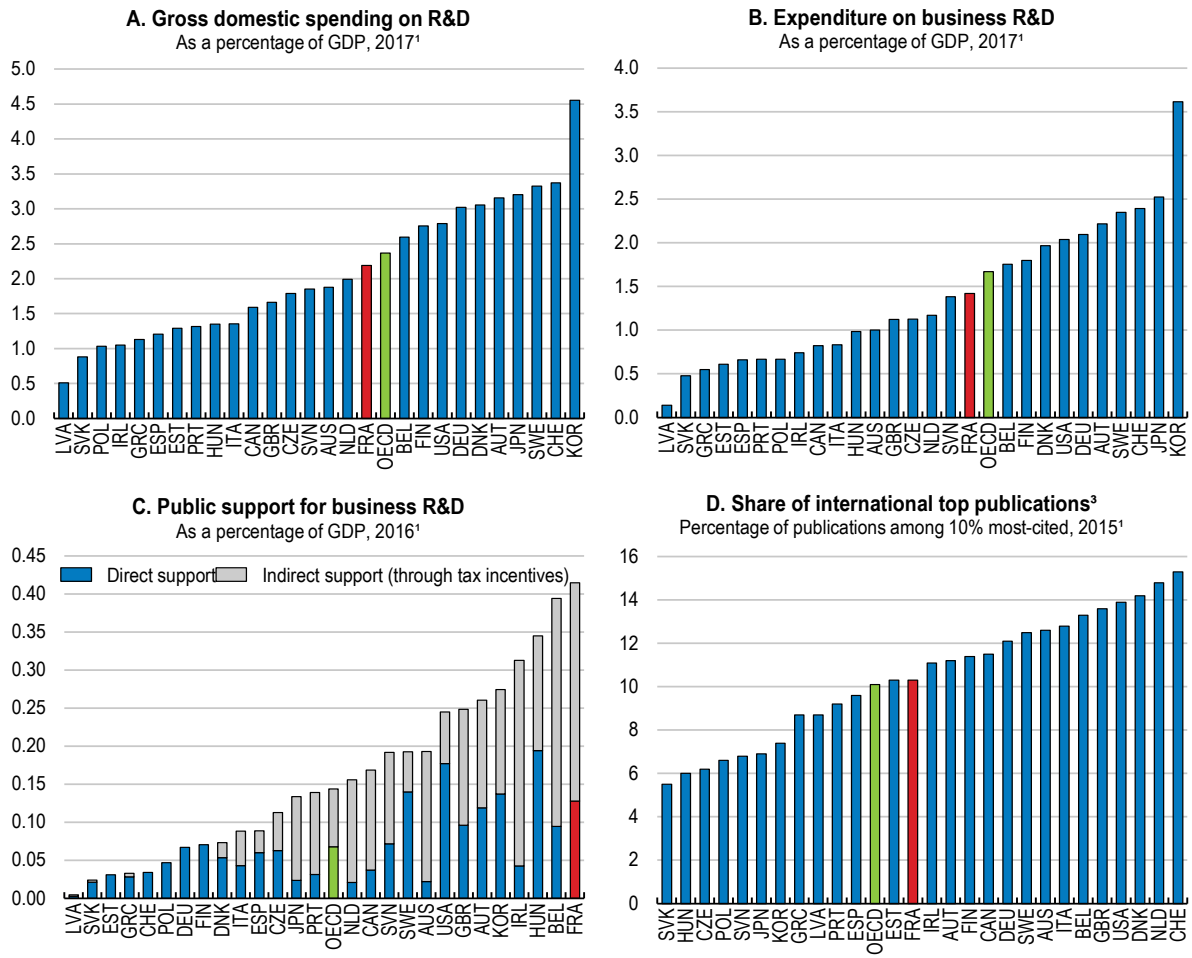

*Note*: DESI E-Government sub-dimension computed as the weighted average of the following normalised indicators: E-government users, use of pre-filled forms, on-line service completion and open-data availability.
*Source*: European Commission (2018), *Digital Economy and Society Index 2018*, available at https://ec.europa.eu/digital-single-market/digital-economy-and-society-index-desi.

StatLink https://doi.org/10.1787/888933951112

### *Getting the most out of public investment in R&D*

France's research and development (R&D) expenditures are broadly in line with the OECD average, but fall short of the Europe 2020 strategy that foresees that R&D expenditures would reach 3% of GDP by 2020 (Figure 2.19, Panel A). Government budget for R&D is broadly in line with the OECD average (Figure 2.5). Expenditures on business R&D and scientific quality based on bibliographic measures are also comparable to the OECD average even though public support for business innovation is extensive (Panels B and C).

**Figure 2.19. Spending on R&D is broadly in line with the OECD average**




1. Or latest year available.
2. Unweighted average across OECD member countries reporting data for both dimensions. Data on indirect support is not available for Poland.
3. Share of the scientific output of domestic research institutions that is included in the set of the 10% most cited papers in their respective scientific fields, fractional counts.

