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COMMISSION STAFF WORKING DOCUMENT

Country Report Spain 2020

Accompanying the document

COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE EUROPEAN COUNCIL, THE COUNCIL, THE EUROPEAN CENTRAL BANK AND THE EUROGROUP

2020 European Semester: Assessment of progress on structural reforms, prevention and correction of macroeconomic imbalances, and results of in-depth reviews under Regulation (EU) No 1176/2011

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EXECUTIVE SUMMARY

Spain has to sustain continued growth and jobs creation amid old and new emerging challenges ([1]). Spain has enjoyed six years of strong economic growth accompanied by dynamic job creation; between 2013 and 2019, real GDP grew by 16.5% and employment by 14%, well above the euro area average. However, some structural weaknesses and crisis legacies have not been fully overcome yet. The still high external and internal debt, both private and public, remain a source of vulnerability. Unemployment has declined, but too many people remain without a job or struggle to make a decent living. Economic efficiency, as measured by total factor productivity, remains subdued, due to low innovation in many firms and regions, regulatory fragmentation, market barriers, labour market segmentation, and skills gaps. Spain is also one of the European countries most exposed to climate change, which poses important policy challenges for water and waste management, energy and resource efficiency, emissions and renewable energy.

The Spanish economy is on a moderating growth path. Real GDP growth is expected to have slowed down from 2.4% in 2018 to 2.0% in 2019. Economic activity is expected to moderate further to 1.6% in 2020 and 1.5% in 2021, remaining above the euro area average. The job creation recorded since 2014 is forecast to continue but slow down. Unemployment is set to decline to 12.8% in 2021, which is still higher than before the economic and financial crisis and well above the 7.3% forecast for the euro area.

Supporting growth, productivity and the green transformation through public investment would have positive spill-overs on other Member States. Simulations show that a fiscally neutral investment programme financed by indirect taxes and focused on boosting skills, research and innovation, as well as on addressing challenges related to energy, water management, carbon emissions and climate change, would support Spanish growth and increase productivity, while facilitating the green transition. It would also have a small but positive impact on the rest of the euro area.

Spain has made limited progress on the 2019 country-specific recommendations (CSRs) ([2]):

There has been some progress in the following areas:

- Measures are being implemented at central and regional level to modernise and increase the capacity of public employment services, as well as to improve their cooperation with social services. Weaknesses persist in some regions.

There has been limited progress in the following areas:

- The institutional framework governing the management of public finances has not been strengthened. Recommendations stemming from spending reviews by the independent fiscal authority (AIReF), if implemented, have the potential to increase efficiency and effectiveness of public spending in several policy areas.
- The newly created governance structure for public procurement is not yet fully operational. The adoption of the nation-wide public procurement strategy envisaged for 2018 is delayed.
- Efforts to reduce the use of temporary contracts in the private sector are showing limited success. Action has focused on fighting abuse and not on the drivers of the widespread use of temporary contracts. The on-going review of the effectiveness of hiring incentives may suggest avenues for reform.
- The government has not yet taken action to simplify the system of national unemployment assistance. Coverage and adequacy of regional minimum income schemes remain low in many regions. Measures taken in 2019 to improve support for families are positive, but can have very limited impact on poverty reduction.

([1]) This report assesses Spain's economy in light of the European Commission's Annual Sustainable Growth Strategy, published on 17 December 2019. In this document, Commission sets out a new strategy on how to address not only the short-term economic challenges but also the economy's longer-term challenges. This new economic agenda of competitive sustainability rests on four dimensions: environmental sustainability, productivity gains, fairness and macroeconomic stability

([2]) Information on the level of progress and actions taken to address the policy advice in each respective subpart of a CSR is presented in the overview table in Annex A.

- A new strategy for vocational education and training (VET) sets out measures to improve the attractiveness and quality of intermediate VET education. Its implementation may contribute to reducing early school leaving and addressing the lack of technical skills in the labour market.

- There has been limited progress on fostering innovation, resource and energy efficiency and on developing rail freight infrastructure. Improvements in the funding and governance of the research and innovation system have been modest. On electricity interconnections with neighbouring countries, work is ongoing but further progress is needed.

- The Law on Market Unity remains an important tool to promote better regulation and overcome market fragmentation, but its implementation is proceeding slowly.

The indicators of the Social Scoreboard supporting the European Pillar of Social Rights point to a number of challenges. Although improving, the employment rate remains low, including for women. Many young people leave school early or are neither in employment nor in education and training. Social transfers (other than pensions) have limited impact on poverty reduction, particularly among children.

There was some progress on reaching the national targets under the Europe 2020 Strategy. Spain is on track to achieve its tertiary education attainment target. There was some reduction in the high share of people at risk of poverty. Sizeable gaps remain on employment and early school leaving rates, even though both have been improving. Spain is currently on track to achieve its targets for renewable energy, but further investment will be needed. Spain is still not on track to meet its targets for energy efficiency and continued investment, notably in buildings, will be required. There was little progress towards the targets for R&D investment.

Spain is making progress towards achieving the Sustainable Development Goals (SDGs). Spain has made most evident progress with SDG 3 “Good health and well-being”. Moderate improvements are also recorded for a broad range of the other SDGs. This notwithstanding, some of the individual underlying indicators are significantly lower than the EU average (share of early school leavers, people at risk of poverty, research and innovation, perception of corruption, recycling of municipal waste, land degradation and water). ([3])

The main findings of the in-depth review contained in this report and the related policy challenges are as follows:

- **Spain's net external liabilities declined further.** On the back of robust GDP growth and a continued current account surplus, Spain's net external liabilities have continued reducing at a steady pace, but they still amounted to just below 80% of GDP in Q2-2019.

- **The reduction of private debt has continued, but remains high.** Total private debt is projected to have decreased to 132% of GDP in Q2-2019. However, the pace of debt reduction has slowed down for both non-financial corporations and households.

- **The government debt-to-GDP ratio has continued its slow decline, but remains very high.** Government gross debt is expected to decline slightly from 96.7% of GDP in 2019 to 96.0% in 2021, mainly driven by GDP growth. Spain’s government deficit remains stubbornly high, as the level of taxation is low in relation to expenditure. Risks to overall fiscal sustainability remain significant in the medium to long term. In particular, government plans to permanently re-link pensions to the consumer price index and to dissociate initial pension levels from changes in life expectancy would, in the absence of adequate compensatory measures, increase pension expenditure significantly in the medium to long term and worsen inter-generational equity. This occurs

([3]) Within the scope of its legal basis, the European Semester can help drive national economic and employment policies towards the achievement of the United Nations Sustainable Development Goals (SDGs) by monitoring progress and ensuring closer coordination of national efforts. The present report contains reinforced analysis and monitoring on the SDGs. A new annex (Annex E) presents a statistical assessment of trends in relation to SDGs in Spain during the past five years, based on Eurostat’s EU SDG indicator set.

in a context where future adequacy of pensions is expected to be, on average, above than in the EU, and poverty mostly affects younger age groups, including children.

- **Unemployment is still very high, despite its rapid decline in recent years.** The Commission expects the unemployment rate to continue declining to 12.8% in 2021. High unemployment affects in particular young people and low-skilled workers. New action plans aimed at improving the support to young and long-term unemployed workers hinge upon a strengthened capacity of public employment services. The 22.3% increase in the minimum wage in 2019 has raised labour costs, especially in some sectors and regions. Its impact on employment and in-work poverty has not been quantified yet. In the meantime, a new increase has been agreed in 2020 and further ones have been announced until 2023. The new government has also announced its intention to revisit aspects of the 2012 labour market reform, which is recognised to have underpinned strong job creation during the recovery.

- **The widespread use of temporary contracts weighs on productivity growth and fuels inequality and in-work poverty.** The share of employees on a temporary contract is the highest in the EU, at around 26%. This has negative impact on human capital formation, impeding faster labour productivity growth. Temporary contracts are increasingly shorter and commonly used even in sectors with little seasonality. Employment subsidies are not effective at promoting stable employment.

- **Labour productivity growth has been relatively weak in recent years.** It even decreased slightly in 2018 and 2019. Total factor productivity however, has grown broadly in line with the EU average.

Other key structural issues analysed in this report, which point to particular challenges for Spain's economy, are the following:

- **Spain's innovation performance is below the EU average in all regions.** Innovation suffers from public and private underinvestment in R&D, and the coordination of research and innovation policy across different levels of government remains a challenge. Lack of cooperation between academia and businesses hampers knowledge diffusion. Business innovation is constrained by the low absorption capacity of small firms. Regulatory fragmentation across regions also makes it more difficult for firms to scale-up. Regulatory barriers continue to restrict competition in certain professional services and in retail. A more effective implementation of the Law on Market Unity would promote competition and better regulation, and reduce regulatory fragmentation.

- **The low innovation performance of the economy is also related to shortages of technical skills.** High early school leaving rates undermine equal opportunities and contribute to the high share of low skilled in the population. The low attractiveness of vocational education and training amplifies shortages of medium to high technical skills. School-to-work transitions remain difficult, as job opportunities are limited and often of low quality. At the same time, the economy does not create enough high-skilled occupations, reflecting its low innovation dynamics.

- **Spain is improving on digitisation, but the low number of information and communication technologies specialists and the slow uptake of digital technologies by small and medium-sized companies hampers exploiting its potential.** Very small enterprises, which represent a large proportion of firms in Spain, cannot reap the benefits of digitisation as easily as larger companies do. Small and medium-sized enterprises often refer to a shortage of information and communication technology's specialists as a constraining factor for taking greater advantage of the digitising trend. There is room to continue improving the very good performance of Spain in the provision of digital public services.

- **The share of people at risk of poverty or social exclusion continues to decrease but it is still high, particularly for children.** Labour market challenges and the low impact on poverty of social transfers result in one of the highest risks of poverty or social exclusion for children in the EU The weakness of family benefits and income guarantee schemes limits the poverty reduction effect of social transfers. Regional minimum income schemes are estimated to only reach 20% of their potential beneficiaries nationwide, with strong regional disparities. Even though fertility rates are much below the population replacement level, family benefits in Spain remain the lowest in the EU. They reach only half of the children at risk of poverty or exclusion as a strict means test for child benefits results in low coverage, and tax allowances are of limited benefit for lower income families.

- **Incomplete connections for energy and goods transport by rail prevent Spain from fully benefitting from the EU single market.** Progress in electricity interconnections with neighbouring EU countries would help Spain achieve the interconnection 2030 target (which should allow at least 15% of the electricity produced by its power plants to be transported across its borders to neighbouring countries). Investment is also needed to enable more freight to be transported by rail. Notably, support is needed to advance on connections with France and Portugal and to ports and logistic hubs.

- **Spain is one of the Member States most exposed to climate change**. Climate change adaptation, risk prevention and disaster resilience require investment. Infrastructure for water and waste management is uneven across the country, posing significant environmental challenges. In some urban areas, air quality is also an issue. At the same time, Spain's environmental tax revenues remain among the lowest in the EU.

- **Further action would accelerate the transition towards clean and sustainable mobility, as well as the decarbonisation of energy and the increase in energy efficiency, in particular at building and district scale.** Spain is bound to miss its 2030 CO_2 emissions targets, if it does not implement the ambitious policies outlined in the draft National Energy and Climate Plan. Transport is the sector where greenhouse gas emissions keep growing most. To reduce the current reliance on carbon-intensive road freight, investments need to focus on making better use of the rail system.

- **The Commission's proposal for a Just Transition Mechanism under the next multi-annual financial framework for the period 2021-2027 includes a Just Transition Fund, a dedicated just transition scheme under InvestEU, and a new public sector loan facility with the EIB.** It is designed to ensure that the transition towards EU climate neutrality is fair by helping the most affected regions in Spain to address the social and economic consequences. Key priorities for support by the Just Transition Fund are identified in Annex D, building on the analysis of the transition challenges outlined in this report.

- **Territorial cohesion challenges persist.** Regional disparities exist in the areas of employment, educational outcomes, early school leaving rates, poverty and inequality. Despite a significant improvement in digital infrastructure, the urban-rural divide persists. At the same time, Spain faces problems of ageing and depopulation in rural areas, as well demographic pressures in the major urban areas.

- **Stronger and sustained coordination between the national, regional and local authorities would render the implementation of policies more effective.** Coordination amongst different levels of government is key and remains a challenge in policy areas where both national and regional levels are involved in reforms. These include better regulation and the implementation of internal market rules, as well as active labour market policies, education, health care and social services.

1. ECONOMIC SITUATION AND OUTLOOK

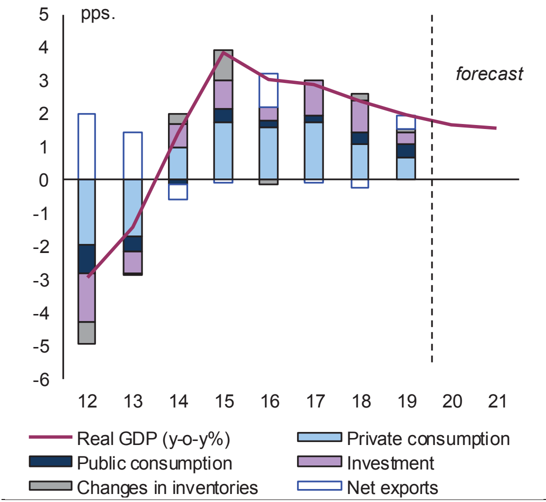
Economic outlook

The Spanish economy is now set on a moderating path. After expanding by 2.4% in 2018, GDP growth decelerated to 2.0% in 2019, still well above the euro area (see Graph 1.1). [4] In 2019, the reported quarterly composition of growth has been very volatile, but overall, domestic demand weakened compared to the previous year due to both lower private consumption and investment, whereas the contribution of net exports to growth became positive. Lower private consumption growth has been partly due to weak demand for durable goods, possibly related to technological uncertainty in the automotive sector, and to an increase in precautionary savings by households.

Economic activity is expected to decelerate further to 1.6% in 2020 and 1.5 % in 2021, despite a small rebound of consumption. This is mainly due to a declining contribution of net exports to growth. Private consumption growth is expected to increase slightly and then stabilise as households' financial position improves and some of the temporary factors limiting car purchases gradually fade away. Still, consumption is expected to grow at a lower rate than disposable income over the forecast horizon, resulting in additional increases in households' savings rate.

Net exports should moderate but continue supporting growth. The contribution of net exports to growth has been positive since mid-2018 due to unusually low import growth, partly reflecting weakness in the demand for durable and investment goods. The import intensity of final demand is expected to return to its historic average as the demand for durable and investment goods recovers, pushing up import growth. Export growth is projected to remain subdued amid trade tensions and weak global growth. As a result, the contribution of net exports to growth is expected to diminish in 2020 and become broadly neutral in 2021.

Graph 1.1: **Composition of GDP growth**



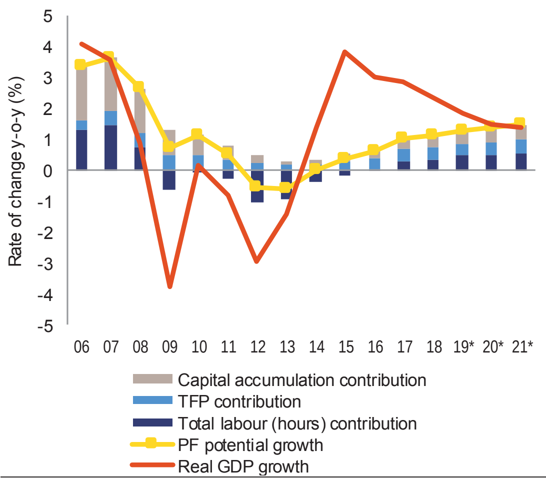
(*) years 2020-2021 are a forecast
Source: European Commission 2020 winter interim forecast.

Risks to the outlook are mainly on the downside. Risks are related to external developments such as further restrictive measures on trade, a more protracted slowdown in world GDP growth than anticipated, geopolitical tensions and the UK's withdrawal from the EU. On the upside, trade tensions could be resolved faster than assumed, giving rise to a stronger rebound of foreign trade. Domestic risks refer to the impact of uncertainty, which could weigh more than expected on consumption and investment decisions.

It is estimated that potential growth will continue to rise. Potential output growth plummeted during the crisis, reaching -0.5% in 2012. Since then, it has kept increasing, and it is estimated to reach 1.5% by 2021, converging to the euro area average (see Graph 1.2). About two thirds of this increase come from labour. The contribution of capital and total factor productivity (TFP) to potential output is now in line with the euro area average, after a post-crisis increase.

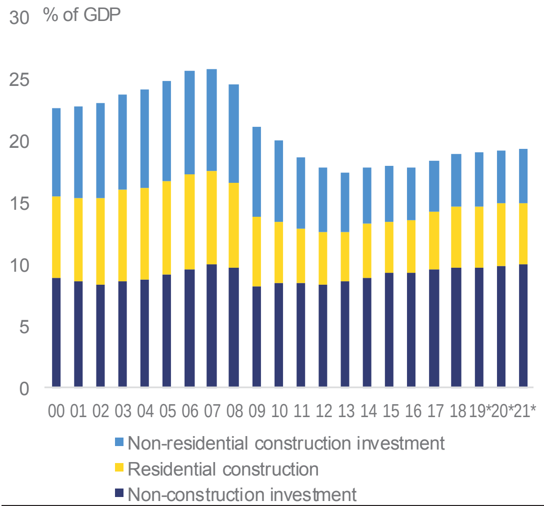
(4) GDP and inflation forecasts are based on the European Commission 2020 winter interim forecast, which has a cut off date of 4 February 2020. All other data refer to the European Commission 2019 autumn forecast, which has a cut-off date of 24 October 2019.

Graph 1.2: **Contributions to potential growth**



(*) Potential output estimates based on the European Commission 2019 autumn forecast
Source: European Commission.

Graph 1.3: **Investment rate, 2015 prices**



(*) years 2019-2021 are a forecast
Source: European Commission 2019 autumn forecast.

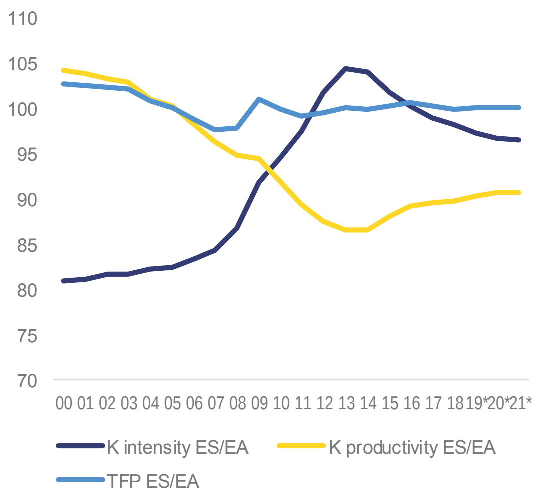
Investment

Investment is expected to recover slightly over the forecast horizon after a weak end of 2019. Equipment investment growth, which has been negatively impacted by weakness in the manufacturing sector is expected to recover slightly, in line with final demand. Residential investment is set to decelerate further as the cycle matures, whereas non-construction investment is expected to recover somewhat after contracting in 2019.

As a share of GDP, non-construction investment has reached its pre-crisis peak, but remains below the euro area average (see Graph 1.3**).** The investment rate stood at 18.9 % in 2019, above the minimum of 17% recorded in 2013, but still 2 pps below the euro area average. Non-construction investment now stands at 9.9 % of GDP, in line with its pre-crisis peak, but below the euro area average (11.2% of GDP). However, construction investment has barely increased its weight in GDP since 2013. It stood at 9.1% of GDP in 2019, far from its pre-crisis peak at more than 16%, and also below the EU average (10% of GDP).

Both capital intensity and the productivity of capital in Spain are below the euro area average, although capital allocation has improved. In the pre-crisis period investment flowed to non-tradable sectors, and in particular construction, which at the time had high profitability but low productivity. This resulted in high capital intensity, but low productivity of capital (see Graph 1.4). This trend was reversed during the recovery, as net capital formation did not keep pace with strong job creation. This resulted in a decline in capital intensity, but an increase in the productivity of capital relative to the euro area, suggesting that capital allocation has improved. Total factor productivity also improved slightly relative to the euro area, also suggesting a structural improvement in the quality of investment.

Graph 1.4: **Capital intensity and capital productivity**



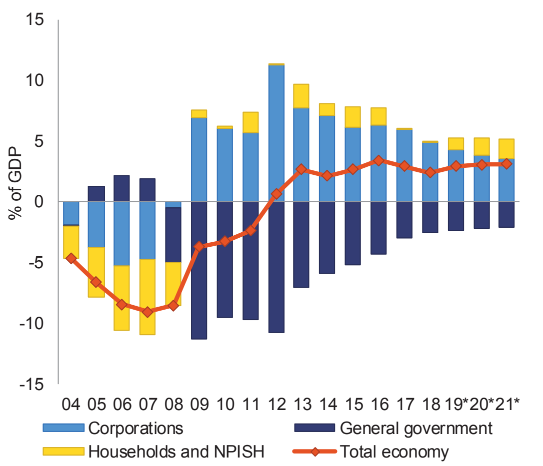
(*) years 2019-2021 are a forecast
(1) Capital intensity: net capital stock at 2010 prices per person employed; total economy, relative to EA
(2) Capital productivity: gross domestic product at 2010 reference levels per unit of net capital stock ; total economy, relative to EA
(3) Total factor productivity relative to the euro area, 2010=100
Source: European Commission 2019 autumn forecast.

External position

The current account surplus is expected to widen until 2021, both in nominal and cyclically adjusted terms. The revised national accounts also reveal that in recent years Spain's current account surplus has been about 1% of GDP higher than previously estimated. After declining in 2018, the current account surplus is expected to increase in 2019 and then improve slightly more in 2020 and 2021, owing to a reduction in the goods' trade deficit. In cyclically-adjusted terms, the current account surplus is also expected to increase this year, and rise further over the forecast horizon, reaching a record high 3.4% of GDP in 2021.

Persistent current account surpluses are translating into a reduction in Spain's net external liabilities, which nevertheless remain high. Despite the current account surpluses registered since 2013, negative valuation effects (partly reflecting improvements in confidence and the higher value of Spanish assets) have limited the improvements in the net international investment position (NIIP). Still, the NIIP has fallen by more than 17 pps of GDP since its peak, but remained at a sizeable -79.6% of GDP in Q3-2019. The continued current account surpluses and robust nominal GDP growth projected until 2021 will facilitate a further improvement in the NIIP (see Section 3). By sectors, the net lending position of the private sector since 2009 (largely due to the corporate sector) has been partly offset with the borrowing position of the general government sector (see Graph 1.5).

Graph 1.5: **Net lending / borrowing by sector**



(*) years 2019-2021 are a forecast
Source: European Commission 2019 autumn forecast.

Private and public debt

The stock of private debt has continued declining, but deleveraging needs persist. Despite substantial debt reduction among both households and corporates (in consolidated terms), private sector debt remains high, at 130.6% of GDP in Q3-2019. This is a reduction of more than 70 pps since its peak (of which about 45 pps by non-financial corporations (NFCs) and 25 pps by households). Since 2017, the decline has been driven by robust growth in nominal GDP, which has more than offset positive net credit flows. The private debt-to-GDP ratio is expected to remain above its prudential threshold and fundamental benchmark, pointing to deleveraging needs for NFCs and especially for households (see Sections 3 and 4.2).

The housing market keeps recovering, both in terms of activity and of prices, but it is slowing down. Activity in the housing market, both in terms of transactions and new construction, has picked up strongly in recent years, but remains far from its pre-crisis levels, and has started to slow down in 2019. Growth in house prices has also started to moderate, but it varies greatly across regions, with larger increases in the major cities and the coastal areas. On aggregate for the whole country, the valuation gap is closing. In big cities, the increased propensity to rent after the crisis created upward pressure on rental prices (see Section 4.2).

The high public debt ratio is set to continue decreasing slowly. Under a ‘no policy change’ scenario, the general government debt ratio is forecast to fall slightly from 97.6% in 2018 to 96.0% of GDP in 2021. The decline is expected to be driven by nominal GDP growth and falling interest expenditure. After decreasing by 0.5 pps to 2.5% of GDP in 2018, the general government deficit is projected to narrow to 2.3% of GDP in 2019. Under this ‘no-policy change’ scenario, the deficit is projected to decline further to 2.2% of GDP in 2020, and to 2.1% in 2021. The primary balance is likely to remain broadly unchanged around zero, whereas the average cost of debt will continue falling as long as the cost of issuance remains below the average cost of debt.

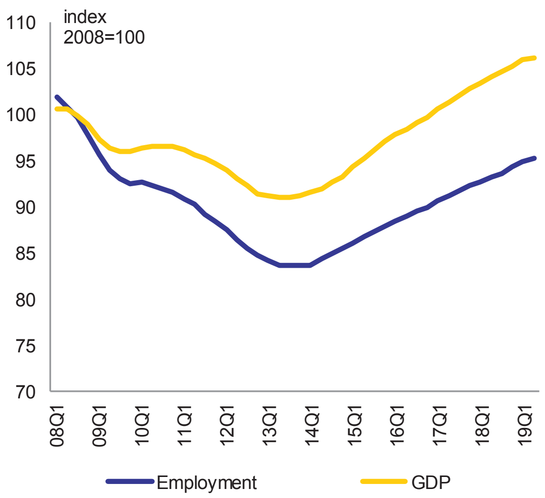
Inflation

Headline inflation is projected to remain subdued but increase gradually as core inflation rises. HICP inflation fell from 1.7% in 2018 to 0.8% in 2019, mainly because of a decline in oil prices. It is then forecast to increase to 1.3 % in 2021, as further declines in oil prices partly offset the gradual pickup in core inflation. The increase in core inflation is set to be driven by the increase in wages, which have a large weight on the services component of the HICP index. The inflation differential with respect to the euro area is expected to remain slightly negative in 2020 and 2021.

Labour market

Employment growth is set to moderate, in line with the cyclical slowdown. Spain has recovered 2.5 million jobs since Q1-2014, i.e., two thirds of the jobs lost during the crisis (see Graph 1.6). However, the employment rate remains 6.0 pps below the EU average (at 67.8% in Q3-2019). The labour market started to lose traction in the second half of 2019, and job creation is expected to continue declining, especially in 2020 and 2021. The unemployment rate is set to continue falling to below 13% in 2021, still far above the euro area average. Despite the positive trend since 2014, the labour market integration of young people and of the long-term unemployed remains a challenge (see Section 4.3.1).

Graph 1.6: **Employment and GDP - levels compared to 2008**

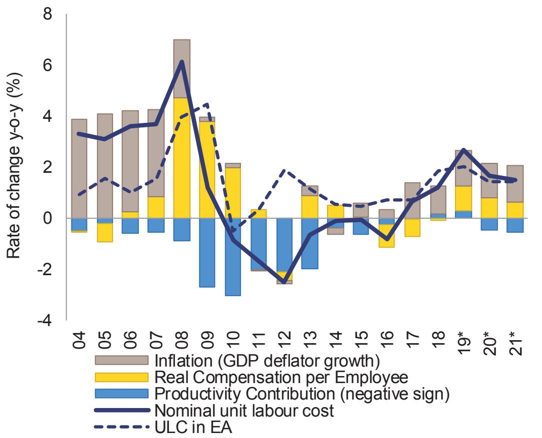


Source: Eurostat [namq_10_pe, namq_10_gdp]

Labour market segmentation and skills’ gaps persists, hindering productivity growth. At [26.1% in Q3-2019], Spain is the EU country with the largest share of employees on temporary contracts (compared to 13.4% on EU average). This hinders human capital accumulation and ultimately productivity growth. In addition, temporary workers face a high rate of in-work poverty (21.3% in 2018, 14 pps more than permanent workers, one of the largest gaps in the EU). Other labour market factors hindering productivity growth are related to skills gaps and mismatches (see Section 4.3).

Wage growth is expected to have peaked in 2019, and to outpace inflation in 2020 and 2021 as well. After growing by 1% in 2018, compensation per employee rose to 2.1% in 2019, resulting in the first increase in real wages since 2015. This is due to both the increase in the minimum wage enacted at the beginning of 2019, and rising negotiated wages in bargaining agreements. Wage growth is expected to decelerate slightly but continue growing above inflation in 2020 and 2021. As productivity growth was negative in 2019, unit labour costs peaked at 2.4%. They are set to rise more slowly in 2020 and 2021, though still faster than the euro area average (see Graph 1.7).

Graph 1.7: **Analysis of unit labour costs**



(*) years 2019-2021 are a forecast
Source: European Commission 2019 autumn forecast.

Poverty, inequality and social inclusion

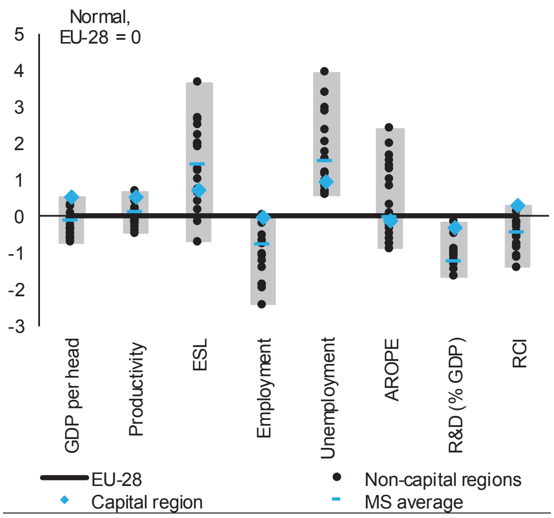
Social indicators continue to improve on the back of falling unemployment, but child poverty remains among the highest in the EU. In 2018 (EU-SILC survey, income year 2017), the percentage of people at risk of poverty or social exclusion (AROPE) declined slightly to 26.1% (3.1 pps below the peak in 2014) but remains well above the EU average of 21.9%. Though figures are improving, children (0-17) remain the age group worst affected; at 29.5%, the rate is 5.5 pps above the EU average and among the highest in the EU. The impact of social transfers in reducing child poverty is the lowest in the EU (see Box 4.3.3).

Income inequalities continue to decrease, but remain among the highest in the EU. In 2018 (income year 2017), the income of the top 20% was 6.0 times that of the bottom 20%, compared to 6.6 times in 2017 (income year 2016). Flash estimates ([5]) point to a further improvement in 2019. The Gini coefficient ([6]) also fell slightly, from 34.1 in 2017 to 33.2 in 2018. However, both indicators remain well above the EU average (of 5.2 and 30.9 respectively) and their pre-crisis levels (see Section 4.3)

Regional disparities

Significant regional socio-economic disparities persist in Spain. The evolution of GDP per head across regions throughout the recovery has been closely linked to labour market developments, and in particular the employment rate (see Section 4.3). Education indicators also show wide regional disparities, particularly in the rate of early school leavers ranging between 7% and 24% in 2018. Other socio-economic indicators also present significant territorial disparities at subnational level, including those related to R&D expenditure, poverty and competitiveness (see Graph 1.8).

Graph 1.8: **Regional disparities on selected indicators**



(1) GDP in PPS per head (2017), Labour productivity in PPS (2017), ESL: early school leaving rate (2018), Employment rates (20-64) (2018), Unemployment rate (15-74) (2018), AROPE: at-risk-of-poverty rate (2018), R&D: expenditure in research and development as a percentage of GDP (2015); RCI: regional competitiveness index (2019)
Source: European Commission.

Sustainable Development Goals

There is political consensus in Spain on supporting the United Nations 2030 Sustainable Development Goals. The establishment of Vice-Presidencies for Social Rights and the Agenda

([5]) Experimental flash estimates produced by Eurostat for income year 2018. https://bit.ly/34HOcIG
([6]) The Gini coefficient ranges between 0 and 100. Lower values indicate higher equality. To take into account differences in household size and composition, the total disposable household income is "equivalised".

2030 as well as for Climate Change and the Demographic Challenge in the new government reflect this commitment. However, meeting the sustainability challenge will require close cooperation between the different levels of government (European Commission, 2019g). Other important challenges in the implementation of Agenda 2030 in Spain will include the coordination with other ministries so as to ensure policy coherence, as well as budget alignment and the definition of indicators for adequate monitoring and accountability.

Spain is making progress towards achieving the Sustainable Development Goals (SDGs). On the basis of the trends in the Eurostat indicators over the last five years, the area where progress has been most evident is SDG 3 "Good health and well-being", where all the underlying indicators showed an overall improved performance, despite some regional variations in access to certain types of health care. Furthermore, moderate improvements are seen for a broad range of the other SDGs such as SDG 1 "No poverty", SDG 2 "Zero hunger", SDG 4 "Quality education", SDG 8 "Decent work and economic growth", SDG 9 "Industry, innovation and infrastructure", SDG 10 "Reduced inequalities", SDG 11 "Sustainable cities and communities", SDG 13 "Climate action", SDG 16, "Peace justice and strong institutions", and 17 "Partnerships for goals". Notwithstanding the improvements, the current levels for several of the individual underlying indicators are significantly lower than the EU average, such as for the share of early school leavers, people at risk of poverty, research and innovation, perception of corruption, recycling of municipal waste, land degradation and water.

Table 1.1: **Key economic and financial indicators – Spain**

	2004-07	2008-12	2013-16	2017	2018	forecast 2019	2020	2021
Real GDP (y-o-y)	3.6	-1.3	1.7	2.9	2.4	2.0	1.6	1.5
Potential growth (y-o-y)	3.5	0.9	0.1	1.1	1.2	1.3	1.4	1.5
Private consumption (y-o-y)	3.9	-2.0	1.1	3.0	1.8	.	.	.
Public consumption (y-o-y)	5.7	1.4	0.0	1.0	1.9	.	.	.
Gross fixed capital formation (y-o-y)	5.7	-8.5	1.8	5.9	5.3	.	.	.
Exports of goods and services (y-o-y)	4.6	1.0	4.6	5.6	2.2	.	.	.
Imports of goods and services (y-o-y)	8.3	-5.2	3.5	6.6	3.3	.	.	.
Contribution to GDP growth:								
Domestic demand (y-o-y)	4.9	-3.0	1.0	3.0	2.4	.	.	.
Inventories (y-o-y)	0.0	-0.2	0.3	0.0	0.2	.	.	.
Net exports (y-o-y)	-1.3	1.8	0.5	-0.1	-0.3	.	.	.
Contribution to potential GDP growth:								
Total Labour (hours) (y-o-y)	1.5	-0.2	-0.4	0.3	0.4	0.5	0.5	0.5
Capital accumulation (y-o-y)	1.7	0.7	0.2	0.3	0.4	0.4	0.5	0.5
Total factor productivity (y-o-y)	0.2	0.4	0.3	0.4	0.4	0.4	0.4	0.5
Output gap	2.5	-4.0	-5.5	-0.1	1.0	1.6	1.7	1.6
Unemployment rate	9.2	19.1	23.1	17.2	15.3	13.9	13.3	12.8
GDP deflator (y-o-y)	3.8	0.5	0.3	1.4	1.1	1.4	1.4	1.4
Harmonised index of consumer prices (HICP, y-o-y)	3.2	2.3	0.1	2.0	1.7	0.8	1.2	1.3
Nominal compensation per employee (y-o-y)	3.9	2.6	0.4	0.7	1.0	2.4	2.2	2.1
Labour productivity (real, person employed, y-o-y)	-0.2	1.7	0.8	0.2	0.1	-0.1	.	.
Unit labour costs (ULC, whole economy, y-o-y)	3.4	0.4	-0.4	0.7	1.2	2.7	1.7	1.5
Real unit labour costs (y-o-y)	-0.4	-0.1	-0.7	-0.7	0.1	1.3	0.3	0.1
Real effective exchange rate (ULC, y-o-y)	2.4	-1.7	-1.3	0.9	0.7	-0.5	-0.8	-0.4
Real effective exchange rate (HICP, y-o-y)	1.2	-0.5	-0.6	1.5	1.9	-1.6	-1.1	-0.6
Net savings rate of households (net saving as percentage of net disposable income)	3.0	4.5	3.0	1.2	1.5	.	.	.
Private credit flow, consolidated (% of GDP)	27.1	-0.7	-5.0	0.7	0.4	.	.	.
Private sector debt, consolidated (% of GDP)	166.6	198.3	162.4	139.7	133.5	.	.	.
of which household debt, consolidated (% of GDP)	73.5	83.2	70.9	61.2	59.0	.	.	.
of which non-financial corporate debt, consolidated (% of GDP)	93.1	115.1	91.5	78.6	74.5	.	.	.
Gross non-performing debt (% of total debt instruments and total loans and advances) (2)	.	4.4	6.2	3.8	3.2	.	.	.
Corporations, net lending (+) or net borrowing (-) (% of GDP)	-3.9	5.9	6.8	5.9	4.9	4.3	3.8	3.6
Corporations, gross operating surplus (% of GDP)	20.4	23.8	23.7	24.5	24.2	23.7	23.4	23.3
Households, net lending (+) or net borrowing (-) (% of GDP)	-4.5	-0.2	1.5	0.0	0.0	1.0	1.5	1.6
Deflated house price index (y-o-y)	9.7	-8.2	0.3	4.5	5.2	.	.	.
Residential investment (% of GDP)	11.3	6.9	4.1	4.8	5.3	5.7	.	.
Current account balance (% of GDP), balance of payments	-7.8	-3.9	2.2	2.7	1.9	2.4	2.5	2.6
Trade balance (% of GDP), balance of payments	-5.0	-0.9	3.5	3.6	2.7	.	.	.
Terms of trade of goods and services (y-o-y)	0.5	-0.9	0.4	-0.8	-1.6	-0.1	0.0	0.0
Capital account balance (% of GDP)	0.6	0.4	0.5	0.2	0.5	.	.	.
Net international investment position (% of GDP)	-70.5	-91.3	-90.8	-85.5	-80.4	.	.	.
NENDI - NIIP excluding non-defaultable instruments (% of GDP) (1)	-39.5	-71.8	-66.5	-57.2	-53.6	.	.	.
IIP liabilities excluding non-defaultable instruments (% of GDP) (1)	121.0	155.2	157.1	156.5	157.2	.	.	.
Export performance vs. advanced countries (% change over 5 years)	7.8	-4.1	-2.7	6.8	2.5	.	.	.
Export market share, goods and services (y-o-y)	-2.7	-3.8	2.3	0.4	-1.1	0.8	-0.8	-1.1
Net FDI flows (% of GDP)	4.0	0.1	0.9	1.0	-1.3	.	.	.
General government balance (% of GDP)	1.3	-9.2	-5.6	-3.0	-2.5	-2.3	-2.2	-2.1
Structural budget balance (% of GDP)	.	.	-2.0	-2.9	-2.9	-3.1	-3.2	-3.0
General government gross debt (% of GDP)	40.7	61.9	98.7	98.6	97.6	96.7	96.6	96.0
Tax-to-GDP ratio (%) (3)	36.3	32.3	34.5	34.7	35.4	35.7	36.0	36.1
Tax rate for a single person earning the average wage (%) (4)	20.4	21.1	22.1	21.1	21.3	.	.	.
Tax rate for a single person earning 50% of the average wage (%) (4)	10.6	9.7	10.9	10.0	8.1	.	.	.

(1) NIIP excluding direct investment and portfolio equity shares
(2) domestic banking groups and stand-alone banks, EU and non-EU foreign-controlled subsidiaries and EU and non-EU foreign-controlled branches.
(3) The tax-to-GDP indicator includes imputed social contributions and hence differs from the tax-to-GDP indicator used in the section on taxation
(4) Defined as the income tax on gross wage earnings plus the employee's social security contributions less universal cash benefits, expressed as a percentage of gross wage earnings
Source: Eurostat and ECB as of 4-2-2020, where available; European Commission for forecast figures (Winter forecast 2020 for real GDP and HICP, Autumn forecast 2019 otherwise).

2. PROGRESS WITH COUNTRY-SPECIFIC RECOMMENDATIONS

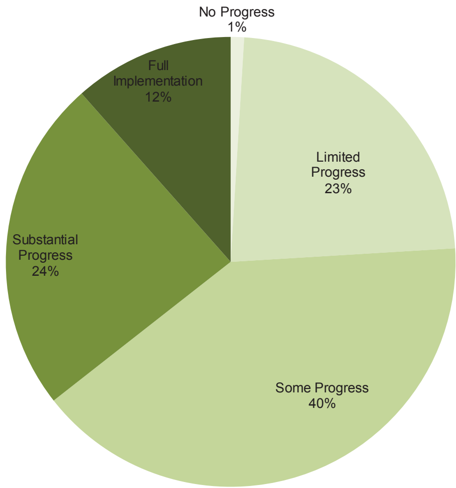
Since the start of the European Semester in 2011, 76% of all country-specific recommendations addressed to Spain have recorded at least 'some progress" ([7]). 24% of the CSRs recorded 'limited' or 'no progress' (Graph 2.1)**.** The reforms implemented during the economic crisis and in the following years have contributed to Spain's strong economic performance and job creation until now. However, reform progress slowed after 2014. There has been some back-tracking on the pension reforms and the new government has announced a reversal of some elements of the 2012 labour market reform. Coordination between the national and the regional governments is crucial, but remains a challenge in several policy areas covered by the CSRs.

Earlier recommendations on the financial sector have been addressed. Following macro-financial stabilisation, the Spanish banking sector enjoys high liquidity and adequate capitalisation. Profitability is under pressure due to the low interest rates, but confidence in the Spanish banking sector as a whole has been restored.

There has been little progress in the area of fiscal governance. The new governance structure for public procurement is still not fully functioning, almost two years after the entry into force of the law on public sector contracts. The elaboration of the National Public Procurement Strategy scheduled for 2018 is delayed. There have been no other steps to strengthen the fiscal framework. Seven reviews of public expenditure in specific policy areas have been completed and the results of four on-going reviews are expected in the first half of 2020. Finally, if the departures from the 2013 pension reform are made permanent without adequate compensatory measures, pension expenditure will increase significantly and worsen inter-generational equity in the medium to long term.

([7]) For the assessment of other reforms implemented in the past, see in particular section 4.1, 4.2, 4.3, 4.4, and 4.5.

Graph 2.1: **Overall multiannual implementation of 2011-2019 CSRs by February 2020**



(1) The multiannual assessment looks at the implementation progress since a CSR was first adopted until February 2019.
(2) The assessment of CSRs related to fiscal policy excludes compliance with the Stability and Growth Pact.
(3) Assessment categories in 2011-2012 differed from those in the following years.
Source: European Commission.

There was some improvement in the delivery of labour market policies, but their effectiveness remains modest and labour market segmentation persists. The share of temporary contracts in total employment remains high at above 26% in Q3-2019. In the public sector, the use of temporary contracts has increased further in 2019, despite the pledge to reduce it. Measures to reduce temporary contracts have focused on fighting abuse. Efforts to strengthen the public employment services continue in some regions. The implementation of the new Action Plan for Youth Unemployment and the ReincorporaT Plan for the long-term unemployed is on track, but hiring subsidies still absorb about 40% of the budget for active labour market policies and do not seem to be very effective.

Initiatives are on-going to reduce skills mismatches and early school leaving. Medium to high-level technical skills, and especially ICT specialists, are in shortage. The new Strategic Plan for Vocational Education and training (VET) may play a role in reducing skills mismatches and early school leaving, once fully implemented. The business sector's role in the design of qualifications is being reinforced, and work is underway on a Digital Skills National Strategy.

There has been limited progress in increasing the support for families and the effectiveness of social assistance. The 2019 increase in the amount of the means-tested child allowance can only have a very limited impact on poverty reduction. National unemployment assistance schemes remain fragmented and the coverage of regional income guarantee schemes remains very limited in many regions, with the number of beneficiaries not even reaching 20% of the potential beneficiaries on average in the country.

There has been limited progress on investment to foster innovation, resource and energy efficiency and to complete rail freight infrastructure and electricity interconnections. The draft National Climate and Energy Plan is ambitious in scope, but it relies to a large extent on mobilising private investments, which have not materialised yet. There has been some progress on the ongoing development of electricity interconnections with France and with Portugal. There were certain steps taken to support sustainable mobility, but overall there was limited progress in fostering resource efficiency. Investments in rail infrastructure for freight have not increased in 2019. Spending on R&D remains low compared with other Member States. Coordination of research and innovation policies across government levels remains a challenge and the evaluation of research programmes and policies is not systematic. The assessment of this CSR does not take into account the contribution of the EU 2021-2027 cohesion policy funds. ([8])

([8]) The regulatory framework underpinning the programming of the 2021-2027 EU cohesion policy funds has not yet been adopted by the co-legislators, pending inter alia an agreement on the multiannual financial framework (MFF).

There has been limited progress in the area of better regulation. Despite some actions to improve the implementation of the Law on Market Unity, a stronger commitment by regions and local authorities could help to overcome excessive market fragmentation and foster better regulation in Spain.