*Source*: OECD (2019), *OECD Research and Development Statistics* and *OECD R&D Tax Incentive Indicators* (databases); OECD (2017), *OECD Science, Technology and Industry Scoreboard 2017*, OECD Publishing, Paris.

StatLink https://doi.org/10.1787/888933951131

The French public research system is characterised by the strong role of public research organisations that traditionally took the central role in conducting public research, and public research organisations received about half of public research spending in 2015. This dual public research system – based on public research organisations and universities – is a source of complexity that puts upward pressures on operating costs and can hamper an efficient allocation of resources, which calls for sustained reform efforts (OECD, 2014a). To address some of the challenges, reforms initiated in the 2000s granted greater autonomy to universities and an agency to distribute competitive funding for research was set up. In addition, measures aim at improving the link between universities and public research organisations, whose national role is reinforced, in the sites where they cooperate

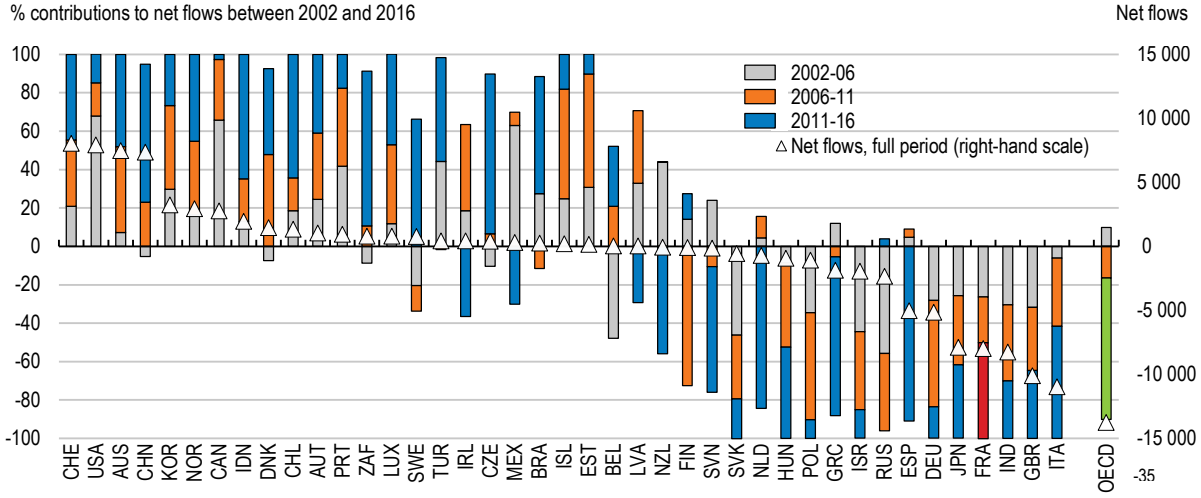
One-off investment plans – PIAs (*programmes d'investissements d'avenir*, Box 2.2) – also channelled funding on a competitive basis to universities and research centres to foster the emergence of world-class universities and restructured the technology transfer system to encourage the commercialisation of public research. The PIAs also significantly expanded public support for business innovation and, in parallel with the latest investment plan, a EUR 10 billion investment fund was set up to accelerate the development of start-ups specialised in deep-tech technologies (Box 2.2).

A simplification of the governance of the top research units would help foster an efficient allocation of resources. The governance of the top research units (*unité mixte de recherche,* UMR), typically located in universities, is complicated as their budget and staff depend on both the university and one or several public research organisations, usually the National Centre for Scientific Research (CNRS, *Centre national de la recherche scientifique*). This can potentially lead to an inconsistent allocation of resources as research units receiving competitive funding may not be able to attract experienced staff to develop themselves. Moreover, the co-ownership over intellectual property rights by universities and public research organisations in the same research units (UMR) lengthens and complicates the commercialisation of research results. The draft bill "PACTE" widens the principle of a single entity in charge of the management mandate of the top research units (UMR). As such, this will enable firms to have a single point of contact when they wish to exploit innovative results from research units. . Moreover, continuing efforts to limit the number of supervisory bodies for the top research units to the bare minimum and strengthening the pooling of the scientific strategy and resources between supervisory bodies would help simplify top research units' governance and foster an efficient allocation of resources.

Continuing reforms to increase universities' autonomy to manage and remunerate their staff would help reap the full benefits of previous investment plans (PIAs). In particular, removing the nationwide screening procedure (*qualification de droit commun*) to be eligible to apply for an academic position would be helpful as such a procedure can be a barrier for international hiring and interdisciplinary research. Moreover, as part of the PIAs, large endowments were attributed to a carefully chosen group of universities (*initiatives d'excellence*, IDEX) that notably aimed at boosting the hiring of scientists working abroad. This was a welcome move as France experienced large outflows of scientific authors since 2002, a trend that accelerated in the recent past (Figure 2.20). Yet, recruitment of scientists thanks to these endowments appears to have been limited, reflecting in part the need for universities to fully assimilate this new funding mechanism and also the screening period required to make this endowment permanent. Designing a program such as the Canadian "Canada 150 research chairs" that attribute funding to universities conditional on attracting international researchers may be a useful complement to endowments to boost international recruitments of promising and experienced researchers.