Overall, policy advances have been very modest, leaving Spain's remaining structural weaknesses unaddressed. A more decisive implementation of reforms and new policy initiatives in several areas remain key to increase productivity, potential growth, social inclusion, and the green transformation.

The European Commission can provide tailor-made expertise via the Structural Reform Support Programme to help design and implement growth-enhancing reforms. Since 2018, Spain has received support for some 20 projects. In 2019, several projects were delivered on the ground. The Commission, for example, supported the authorities in the review of the public expenditure on the reimbursement of prescription-dispensed medicines and in the promotion of e-Justice. The Commission also assisted the Spanish Ministry for Ecological Transition in the preparation of strategies for coastal protection of the provinces of Cadiz, Malaga and Almeria in Andalusia in order to address the effects of climate change. Work started in 2019 on new projects (namely, to improve the implementation of dual VET in Spain, to help the Spanish Public Employment Service implement the Action Plans for Youth Employment and for Long-term Unemployment, as well as on the reform of the insolvency and pre-insolvency frameworks).

Box 2.1: **EU Funds and programmes to address structural challenges and to foster growth and competitiveness in Spain**

Spain is one of the countries benefiting most from EU support. The financial allocation from the EU Cohesion policy funds ([1]) for Spain amounts to €42.5 billion in the current Multiannual Financial Framework, equivalent to around 0.5% of its GDP. By the end of 2019, 31.7 billion (around 75% of the total amount planned) were allocated to specific projects, while only €12.9 billion were reported as spent by the selected projects ([2]), showing a level of implementation well below the EU average, requiring prompt measures to accelerate the implementation of the programmes.

While bringing about a more harmonious development through reducing economic, social and territorial disparities, EU Cohesion policy funding also supports to a great extent structural challenges in Spain. The Cohesion Policy programmes for Spain have allocated €10 billion for smart growth, €8.5 billion for sustainable growth and sustainable transport and €11 billion for inclusive growth. In 2019, following a performance review ([3]) €1.7 billion have been made available for Spain within performing priorities.

EU Cohesion policy funding is contributing to the transformation of the Spanish economy, by promoting growth and employment via investments, among others, in research, technological development and innovation, competitiveness of enterprises, sustainable transport, employment and labour mobility. By 2019, investments driven by the European Regional Development Fund (ERDF) increased accessibility by building or upgrading more than 200 km of roads; supported research, as over 11,000 researchers work in improved research infrastructures; promoted energy efficiency realising more than 40 MW of additional capacity to produce renewable energy; achieved 1,400,000 additional households with access to broadband of at least 30 Mbps, the upgrading of schools for 200,000 pupils, as well as the reduction of greenhouse gas emissions by 250,000 tons of CO2 t-eq. The European Social Fund (ESF), as well as the Youth Employment Initiative (YEI), of which Spain is the biggest beneficiary, supported notably the rollout of the 2014 education reform and the set-up of youth policies durably anchored in public employment services, based on strong partnerships. Over 4 million actions, including workshops, trainings and outreach campaigns, so far led to 1.8 million qualifications and 884 970 jobs. 200,000 young people (50%) were still working or engaged in training or education after completing a Youth Guarantee programme.

Agricultural and fisheries funds and other EU programmes also contribute to addressing the investment needs. The European Agricultural Fund for Rural Development (EARDF) and the European Maritime and Fisheries Fund (EMFF) provides support worth, respectively, €12.3 billion and €1.6 billion. Spain benefits also from other EU programmes, such as the Connecting Europe Facility, which allocated €1 billion to projects on strategic transport networks, Horizon 2020 allocated EU funding of €4.2 billion (including 1800 SMEs), and COSME unlocked €4.1 billion of loans to 98 913 SMEs.

EU funding contributes to the mobilisation of important private investment. By the end of 2018 European Structural and Investment funds (ESI Funds)-supported programmes alone ([4]) mobilise additional capital by committing about €2.3 billion in the form of loans, guarantees and equity ([5]), which isamount to 7% of all decided allocations of the European Structural and Investment funds (ESIF).

EU funds invest substantial amounts on actions in line with the Sustainable Development Goals (SDGs). In Spain the European Structural and Investment Funds support 13 out the 17 SDGs and up to 96% of the expenditure is contributing to progress in achieving these goals.

([1]) ERDF, ESF, YEI, including national co-financing.
([2]) https://cohesiondata.ec.europa.eu/countries/ES
([3]) The performance review is regulated by Art. 22 of the Regulation (EU) No 1303/2013.
([4]) ERDF, ESF, EARDF and EMFF.
([5]) Member States' reporting on financial instruments based on Article 46 Regulation 1303/2013, cut-off date 31/12/2018.

Table 2.1: **Overall assessment of progress with 2019 CSRs ***

Spain - 2019 CSRs	Overall assessment of progress: Limited
CSR 1: *Ensure that the nominal growth rate of net primary government expenditure does not exceed 0.9% in 2020, corresponding to an annual structural adjustment of 0.65% of GDP. Take measures to strengthen the fiscal and public procurement frameworks at all levels of government. Preserve the sustainability of the pension system. Use windfall gains to accelerate the reduction of the general government debt ratio. (MIP relevant)*	**Limited progress** • No progress in strengthening the fiscal framework • No progress on preserving the sustainability of the pension system • Limited progress in strengthening the public procurement framework • The compliance assessment with the Stability and Growth Pact will be included in Spring 2020 when final data for 2019 will be available
CSR 2: *Ensure that employment and social services have the capacity to provide effective support. Foster transitions towards open-ended contracts, including by simplifying the system of hiring incentives. Improve support for families, reduce fragmentation of national unemployment assistance and address coverage gaps in regional minimum income schemes. Reduce early school leaving and improve educational outcomes, taking into account regional disparities. Increase cooperation between education and businesses with a view to improving the provision of labour market relevant skills and qualifications, in particular for information and communication technologies. (MIP relevant)*	**Limited progress** • Some progress in reinforcing the capacity of employment and social services • Limited progress in promoting hiring on open-ended contracts and simplifying the system • Limited progress in addressing fragmentation of national unemployment assistance and coverage gaps in income guarantee schemes, and in improving family support • Limited progress in addressing early school leaving and regional disparities in educational outcomes • Some progress in increasing cooperation between education and business.
CSR 3: *Focus investment-related economic policy on fostering innovation, resource and energy efficiency, upgrading rail freight infrastructure and extending electricity interconnections with the rest of the Union, taking into account regional disparities. Enhance the effectiveness of policies supporting research and innovation. (MIP relevant)*	**Limited progress** • Limited progress on investment in research and innovation • Limited progress on resource efficiency • Some progress on energy efficiency • Some progress on electricity interconnectors • Limited progress on the evaluation of research and innovation policies
CSR 4: *Further the implementation of the Law on Market Unity by ensuring that, at all levels of government, rules governing access to and exercise of economic activities, in particular for services, are in line with the principles of that Law and by improving cooperation between administrations. (MIP relevant)*	**Limited progress** • Limited progress on implementing the Law on Market Unity

Source: European Commission.
* The assessment of CSR3 does not take into account the contribution of the EU 2021-2027 cohesion policy funds. The regulatory framework underpinning the programming of the 2021-2027 EU cohesion policy funds has not yet been adopted by the co-legislators pending inter alia an agreement on the multiannual financial framework (MFF).

3. SUMMARY OF THE MAIN FINDINGS FROM THE MIP IN-DEPTH REVIEW

3.1. INTRODUCTION

In spring 2019, Spain was identified as having macroeconomic imbalances (European Commission, 2019k). Large stocks of external and internal debt, both public and private, continue to constitute vulnerabilities in a context of still high unemployment, and have cross-border relevance. In addition, low potential growth amplifies the risks related to Spain's macroeconomic imbalances, and hampers their unwinding. The 2020 Alert Mechanism Report concluded that a new in-depth review should be undertaken for Spain to assess the unwinding of the imbalances (European Commission, 2019b). This chapter summarises the findings of the analyses carried out as part of the macro-economic imbalances procedure (MIP) in-depth review that is contained in various sections in this report ([9]).

3.2. IMBALANCES AND THEIR GRAVITY

Spain's net international investment position (NIIP) remains very negative. Although the stock of net external liabilities (79.6% of GDP in Q3-2019) is gradually declining, it remains large and exceeds prudential and fundamental-based benchmarks. However, the composition of external liabilities somewhat mitigates vulnerabilities.

([9]) Analyses relevant for the in-depth review can be found in the following sections: Public finances (Section 4.1.1); Financial sector and private sector debt (Sections 4.2.1 and 4.2.3); Labour market (Section 4.3.1); and Investment (Section 4.4.1). These sections are marked with a *.

Private sector deleveraging needs remain sizeable, despite a significant reduction of debt. Private sector debt, in consolidated terms, came to 130.6% of GDP in Q3-2019 (with household debt accounting for 57.4% of GDP and non-financial corporation debt for 73.2% of GDP). This is slightly below the MIP scoreboard threshold of 133%, but well above the prudential and fundamental-based benchmarks for both households and corporations.

The general government debt ratio is expected to have decreased slightly further in 2019, but it remains very high. The Commission's 2019 autumn forecast projects a decrease of 1.6 pps by 2021, to 96.0% of GDP. Despite being on a downward trend, the stock of public debt remains too high, posing significant risks for fiscal sustainability in the medium and long term.

Although unemployment has fallen rapidly, it remains very high. Unemployment for 15-74 years old stood at 13.8% in Q4-2019, following a reduction of 12 pps since its peak in 2013. However, this is the EU's second highest rate. Long-term and, especially, youth unemployment have also fallen steeply during this period, but more than 30% of the active population under 25 was still without a job in Q3-2019. Moreover, the share of temporary contracts (26.1% in Q3-2019) has not decreased in the last three years, which has a negative impact on potential growth, productivity, and social cohesion. Low productivity and potential growth, in turn, hinders the correction of imbalances.

The Spanish economy could be a source of significant spill-over effects to the rest of the EU. This stems from its relatively large size and its level of integration with other Member States,

Table 3.1: **Outward spill-over heat map for Spain**

EU partner:	AT	BE	BG	HR	CY	CZ	DE	DK	EE	EL	ES	FI	FR	HU	IE	IT	LT	LU	LV	MT	NL	PL	PT	RO	SE	SI	SK	UK
Imports	0.7	2.6	1.4	0.4	0.1	2.3	1.4	1	0.7	0.6		0.6	1.9	2.4	1.9	1.4	1.1	5.2	0.6	0.4	2.7	1.3	8.4	0.9	0.7	1.4	2.4	0.8
Imports (in value added)	0.5	0.9	0.8	0.5	0.2	1.1	0.8	0.6	0.5	0.3		0.5	1.0	1.3	1.5	0.8	0.7	1.8	0.4	0.8	0.8	0.8	3.6	0.7	0.5	0.7	1.1	0.7
Financial liabilities	6.2	10.6	0.9	0.3	1.8	0.2	8.3	3.9	1.7	4.9		2.7	14.9	1.5	24.4	8.1	0.7	303.1	2.4	14.2	32.6	0.4	22.6	0.1	2.9	3.0	2.7	7.1
Financial assets	1.3	3.7	2.7	0.3	1.3	0.9	2.1	1.6	0.6	6.6		1.4	7.1	1.6	25.4	10.3	0.1	256.0	0.2	7.8	18.5	4.1	37.7	1.0	0.7	0.2	2.2	4.5
Liabilities (to banks)	1.1	1.1					1.7			0.5		0.1	3.8		0.8	3.1					4.6	8.1			0.1			0.8
Bank claims	1.4	1.4	0.1	0.1	0.9	0.1	1.7	1.4	0.1	0.4		1.8	3.6	0.1	4.7	3.7	0.1	24.0	0.0	8.9	2.1	9.8	45.9	1.3	1.1	0.1	0.2	15.4

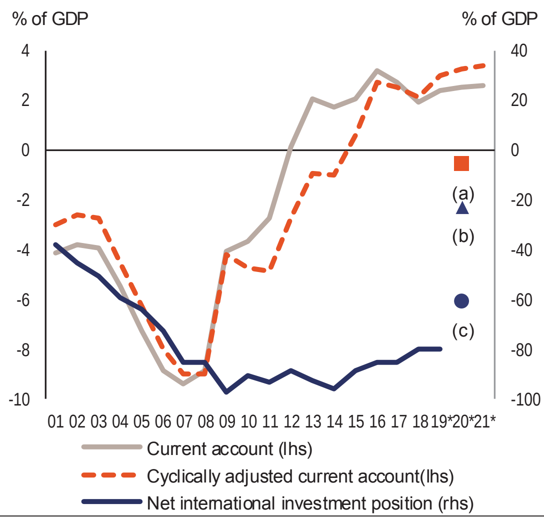
Note: cross-border figures for Spain, expressed as a% of the GDP of the partner country. The darkest shade of red corresponds to percentile 95 and the darkest shade of green to percentile 5. The percentiles were calculated for each variable based on the full available sample of bilateral exposures among EU countries. The blank spaces represent missing data. Data refer to: Imports - 2017, Imports (in value added) - 2015, Financial liabilities - 2017, Financial assets - 2017, Liabilities (to banks) – Q2-2019, Bank Claims – Q2-2019.
Source: IMF, OECD, TiVa, BIS and European Commission.

especially those with which Spain has significant trade links, such as Portugal, and financial and/or banking linkages (see Table 3.1). Box 3.1 includes a simulation that illustrates how a fully financed large public investment programme could boost economic growth in Spain, with potential spill-over effects on other Member States.

3.3. EVOLUTION, PROSPECTS, AND POLICY RESPONSES

External sustainability

Graph 3.1: Current account and net international investment position

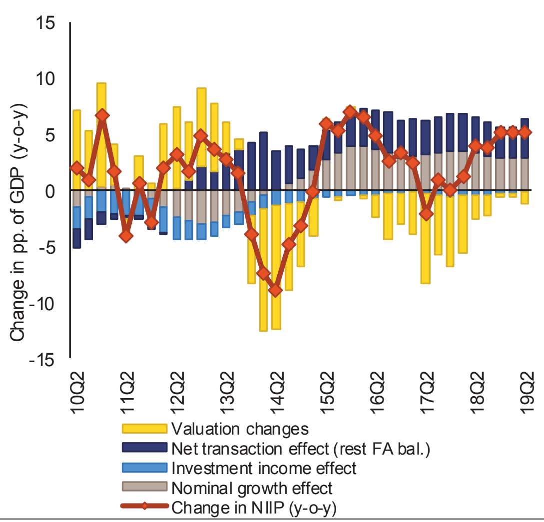


(*) years 2019-2021 are a forecast
(a) Current account required to stabilise the net international investment position at - 61% of GDP(prudential benchmark) by 2027 (lhs): -0.6% of GDP
(b) Benchmark for the net international investment position explained by fundamentals: -23% of GDP in 2019 (rhs)
(c) Prudential net international investment position benchmark: -61% of GDP in 2019 (rhs)
Source: Eurostat and own calculations.

Spain's current account surplus is above the level explained by fundamentals. The current account surplus is the result of a trade surplus in services, which more than offsets the trade deficit in goods (see Section 4.4.1). The trade deficit in goods, the main reason for which is a large deficit in energy products, has remained contained despite the closure of the output gap, contrary to previous expansions. In addition, export performance has evolved positively despite global trade tensions. Accordingly, the cyclically adjusted current account balance is expected to widen in 2019 to 3.0%, and to increase further this year and in 2021, when it is expected to reach a record high of 3.4% of GDP (see Graph 3.1). This also exceeds the current account norm explained by fundamentals, estimated to be a surplus of about 1% of GDP in 2018 [10].

Persistent current account surpluses are slowly translating into a narrowing of Spain's external net debtor position. High nominal GDP growth and continued external surpluses have driven a slow but steady narrowing of Spain's NIIP (see Graph 3.2) to 79.6% of GDP in Q3-2019. However, revised financial accounts reveal a slower reduction of Spain´s negative NIIP than previously estimated, on account of more negative valuation effects in recent years, and especially in 2017 and 2018. Looking ahead, continued current account surpluses and continued nominal GDP growth projected until 2021 are expected to result in further improvements in the NIIP.

Graph 3.2: Analysis of the rate of change of net international investment position



Source: Eurostat.

[10] The current account 'norm' benchmark explained by fundamentals is derived from regressions capturing the main determinants of the saving-investment balance (e.g. demographics, resources), as well as policy factors and global financial conditions. (see also European Commission, 2017d)

Box 3.1: Public investment and potential spill-overs

The European Commission's QUEST model ([1]) was applied to simulate the impact of a public investment package totalling €130 billion over 10 years. The assumed additional public investment is equivalent to 1% of GDP at its 2019 level, every year over a decade. This simulation follows the 2019 country-specific recommendations on investment-related economic policy. Consequently, the public investment package is assumed to include growth and productivity-enhancing expenditures on research and innovation, skills, the green transformation in the areas of transport, energy, carbon emissions, water management, recycling, and environmental damages from extreme weather events. For simplicity, the simulation assumes that neutralising fiscal measures in the form of increased indirect taxes are implemented. The output elasticity with respect to the public capital stock is assumed to be 0.12, which is a mid-range estimate (Arslanalp et al., 2010). Monetary policy is assumed to retain its accommodative stance at the zero lower bound for the first two years and gradually normalise afterwards.

A sustained increase in public investment would have positive domestic and cross-border spill-overs. The demand effect (higher export demand for foreign goods and services) leads to positive spill-overs, but investments also result in capital deepening and higher efficiency, which improves competitiveness towards trading partners. Whether the overall spill-over effect is positive or negative depends on the relative strength of the two effects. As seen in Table 3.1.a, under the stipulated assumptions, increasing the public investment rate in Spain boosts output and productivity (output per hour) as well as the trade balance and the public debt, thereby reducing current macroeconomic imbalances. It also shows that in spite of a relative loss of competitiveness of the rest of the euro area compared to Spain, the demand effect from a Spanish public investment programme could still generate a small, but positive spill-over effect to the rest of the euro area.

In this simulation exercise, the realisation of sizable positive spill-overs hinges upon an accommodative monetary policy ([2]**).** Assuming a prolongation of the accommodative stance beyond 2 years could result in even stronger effects on the GDP of the rest of the euro area. This gain is associated with the export demand effects from a stronger depreciation of the euro, and with a strengthening of the real interest rate decline. Conversely, a monetary contraction would neutralise the spill-overs onto the rest of the euro area or make them negative.

Table 3.1a:**Spill-over effects of a 10 year public investment programme in Spain**

Year	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Real GDP	0.21	0.11	0.17	0.29	0.42	0.54	0.65	0.76	0.85	0.95
Output per hour	-0.01	0.07	0.19	0.31	0.42	0.53	0.64	0.74	0.85	1.00
Trade balance-to-GDP ratio	0.08	0.17	0.32	0.45	0.53	0.56	0.56	0.54	0.51	0.46
Government debt over GDP	-0.67	-0.52	-0.62	-0.75	-0.94	-1.18	-1.46	-1.77	-2.12	-2.53
Rest of euro area										
Real GDP	0.08	0.08	0.06	0.05	0.05	0.05	0.05	0.04	0.04	0.04

Note: Figures are percentage changes in levels compared to the no-change scenario
Source: European Commission services model simulation

This simulation complements earlier QUEST simulations modelling a demand stimulus or structural reforms. Earlier simulations include an increase in public investment and a reduction in personal income tax (European Commission, 2017a), increases in expenditure on R&D and education (European Commission, 2018a), and implementation of structural reforms to close performance gaps (European Commission, 2019a).

([1]) Detailed information on the QUEST model and applications is available at: https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/economic-research/macroeconomic-models_en.
([2]) In the current monetary policy environment with nominal interest rates at the effective lower bound, higher euro area-wide inflation following the investment programme reduces the real interest rate. The lower real rate generates additional positive demand effects in the euro area. See also Christiano et al. (2011).

Table 3.2: **Current account balance and net international investment position sensitivity analysis**

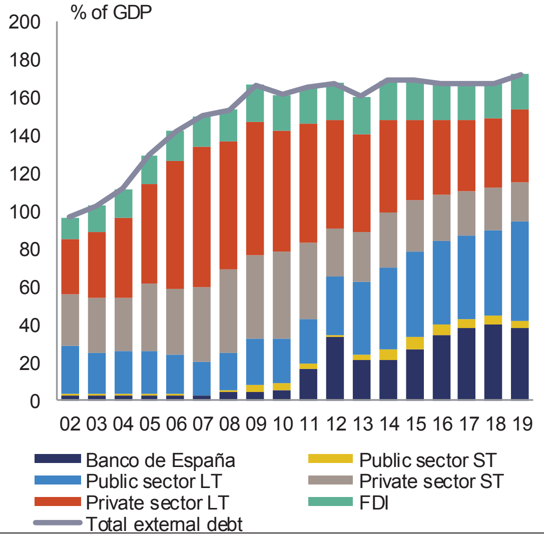
	Low nominal GDP growth (2.1% avg. 2019-28)	Baseline scenario (3.1% avg. 2019-28)	High nominal GDP growth (4.1% avg. 2019-28)
NIIP Stabilisation	-2.0	-2.9	-3.6
NIIP at -61% of GDP	-0.2	-0.9	-1.6
NIIP at -23% of GDP	3.9	3.4	2.9

(1) The table above shows the average current account required to reach a certain NIIP by 2029, based on the different stated assumptions for nominal GDP growth, assuming no NIIP valuation effects on average, and a stable capital account balance at its median level over 2018-20 (0.2% of GDP). See also European Commission, 2015, 'Refining the methodology for NIIP-based current account benchmarks', LIME Working Group 17 Jun 2015.
Source: Own calculations.

The composition of Spain's external liabilities in terms of instruments and maturity mitigates some of the vulnerabilities. The net international investment position excluding non-defaultable instruments (NENDI), which are the most risky type of external liabilities ([11]), stood at -54% in 2018, below the prudential threshold (-60%). The reduction of the NENDI since 2011 (20 pps of GDP), has been faster than that of the NIIP (a decline of 9 pps). This reflects an improvement in the net foreign direct investment (FDI) position due to a large foreign investment inflows, and somewhat reduces vulnerabilities. Moreover, a non-negligible part of external debt is central bank liabilities stemming from monetary operations of the Eurosystem (see Graph 3.3), which carry fewer refinancing risks than that of the private sector. In addition, most of the external debt has maturities of one year or more (about 76% of general government and private sector external debt, excluding intercompany loans), and average maturity has been increasing in recent years, further reducing risks.