**Figure 2.20. International net flows of scientific authors**

Difference between annual fractional inflows and outflows, as a percentage of total flows




*Note*: Estimates are based on differences between implied inflows and outflows of scientific authors for the reference economy, as indicated by a change in the main affiliation of a given author with a Scopus ID over the author's indexed publication span. This chart decomposes net flows recorded over the period on a year-by-year basis for selected economies. An inflow is computed for year t and economy c if an author who was previously affiliated to another economy is first seen to be affiliated to an institution in that economy and year. Likewise, an outflow is recorded when an author who was affiliated to c in a previous period is first observed to be affiliated in a different economy in year t. In the case of affiliations in more than one economy, a fractional counts approach is used. In the case of multiple publications per author in a given year, the last publication in any given year is used as reference, while others are ignored.
*Source*: OECD (2017), *OECD Science, Technology and Industry Scoreboard 2017*, OECD Publishing, Paris.

StatLink https://doi.org/10.1787/888933951150

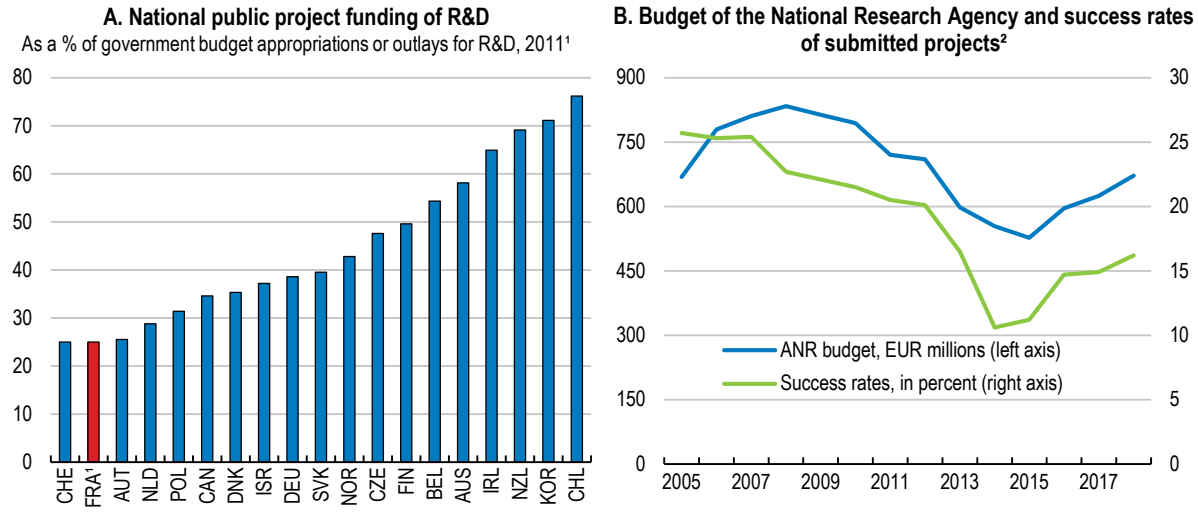
### *Competitive funding of research is increasing, but remains low*

Comparing the share of competitive funding across countries is a delicate issue owing to the lack of comparable data (OECD, 2018f). Yet, the share of competitive public funding for research appears low in international comparison based on available data (Figure 2.21, Panel A). The National Research Agency (*Agence nationale de la recherche*, ANR) was set up in 2005 as the main agency to channel competitive funding to universities and research institutes, but also for research projects conducted by businesses that represent about 20% of the funds distributed by the ANR. Competitive funding for research units is also allocated through the PIAs, albeit the PIAs are exceptional large funding mechanisms as opposed to the competitive funding run by the ANR on a regular basis. The ANR is one of the competitive funding mechanisms along with those run by other stakeholders such as sectorial ministries or public research organisations.

Ensuring adequate and predictable resources for competitive funding of public research is necessary. The budget of the ANR has declined substantially from 2009 to 2015 (Figure 2.21, Panel B), and the success rates of submitted projects fell over time to reach a trough of 10.6 % in 2014, which appears too low to select research projects given the intrinsic difficulties associated with the selection of research projects. The time spent by scientists for grant proposals is also sizeable, see Herbert, Barnett and Graves (2013) in the Australian context. This suggests that adequate and predictable funding for the ANR is necessary to maintain the benefits of project funding in terms of quality and relevance of

research projects while minimising its disadvantages related to the inability of researchers and institutions to do long-term planning because of uncertain future funding. Hence, the recent increases in the ANR budget with the aim to increase success rates over 20% together with the plan to set up a multi-annual financial framework for research (*loi de programmation pluriannuelle de la recherche*) to ensure predictability of public research funding to maximise its efficiency is welcome. At the same time, it would be beneficial for the ANR to issue calls for research projects that are related to the EU Horizon 2020 Strategy (but not identical) to ensure a diversity of research projects. Ensuring appropriate funding for the so-called "blue-sky" research programmes of the ANR, which have no specific theme but that aim at excellence in research work, also seems appropriate.

**Figure 2.21. Project funding of R&D is limited**




1. The figure for France – about 25% – includes project-funding mechanisms within public research organisations and universities and thereby differs significantly from the Eurostat figure (8%) that only includes project funding from domestic competitive funding agencies.
2. The ANR's budget, displayed in Panel B, corresponds to the total budget for competitive research funding (excluding operating costs).
*Source*: OECD, 1st and 2nd experimental surveys on modes of R&D funding through GBAORD reported in OECD (2018f) and French Ministry of Higher Education and Innovation.

StatLink https://doi.org/10.1787/888933951169

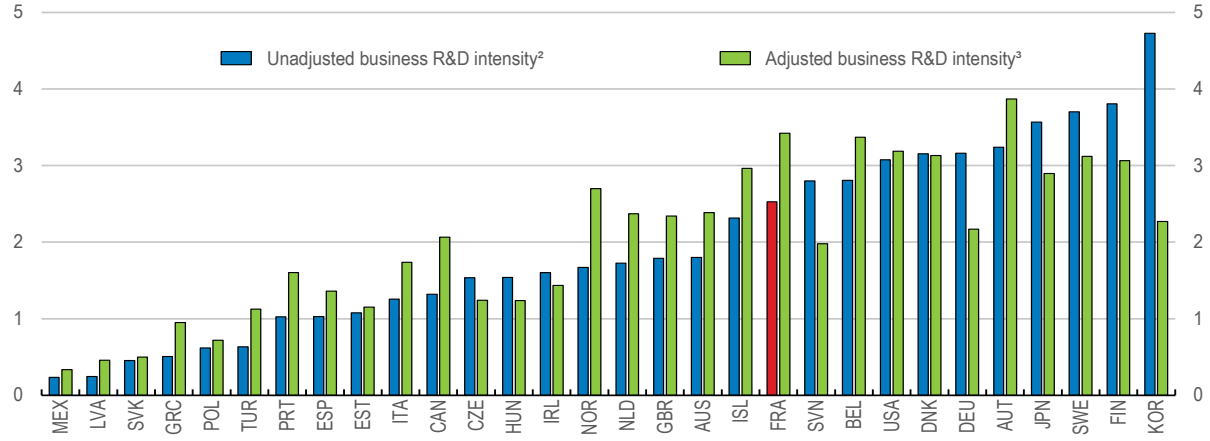
## *Support for business innovation has increased substantially*

Support for business innovation has increased considerably over the last ten years. There are numerous direct policies to promote business innovation. Moreover, the support for private-sector innovation mostly takes place through a R&D tax credit scheme, which is one of the most generous among OECD countries (Figure 2.19, panel C). While expenditures on business R&D are in line with the OECD average, once controlling for industrial structure, France's R&D intensity shifts well above it as France is specialised in less R&D-intensive industries (Figure 2.22). The support system for business innovation is rather complex, since there has been a twofold increase in the number of direct support measures for innovation over the last fifteen years (MESRI, 2018). The PIAs also introduced new bodies to enhance industry-science cooperation that overlap in part with the previous technology transfer system.

Efforts should now concentrate on ensuring the coherence and clarity of existing policies to support business innovation. Against this background, the authorities introduced an Innovation Council in the summer of 2018 (*Conseil de l'innovation*) to provide guidance on innovation policies, including a review of existing measures with an objective of simplification. Support for innovation requires careful planning along with continuous and stable support, which calls for a gradual simplification that should be based on thorough *ex-post* evaluations of existing measures to concentrate efforts on the most useful measures and eliminate those with little-to-no impact. Support for innovation has also relied in large part on one-off investment plans such as the PIAs, jeopardising the stability of selected measures (Inspection générale des Finances, 2018), suggesting that efforts for multi-year budget planning of innovation policies need to be undertaken to ensure the stability of the most effective measures.

**Figure 2.22. Business R&D intensity is higher once adjusted for industrial structure**

As a percentage of value added by industry, 2015[1]




1. 2014 for Denmark, Finland, Hungary, Italy, the Netherlands, Poland, Portugal, Slovenia, the United Kingdom and the United States; 2013 for Australia, Austria, Belgium, Canada, France, Greece, Ireland, Korea and Sweden.
2. R&D series are presented as a percentage of value added in industry estimated as the value added in all activities except: Real estate activities (ISIC Rev.4 68); Public administration and defence; Compulsory social security and education (ISIC Rev.4 84-85); Human health and social work activities (ISIC Rev.4 86-88); and Activities of households as employers (ISIC Rev.4 97-98).
3. A country's industrial structure-adjusted indicator of R&D intensity is a weighted average of its sectoral R&D intensities (ratio of R&D to value added), using the OECD industrial structure – sectoral share in OECD value added for 2015 – as adjusted, common weights across all countries. The unadjusted measure of BERD intensity is by definition an average based on each country's actual sector shares.
*Source*: OECD (2017), *OECD Science, Technology and Industry Scoreboard 2017*, OECD Publishing, Paris.