Reducing decisively Spain´s large external liabilities would require maintaining large current account surpluses for sustained periods of time. Spain's NIIP is still far from a level that could be considered prudential (-61% of GDP in 2019) or in line with fundamentals (-23% of GDP) (see Graph 3.1) ([12]). Although at present the current account surplus exceeds the level implied by fundamentals (see footnote 12), further progress in reducing the NIIP could prove more challenging under less benign growth scenarios (see Table 3.2). Measures to raise non-cost competitiveness through investment in research and innovation, as well as improving labour skills have been modest so far (see Sections 4.3 and 4.4).

Graph 3.3: **Gross external debt by sector-type of financial assets**



(1) LT: long-term, ST: short-term, FDI: foreign direct investment
Source: Bank of Spain

Private indebtedness and deleveraging

Private sector deleveraging has advanced, but is now driven mainly by robust nominal GDP growth. In Q3-2019 consolidated private sector debt stood at 130.6% of GDP, 73.6 pps lower than

([11]) The instruments that make up the NENDI (mostly debt) are the most risky part of the NIIP as it excludes equity. Equity does not carry the same risks as debt for external sustainability, as its remuneration (e.g. dividend payments) can be adjusted during economic downturns, unlike debt.

([12]) The country-specific prudential threshold for the net international investment position is derived from a univariate signalling approach that identifies at which net international investment position level an external crisis is likely to begin. The net international investment position level explained by fundamentals represents the net international investment position that would result if a country had run its current account in line with fundamentals since 1995. See Turrini and Zeugner (2018).

its peak in 2009. Of this reduction, the largest decline is attributable to corporate debt (46 pps of GDP), but household deleveraging (27.6 pps of GDP) has also been significant. On the corporate side, the reduction in the total stock of debt has halted since 2018, as new credit has continued to flow and larger companies have continued to borrow by issuing securities, supporting investment. The total stock of debt has also remained unchanged for households since 2018, as there have been growth in new credit to finance durable consumer spending and for house purchases, coupled with a reduction in the repayment of mortgages. The latter should however be seen in relation to the reduction in total housing debt. Still, despite the stabilisation of the nominal stock of debt, the debt to-GDP ratio for both households and corporations has continued to decline, driven by robust nominal GDP growth. Overall, the private debt ratio decreased by 6 pps in 2018 (4 pps for NFC and 2 pps for households). The pace of deleveraging is expected to slow down in 2019, when the debt ratio is projected to decline by 4 pps (3 pps for NFC and 1 pp. for households).

Deleveraging needs remain for both corporations and households. The financial position of Spanish households has strengthened thanks to improvements in the labour market, and their financial burden has been reduced by the prevailing low interest rates. However, growth in in consumer credit may make households, especially the over-indebted ones, more vulnerable to adverse shocks (Bank of Spain, 2019d). Although the debt-to-GDP ratio is expected to be below the MIP threshold (133%) in 2019, it will still be well above prudential levels and fundamental-based benchmarks for both households and NFCs, indicating that deleveraging needs persist for both segments (see Section 4.2.3). In particular, NFCs debt is expected to reach 72% of GDP in 2019, against a prudential threshold of 58% and a fundamental-based benchmark of 60%. Household debt is projected to fall to 58% this year, also above prudential and fundamental-based levels of 41% and 43%, respectively.

The housing market keeps recovering, but activity slowed down in 2019. House prices, after rising for the last six years, are starting to decelerate. Still, they increased by about 5% in the year up to Q2-2019. The valuation gap is closing for the country as a whole (see Section 4.2.1), but there is considerable heterogeneity across regions, partly reflecting a still large stock of unsold houses in some areas and a buoyant rental housing market in others. The recovery of house prices does not seem to imply potentially harmful dynamics, but price developments in some regions deserve attention, raising concerns about affordability (see Section 4.2 and Box 4.2.1). Investment in residential construction has been increasing since the last quarter of 2015, but remains below pre-crisis levels (5% of GDP in 2018, compared to about 12% of GDP in 2006).

Public debt

Public sector debt remains very high, and its pace of reduction is expected to slow down. After falling by 3.1 pps of GDP between 2014 and 2018, public debt is projected to decrease slightly further, by 1.6 pps, by 2021. The decline is expected to be driven by nominal GDP growth and falling interest expenditure, while the primary balance is likely to remain broadly unchanged around zero. After a 0.5 pps. decrease, to 2.5% of GDP in 2018, the reduction in the general government deficit is expected to slow down, narrowing to 2.3% of GDP in 2019. In the absence of a 2020 budget law, the deficit is projected to decline further to 2.2% of GDP in 2020, and, assuming that there is no change in policies, to 2.1% in 2021. The average cost of debt is expected to continue falling as long as the cost of issuance remains below the average cost of outstanding debt. While there appears to be no immediate risk of fiscal stress, risks to fiscal sustainability remain significant in the medium to long term (see Section 4.1.1). Considered in isolation, the announced departures from the 2013 pension reform risk increasing the long-term cost of ageing. Unless offsetting measures are taken, sustainability risks would significantly increase. Discussions on these issues are expected to be resumed within the 'Toledo Pact' (the parliamentary committee dedicated to pension issues).

Limited progress was made in improving fiscal governance. The implementation of plans to strengthen the framework for public sector contracts and public procurement is pending.

Unemployment

Unemployment is set to continue falling, despite the projected slowdown in job creation. Employment growth is expected to slow in 2020 and 2021, in line with the cyclical slowdown. However, the unemployment rate is set to continue falling, to below 13% in 2021, which is still well above the EU average. There has been no reduction in labour market segmentation, despite an increasing share of permanent contracts among new jobs. A high level of labour market segmentation, long-term unemployment, and population ageing remain challenges for higher productivity and potential growth (see Section 4.3). In addition, the activity rate has started to decline as young people stay longer under education.

Wage growth is expected to have peaked in 2019, and to remain above inflation in 2020 and 2021. After growing by 1% in 2018, accelerated to 2.1% in 2019, resulting in the first increase in real wage since 2015. This is due to both the increase in the minimum wage enacted at the beginning of 2019, and rising negotiated wages in bargaining agreements. Although wage growth is expected to decelerate slightly, wages are forecast to continue growing at a rate above that of inflation in 2020 and 2021. After peaking in 2019, unit labour costs should rise more slowly in 2020 and 2021 as productivity growth is set to turn positive, but they should still grow faster than the euro area average. Consequently, Spain is expected to register small cost-competitiveness losses vis-à-vis the euro area in 2019 and 2020, which should become broadly neutral in 2021. However, cost-competitiveness gains accumulated in recent years are not expected to be reverted, and export market shares are expected to evolve favourably.

The minimum wage will further increase in 2020, though the impact on employment of the 2019 hike has not yet been quantified. When the increase in the minimum wage entered into force, in January 2019, employment was still growing robustly. Employment growth has slowed down since then, but on the basis of available information, it is difficult to assess at this stage the part of the slowdown that can be attributed to the minimum wage increase. However, data from Social Security affiliations indicate that employment for some groups in specific sectors (e.g., domestic workers, agriculture) is likely to have been affected. In January 2020, the government further raised the minimum wage by 5.6% (up to €950 in 14 instalments), in agreement with social partners. This is estimated to bring the minimum wage to approximately 60% of the median gross monthly earnings for a full time worker in 2020. In 2018, only three Member States and all with much lower unemployment rates, had a minimum wage above this threshold.

3.4. OVERALL ASSESSMENT

The reduction of macroeconomic imbalances in Spain has progressed further, but vulnerabilities remain. Private sector debt reduction has continued to advance driven by high nominal GDP growth, but deleveraging needs remain. The pace of debt reduction is expected to slow down as new credit flows increase. Public sector debt has been slightly reduced since its peak, a process that is expected to continue despite the projected general government deficits. The current account surplus is expected to increase this year, supported by structural improvements in trade performance, and is now above prudential and fundamental based levels. Persistent external surpluses are slowly translating into a reduction of external liabilities, but these remain very high. In particular, the level of external debt, although has been reduced, remains high. Unemployment is set to continue falling, despite a deceleration in job creation, but remains very high. Reducing long-term and youth unemployment, along with lowering the share of employees in temporary contracts, is critical to raise the growth potential of the Spanish economy. In addition, the low potential growth amplifies the risks related to Spain's macroeconomic imbalances, and hampers their unwinding.

Overall, policy action to reduce the stock of imbalances or their potential implications has been limited across most policy areas (see Table 3.3). General elections in 2019 and delays in forming a new government hampered the implementation of far-reaching reforms. Measures to reduce labour market segmentation have focused on fighting the abuse of temporary contracts. Limited progress was made with fiscal governance, notably regarding the implementation of plans to strengthen the framework for public sector contracts and public procurement. The departures from the 2013 pension reform will increase the long-term cost of ageing, unless they are offset by other measures. Reforms aimed at reducing skills mismatches, fostering research and innovation and improving the business environment have been delayed.

Table 3.3: **MIP matrix**

	Gravity of the challenge	Evolution and prospects	Policy response
	Imbalances (unsustainable trends, vulnerabilities and associated risks)		
External position	Spain has a highly negative but declining net international investment position, amounting to -79.6% of GDP in Q3-2019, mainly composed of debt instruments. This is above the level that could be considered prudential or in line with fundamentals. By institutional sector, the external debt of mainly the non-financial private sector, but also the public sector (mostly long-term securities), has declined.	The current account surplus was 1.9% in 2018, and is expected to increase to above 2% in 2019, 2020 and 2021. Since the economic and financial crisis, there has been a structural improvement in Spain's trade performance, as confirmed by the increase in the number of regular exporters, and as well as a reduction in the elasticity of imports to final demand, which plays an important role in preserving Spain's external surplus the next years. This is corroborated by the cyclically-adjusted current account balance, which has been in surplus since 2014. The negative NIIP has been improving since its trough in 2014. It was further reduced in Q3-2019 by 5.5 pps y-o-y, to -79.6% of GDP, also helped by high nominal growth. Continued current account surpluses and high nominal GDP growth projected until 2021 are expected to facilitate further improvements of the NIIP.	Restrained wage growth has largely contributed to restoring cost competitiveness. After years of moderation, nominal wage growth has resumed, and is expected to reach 2.4% in 2019 due to the impact of the increase of the minimum wage. It should moderate but still grow at a rate above inflation in 2020 and 2021. Productivity growth, which was negative in 2018 and 2019, should turn positive in 2020 and 2021. As a consequence, unit labour costs, after peaking in 2019, should grow more moderately, but still above the euro area average in 2020 and 2021. Still, cost-competitiveness gains accumulated in recent years are not expected to be reverted, and export market shares are expected to evolve favourably. Measures to raise non-cost competitiveness (through investment in research and innovation, as well as improving labour skills) have been modest so far (see Sections 4.3 and 4.4).
Public debt	Spain has a high level of public debt estimated at at 96.7% of GDP in 2019. While Spain does not appear to face fiscal sustainability risks in the short run, fiscal sustainability risks in the medium term are estimated to be high, primarily due to the initial level of government debt and budgetary position. (see Section 4.1.1).	Despite strong nominal GDP growth in recent years, the debt ratio has been declining relatively slowly (from a peak of 100.7% in 2014 to an estimated 96.7% in 2019), as a result of still high headline deficits. The Commission 2019 autumn forecast foresees the deficit to narrow only slightly in 2019, 2020 and 2021 (to 2.3%, 2.2% and 2.1% of GDP, respectively) despite relatively strong nominal GDP growth, resulting in a slight deterioration in the structural balance in both 2019 and 2020. The debt ratio is forecast to decrease only modestly to 96.6% of GDP in 2020 and 96.0% in 2021,.	Spain exited the Excessive Deficit Procedure on the 14 June, 2019, and is now subject to the preventive arm of the Stability and Growth Pact. There has been no progress in addressing the relatively large structural deficit, which is forecast to deteriorate slightly in both 2019 and 2020. There has been little progress in the areas of fiscal governance, notably regarding the implementation of plans to strengthen the framework for public sector contracts and public procurement. The departures from the 2013 pension reform will increase the long-term cost of ageing, unless they are offset by other measures
Private debt	The total stock of private non-financial sector debt stood at 130.6% of GDP (in consolidated terms) in Q3-2019. Of this amount, 57.4% of GDP corresponds to household debt, while corporate debt now stands at 73.2% of GDP in consolidated terms (95% non-consolidated). Although the debt-to-GDP ratio is expected to be below the MIP threshold (133%) in 2019, it will still be well above prudential levels and fundamental-based benchmarks for both households and NFCs, indicating that deleveraging needs persist for both segments. The deleveraging process is taking place at the same time as new credit towards households and companies as well as issuance of debt securities by NFCs are increasing. Real GDP growth has	The debt stock of the private sector has been reduced by about 73.5 pps of GDP since its eak in 2010. Most of the reduction is attributable to non-financial corporations (about 46.5 pps of GDP), but progress in households' deleveraging (by about 27 pps) has also been also remarkable. In 2019, the pace of debt reduction slowed down for NFCs, while the total stock of debt of households has stabilised since Q1-2018. There has been a significant growth in new credit for durable consumer spending, as well as the slowdown in the reduction in the outstanding volume of mortgage loans, which explains the halt of deleveraging on household debt. The historically low savings rate has recovered in 2019 and is projected to further increase slightly in 2020 and 2021, which should help the deleveraging process to resume. Banks have restructured their activity and cleaned up their balance sheets, and the non-	The reforms of the insolvency framework in 2014/2015 have facilitated debt restructuring and made insolvencies less onerous.

(Continued on the next page)

Table (continued)

	thus become the main driver of private sector deleveraging.	performing loans ratio for business in Spain has continued to decrease y-o-y by 1 pps to 5.3% in Q2-2019. At consolidated level, the NPL ration for Spanish banks decreased to 3.5% in June 2019, which is slightly above the EU average of 3%.	
Adjustment issues			
Unemployment	The unemployment rate stood at 13.8% in Q4-2019. The share of unemployed in long-term unemployment has declined below 40% and youth unemployment stands at more than 30%. Both rates remain among the highest in the EU (see Section 3.3). Persistently high unemployment hampers the adjustment process.	Unemployment has been declining rapidly, but it remains very high, especially for youth and the long-term unemployed. The unemployment rate is expected to fall to 12.8% in 2021. High levels of labour market segmentation (permanent vs. temporary employment) persist.	The minimum wage increased by 22.3% in 2019. As a result, labour costs have increased moderately in 2019. The overall impact on job creation cannot be quantified yet, but employment for some groups in specific sectors may have been affected. An additional increase of 5.6% in 2020 has been announced. This is estimated to bring the minimum wage to approximately 60% of the median gross monthly earnings for a full time worker in 2020. In 2018, only three Member States, with lower unemployment rates, had a minimum wage above this threshold. Measures to tackle labour market segmentations show limited success. Only the Plan for Decent Work 2018-2020 to fight against abuse of temporary contracts through more targeted labour inspections seems to be having some impact. More comprehensive reforms (e.g., hiring incentives, simplification of the types of contracts) are put on hold. The implementation of the new VET Strategy may contribute to reducing skill gaps and mismatches.

Conclusions from IDR analysis

- Spain is characterised by a combination of still large, but declining, stock of external and internal debt, both public and private. This leaves the country exposed to adverse shocks or shifts in market confidence, which could translate into a tightening of credit conditions on the international markets, which would have harmful implications for the real economy, especially given the still high level of unemployment.
- The current account balance is expected to stay in surplus at above 2% of GDP, and will continue to support a decline in net external liabilities. Progress continues to be made on NFCs debt reduction, while a stagnation in households deleveraging was observed since Q1-2018. Public debt has decreased slightly, with deficits forecast to narrow in the future. Unemployment remains very high, despite a substantial reduction.
- General elections in 2019 and delays in forming a new government hampered the implementation of far-reaching reforms. Policy progress regarding the implementation of recommendations has been limited in fields such as the fiscal framework, removing unnecessary regulatory burden on firms, reforming regulated professions, reducing skill gaps and mismatches and addressing the segmentation of the labour market.

(*) first column summarises 'gravity' issues, aiming to put the imbalances in order of magnitude. The second column reports findings concerning the 'evolution and prospects' of these imbalances. The third column reports recent and planned measures. Findings are reported for each source of imbalance and adjustment issue. The final three paragraphs summarise the overall issues, in terms of their gravity, developments and prospects and the policy response to them.
Source: European Commission.

4. REFORM PRIORITIES

4.1. PUBLIC FINANCES AND TAXATION

4.1.1. DEBT SUSTAINABILITY AND FISCAL RISKS*

The general government debt ratio is only slowing decreasing and remains high. After peaking at 100.7% of GDP in 2014, it had fallen by about 3 percentage points to 97.6% of GDP by the end of 2018. The Commission 2019 autumn forecast projects a further slight decrease to 96.0% of GDP by 2021. The decline is entirely driven by a still favourable interest rate-growth rate differential, which is partly offset by debt-increasing effects stemming from the primary balance and stock-flow adjustments. As the private sector debt ratio has declined faster than the government debt ratio, general government debt now makes up a much larger share of the total indebtedness of the economy. At around 44% in the first half of 2019, the share has more than doubled since 2010, the year in which private sector debt peaked.

The lower interest rates in recent years have allowed the Spanish Treasury to extend maturities. The average life of outstanding debt increased significantly from a low of 6.2 years in 2013 to around 7.5 years in 2018. In 2019, the pace slowed down, with average life edging up only slightly to 7.6 years in November. After falling steeply from a peak of around 4% in 2011, the cost at issuance remained stable at around 0.6% in 2015-2018, before decreasing further to around 0.3% in November 2019. The low cost at issuance has continued to exert downward pressure on the cost of outstanding debt, which stood at slightly below 2.4% in November 2019, down from around 4.0% in 2011. The rolling-over of maturing debt and the coverage of new financing needs at low rates are likely to result in further decreases in the cost of outstanding debt in the near future. After peaking at 3.5% of GDP in 2013, interest expenditure gradually decreased to 2.4% of GDP in 2018.

Spain does not appear to face immediate risks of 'fiscal stress', but sustainability risks are high in the medium term and medium in the long term ([13]). The value of the early-detection indicator of fiscal stress, the S0 indicator, is below its critical threshold. However, some fiscal variables point to possible short-term challenges, especially if financial markets' perceptions were to change rapidly. Among the variables with a value above their critical threshold are the gross financing needs, the cyclically-adjusted deficit and net government debt. Financial markets' perceptions of Spain's sovereign risk remained fairly stable in 2019, with most of the major rating agencies maintaining their rating and S&P even upgrading it by one notch in September 2019 (Moody's: Baa1, S&P: Au, Fitch: A-, all with a stable outlook). The 10-year sovereign yield spread against the German bund has narrowed somewhat compared to the situation in 2018. According to the Commission 2019 autumn forecast, Spain is forecast to have a structural government deficit of at least 3% in both 2020 and 2021, reflecting a relatively low level of taxation in relation to expenditure. This is still some way from the medium-term objective of having a zero structural balance.

Spain faces high fiscal sustainability risks in the medium term. This conclusion is based on both the sustainability gap indicator (S1) and a debt sustainability analysis. The former indicates that Spain's structural primary balance would need to improve by 3.8% of GDP in cumulative terms over the five-year period to 2026 relative to the baseline 'no-fiscal policy change' scenario to bring the debt-to-GDP ratio to the reference value of 60% by 2034. This would require an ambitious structural primary balance by European standards ([14]). About three quarters of the very significant S1 value are attributable to the distance of the debt ratio from the 60% reference value and, to a somewhat lesser extent, to the unfavourable initial budgetary position, but only to a limited extent to the projected age-related public spending. However, these numbers are based on the same policy assumptions as those underlying the 2018 Ageing

([13]) For details on the European Commission's assessment of fiscal sustainability risks in the short, medium and long term, see European Commission (2020b). In this year's Country Report, long-term sustainability risks are assessed by the S2 indicator in conjunction with the debt sustainability assessment. See also Annex B for an overview.

([14]) Only 17% of the structural primary balances recorded for the EU countries over 1980-2019 were greater than this value.

Report (European Commission, 2018d). The recent policy debate on pensions indicates that the mechanism by which pensions are revalued may undergo changes in the near future. In particular, the Commission services estimate that the relinking of pensions to inflation announced by the new coalition government in its programme could lead to an increase in pension expenditure by 2050 of around 4% of GDP. This estimation is close to projections made by the Bank of Spain, the IMF and the think tank FEDEA, but above the estimate of AIReF (2% of GDP) (see Box 4.1.1 of European Commission, 2019a). The new government has also announced its intention to eliminate the sustainability mechanism included in the 2013 reform aimed at adjusting the initial pension level to changes in life expectancy. According to preliminary estimates by the Commission services, this would add at least 0.7% of GDP to long-term pension expenditure.([15]) Eliminating both elements of the 2013 reform risks benefitting today's pensioners at the expense of future generations, unless offsetting measures are implemented. Even when implementing fully the 2013 reform, Spanish pensioners would in the long-run still be expected to enjoy replacement rates above the EU average.

A debt sustainability analysis shows that the Spanish general government debt is expected to fall slightly to 95.7% of GDP by 2030 (last projection year). This projection, which assumes normal economic conditions and a constant structural primary balance after the last Commission forecast year (2021), is driven by a gradual worsening of the primary deficit being only partly offset by a favourable and decreasing interest rate-growth rate differential in 2021-2024, and by a constant primary deficit being more than offset by favourable snowball effects thereafter. The analysis also shows that the level of the debt ratio is highly sensitive to shocks (see Box 4.1.1).

([15]) This projection is based on the following assumptions: i) it is based on the data included in the 2018 Ageing Report; ii) it refers to old-age and early pensions only; iii) pension indexation with IPR as per current legislation; iv) average life expectancy across cohorts of 25 years at the exit from the labour market, meaning that pensioners would enjoy higher benefits from the elimination of the Sustainability mechanism during an average of 25 years; v) no behavioural changes in terms of quicker shifts from working life to pension due to the decision to eliminate the Sustainability mechanism.

In the long term, Spain faces a medium fiscal sustainability risk. This conclusion stems from combining the sustainability gap indicator (S2) with a debt sustainability analysis perspective described above. The former shows a gap of 1.8% of GDP that needs to be closed to stabilise debt over the long term. The gap is mainly due to the unfavourable initial budgetary position, though also, to a limited extent, to the projected ageing costs. As was the case for the S1 indicator, the S2 indicator is also based on assumptions regarding pension expenditure that may prove too low, if the announced reversals of some of the pension reforms materialise. Under the more adverse Ageing Working Group risk scenario (whereby healthcare and long-term care costs would exceed those expected from purely demographic factors due to non-demographic drivers such as technological changes and catching-up effects), the S2 indicator would double, to 4.0% of GDP.

4.1.2. FISCAL FRAMEWORK

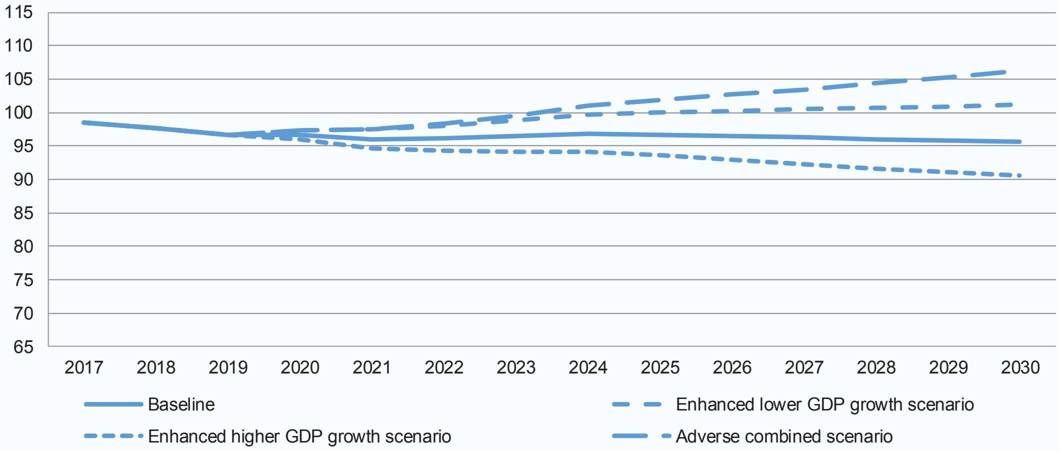
Limited steps have been taken to improve public procurement and the fiscal framework. The law on public sector contracts entered into force in March 2018. It was designed to establish a more consistent public procurement framework, but the governance bodies for which the law provides, are not yet fully set up or completely operational, and the adoption of the nation-wide public procurement strategy has been delayed. The effectiveness of the new law will depend crucially on the resources allocated to its implementation and the degree of ownership at all levels of government (see Section 4.4.2). On 4 February 2020, the Council of Ministers adopted a Royal Decree Law on contracts of entities operating in the sectors of water, energy, transport and postal services, which – once validated by the Parliament – aims at finally completing the transposition of 2014 Public Procurement Directives. There have been no other steps to strengthen the fiscal framework, such as making use of the mechanisms to prevent and correct deviations from the fiscal targets more automatic and strengthening the contribution to fiscal consolidation of the domestic spending rule (see European Commission 2018a, p.28-29, and European Commission 2018b).

To improve the efficiency of public spending, key areas are undergoing thorough reviews. Spain's Independent Authority for Fiscal Responsibility (AIReF) completed seven expenditure reviews in 2019 and four new reviews are underway. They have the potential to lead to improvements in the efficiency and effectiveness of public spending (see Box 4.1.2). Implementation of the recommendations based on the completed reviews has started, but it will be mainly up to the new government to bring the results of the reviews to fruition.

Box 4.1.1: General government debt

The government debt trajectory has been simulated under different scenarios. Under the baseline scenario, general government debt is forecast to decrease slightly until 2021, then rise again to 96.9% of GDP by 2024, before falling again by the end of the projection period in 2030, by which time it will amount to about 95.7% of GDP. The baseline, derived from the Commission 2019 autumn forecast, is consistent with the forecast implicit interest rate and the shares of short-term and long-term public debt. It makes a number of technical assumptions. First, over the post-forecast period, the structural primary balance (before the cost of ageing) is set constant at the value projected for 2021, at -1.0% of GDP, on the assumption that no further structural adjustment is made. The cyclical component of the primary balance is calculated using (country-specific) budget balance sensitivities over the period until output gap closure is assumed (2024). Second, the nominal interest rates on new and rolled-over debt are assumed to converge linearly to market-based forward rates (in particular, the long-and short-term interest rates are assumed to converge to 1.7% and 0.4%, respectively) by the end of the 10-year projection period. ([1]) Third, the GDP deflator is assumed to change linearly until it reaches 1.9% in 2024 and to remain constant thereafter. Fourth, the stock-flow adjustment is set to zero after 2021. Finally, medium-term real GDP growth projections are based on the T+10 methodology agreed with the Economic Policy Committee. This implies that medium-term real GDP growth is assumed to average 1.0% both in 2019-2024 and in 2025-2030.

Graph 4.1.1: **Debt as% of GDP - ES**



Source: European Commission.

More favourable assumptions on real growth would lead the debt ratio to follow a lower path to reach 90.5% of GDP in 2030. By contrast, under more unfavourable assumptions on GDP growth and interest rates, the debt ratio would increase to 106.3% of GDP by 2030.

([1]) This constitutes a change with respect to the previous interest rate methodology (European Commission, 2019i).

4.1.3. TAXATION

Spain has a low tax-to-GDP ratio compared with other EU Member States. In 2018, its tax revenues amounted to 34.7% of GDP, compared with EU and euro area averages of 39.2% and 40.6%, respectively. The share of consumption taxes remains relatively low, at 9.4% of GDP, also reflected in a relatively low implicit tax rate on consumption of 13.8%, below the EU/euro area averages of 16.9% and 16.8%. At 16.8% of GDP, the share of taxes on labour also remained below the EU average of 19.6% of GDP, with an implicit tax rate of 34.2% in 2018.

Box 4.1.2: **Spending reviews**

The use of spending reviews has risen across Member States since the financial crisis, given the need for fiscal consolidation and the call to improve the quality of public spending. In 2017, the Council recommended that Spain undertake a comprehensive expenditure review in order to identify possible areas for improving spending efficiency (Council of the European Union, 2017). In response, the government commissioned AIReF, Spain's independent fiscal institution, to carry out a number of targeted spending reviews, mostly within the central government sector (with the cooperation of the sub-national government level), over the following three years, to identify potential savings or efficiency gains.

The 2018 reviews comprise seven evaluations focusing on specific subsidy programmes, in the following areas: prescription drugs ([1]), active labour market policies, university education scholarships, promotion of talent and employability in R&D and innovation (pre- and post-doctoral aid programmes), the re-industrialisation and industrial competitiveness programme, the Spanish national postal service, and, finally, an overall evaluation of the strategy and procedures for granting subsidies. AIReF's methodology has been to assess the efficiency, effectiveness, and the adequacy and suitability of the instruments used and of the overall framework.

The review of healthcare spending in medication dispensed through prescriptions, excluding hospital spending, covered about €10 billion of total public expenditure. This represented about 14% of public healthcare expenditure or 0.9% of GDP in 2017. Following a thorough review, 18 measures were proposed to improve governance; procedures to do with the pricing, selection and purchase of medicines; and efficiency and equity (see also Section 4.3.4). Not all potential savings are easy to quantify, but if the recommendations were implemented in the next few years, AIReF estimates this could yield savings of at least €2 billion (AIReF, 2019a)

The main purpose of the other six spending reviews was to identify inefficient policies, procedures or requirements, without having specific saving targets. First, the review of active labour market policies, covering about €6.5 billion of public expenditure in 2017, highlighted 27 proposals for improvement. Serious deficiencies and shortcomings have been identified, calling into question the quality of public spending (or best value for money) in this area. This indicates a need for a far-reaching discussion of how national employment system works. In particular, the evaluation of the PREPARA programme showed that it was not effective (see also Section 4.3.1). Training courses provided for unemployed people have not been sufficiently evaluated, and there is a lack of information and data in general for better monitoring of results (AIReF, 2019b).

Second, the university scholarship system accounted for €812 million of public expenditure in the 2016-2017 academic year, representing about 25% of the budget of the Ministry of Education and Vocational Training (since most funds earmarked for education are disbursed at regional level). This scholarship system is a cornerstone of education policy, designed to guarantee equal opportunities. AIReF issued 13 proposals, notably to bring forward the calendar and improve procedures so that scholarships are granted in good time and the amounts made available are allocated in proportion to individual students' needs (AIReF, 2019c).

Third, AIReF issued 19 recommendations for improving the State Programme for the Promotion of Talent and its Employability in Research, Development and Innovation. This programme benefited from €305 million in 2017, about 5% of the R&D+I budget. Although the programme is a relatively small budget item, the funds earmarked for it have fallen sharply, although serious challenges remain in terms of boosting Spain's competitiveness and productivity (see Section 4.4.1). In particular, AIReF recommended a strategic reorientation of the Programme, focusing on excellence, reviewing the coverage and generosity of grants, fostering public-private collaboration in grants, and optimising the processes making up the Programme's grants system (AIReF, 2019d).

Fourth, AIReF proposed that the Reindustrialisation and Industrial Competitiveness programme should be redefined with regard to the programme's strategic framework, the specific objectives to be met, its scope, the type of instruments and its management model. Close to €4.9 billion was granted in loans between 2008 and 2016, and the outstanding balance was €3.3 billion by the end of 2017. Overall, the analysis found that results are negligible compared with the administrative costs and overall amount of loans granted through the programme (AIReF, 2019e).

Fifth, the evaluation (including international comparisons) of the postal service operator and the provision of the universal postal service highlighted deficiencies regarding the compensation mechanism and the functioning of the operator. Eight measures were proposed to improve the operation of a service accounting for €1.45 billion of public expenditure between 2011 and 2020 (AIReF, 2019f).

Sixth, the cross-cutting review of strategy and procedures followed when granting public subsidies highlighted that the regulatory framework is outdated, the strategic planning is inconsistent and the inter-administrative coordination mechanisms (involving the use of sectoral conferences) are rather ineffective. AIReF suggested, among other things, developing a new system of strategic planning, monitoring and assessment of public policies and revising the General Subsidy Law and Regulation in terms of scope and content. It also suggested improving sectoral conferences by making them more participatory and specialised, instead of limiting them to the distribution of funds from central to regional government, as observed in some instances (AIReF, 2019).

The 2019 reviews comprise four evaluations focusing on specific expenditure items: expenditure on hospitals, investment in public transport infrastructure ([2]), hiring incentives, and tax benefits. The review of spending on tax benefits is wide-ranging, representing 2/3 of tax benefits or €23.5 billion granted in 2018. The four reviews are expected to yield first results in 2020.

Overall, the first phase of the spending reviews has had a clear impact in the public debate on transparency and accountability. It has also promoted an evaluation culture. Work has started on implementing the recommendations stemming from the reviews, but it has been limited by the caretaker nature of the government in 2019. In its Draft Budgetary Plan for 2020, the government set out its policy aims of implementing the results of three spending reviews (i.e. prescription drugs, framework for subsidies, and hiring incentives).The Draft Budgetary Plan therefore included savings on social transfers (€50 million in 2019 and €200 million in 2020) and on subsidies (to limit their growth to 1% year-on-year as from 2020 in nominal terms), and incorporated higher revenues from social contributions (€500 million in 2020).

These spending reviews were a high-quality one-off initiative, which could prove valuable if thoroughly implemented by the authorities responsible and taken into account when drawing up future budgets. The last phase (2020 reviews) has not started yet.

([1]) With support and financing from the EU Structural Reform Support Programme.
([2]) With support and financing from the EU Structural Reform Support Programme.

The total tax-revenue-to-GDP ratio has risen above the level that prevailed in the years prior to the boom and bust episode of a decade ago. After peaking at 36.5% of GDP in 2007 and bottoming out at 29.7% of GDP in 2009, total tax revenues have gradually recovered and, as indicated, reached, 34.7% of GDP in 2018 (European Commission, 2020d). While personal income tax revenues are clearly above their pre-boom average, corporate income taxes still fall short of that level.

The level of taxation remains relatively low in relation to expenditure. As noted, according to the Commission 2019 autumn forecast, Spain is forecast to have an average structural government deficit of more than 3% of GDP in 2020-2021, the largest in the euro area. Due to the difficulties of forming a government and securing a parliamentary majority for a 2020 budget law, parliament was dissolved in September and general elections took place in November 2019. A new government has been formed in January 2020, but the 2018 budget law has been further extended until a new budget law is adopted.

The new coalition government programme has announced increases in expenditure on health, education and housing, amongst others. The programme also announces measures to increase revenues, such as a higher effective corporate tax rate (although the tax rate for SMEs is set to be lowered from 25% to 23% for firms with less than €1 million turnover) and higher top rates in personal income taxation, as well as the introduction of new taxes (on certain digital activities and on financial transactions). However, the impact of the announced measures still has to be assessed. Meanwhile, there remains scope to increase revenue from other taxes like consumption taxes, recurrent property taxes and environment-related taxes, with relatively limited impact on economic growth.

Spain collects relatively little value added tax (VAT) revenues, despite a very low compliance gap and a standard VAT rate close to the EU average. This is due to extensive use of reduced and super reduced rates, resulting in a large VAT rate gap. In 2017, it stood at 13%, above the EU average of 10% (European Commission, 2018e). While the reduced rates in Spain have some progressive effect on average – almost entirely because of lower rates on food – lower rates on many items are actually regressive. This is true, for instance, of the reduced rate for restaurants and hotels. In contrast, the VAT compliance gap continued to narrow. This gap – calculated as the difference between the theoretical VAT liability and the revenue actually received as a percentage of the former – came to 2% in 2017 (down from a peak of 12% in 2013). This is significantly below the EU average of 11%.

Environmental taxes in Spain are still below the EU average, despite increases in recent years. They came to about 1.8% of GDP in 2018, compared with an EU average of about 2.4% of GDP. They are also relatively low when measured as a share of tax revenues. In particular, energy taxes (including transport fuel taxes) yielded little revenue and amounted to about 1.5% of GDP in 2018, compared with an EU average of about 1.9%. In 2018, transport taxes accounted for 12.7% of total revenues from environmental taxes, compared with an EU average of about 19.7%. For example, excise taxes on diesel and petrol are relatively low in Spain (see also Section 4.5).

The draft National Energy and Climate Plan submitted to the European Commission in February 2019 tasks the Ministry of Finance with coordinating a study on how to reform the tax system in order to facilitate a low-carbon economy. Environmental taxes are generally considered less detrimental to growth than other taxes, such as those on labour. They can provide an incentive to limit environmentally damaging activities by integrating the full cost of the latter in the price. However, care should be taken to ensure that the design of the tax system maintains its revenue-raising capacity in the long-run. The distributional effects of environmental taxes depend on how the additional fiscal revenue is used to compensate low-income households (Zachmann, 2018). A more coherent environmental taxation structure in Spain could help address the environmental challenges described in Section 4.5.

Spain relies to a relatively low extent on recurrent property taxes. While revenues from property taxation in Spain are slightly above the EU average (2.6% compared with 2.5% of GDP in 2018), the recurrent element is below the EU average (1.2% of GDP compared with 1.5% in 2018), while transaction taxes exceed the EU average (1.5% compared with 1.0% of GDP in 2018). Recurrent property taxes are considered to be among those least detrimental to growth and are preferable to transaction taxes, as they allow a more efficient allocation of assets and higher labour mobility.

The R&D tax credit, although generous, is producing relatively limited results and the debt bias remains high. Despite the high implicit R&D tax subsidy rate, well above 30% (OECD, 2018), the business R&D intensity rate was only 0.7% of GDP in 2018, ranking in the bottom third in the EU. Moreover, large firms tend to be more responsive to it than small ones. Another issue is that the tax credit introduces a relative advantage for debt financing (compared to equity). While figures show a reduction in this debt bias, it remains relatively high (in fact, it is the second highest in the EU). A further reduction could encourage more equity investment.

The ageing of the tax authority's workforce is an area of concern. OECD data on the human resources of the Spanish tax administration shows a high level of ageing staff; in 2017 only around 17% of the workforce was younger than 45. This figure needs to be read in conjunction with 2017 data showing that Spain has the lowest number of tax agents per head of population of all EU countries in the OECD (OECD, 2017). This points to possible shortages of human resources in future, with an adverse impact on tax collection. Procedures to hire 1300 civil servants were launched in 2019 (tax inspectors, tax technicians, tax agents, custom police agents and auxiliary officials).

4.2. FINANCIAL SECTOR

Macro-financial stabilisation has continued, yet emerging risks need to be closely monitored. Amid continued robust economic activity, Spanish yields have decreased and its sovereign rating has been raised. Financial sector reform and stabilisation policies have been maintained. Banks enjoy overall relatively good profitability, strong liquidity and adequate capitalisation, and they continued to reduce their non-performing loans (NPL). Access to finance is considered the least important obstacle by firms, including SMEs. Finally, private sector debt has continued declining. However, economic growth is weakening, and banks' profitability remains affected by the very low interest rate environment. The banking sector's NPL ratio is still higher than the EU average, and moderation in real estate market activity could slow down sales of non-performing real estate assets by banks. Venture capital remains underdeveloped. The pace of reduction of private sector debt slowed down and deleveraging needs persist.

4.2.1. FINANCIAL SECTOR *

The Spanish banking sector enjoys strong liquidity and adequate capitalisation, but profitability remains under pressure. In recent years, the improving economic climate, declining credit risk, better operational efficiency along with the significant improvement in asset portfolio quality contributed to the strengthening of the sector's profitability. At the end of 2018, the return on equity stood at 7.3%. While this is among the highest ratios in the EU, it remains below its pre-crisis level. In addition, in the first half of 2019, Spanish banks' consolidated profit was down by 11.5% year on year. Their return on equity decreased by 1 pp. to 6.6% and the return on assets fell by 8 basis points to 0.49%, according to Bank of Spain data. According to European Central Bank (ECB) data, the common equity tier 1 (CET 1) ratio of Spanish banks increased by 40 basis points year-on-year, to 12.2% at the end of June 2019, higher than the required levels for all credit institutions but still below the EU average (15.0%). The EBA (2019) estimated that once Basel III is fully implemented, capital requirements might somewhat rise for the Spanish banks.

Spanish banks continued to reduce their non-performing loans (NPLs) during 2018 and the first half of 2019. The share of NPLs in total loans (as reported by Bank of Spain based on domestic activity) went down by 1 pp. to 5.3% in June 2019 year-on-year, in a context of slightly decreasing volumes of credit. When the foreign activity of Spanish banks is taken into account, ECB data show that the NPL ratio for Spanish banks decreased to 3.4% in June 2019, still slightly above the EU average of 2.9% (see Table 4.2.1).

Asset recovery by the asset management company SAREB ([16]) is progressing, but at a slow pace. After 43% of SAREB's expected lifetime (from its inception in 2013 until 2027, when it is supposed to be liquidated), 34% of assets have been sold and 30% of senior debt has been repaid. Sales have recently slowed down, partly due to the moderating real estate market activity but also the new strategy of SAREB, aimed at recovering real estate collaterals with in-house capacity rather than selling NPLs. The new strategy may eventually deliver higher recovery values, but its implementation will have to be closely monitored as it might entail high operating costs and could pose risks to the materialisation of the planned recoveries within SAREB's lifespan.

The outstanding volume of credit to the private sector is still decreasing. In September 2019, it was 1.6% lower than a year before. The reduction was driven by the decline in the stock of credit to non-financial corporations (NFCs) (-2.5% year-on-year in September 2019) (Graph 4.2.1), reflecting the clean-up of NPLs, but also decelerating new lending, especially to SMEs. By contrast, the stock of domestic credit to households remained flat; while mortgage loans continued to decline (by 1.4% year-on-year in September 2019), consumer credit increased further (8.3% year-on-year in September 2019). According to the Bank Lending Survey (Bank of Spain, 2020), in the fourth quarter of 2019, credit standards for approving loans tightened for enterprises, as well as for households for house purchases and

([16]) SAREB (Sociedad de gestión de Activos procedentes de la Reestructuración Bancaria) is an asset management company that was created to divest the assets transferred from the old savings banks and help the economy recover. 54% of its share capital is owned by private shareholders, but the main shareholder (46%) is the public Fund for Orderly Bank Restructuring (FROB).

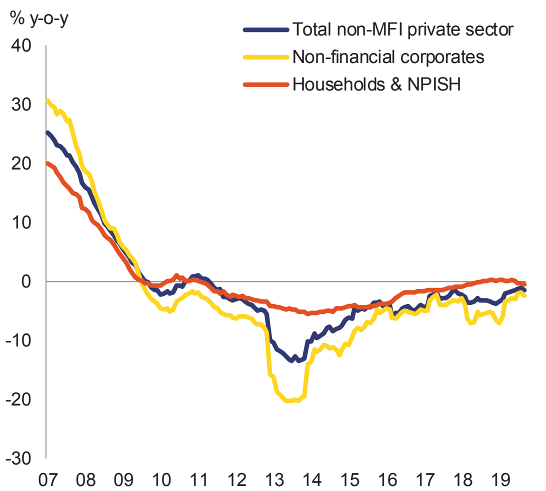
Table 4.2.1: **Financial soundness indicators, all banks in Spain**

	2014	2015	2016	2017	2018q1	2018q2	2018q3	2018q4	2019q1	2019q2
Non-performing loans	8.1	6.3	5.7	4.4	4.4	4.1	4.0	3.7	3.6	3.4
o/w foreign entities	10.4	8.1	5.0	3.2	3.1	2.8	2.9	2.9	2.9	2.8
o/w NFC & HH sectors	10.1	8.1	7.3	6.1	-	5.6	5.4	5.0	4.9	4.7
o/w NFC sector	16.4	12.8	10.9	7.9	7.4	6.8	6.5	5.9	5.7	5.3
o/w HH sector	5.3	4.5	4.5	4.4	4.4	4.3	4.2	4.0	3.9	3.8
Coverage ratio	46.4	46.8	45.0	42.7	45.2	44.7	44.1	43.7	43.7	43.9
Return on equity(1)	6.7	6.6	5.0	7.0	9.6	8.9	8.9	8.2	8.3	7.6
Return on assets(1)	0.5	0.5	0.4	0.5	0.7	0.7	0.7	0.6	0.6	0.6
Total capital ratio	13.6	14.5	14.7	15.4	15.1	15.1	15.2	15.4	15.2	15.4
CET 1 ratio	11.8	12.7	12.8	12.6	12.0	11.8	12.0	12.2	12.1	12.2
Tier 1 ratio	11.8	12.7	13.0	13.2	13.2	13.2	13.4	13.5	13.4	13.5
Loan to deposit ratio	90.3	91.7	92.5	89.3	89.8	89.9	90.1	90.6	91.1	92.3

(1) Annualised data.
(2) Domestic banking groups and standalone banks, foreign (EU and non-EU) controlled subsidiaries and foreign (EU and non-EU) controlled branches
Source: ECB - CBD2 - Consolidated banking data; own calculations.

consumer credit. Net demand for loans to enterprises and housing loans to households declined during the fourth quarter.