StatLink https://doi.org/10.1787/888933951188

**Recommendations to improve the efficiency of public investment**

(Recommendations that appear in the Key Recommendations are underlined)

**Improving framework conditions for investment operations**

- Strengthen socio-economic efficiency considerations in the selection of large projects by:
  - Stepping up efforts to spread the practice of socio-economic assessments prior large investments to all relevant stakeholders, notably by continuing to extend the framework in place in the health sector to other sectors,
  - Extending the requirements of socio-economic appraisals to large investments made in full by subnational governments,
  - Requiring the relevant authorities to formally address the results of the counter-expertise of the ex-ante socio-economic appraisals,
  - Making ex-post evaluations mandatory for all types of large investments.
- Strengthen the share of infrastructure maintenance spending in public investment.

**Leveraging the private sector in the provision of infrastructure**

- Enhance the collection of information on financial and non-financial performance of infrastructure assets across delivery models to achieve a more informed decision-making about the involvement of the private sector in the provision of infrastructure.
- Develop the number of ready-to-finance projects in long-term sectorial plans to attract private investors.

**Strengthening local government capacities for public investment**

- Foster the full transfer of local infrastructure and urban planning responsibilities to inter-municipal co-operation structures.
- Streamline vertical equalisation funds received by municipalities, increase further horizontal equalisation to address tax-raising disparities, and give a stronger role to standard unit cost approaches in setting intergovernmental transfers.

**Policies to improve investment efficiency in specific sectors**

- Put in place correction mechanisms to public support to energy and climate change policies when annual indicators deviate too much from the targets.
- Develop interconnection capacities with European electricity grids.
- Promote further an efficient pricing of transport infrastructure, such as distance-based and congestion charges, to develop alternative transport modes and reduce air pollution.
- Improve the reporting of the quality of the transport infrastructure networks to steer maintenance investment where it is most needed.
- Use digital investment to achieve productivity gains in public administration.
- Continue to increase universities' autonomy to define their programmes and manage their staff, taking into account their public service mission. Continue to increase the budget of the National Research Agency.
- Continue the simplification of the management of research units and intellectual property rights.

## Bibliography


Algan, Y., M. Bacache and A. Perrot (2016), "Administration numérique", *Les notes du conseil d'analyse économique*, Vol. 34.

Allain-Dupré, D. (2018), "Assigning responsibilities across levels of government: Trends, challenges and guidelines for policy-makers", *OECD Working Papers on Fiscal Federalism*, No. 24, OECD Publishing, Paris, https://dx.doi.org/10.1787/f0944eae-en.

ARAFER (2018), *Avis relatif à la mise en œuvre au titre de l'année 2017 du contrat pluriannuel de performance conclu entre l'Etat et SNCF Réseau pour la période 2017 - 2026*, Paris, http://www.arafer.fr/wp-content/uploads/2018/05/avis-2018-035-du-14-mai-2018-contrat-pluriannuel-de-performance-conclu-entre-letat-et-sncf-reseau-version-publique.pdf.

Araújo, S. and D. Sutherland (2010), "Public-Private Partnerships and Investment in Infrastructure", *OECD Economics Department Working Papers*, No. 803, OECD Publishing, Paris, http://dx.doi.org/10.1787/5km7jf6q8f0t-en.

Assemblée Nationale (2018), *Commission d'enquête sur la sûreté et la sécurité des installations nucléaires*, Rapport, Paris, http://www.assemblee-nationale.fr/15/pdf/rap-enq/r1122-tI.pdf.

Autorité de la concurrence (2017), *Avis n° 17-A-04 du 20 mars 2017 concernant un projet de décret relatif au transport particulier de personnes*, Paris, http://www.autoritedelaconcurrence.fr/pdf/avis/17a04.pdf.

Autorité de sûreté nucléaire (2017), *Avis no CODEP-CLG-2017-022588*, Rapport, Montrouge, https://www.asn.fr/Reglementer/Bulletin-officiel-de-l-ASN/Installations-nucleaires/Avis/Avis-n-CODEP-CLG-2017-022588-du-President-de-l-ASN-du-8-juin-2017.

Bartolini, D. (2015), "Municipal Fragmentation and Economic Performance of OECD TL2 Regions", *OECD Regional Development Working Papers*, No. 2015/2, OECD Publishing, Paris, http://dx.doi.org/10.1787/5jrxqs60st5h-en.

Bergère, F. (2016), "Ten years of PPP: An initial assessment", *OECD Journal on Budgeting*, Vol. 2015/1.

Brosio, G. (2018), "Ambition beyond feasability? Equalization transfers to regional and local governments in Italy", http://documentos.fedea.net/pubs/dt/2018/dt2018-09.pdf.

CEREMA (2018), *Synthèse des bilans ex post des projets routiers structurants*, Rapport, Paris.

CGEDD and CGE (2018), *Mission portant sur la transformation des aides à l'investissement du Fonds chaleur en aides à la production de chaleur renouvelable*, Rapport, Paris, http://www.cgedd.developpement-durable.gouv.fr/IMG/pdf/012040-01_rapport_cle23a9f2.pdf.

Climate Action Tracker (2018), *The highway to Paris. Safeguarding the climate by decarbonising freight transport. CAT Decarbonisation Series*, New Climate Institute, Ecofys, Climate Analytics, https://qz.com/1158107/the-german-postal-service-has-.

Conseil général de l'environnement et du développement durable (2017), *Revue de dépenses : La voirie des collectivités territoriales*, Rapport, Paris, http://cgedd.documentation.developpement-durable.gouv.fr/documents/cgedd/011055-01_rapport.pdf.

Cour des comptes (2018a), *La DGFiP, dix ans après la fusion : Une transformation à accélérer*, Rapport, Paris, https://www.ccomptes.fr/sites/default/files/2018-06/20180620-rapport-DGFip-10-ans-apres-fusion.pdf.

Cour des comptes (2018b), *Le processus de privatisation des aéroports de Toulouse, Lyon et Nice*, https://www.ccomptes.fr/system/files/2018-11/20181113-processus-privatisation-aeroports-Toulouse-Lyon-Nice.pdf.

Cour des comptes (2018c), *Le soutien aux énergies renouvelables*, Rapport, Paris, https://www.ccomptes.fr/sites/default/files/2018-04/20180418-rapport-soutien-energies-renouvelables.pdf.

Cour des comptes (2017a), *La situation du transport de marchandises par le groupe SNCF Mobilités*, Rapport, Paris.

Cour des comptes (2017b), *Les insuffisances du cadre juridique et comptable applicable aux entreprises publiques locales*, Rapport, Paris, https://www.ccomptes.fr/sites/default/files/2017-10/20170927-refere-G64-17-0518E-cadre-comptable-entreprises-publiques-locales.pdf.

Cour des comptes (2016a), *Concours financiers de l'État et disparités de dépenses des communes et de leurs groupements*, Rapport, Paris, https://www.ccomptes.fr/fr/publications/concours-financiers-de-letat-et-disparites-de-depenses-des-communes-et-de-leurs.

Cour des comptes (2016b), *La maintenance des centrales nucléaires*, Rapport, Paris, https://www.ccomptes.fr/sites/default/files/EzPublish/04-maintenance-centrales-nucleaires-RPA2016-Tome-1.pdf.

Cour des comptes (2015a), *Les finances publiques locales : Rapport sur la situation financière et la gestion des collectivités territoriales et de leurs établissements publics*, Rapport, Paris, https://www.ccomptes.fr/sites/default/files/EzPublish/20151013-rapport-finances-publiques-locales.pdf.

Cour des comptes (2015b), *Les partenariats public-privé des collectivités territoriales : des risques à maîtriser*, Rapport, Paris, https://www.ccomptes.fr/sites/default/files/EzPublish/125-RPA2015-partenariats-public-prive.pdf.

Cour des comptes (2014), *La grande vitesse ferroviaire : un modèle porté au-delà de sa pertinence*, Rapport, Paris, https://www.ccomptes.fr/sites/default/files/EzPublish/20141023_rapport_grande_vitesse_ferroviaire.pdf.

Cournède, B. and V. Ziemann (2019), *Scoping paper on infrastructure*, OECD Economics Department Working Paper, forthcoming.

Crozet, Y. (2013), "Performance in France: From Appraisal Methodologies to Ex-post Evaluation", *Discussion Paper No. 2013-26*, International Transport Forum, Paris, https://www.itf-oecd.org/sites/default/files/docs/dp201326.pdf.

Dotterud, L. and K. Skollerud (2015), *"Public Transport Services in Norway: Focus on Rural Areas"*,, https://www.itf-oecd.org/sites/default/files/docs/dp201508.pdf.

Eliasson, J., L. Hultkrantz and L. Smidfelt Rosqvist (2009), "The Stockholm congestion – charging trial 2006: Overview of effects", *Transportation Research Part A: Policy and Practice*, Vol. 43/3, pp. 240-250, https://doi.org/10.1016/j.tra.2008.09.007.

European Commission (2017), *Third Report on the State of the Energy Union*, Rapport, Bruxelles.

European Court of Auditors (2016), *Rail freight transport in the EU: still not on the right track*, Rapport, Luxembourg, https://www.eca.europa.eu/en/Pages/DocItem.aspx?did=36398.

European Investment Bank (2017), *EIB Investment Survey 2017 - Municipal Infrastructure*, Luxembourg.