Graph 4.2.1: **Loans to the private sector**



Source: Bank of Spain, own calculations

Resolution plans have been drafted or approved for all Spanish banks, including significant, less significant and small institutions. The Minimum Requirement for own funds and Eligible Liabilities (MREL) targets set based on the Directive 2014/59/EU on Bank Recovery and Resolution may pose some challenge for some smaller Spanish banks.

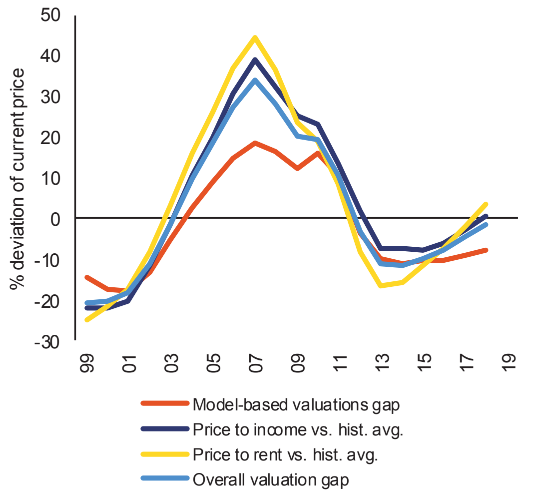
The non-banking financial sector has shown an expansionary profile in recent years. In the low-interest rate setting prevailing in recent years, the performance of the specialised lending institutions (SLI), insurance companies, investment funds and pension funds has generally shown an increased activity with broadly positive profitability levels, according to Bank of Spain data. Credit granted by SLIs has increased steadily, and their profitability is higher than that of deposit-taking institutions' business in Spain. The main insurance companies have also increased their assets, whereas their return on investment has remained relatively stable. In 2019, the pension funds' assets as well as investment funds' assets increased as a result of positive returns.

4.2.2. THE HOUSING MARKET

The Spanish housing market continues to recover, though activity slowed down in 2019. While the housing market and construction sector have continued to recover from the sharp adjustment that followed the crisis, several indicators of housing activity, such as the number of housing transactions and new mortgages, slowed down in 2019. This is probably due, to some extent, to changes in the mortgage legislation enacted in the first months of the year. The supply of new housing has been increasing over the last three years (by about 9% year-on-year on average between 2015 and 2018), but started to slowdown in mid-2018.

Average house prices in Spain stopped accelerating in 2019, but there were large differences across regions. Unsubsidised house prices increased by 4.7% year-on-year in the third quarter of 2019. Prices of new dwellings went up by 6.6% and those of used dwellings by 4.4%, indicating a deceleration in both cases relative to their previous accelerating path. Despite this increase, house prices remain below the pre-crisis peaks, in both nominal and real terms (by around 18% and 30%, respectively). According to some price valuation indicators ([17]), house prices are still undervalued in Spain, but other indicators suggest the gap has closed (see Graph 4.2.2). House price developments vary greatly across regions, with larger increases in the major cities and the coastal areas, which have made housing less affordable, especially in the rental market and for younger households (see Box 4.2.1).

Graph 4.2.2: **Overvaluation gaps based on price/income, price/rent and fundamental model-based benchmarks**



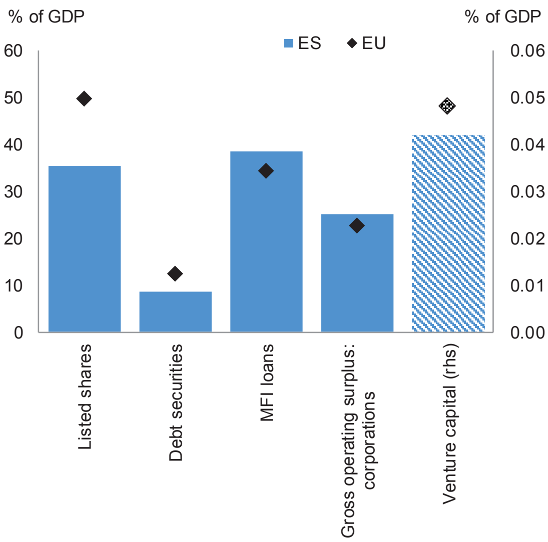
(1) Philiponnet and Turrini (2017)
Source: Own calculations

4.2.3. ACCESS TO FINANCE

Access to finance is not the most important concern for firms. The latest Survey on Access to Finance of Enterprises in the euro area (SAFE) conducted by the ECB, covering the period April to September 2019, shows that Spanish firms still perceive "finding customers" and "availability of skilled staff or experienced managers" as the more prominent concerns, while access to finance is perceived by Spanish firms as one of the least important concerns. As in all other EA countries, Spanish SMEs continue to be more concerned than large companies. In the former group, this concern increased over the six months covered by the survey, while the request of a guarantee to SMEs remains fairly common: among those ones that obtained bank financing in 2018, near half of them (48%) were requested a guarantee (CESGAR, 2019).

Bank-related products remain the most relevant source of financing for firms, especially SMEs. According to the latest SAFE survey, the three most important sources of financing are bank loans (relevant for 55% of SMEs, 45% at EU level), credit lines (47%) and trade credit (45%). Only 4% of surveyed SMEs said they used equity. Spanish firms, and especially SMEs, continue to rely more on loan financing than on equity compared with the EU average (see Graph 4.2.3). Unlike the other three largest euro area economies, Spanish SMEs indicated increasing needs for bank loans and credit lines.

Graph 4.2.3: **Sources of financing of the Spanish economy, 2018**



Source: Ameco, ECB, Invest Europe.

([17]) The analysis of price valuations is based on an average of three metrics: (i) affordability gap (price-to-income deviation with respect to its long-term average); (ii) dividend gap (price-to-rent deviation from its long-term average); and (iii) estimates of deviations of house prices from equilibrium values justified by housing demand and supply fundamentals. See Philiponnet and Turrini, 2017. Apart from these indicators, the European Commission has recently used housing price in levels to compute the number of years of income per-capita required to buy a 100 m^2 dwelling. This price-to-income ratio in levels reached 9.9 years in Spain on average between 2014 and 2017, slightly below 10 years, the threshold that reflects a higher probability of overvaluation in the housing market.

There has been progress in advancing on green finance. During December 2019, the Public Treasury announced its financing strategy for 2020, with the objective of launching a first green bond issuance as part of a long-term funding program. The Treasury will follow market best practices in the design of the Green Bond Framework to be applied, based on the experience of other sovereign issuers and the harmonisation work undertaken at the European level. A National Action Plan on Sustainable Finance will be drawn up.

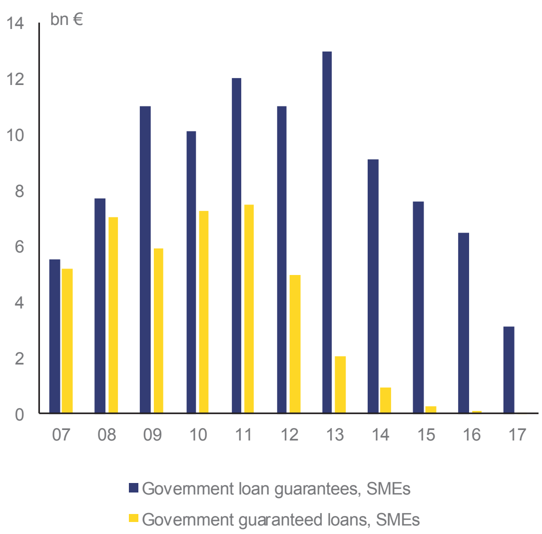
Financing investment in intangibles with external funds remains a challenge. Intangible assets are not easily collateralised and have limited usefulness to secure external financing. This is most apparent for debt funding and for intangible-rich firms (OECD, 2019b). During the financial crisis and the recovery, intangible-intensive firms used almost exclusively own funds to finance their intangible investments, while fixed assets continued to be funded with borrowed funds, though to a lesser extent than in previous years (Bank of Spain, 2018). There are also some institutional features that seem to have an impact on firm capital structure and investment in most countries. Bank capital requirements and institutional features generally encourage creditors to offer better lending conditions and access to finance in the case of mortgage loans. This may bias firm capital structure towards this type of financing, as well as asset composition towards real estate and commercial properties, against more productive assets, including intangible ones.

Despite progress in recent years, venture capital remains underdeveloped in Spain. ICT and digital projects account for more than three quarters of new venture capital investments (European Commission, 2017a), and venture capital funding is significantly skewed towards the start-up and later phases, whereas it is relatively scant for the seed phase (Flachenecker et al.,2020). The Spanish market for venture capital financing of SMEs, and especially very small firms, is unattractive for investors (see also Section 4.4.1).

Payment practices in Spain weigh on SMEs' liquidity. According to the latest SAFE survey results, 40% of Spanish SMEs experienced regular or occasional difficulties as a result of late payments from private and/or public entities. This hampers their capacity to pay suppliers. Though this is a high figure, it is below the average in the euro area. Late payments are also reported to affect investment or new recruitment, repayment of loans and production or operations. Spain has made considerable progress in reducing delays in payment, but the average time taken to pay invoices remains substantial, both in public administrations and in private entities. In 2018, payment time exceeded 80 days in the business-to-business sector, substantially above the legal payment term of 60 days. In public entities, the figure was 53.5, against a legal term of 30 days.

Spain has adopted new measures to improve access to non-bank financing for SMEs. Some measures supporting growth of small firms have been introduced (such us supporting social and sustainable funds through Fond-ICO PYME; CDTI´s Cervera and Misiones Programmes) or continued (such as increasing Fond-ICO Global funds, increasing capital of Innvierte, or replenishing ENISA´s lines of action). However, the overall volume of general government financing provided to non-financial corporations, especially SMEs (by way of loans and guarantees) has been reduced in recent years, in a context of greater availability of liquid funds and easier credit conditions from private-sector banks.

Graph 4.2.4: **Government support to SMEs**

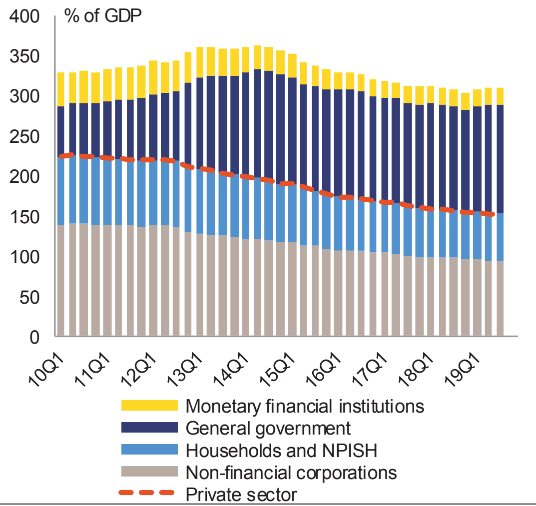


Source: OECD, Financing SMEs and entrepreneurs 2019: an OECD scoreboard.

4.2.4. PRIVATE SECTOR DELEVERAGING *

The stock of private debt has continued to decline, but deleveraging needs persist. The total stock of debt in the non-financial private sector amounted to 152.4% of GDP in non-consolidated terms at the end of Q3-2019 (57.4% of GDP held by households and 95.0% of GDP held by non-financial corporations (NFCs) (see Graph 4.2.5). This is 74 pps lower than its peak in the second quarter of 2010. In consolidated terms, private sector debt is estimated to have fallen by 4 pps to 130% of GDP in 2019. This is slightly below the macroeconomic imbalances procedure (MIP) scoreboard threshold of 133%, but still very high, and it is still substantially above prudential levels and fundamental-based benchmarks ([18]), suggesting that deleveraging needs persist for both households and NFCs.

Graph 4.2.5: **Debt breakdown by sector**



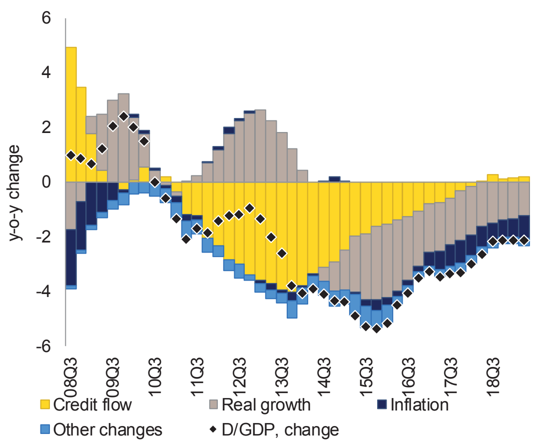
End of period. Debt = F3 + F4.
Private sector = NFC + HH + NPISH.
Source: BDE, own calculations.

([18]) Fundamentals-based benchmarks are derived from regressions capturing the main determinants of credit growth and taking into account a given initial stock of debt. Prudential thresholds represent the debt threshold beyond which the probability of a banking crisis is relatively high. Methodologies are described in European Commission (2017) and updates to the methodology have been subsequently proposed in European Commission (2018). In 2019, Spanish private debt exceeded the benchmark based on fundamentals by about 25% of GDP and the prudential threshold by about 30%.

In the case of households, the pace of debt reduction has stabilised. Household consolidated debt declined only slightly, by 2.2 pps year-on-year in Q3-2019, to 57.4% of GDP, mainly driven by nominal GDP growth (Graph 4.2.6). The household debt ratio remains above prudential and fundamental-based benchmarks.

Growth in new credit to households is mainly driven by consumer loans. The pace of decline in the stock of mortgage loans decreased in 2018 and 2019. Still, while the mortgage lending stock was 23 pps of GDP above the euro area average at the peak in 2010, this gap has narrowed to 3 pps in 2019. At the same time, the stock of consumer credit has increased by about 2 pps of GDP since the trough in 2014, reaching 7.5% of GDP in 2019. This is the result of a fast pace of growth in new credit over recent years, at double-digit rates. In June 2019, the stock of consumer credit grew by 11.6% year-on-year, even though the pace of new lending for consumer credit slowed over the year. Even though consumer lending has contributed to the economic recovery in recent years by supporting domestic demand, its rapid increase may make households, especially the over-indebted ones, more vulnerable to adverse shocks and to changes in economic conditions.

Graph 4.2.6: **Households: Breakdown of y-o-y changes in debt-to-GDP ratio**



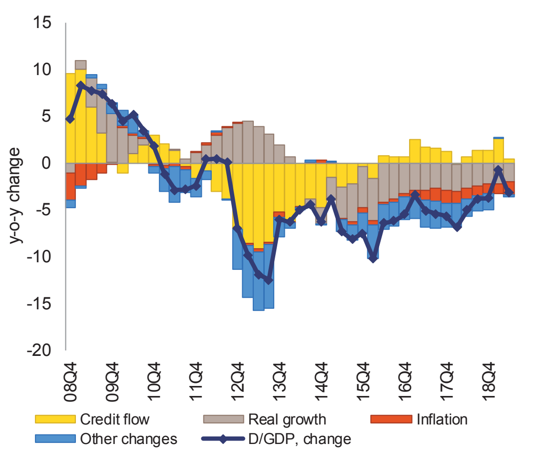
Source: Eurostat.

The financial burden of Spanish households continued to fall in 2019, while liquid assets have increased their share in households' financial portfolio. With low interest rates and variable rate loans still prevailing in the Spanish mortgage market, the financial burden ([19]) borne by households to service their debt has continued to fall in 2019, also helped by growing gross disposable income. At the same time, the continued decline of the share of new mortgages with variable rates reduced households' exposure to interest rates changes. Job creation and increasing gross disposable income allowed the share of non-performing loans in household debt to continue declining to 4.7% in the second quarter of 2019, compared to 4.9% at the end of 2018. The composition of households' financial position shifted towards more liquid assets, such as deposits, which increased by about 5.5% year-on-year in the first nine months of 2019, while holdings of equity and securities fell.

Debt reduction in the corporate sector is taking place simultaneously with new borrowing via securities issuance. Since the peak in 2009, the NFC debt, in consolidated terms, decreased from 119% of GDP to 73.2% in Q3-2019 ([20]). After having declined by 4-5 pps of GDP per year in 2015-2018, the pace of adjustment in debt-to-GDP ratio slowed down to 2.4 pps in 2019. As for households, corporate indebtedness remains above the prudential and fundamentals-based benchmark (see Graph 4.2.7). The stock of debt in nominal terms increased, as a result of an increase in the issuance of bonds, while the stock of bank lending to NFC declined (by 2.7% between September 2018 and September 2019). In 2019, deleveraging was thus driven mainly by GDP growth, but new lending to corporations also decreased, led by the strong reduction in credit lines and other new lending to SMEs (proxied by loans under 1 million), whereas new loans to large corporates (proxied by loans above 1 million) grew by 0.9% (y-o-y rate on 12-month average). By sector, credit to the services sector made a positive contribution to the growth of NFC bank lending in Q2-2019 for the first time since 2016, and net credit to industry was also positive, whereas real estate activities continued to be a drag on corporate bank lending.

([19]) The interest burden is the ratio of interest payments to gross disposable income.
([20]) Financial derivatives are not included in these figures.

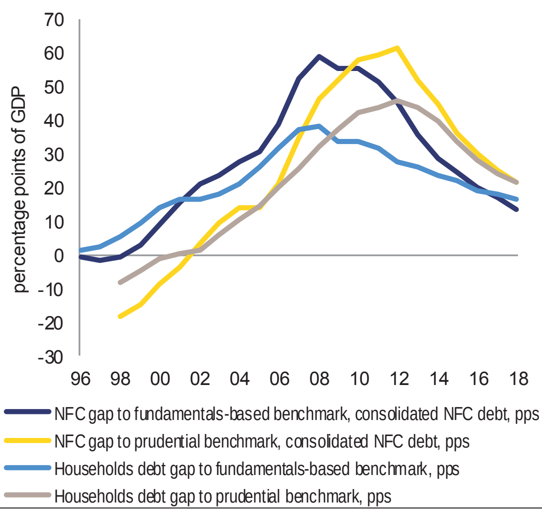
Graph 4.2.7: **Non-financial corporations: breakdown of y-o-y changes in debt-to-GDP ratio**



Source: Eurostat.

The financial burden of the corporate sector has continued to decrease. The financial burden ([21]) borne by the corporate sector to service its debt fell in 2018. It was expected to fall moderately in 2019, since the average cost of the stock of bank credit slightly declined in the first half of 2019 and interest rates remained low in the second half of the year.

Graph 4.2.8: **Gap to the fundamental-based and prudential benchmarks for household and NFC debt**



(1) Gap based on the consolidated debt ratio by sector. A positive value means that deleveraging needs persist
Source: European Commission.

([21]) The interest burden of the corporate sector is measured as the ratio of interest payments to gross operating surplus.

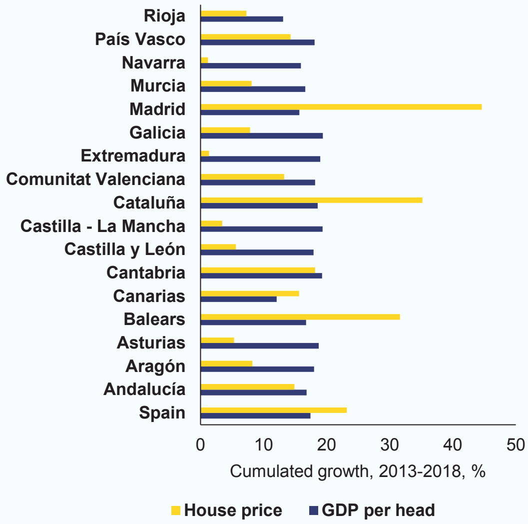
Spain has made significant policy progress on insolvency, but close monitoring is needed to ensure that recent reforms achieve the intended results. Royal Decree Laws 4/2014 and 25/2015 eased procedures for SMEs before and after bankruptcy. Spain was ranked 18th in the 2019 "Doing Business" Report by the World Bank for insolvency procedures. Visible progress has been made for measures such as the length of insolvency procedures (471 days in 2015, 440 days in 2017, and 404 days in 2018 according to national data [22]), but time is needed for the reforms to produce their full impact, considering that the median duration of ordinary insolvency procedures is still high at 806 days (down from 899 days in 2017). The Commission is supporting the authorities in the assessment of the effectiveness of the recent reforms through the Structural Reform Support Programme. Further regulatory improvements are expected (such as the implementation of the Directive (EU) 2019/1023 on restructuring and insolvency).

([22]) "Anuario Concursal" of the Spanish Official Body of Registrars 2015, 2017 and 2018.

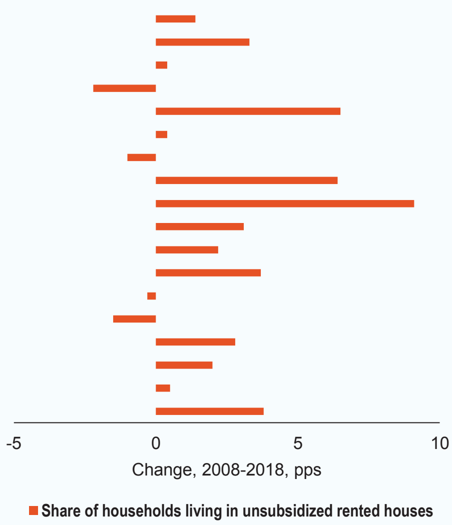
Box 4.2.1: Housing affordability in the recovery

After the sharp correction during the crisis, house prices increased again, driven by the recovery in housing demand amid strong job creation and low interest rates. Since the trough in 2013 up to 2018, cumulative house price growth in Spain was 23% (4.3% per year), higher than the growth of nominal GDP per head, at 17%. The deterioration in the price-to-income ratio – which can be considered a measure of housing affordability - at national level masks, nevertheless, sharp differences across regions. In most of them, GDP growth per head during the recovery has been higher than the increase in house prices, thus putting households in better conditions to buy a house (Graph 4.2.9.a). However, house prices went up much faster than GDP per head in some turistic areas such as Balear and Canary Islands, and in regions or cities with dynamic labour markets and high population density, like in Madrid and Catalonia.

Graph 4.2.9.a: **GDP per head and house price growth**



Graph 4.2.9.b: **Change in share of households living in rented accommodation**



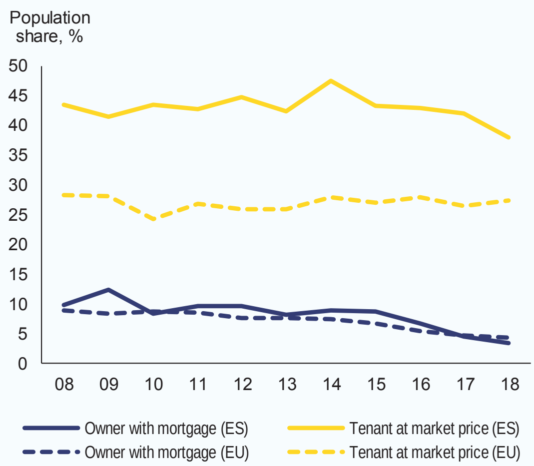
Source: INE, European Commission.