European Parliament (2015), *Freight on Road: Why EU Shippers Prefer Truck to Train*, Report, Brussels, http://www.europarl.europa.eu/RegData/etudes/STUD/2015/540338/IPOL_STU(2015)540338_EN.pdf.

France Stratégie (2019), L'évaluation socioéconomique des projets immobiliers de l'enseignement supérieur et de la recherche, Rapport du groupe de travail présidé par Émile Quinet, https://www.strategie.gouv.fr/publications/levaluation-socioeconomique-projets-immobiliers-de-lenseignement-superieur-de-recherche

Gouvernement (2018), *Évaluation des grands projets d'investissements publics*, https://www.performance-publique.budget.gouv.fr/sites/performance_publique/files/files/documents/jaunes-2019/jaune2019_investissements_publics.pdf.

Gouvernement (2017a), *Revue de dépenses de voirie des collectivités territoriales*, https://www.interieur.gouv.fr/Publications/Rapports-de-l-IGA/Rapports-recents/Revue-de-depenses-La-voirie-des-collectivites-territoriales.

Gouvernement (2017b), *Évaluation des grands projets d'investissements publics*, https://www.gouvernement.fr/sites/default/files/contenu/piece-jointe/2018/03/jaune2018_projets_investissements_publics.pdf.

Herbert, D., A. Barnett and N. Graves (2013), "Funding: Australia's grant system wastes time", *Nature*, Vol. 495, p. 314, https://doi.org/10.1038/495314d.

HM Treasury (2015), *Public sector business cases using the five case model: Updated guidance.*

Inspection générale des Finances (2018), *Les aides à l'innovation*, http://www.igf.finances.gouv.fr/files/live/sites/igf/files/contributed/IGF%20internet/2.RapportsPublics/2018/rapport-innovation.pdf.

Inspection générale des Finances (2016), *Évaluation des procédures d'évaluation socio-économique des projets d'investissement public*, http://www.igf.finances.gouv.fr/files/live/sites/igf/files/contributed/IGF%20internet/2.RapportsPublics/2016/2016-M-058.pdf.

International Energy Agency (2017), *Energy Technology Perspectives 2017*, International Energy Agency, Paris, http://www.iea.org/etp2017.

International Energy Agency (2016), *Energy Policy of IEA Countries: France 2016 Review*, http://www.oecd.org/publications/energy-policies-of-iea-countries-france-2016-9789264279445-en.htm.

International Transport Forum (2018), *Private Investment in Transport Infrastructure: Dealing with Uncertainty in Contracts*, Paris, https://www.itf-oecd.org/sites/default/files/docs/private-investment-transport-infrastruture.pdf.

International Transport Forum (2017), "Transition to Shared Mobility: How large cities can deliver inclusive transport services", *International Transport Forum Policy Papers*, No. 33, OECD Publishing, Paris, http://dx.doi.org/10.1787/b1d47e43-en.

Marchionni, E., C. Pollastri and A. Zanardi (2017), *Fabbisogni standard e capacità fiscali nel sistema perequativo dei Comuni*, http://www.upbilancio.it/wp-content/uploads/2017/02/Nota-1_2017.pdf.

MESRI (2018), *Installation du conseil de l'innovation*, Ministère de l'Enseignement supérieur, de la Recherche et de l'Innovation, Paris, http://www.enseignementsup-recherche.gouv.fr/pid25439-cid132970/installation-du-conseil-de-l-innovation.html.

Ministère de la Transition écologique et solidaire (2018), *Réseau routier national non concédé : résultats d'audits*, Rapport, Paris, https://www.ecologique-solidaire.gouv.fr/sites/default/files/2018.07.10_dossier_reseau_routier.pdf.

Observatoire des services publics d'eau et d'assainissement (2017), *Panorama des services et de leur performance en 2014*, http://www.eaufrance.fr/IMG/pdf/spea2014_201705.pdf.

OECD (2018a), *OECD Science, Technology and Innovation Outlook 2018: Adapting to Technological and Societal Disruption*, OECD Publishing, Paris, https://dx.doi.org/10.1787/sti_in_outlook-2018-en.

OECD (2018b), *Monitoring Report: Implementation of the Recommendation of the Council on Effective Public Investment across Levels of Government*, OECD Publishing, Paris.

OECD (2018c), *Infrastructure Project Pipelines: Emerging Good Practices in Low-Carbon Investments*, OECD Publishing, Paris.

OECD (2018d), *Subnational Public-Private Partnerships: Meeting Infrastructure Challenges*, OECD Multi-level Governance Studies, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264304864-en.

OECD (2018e), "Bridging the Rural Digital Divide", *OECD Digital Economy Papers*, Vol. 265, OECD Publishing, Paris.

OECD (2018f), *Effective operation of competitive research funding systems*, OECD Science, Technology and Industry Policy Papers, OECD Publishing, Paris, https://doi.org/10.1787/23074957.

OECD (2017a), *The Size and Sectoral Distribution of State-Owned Enterprises*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264280663-en.

OECD (2017b), *Getting Infrastructure Right: A framework for better governance*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264272453-en.

OECD (2017c), *Investing in Climate, Investing in Growth*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264273528-en.

OECD (2017d), *Recommendation of the Council on Principles for Public Governance of Public-Private Partnerships*, OECD Publishing, Paris, https://www.oecd.org/governance/budgeting/PPP-Recommendation.pdf.

OECD (2017e), *Multi-level Governance Reforms: Overview of OECD Country Experiences*, OECD Multi-level Governance Studies, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264272866-en.

OECD (2017f), *Key Issue for Digital Transformation in the G20*, OECD Publishing, Paris, https://www.oecd.org/g20/key-issues-for-digital-transformation-in-the-g20.pdf

OECD (2016a), *Preventing Corruption in Public Procurement*, http://www.oecd.org/gov/ethics/Corruption-Public-Procurement-Brochure.pdf.

OECD (2016b), *OECD Environmental Performance Reviews: France 2016*, OECD Environmental Performance Reviews, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264252714-en.

OECD (2014a), *OECD Reviews of Innovation Policy: France 2014*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264214026-en.

OECD (2014b), *Recommendation of the Council on Effective Public Investment Across Levels of Government*, OECD Publishing, Paris, http://www.oecd.org/cfe/regional-policy/Principles-Public-Investment.pdf.

OECD (2013), *Fiscal Federalism 2014: Making Decentralisation Work*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264204577-en.

Kim, J. and S. Dougherty (2018), *Fiscal Decentralisation and Inclusive Growth*, OECD Fiscal Federalism Studies, OECD Publishing, Paris/KIPF, Seoul, http://dx.doi.org/10.1787/9789264302488-en.

OECD/The World Bank/UN Environment (2018), *Financing Climate Futures: Rethinking Infrastructure*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264308114-en.

RTE (2017), *Bilan prévisionnel de l'équilibre offre-demande d'électricité en France*, Rapport, Paris, https://www.rte-france.com/sites/default/files/bp2017_complet_vf.pdf.

Saussier, S. (2017), "Public-private partnerships for infrastructure at the sub-national level of government: Opportunities and challenges in France", *EPPP Discussion Paper*, Vol. 2017-2.

Saussier, S. and J. Tirole (2015), "Renforcer l'efficacité de la commande publique", *Note du CAE*, Vol. 22.

Sénat (2014), *Rapport d'information sur les partenariats publics-privés*, Rapport, Paris, https://www.senat.fr/rap/r13-733/r13-7331.pdf.

Spinetta, J. (2018), *L'avenir du Transport ferroviaire*, Rapport, Paris, https://www.ecologique-solidaire.gouv.fr/sites/default/files/2018.02.15_Rapport-Avenir-du-transport-ferroviaire.pdf.

# ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

The OECD is a unique forum where governments work together to address the economic, social and environmental challenges of globalisation. The OECD is also at the forefront of efforts to understand and to help governments respond to new developments and concerns, such as corporate governance, the information economy and the challenges of an ageing population. The Organisation provides a setting where governments can compare policy experiences, seek answers to common problems, identify good practice and work to co-ordinate domestic and international policies.

The OECD member countries are: Australia, Austria, Belgium, Canada, Chile, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Latvia, Lithuania, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. The European Union takes part in the work of the OECD.

OECD Publishing disseminates widely the results of the Organisation's statistics gathering and research on economic, social and environmental issues, as well as the conventions, guidelines and standards agreed by its members.

OECD PUBLISHING, 2, rue André-Pascal, 75775 PARIS CEDEX 16
ISBN 978-92-64-98744-9 – 2019

## OECD Economic Surveys

# FRANCE

France's economic growth has slowed down after a gradual recovery. Limited productivity and employment gains have reduced the growth of GDP per inhabitant; public spending remains very high. Reducing public expenditures is needed to put debt on a firmly declining path. This and streamlining the tax system would also help reducing taxes, which would boost economic activity eventually. Continuing to foster a more flexible labour market would lead to higher productivity growth and living standards. The unemployment rate is particularly high for low-skills, and young and older workers: higher skills and better education outcomes would support a more inclusive labour market and intergenerational mobility. The quality of the public capital stock is high in France: improving its maintainance would strengthen this asset. New investment should help drive the economy towards greener growth – in particular investments in energy and transport – and more digitalisation. This should be achieved by applying rigourous cost-benefit analyses even more widely.

**SPECIAL FEATURES: LABOUR MARKET PERFORMANCE; PUBLIC INVESTMENT**

Consult this publication on line at ***https://doi.org/10.1787/a0eee144-en***.

This work is published on the OECD iLibrary, which gathers all OECD books, periodicals and statistical databases.
Visit ***www.oecd-ilibrary.org*** for more information.

**Volume 2019/10**
**April 2019**

OECD publishing
www.oecd.org/publishing

**ISSN 0376-6438**
**SUBSCRIPTION**
**(18 ISSUES)**

**ISBN 978-92-64-98744-9**

9 789264 987449