The growing demand for accommodation in some areas has also affected the rental market. According to the house rent component of the Harmonised Consumer Price Index, during the recovery rents in Spain increased more slowly than in most other EU Member States. However, in the areas and cities mentioned above, where the housing market is more dynamic, new unsubsidised rents have increased faster, and more sharply than sale prices, despite some moderation in 2018. As shown by data on supply prices from web portals, in the period 2013 – May 2019, rental prices increased by 45% in Madrid and 50% in Barcelona, while in other big costal cities they also grew by more than 40% (Bank of Spain, 2019c). In general, these are cities where there is also high demand for tourist accomodation, including in peer-to-peer vacation rentals in the historical city centers. Growth of rental prices was lower in less populated cities or inland Spain, though the increase was, in general, still higher than the growth of sale prices (Bank of Spain, 2019b). As a consequence, while sale prices have not reached their pre-crisis level in Madrid and Barcelona, rental prices have exceeded it.

Since the crisis, Spanish households have increased their propensity to rent. The share of households living in a rented accommodation at market price increased by nearly 4 pps between 2008 and 2018 (see Graph 4.2.9.b), up to about 15%, ranging from 5.7% to 24.3% across regions. This increasing trend is also observed in other EU countries, where the share of tenants in the population (at 22% on average in the EU) is higher than in Spain. However, reflecting the pattern of house price and rent increases described above, the region of Madrid and Catalonia saw much higher increases in the share of people living in rented accommodation. By age groups, the increase is especially noticeable for young people: among households whose head is 16-29 years old ([1]), the share of tenants at market price was about 45% in 2018, while it was only one third in 2008 (INE, 2019). The share of people living in rented accomodation at market price also increased among households with children, especially those with low income (below 60% of median income). The scar left by the burst of the housing bubble during the crisis is likely to be a key driving factor of the increased demand for rented accommodation, whereas the other drivers will differ across population groups. As to the role of policies, the abolition of the tax deduction for interest paid on mortgages for first-time house buyers in 2013 may have had the effect of encouraging demand for rentals.

Spanish people living in rented accommodation experience housing cost overburden more often than on average in the EU. According to the EU-SILC survey, the share of population overburdened by housing costs – those paying more than 40% of their equivalised disposable income on housing – who are living in owner-occupied accommodation with an outstanding mortgage or loan has declined since 2008 (see Graph 4.2.10), especially in the period 2015-2018, thanks to the decrease in interest rates and the increase in disposable incomes. At 3.5% in 2018, this share stands just below the EU average. By contrast, for tenants renting at market price, this share has barely diminished in Spain, except in 2018, and at 38.1% in 2018, it is well above the EU average (27.4%).

Graph 4.2.10: **Population with housing costs over 40% of their income**



Source: Eurostat (EU – SILC), European Commission.

Ensuring the availability of affordable and quality housing is a fundamental need and forms part of the UN Sustainable Development Goals. Several policy measures try to address this challenge across Europe, ranging from the supply of social housing, to housing subsidies and regulatory measures, including rent controls. The choice of policy instruments should be taken on the basis of the specific context in which they are applied and their implementation challenges and after careful evaluation of their expected impact and possible unwanted consequences – also based on past experience or international evidence. For example, while recent experiences with rent controls have improved affordability for tenants in the short term in the areas where they are applied, they have also increased prices in other areas. In addition, rent controls can reduce the supply of rental housing in the medium and long term and have undesired spill-over effects on housing market demand and prices (see Bank of Spain, 2020).

([1]) Including households with young people sharing a dwelling.

4.3. LABOUR MARKET, EDUCATION AND SOCIAL POLICIES

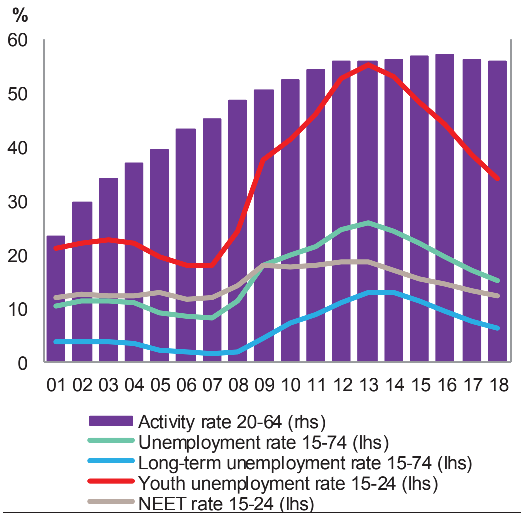
4.3.1. EMPLOYMENT *

Labour market developments

Unemployment has continued to fall, but remains very high and many employees work on temporary contracts. The high job content of Spain's growth during the recovery has put the economy on a sustained growth path. The seasonally adjusted employment rate of people aged 20-64 has risen further to 67.8% (Q3-2019) (compared to 67.2% in Q3-2018) and unemployment (15-74) has fallen to 13.8% (Q4-2019) (compared to 14.5% in Q4-2018) (see Graph 4.3.1). Yet, both indicators still underperform with respect to the EU average (see Box 4.3.1), especially in some regions (see Section 4.4.3). Long-term and youth unemployment have also seen steep declines, but long-term unemployment still affected 1.2 million people in Q3-2019, or 5.2% of the active population. 30.5% of the active population aged below 25 was without a job in Q3-2019 (compared to 14.4% in the EU). The share of young people "Neither in employment, nor in education or training" (NEETs) has also fallen significantly, to 12.4% in 2018, but remains among the highest in the EU. Finally, job quality remains a concern, as Spain records the highest share of employees on temporary contracts and the third highest rate of in-work poverty in the EU (see Section 4.3.3).

The Spanish labour market still largely relies on temporary contracts, many of them of very short duration. Temporary employment has been underpinning job creation and destruction for several decades (Bank of Spain, 2019a). In 2018, 26.9% of employees (age 15-64) worked on a temporary contract, almost twice the EU average. A slight decrease in recent quarters (26.1% in Q3-2019) is driven by the declining weight of fixed-term contracts in net employment growth. Temporary contracts are widespread also in sectors with less marked seasonality (e.g. education, health, manufacturing) and in high-skilled occupations. 30% of all temporary contracts signed in 2019 were shorter than one week, against 17% in 2007 ([23]). Very short contracts have increased in many sectors, including in manufacturing. The share of temporary employees moving on to a permanent contract after one year improved in 2018, reaching 17.4% against 14.6% in 2017, but remains 8.6 pps below the EU average.

Graph 4.3.1: **Key labour market indicators**



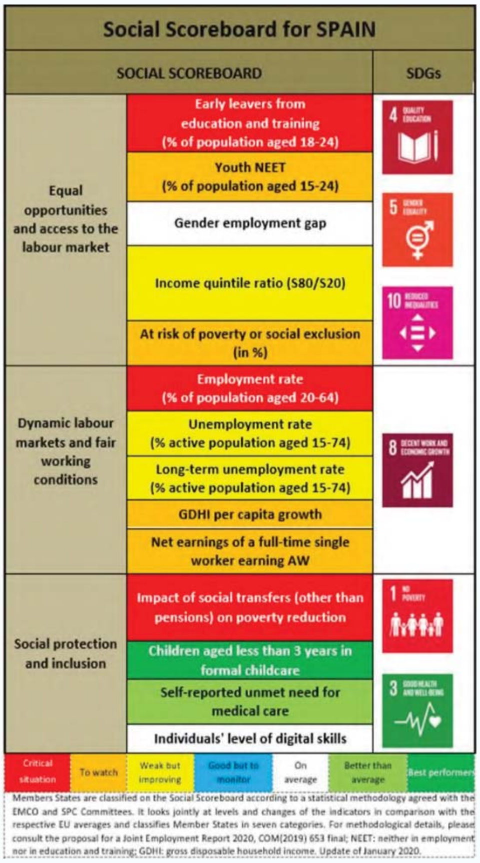
(1) NEET: young people neither in employment, nor in education or training.
Source: Eurostat -LFS (lfsi_emp_a, une_rt_a, edat_lfse_20, une_ltu_a).

The share of public employees on temporary contracts continues to increase despite the commitment to reduce it. In Q4-2019, 27.8% of public sector employees had a temporary contract, 1.5 pps more than in Q4-2018 and about 8 pps more than in 2014 (INE data). The current share is very far from the 8% target set for the end of the 2020 recruitment competitions (see European Commission, 2019a). The recruitment competitions authorised during the last two years, at both central and regional level, are not yet sufficient to reduce fixed-term employment in the public sector. 181,700 nationwide permanent posts were authorised in 2017-2019 by both the central and regional administrations. Priority was given to the health and education sectors managed by the regions (see Sections 4.3.2 and 4.3.4). Exams for 67,200 of those posts had been organised by November 2019, with 24,500 posts already filled.

([23]) Measures to discourage the use of very short contracts are not proving effective. In January 2019 the premium in the social security charge for common contingencies of contracts lasting 5 days or less rose from 36% to 40%.

Box 4.3.1: **Monitoring performance in light of the European Pillar of Social Rights**

The European Pillar of Social Rights is a compass for a renewed process of upward convergence towards better working and living conditions in the European Union. It sets out twenty essential principles and rights in the areas of equal opportunities and access to the labour market; fair working conditions; and social protection and inclusion. In these domains, the UN Sustainable Development Goals (SDGs) largely overlap with the principles of the European Pillar of Social Rights and they partly complement them, helping ensure that economic and social policies go hand in hand with Europe's 2050 climate-neutrality objective.



The Social Scoreboard supporting the European Pillar of Social Rights points to a number of employment and social challenges in Spain. Strong economic growth has contributed to a faster than average drop in overall and long-term unemployment rates in recent years. However, the employment rate remains largely below the EU average. Given significant labour market segmentation, stagnant incomes and the limited redistributive capacity of social transfers, income inequality is high, though decreasing. The share of people at risk of poverty or social exclusion remains significant, especially among children, and a high incidence of in-work poverty points to challenges related to job quality. On the positive side, Spain performs better than the EU average in providing access to healthcare and childcare services. However, disparities in access and quality persist across the country.

High school drop-out rates hamper the integration of young people in the labour market and society in general. Although the early school-leaving rate has fallen in recent years, it remains the highest in the EU, with large regional disparities. As a result, the share of young-people neither in employment, nor in education or training (NEET) remains high, despite good labour market developments overall. Moreover, low education levels significantly increase the risk of future poverty and social exclusion.

Spanish legislation reflects efforts to promote gender equality. Spain is ranked among the most advanced countries in terms of equal legal rights for men and women (World Bank, 2019a). Measures adopted at the beginning of 2019 promote equal rights in the workplace. All employers are required to keep mandatory records of the average wages of men and women, while companies with more than 50 employees (against 250 before) have to negotiate equality plans with workers' representatives. Parental leave of 16 weeks for each parent will replace the maternity and paternity leaves by 2021. In the meantime, the parent other than biological mothers will be entitled to eight weeks' leave in 2019 (it was five in 2018) and 12 weeks in 2020, to reach 16 in 2021.

Institutional factors and established practices may explain the widespread use of temporary contracts. The weight of seasonal activities in employment only explains around 10% of the gap to the EU average in the use of temporary contracts (see European Commission, 2018a). In addition, the wide array of justifications for using a temporary contract and the related hiring incentives provide multiple opportunities for short-term hiring. There have been proposals to reduce the types of contract to just three (open-ended, temporary and apprenticeship contracts), but the caretaker nature of the government has prevented action. The difference in severance pay between open-ended and temporary contracts ([24]) could also encourage employers to hire workers on temporary contracts (Jimeno, J.F., et al., 2015). While employers' perception of the long duration and uncertain outcome of court proceedings is often quoted as a factor explaining their preference to hire on temporary contracts, data on court proceedings in dismissal cases involving open-ended contracts shows that they tend to be noticeably shorter than in other EU countries (196 days in 2018, against an EU average of 314 days, CEPEJ). Established recruitment practices may contribute to widespread temporary recruitment. Employers often outsource non-core functions through multiservice companies ([25]) and make use of temporary work agencies to fill their vacancies. Both of these tend to use short-term contracts, often of very short duration. Working conditions and the functioning of collective bargaining in multiservice companies have been repeatedly brought to court (Observatorio de la Negociación Colectiva, 2018; UGT, 2019).

Involuntary part-time work and the incidence of bogus self-employment among platform workers are other areas of concern. Although the share of part time workers in total employment is below the EU average, more than half (55.8%) of them would prefer to work longer hours (24.8% in EU). The platform economy is creating new job opportunities, but the working conditions of platform workers need careful monitoring. The employment status of some of them (i.e. whether they should be considered as employees or self-employed) is under discussion before the courts.

Labour market segmentation weighs on social cohesion. Temporary workers in Spain face much higher risks of in-work poverty than those on permanent contracts, and to a larger extent than in other EU countries (see Section 4.3.3). Evidence also shows that, when compared to other EU countries, Spanish workers at the bottom of the labour market structure (i.e., unemployed or temporary workers) have limited options for upward mobility (e.g., from a fixed-term to an open-ended contract) and a relatively high risk of downward mobility (Eurofound, 2019b). A gradual introduction of an individual and transferable social security account was under study ([26]), with the aim of addressing the negative impact of career breaks and frequent job changes on social security entitlements.

Labour inspectorates stepped up the fight against abuse of temporary contracts. Inspections within the framework of the 2018-2020 Plan for Decent Work led to the conversion of around 273,000 temporary contracts into permanent contracts between August 2018 and October 2019, 97% more than in the previous 15-month period. Labour inspections also led to an extension in working time for around 66,000 part-time contracts from August 2018 to October 2019 ([27]) (111% more than in the previous 15-month period) and detected around 34,800 cases of bogus self-employment (six times more). However, the disincentive impact of these increased controls on the overall use of temporary contracts is not yet visible. The incidence of undeclared work seems comparatively high in Spain, as 41% of respondents to Eurobarometer personally know people in that situation, 8 pps above the EU average (Eurobarometer, 2020).

The minimum wage will further increase in 2020, though the impact on employment of the 2019 hike has not yet been quantified. When the 22.3% increase in the minimum wage entered into force in January 2019, employment was still reported to be growing robustly, including for youth and the low skilled, as well as in the regions where the minimum wage covers more workers. Employment growth began slowing down in mid-2019, but there is still not enough evidence to assess which part of that slowdown is due to the minimum wage increase. Social security data suggest some impact on specific groups, regions or sectors (BBVA Research, 2020), but more data are still needed to carry out an in-depth evaluation.

([24]) The severance pay for open-ended contracts varies between 20 (fair dismissals) and 33 (unfair dismissals) days of salary per year worked. Temporary workers receive a fixed payment equivalent to 12 days of salary per year worked.

([25]) Multiservice companies offer staff services to client companies across a wide variety of sectors (e.g., cleaning, security, transport, etc.).

([26]) The so-called 'Austrian backpack' employment fund is an individual (across jobs) transferable fund financed with a payroll tax. The worker can use the fund if he or she becomes unemployed or retires.

([27]) A new regulation obliging employers to record employee's daily working hours is reinforcing the activity of labour inspectorates in this field. The main purpose is to monitor compliance with the rules on overtime. 18% of the companies investigated between May and October 2019 committed infringements in this area.

Negotiated wages signed in 2019 increased by 2.3% on average, in line with the 2018-2020 collective inter-professional agreement. In January 2020, the government further raised the minimum wage by 5.6% (up to €950 in 14 instalments) as a result of an agreement with social partners. This is estimated to bring the minimum wage to approximately 60% of the median gross monthly earnings for a full time worker in 2020. In 2018, only three Member States, with much lower unemployment rates, had a minimum wage above this threshold. The Government plans further increases of the minimum wage, up to an amount equivalent to 60% of mean wage by 2023.

The activity rate (age 20-64) has been edging down in Spain since 2016, diverging from the trend in the rest of Europe. In 2018, the activity rate in Spain was in line with the EU average. However, while in other EU countries activity rates among prime age adults (25-49) continue to increase, partly thanks to rising female participation, they have stagnated in Spain since 2013 and slightly declined after 2016, for both men and women. Only the activity rate of older workers (50-64) continues to increase, but at a slower pace than in the EU. Recent pension reforms are slowly contributing to push the average effective retirement age upwards (64.4 years in 2019, compared to 63.7 in 2009).

The Spanish labour market still has sizeable gender gaps. In 2018, the employment rate of women (61.0%) was 12.1 pps below that of men, a gap slightly above the EU average (11.6 pps). Similarly, the female unemployment rate was 3.3 pps higher than the male one (compared to 0.5 pps gap in the EU). At the same time, the unadjusted gender pay gap in Spain was 15.1% in 2018, 0.9 pps below the EU average. Women have lower retirement pensions than men (-35% in 2019), although the gap is smaller for new pensioners (-21%) who tend to have better work histories ([28]). Measures such as the increase in the minimum level of contributory pensions, the recognition of pension rights for career breaks linked to maternity (as from 2012) and the complement for two or more children (as from 2016) ([29]) should be helping reduce the gender pension gap.

The employment rate of people with disabilities remains low. In 2017, the employment rate of persons with disabilities decreased to 40.1%, and the gap with that of persons without disabilities widened to 27.5 pps (3.3 pps above the EU average), despite the fact that nearly half the total amount of hiring incentives is targeted at persons with disabilities. In November 2019, the wage subsidy in special employment centres for people with disabilities was raised to 55% of the minimum wage (up from 50%).

The Spanish labour market is attracting workers from abroad again. After four years of negative flows, net migration turned positive in 2016 and reached 332,000 people in 2018 (Eurostat). In 2018, the employment rate (20-64) of non-EU born increased to 63.4%, 9.2 pps more than in 2014. The gap with native-born people decreased to 4.1 pps, among the lowest in the EU. In 2018, 2.5 million Spaniards lived abroad, 1.1 million more than in 2009. The ‘Return to Spain Plan’ launched in March 2019 aims at encouraging those Spaniards to return to Spain, although it has limited resources so far.

Digital transformation could have stronger than average potential impact in Spain. According to OECD (2019d), 22% of jobs in Spain are at high risk of automation (OECD average, 14%) and another 30% are at risk of significant change (OECD average, 32%). Robot density in the manufacturing industry is comparatively high but remained static in 2012-2016 (IFR, 2017). At the same time, the digital transformation is creating new job opportunities. The collaborative economy is also developing (see Section 4.4.1). Estimates indicate that 2.6% of the adult population (16-74) in Spain provided labour services through online platforms as their main job activity in 2018 (González Vázquez et al., 2019). Digital transformation may have implications for labour markets and social protection systems, including rising inequality, job displacement and rising skill gaps (European Commission, 2019c). Initial

([28]) Figures taken from the Spanish Social Security Statistics, September 2019. In 2016, it was 3.4 pps lower than the EU average (Pension adequacy report 2018).

([29]) In its judgment of 12 December 2019 in case C-450/18, the European Court of Justice ruled that this measure constitutes direct discrimination on grounds of sex and is prohibited by EU law.

education and adult learning play a crucial role in facilitating smooth transitions (see Box 4.3.2).

Labour market policies

Spending on active labour market policies (ALMP) remains low, and has limited effectiveness. Average spending on ALMP measures per unemployed person was 56% lower in 2017 than before the crisis (2007). Hiring incentives account for around 40% of total spending on ALMP (AIReF, 2019b), under multiple forms. Past evidence shows limited effects of these subsidies for promoting quality employment, as the evaluation of the 'Contract for support to entrepreneurs', which was abolished in December 2018, showed ([30]). Compared to previous plans, the two new plans for the youth and the long-term unemployed (see below) include quantitative goals and put greater focus on monitoring and evaluation ([31]). However, hiring subsidies still absorb a large share of the budget allocated to the plans. Both plans may benefit from the EU Mutual Assistance Programme and the upcoming development of the profiling tool. The forthcoming spending review of hiring incentives due by mid-2020 may provide helpful inputs for a comprehensive reform of the system. AIReF (2019a) also highlighted gaps in the information system on ALMP, an inadequate coordination between the central government and the regions, and variations in performance and efficiency across regions.

Efforts to improve public employment services continue. The effectiveness of active labour market policies largely relies on the capacity of the regional public employment services (PES). In 2018, the share of job finders who found their present job with PES involvement remained at 3.0%, among the lowest in the EU. Up to 3,000 new caseworkers are being recruited by the regional PES to assist the implementation of the plans for the young and the long-term unemployed, especially to attract job offers for these groups of people and facilitate the matching.

Policies to improve young people's integration into the labour market are making progress. A new 2019-2021 Action Plan for Youth Employment was launched in December 2018. It is designed to sustain the positive trends in the labour market integration of young people, with a focus on digital skills and adaptation to technological change. 30% of young people classed as "not in education, employment, or training" ('NEET') were registered in the Youth Guarantee in 2018 ([32]), but those who are inactive, low skilled and most vulnerable are less likely to register. 17.9% of those leaving the Youth Guarantee in 2018 took up an offer within the four-month target, a substantial improvement compared to 2017 (8.6%).

A new plan increases support to the long-term unemployed, but may discourage activation of older unemployed people. The 2019-2021 *ReincorporaT* plan provides additional resources to the PES to make them more accessible to the long-term unemployed and improve identification of their needs. In March 2019, the age threshold for eligibility for the unemployment assistance scheme targeted on older unemployed people was reduced from 55 to 52 years, its duration was extended until the recipient's legal retirement age and more generous conditions were granted ([33]). These new features may create disincentives for the people concerned to go back to work. At the same time, the activation components of previous non-contributory unemployment benefits also lacked effectiveness ([34]).

Low contributions hamper social security coverage for the self-employed, despite improved levels of formal protection. The average number of registered self-employed people rose by 0.6% in 2019, compared to 1.1% in 2018. The number of self-employed has been increasing since 2014, but more slowly than the

([30]) This type of subsidised permanent contract was introduced in 2012 and abolished six years later, in the light of evidence that the contracts used to be terminated as soon as the social security's rebates came to an end.

([31]) With the support of the Commission through the SRSP, the World Bank is providing technical assistance to develop indicators and methodology to monitor each of the measures contained in the plans.

([32]) The 2018 figure is a long way below the 56% recorded in 2017, owing to changes in the data processing.

([33]) The social security contribution to the pension scheme increased by 53%, while the means-testing is now individual rather than applied to households

([34]) The Independent Fiscal Authority found that the PREPARA programme (concluded in 2018) did not make its recipients any more likely to find a job (AIReF, 2019a).

number of employees. In an effort to increase the level of protection for the self-employed to that enjoyed by employees, the social security contribution rate for the self-employed was raised by 1.25% in January 2019. This allowed for the coverage for the self-employed to be extended to all contingencies, as well as cessation of activity. However, most self-employed people still opt for the lowest contribution rates ([35]), which does not allow them to build entitlement to adequate pensions and unemployment benefits and weakens the financial sustainability of the scheme. At the end of 2019, the average retirement pension of a self-employed person was 41% lower than that of an employee under the general system.

Labour market institutions guarantee adequate social dialogue. The tripartite roundtables (see European Commission, 2019a) discussing possible reforms to address segmentation (e.g. types of contracts, collective bargaining, outsourcing, etc.) have been on hold since March 2019. The 2018-2020 inter-professional agreement provides a framework for collective bargaining at sectoral level. Firm-level agreements cover around 6% of employees.

The new government has announced changes to labour market regulation. The labour market reforms adopted in 2012-2013 in response to the crisis are acknowledged to have played an important role in promoting the job-rich economic recovery that started in 2014 (IMF, 2020). The new governing coalition has pledged changes to labour market regulation with the stated aims to restore workers' bargaining power and overcome labour market segmentation. Changes to the collective bargaining system would include the abolition of the one-year limit to the automatic extension of expired agreements (‘ultra-activity’) and the reinstatement of the priority of sectoral collective bargaining over firm-level agreements. Other, still unspecified measures would aim to promote permanent contracts as the prevalent form of contract, including by strengthening the fight of abuse of temporary and part-time contracts and streamlining types of contracts. A review of some types of contract resolution is also envisaged. It will be important that any new measure only be taken after a careful evaluation of its potential impact and that the achievements of the past reforms be preserved.

4.3.2. EDUCATION AND SKILLS

Despite improvements, Spain still lags behind on several key education and skills indicators. Early school leaving rates (ESL) and grade repetition rates remain very high, particularly in some regions, which results in a high number of low-skilled people entering the labour market. School-to-work transition remains difficult, as job opportunities are limited and often of low quality. While Spain has a high share of workers and jobseekers with low educational attainment, it also records a higher-than-average share with tertiary education. However, many tertiary graduates appear to be employed in occupations that do not require tertiary diplomas, and a relatively low share of them specialise in STEM careers. Low enrolment rates in upper secondary vocational education and training (VET), low participation of the low skilled in adult learning and limited digital skills are further weaknesses.

Participation in early childhood education and care is high. The participation rate for those below 3 years-old has increased substantially in the last ten years (50.5% in 2018, against 38% in 2008) and is above the EU average (35.1% in 2018). Between 3 years old and the starting age of compulsory education, almost all children are schooling (97.1% in 2017), above the EU average too (93.3%). Participation varies significantly at regional level in the early age groups, ranging from 90% to 100% for 3-year-olds (with one exception) and from 15% to 55% for children up to 2 years (Ministry of Education and Vocational Training, 2019b). In 2019, the central government put forward an 8-year plan, in consultation with the regions, to extend early childhood education and care to all children under the official school age of 6. Some regions plan to use subsidies for private schools (La Rioja), others to give direct grants to families (Andalusia) and others to invest in public schools and remove tuition fees.

([35]) 85.6% of self-employed people opt to pay contributions for the minimum base, while only 4.8% opt for more than twice this amount (ATA, 2019). Plans have been discussed to align contributions with income.

Box 4.3.2: How vocational education and training can contribute to address skills needs

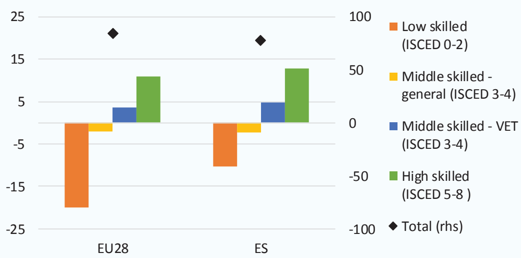
Spain has one of the lowest scores in the European Skills Index (Cedefop, 2018), with negative impact on productivity and the innovation capacity of the economy. Spain's low score reflects multiple challenges such as high shares of low-skilled and early school leavers in the population; pupils' underachievement in reading, maths and science; low participation in vocational education and training (VET); difficult transitions to work; skills under-utilisation (in particular caused by high long term unemployment and underemployment of part-time workers) and skills mismatches ([1]). Low skills and qualification mismatches are major drivers of Spain's labour productivity gap to the EU average (see Section 4.4).

Skills shortages in Spain are concentrated on medium to high-level technical occupations. Cedefop (2016) identified the main occupations in which employers currently face difficulties finding a suitable candidate: ICT specialists; medium to high-level professionals in engineering, management, sales and shipping; as well as medical doctors and other health related professionals. In the future, technicians and associate professionals and service and sales workers are the groups where shortages are expected to increase most ([2]). VET systems have a role to play to meet the increasing demand for technical skills that relevant to improving the capacity of Spanish firms to innovate and absorb innovation. According to Cedefop (2019), the demand for highly- qualified workers (47% of total job openings in 2016-2030) and medium-qualified workers (37%) is expected to exceed their supply by 2030, while low-qualified workers will be in surplus. A system to track skills is under development in Spain, in cooperation with the business sector. The Observatory of the National Institute of Qualifications, an agency dependent on the Ministry of Education and Vocational Training, provides information that is the basis for the two professional training subsystems (education and employment). In addition, the Occupations Observatory, managed by the Labour Ministry, monitors current and future skills needs in the economy, by region, province, and sectors. The Public Employment Service is producing a methodology to detect training needs in cooperation with the regions, social partners and national reference centres ([3]). Some regions have begun to use labour market intelligence (e.g., big data) to shape their formal education provision (Souto-Otero, 2019). These efforts are feeding into a comprehensive update of the national catalogue of professional qualification ([4]).

Employment rates of VET graduates, which are higher than rates for those holding a general education diploma, are improving. In 2018, the employment penalty ([5]) of low-skilled graduates (lower secondary school - ISCED 2) was lower than on average in the EU (see Graph 4.3.2.a), suggesting that Spain's economy still provides low skilled jobs to a greater extent than other countries. At higher levels, there may be shortages of some specific skills but overall the employment premium of tertiary graduates is higher than on average in the EU (see Graph 4.3.2.b). At upper secondary level, the employment premium of VET graduates is higher than on average in the EU. Employment rates of VET upper-secondary students who graduated more than 3 years ago reached 77.7% in 2018 (against 73.8% in 2015) and were 7.1 pps higher than for those graduating from general education. While similar data are not available for tertiary VET students (ISCED level 5), Adecco (2018) identified that 42.4% of job offers ([6]) target people with VET degrees (17.8% on intermediate level and 24.4% on tertiary level), 4 pps more than job offers targeting university graduates. According to the same source, the increase in job offers for graduates in VET in 2019 compared to 2018 increased by 8 points.

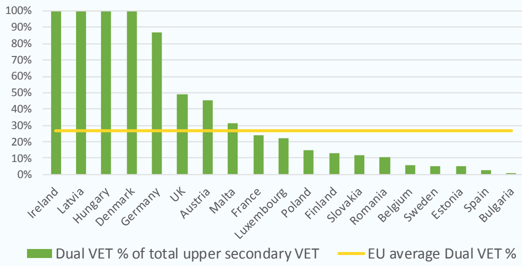
Participation in VET programmes remains low at upper-secondary level, but is high at tertiary level. Participation in basic (upper-secondary) VET programmes reached 7.9% of students aged 15-16 (MEFP, 2018) in their fourth year of existence (2017-18). The success rate of this programme targeted at students at risk of leaving education remains low (only around 50% of enrolled students obtain a diploma), but is improving and contributes to reducing early school leaving. Enrolment in intermediate (upper-secondary) VET programmes increased by more than 70% in 10 years, but remains comparatively low (35.3% of students in upper secondary education in 2017, 12.5 pps below the EU average). By contrast, enrolment in tertiary VET programmes is high (21% of post-secondary students, against 13% in average in the EU). Higher VET are short-cycle tertiary programmes that lead to an advanced technician qualification and offer a pathway towards bachelor programmes. These programmes also attract bachelor graduates and young adults (27% of tertiary VET students are older than 25).

Graph 4.3.2.a: **Employment rates of graduates (20-34) 3+ years after graduation, and gap to average per level of education, 2018**



Source: Eurostat [edat_lfse_24]

Graph 4.3.2.b: **Pupils enrolled in dual VET (as% of total pupils in upper-secondary VET, 2017)**



Source: Eurostat [educ_uoe_enrs04]

Despite some improvements, VET is provided mostly outside the work environment. According to Eurostat, in 2017 only 2.7% of upper-secondary VET in Spain were enrolled in dual programmes, in which at least 33% of teaching hours are work-based (against the compulsory 20% in the remaining VET programmes). This enrolment rate is one of the lowest in the EU and well below the EU average (26.6%, see Graph 4.3.2.b). A high share of micro-enterprises, combined with a high administrative burden, are seen as factors hindering the implementation of work-based VET programmes.

VET is not a sufficiently valued education pathway, despite positive outcomes in terms of employability. Youth unemployment reduces from 32.0% (on average) to 7.3% when young people have a degree in Vocational Training. The Cedefop opinion survey on VET conducted in Spain (Fundae, 2018) among 2,215 respondents aged 15-65 provides insight into the low attractiveness of VET. 68% of respondents think that VET is mainly meant for low performing students; 63% believe that it is easier to get a qualification in VET than in general programmes; and only 54% think that VET leads to well paid jobs (compared to an EU average of 61%). The negative perception of VET has a bearing on Spain's skill polarisation, with relatively large pools of low- and high-educated people and a small share of people with upper secondary education. Lack of information on the opportunities offered by VET programmes in terms of employment and pathways to further education, may also contribute to low participation.

A new strategy aims to modernise the VET system in Spain to boost participation, increase educational attainment and address technical skills gaps. The 2019-2022 Strategic Plan for VET adopted in November 2019 aims at making VET more responsive to the needs of the productive system and boost participation in VET programmes. The Plan commits to expanding the range of courses and the number of places (particularly in digitisation and sustainability), strengthening the system of distance learning and boosting cooperation with businesses, which is essential to increase the relevance and quality of VET programmes. A system to track VET graduates' transition into work similar to the one existing for university graduates is being implemented.

The skills pool needs to be adapted to the digital and green transition of the economy:

- **Digital skills and robotisation.** The promotion of digital skills training is needed in all sectors, in a context of limited basic ICT skills (57% of individuals aged 16-74) and low share of ICT specialists in the workforce (3.2% of total employment, but only 1.0% of female employment). There will be an increased demand for higher-skilled workers in the manufacturing sector, including both those with a more traditional engineering profile and others with newer skills sets – notably designers, industrial data scientists, big data statisticians and mathematicians and data security analysts (Eurofound, 2019b). The government plans to create 40 new degrees (at VET and university level) in the field of ICT. The 2019-2022 VET Strategy also proposes including a module on 'applied digitisation in the productive sector' in all VET programmes at all levels (basic, intermediate and high). It also aims to design new VET programmes or modify existing ones to ensure that the needs of the new digital sectors are covered in collaboration with the most important digital sector associations in Spain.

- **Transition towards a greener economy.** Spain is one of the EU countries that could benefit the most from employment gains arising from climate action. Skills requirements and education levels are increasing faster in the green economy than in the economy overall (European Commission, 2019b). Low-carbon transition is expected to mitigate job polarisation by creating middle-skilled, middle-paying jobs in Spain, especially in the construction sector (Eurofound, 2019a).

(1) Spain's poor ranking on skills mismatch is both due to a high share of tertiary graduates working in occupations below their skills level (over-qualification), and to a high share of employees whose educational attainment does not correspond to the one required for the occupation they are employed in (qualification mismatch).
(2) Cedefop (2019) also identifies the occupations expected to show the most substantial increase in employment: legal, social, cultural and related associate professionals, customer service clerks and health associate professionals.
(3) The national reference centres are public flagship centres for VET (including continuing vocational training) in one specific professional field. 13 out of the existing 37 centres nationwide were approved in 2019.
(4) The changes in the structure of the Government, in January 2020, have integrated, under the supervision of the Ministry of Education and Vocational Training, all training offers based on the National Qualifications Catalogue.
(5) Employment penalty/premium is defined as the gap in employment rate of graduates of a given level of education compared to all graduates, three or more years after graduation.
(6) Job offers published on Spain's major job portal (Infoempleo – approximately 1.2 million vacancies in 2018).

Spain still has the highest rate of early leavers from education and training in the EU. The rate reached 17.9% in 2018, well above the EU average (10.6%). Only two regions (the Basque Country and Cantabria) recorded a rate below the EU average. The share of early school leavers has been declining over the past decade, but at a slowing pace in the last three years, as it even rose in 7 out of 19 regions in 2018. These rates are especially high for students with disabilities and non-EU born (European Commission, 2019a and 2009l). €80 million were allocated annually in 2018 and 2019 to a territorial cooperation programme designed to reduce and prevent failure at school and dropping out, by supporting schools and students in vulnerable socio-economic situations.

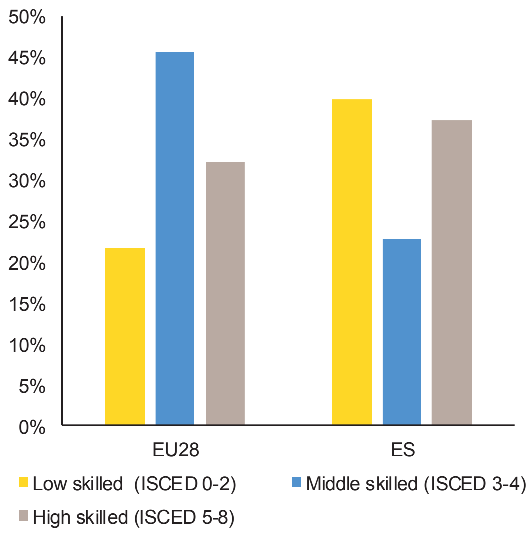
The lack of medium to high skilled technicians may hamper Spain's innovation capacity and transition to a digital and green economy. In 2018, Spain showed a high level of skills polarisation (see Graph 4.3.3). Among people aged 25-64, 40% had only low education, almost twice the EU average (22%). Meanwhile, the share of highly educated people reached 37%, which was also above the EU average (32%). By contrast, the share of medium-educated people is one of the lowest in the EU (23% in Spain, against 46% in the EU). This gap also reflects the traditionally low enrolment in intermediate VET programmes, despite improvements in recent years, and hampers the capacity of the Spanish education system to meet the growing demand for technical skills, including those needed for the transition to a green and digital economy (see Box 4.3.2). In 2019, the share of people with an insufficient level of digital skills (low or not at all) was slightly above the EU average (43% in Spain, against 42% in the EU) (European Commission, 2019j and 2020c). Spain also lags behind in language skills. In 2016, 45.8% of adults self-reported that they could not speak a foreign language, much above the EU average (35.4%) (Eurostat). The promotion of multi-lingual schools at primary and secondary level aims to boost language skills, but their development and the level of command required from teachers varies across regions.

The levels of basic skills measured by the 2018 PISA survey have worsened slightly. The scores of 15-year old Spanish pupils in science and mathematics were lower than in the 2015 survey (36) (OECD, 2019f). The mean score in sciences fell by 10 points to 483 (EU average 489), while the mean score in mathematics fell by 5 points to 481 (EU average 493). The share of underachieving students also increased, but it is close to the EU average (European Union, 2019m). Regional differences decreased, though mainly reflecting a deterioration in the best performing regions, but remained marked – at as much as 40 points, equivalent to one year of schooling. Although the rate of grade repetition is falling, it remains high, with 30.6% of 15-year-old students having repeated at least one grade in 2018 (State School Council, 2019), with differences at regional level being as high as over 20 pps. These official records on grade repetition are broadly in line with the 2018 PISA survey, which reveals a large gap

(36) Results in reading are not available for Spain. See OECD note at https://bit.ly/2tdJhlj

with other EU countries (29% in Spain, against 13% on EU average).

Graph 4.3.3: **Population (25-64) by educational attainment**



(1) Low-skilled: people with less than primary and lower secondary education (ISCED 0-2). Medium-skilled: people with upper secondary and post-secondary non-tertiary education (ISCED 3- 4). High-skilled: people with tertiary education (ISCED 5-8), including higher VET in Spain.
Source: Eurostat, [lfsa_egaed].

The performance of students is influenced by their parents' educational and socioeconomic situation. The chances of leaving school early without an upper-secondary diploma depend on parents' educational level, especially that of the mother. Choi and Calero (2019) showed that the performance gap in PISA 2015 tests between students with parents with a low level of education ([37]) compared to those with at least undergraduate studies, is 60 points, equivalent to 1.5 academic years. PISA 2018 shows that the impact of the socio-economic background on maths and science results is around the OECD average. However, Save the Children (2019) estimates that the odds of grade repetition are four times greater among students of low socio-economic status than among those of high status. School segregation by socioeconomic status in Spain decreased in PISA 2018 by comparison with PISA 2015, but remains high in certain regions. The gap between pupils with native and migrant backgrounds narrowed due to the deteriorating performance of the native students.

Job instability is one of the main challenges faced by teachers in Spain. In 2018/2019, 28.7% of teachers worked on a temporary contract, with large regional differences (from 42% in La Rioja and the Basque Country to 14% in Galicia). The teaching workforce is also ageing rapidly, as 34% of schoolteachers and 44% of university professors are over 50. Regions are organising competitions as part of the plan to reduce the share of temporary contracts in the public sector to 8% by the end of the 2020 recruitment competitions, but the pace at which permanent jobs have been made available so far ([38]) is not high enough to reach the 2020 target. Although the recruitment procedure for teachers underwent changes in 2018, the content of exams has remained unchanged since the 1990s. Plans to amend the access to the profession are on hold.

Teachers encounter difficulties in using ICT in teaching. According to the 2018 TALIS survey (OECD, 2019c), 66% of teachers with under 5 years of working experience felt well or very well prepared for 'the use of ICT in teaching' when they finished their studies. When all teachers are considered, results are significantly worse (36%). 15% of teachers report a high need for development in ICT skills for teaching.

Tertiary graduates face difficulties finding jobs matching their qualifications. Spain has a share of tertiary graduates above the EU average (42.1% of people aged 30-34 in 2018, against 40.2%), but 37.1% of tertiary graduates in employment had a job that did not require tertiary diplomas (against 22.7% on EU average). Admittedly, the share of tertiary students enrolled in VET programmes in Spain (20%) in 2017 was much higher than the EU average (7%). Only 23% of bachelor students followed a STEM curriculum (science, technology, engineering and mathematics), against 29% in the EU on average. In addition, among university students, only 25% were enrolled at Masters or Doctorate level, much below the 34% EU average. According to the Ministry of Education and Vocational Training (2019a), 28% of university students who graduated in 2014 were not working in 2018, but no information is available at national

([37]) Parents who have completed, at most, lower secondary education.

([38]) In 2018, 23,700 permanent jobs were made available for teachers in the upper secondary level (including VET). In 2019, 22,500 permanent posts were offered in primary education, and 8,000 additional posts in secondary education (in some regions).

level on the employment rate of tertiary VET graduates.

Orientation guidance for students facing study choices may not sufficiently take account of labour market needs. A recent survey indicates that the low enrolment in STEM degrees may be largely due to lack of guidance (65% of upper secondary respondents) and the perception of these degrees as being very challenging (40%) (DigitalES, 2019). Educational guidance prior to university mainly focuses on special learning needs or language difficulties rather than on education pathways for smooth transition to the labour market. According to Cedefop (Cedefop, 2016) there are shortages in some high-skilled occupations, notably in the fields of ICT, high value-added manufacturing and management (see Box 4.3.2). The most in demand university degrees are Management, Informatics, Engineering, Industrial Engineering, Work Science, and a double degree in Management and Law (Adecco, 2018). Spanish universities increasingly try to take the needs of enterprises into account and to improve their capacity to promote entrepreneurship. However, closer and more effective cooperation between universities and the business sector would be conducive to reducing skills shortages and mismatches for university graduates.

Public investment in education remains relatively low. Investment in education has stagnated since 2012 at around 4.0% of GDP (compared to an EU average of 4.6% in 2017), despite the plans announced to raise spending to 5% of GDP. However, total direct expenditure per full time student relative to GDP per capita is on a par with the EU average (23%). Education expenditure incurred by families is comparatively high in Spain. In 2017, 1.6% of total household expenditure went on education (against 1.2% on EU average). At the same time, a spending review of university student grants (AIREF, 2019b) concludes that the current system has contributed to giving poorer students more equal opportunities.

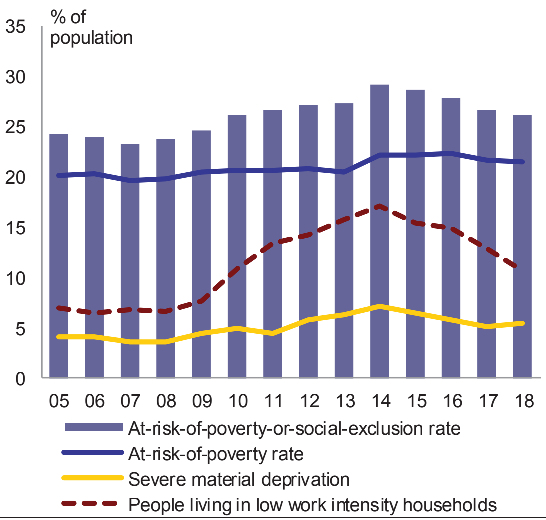
Enrolment in adult learning is improving but is especially low among low-skilled people. Enrolment in adult learning (over the 4 weeks prior to the survey) in Spain continued to improve in 2018 (up to 10.5%), to just below the EU average (11.1%), but is especially low (3.7%) among the low-skilled. Adult learning in Spain faces two main challenges: the validation of informal qualifications and the provision of relevant training in line with current and future labour market needs. Public employment services provide professional certification programmes (ISCED level 2, 3 or 4) with nationwide validity. Even if the provision of continuing vocational training in companies is largely supported by public funds, SMEs lack the collective structures to identify their needs and organise the relevant training courses, and chambers of commerce are involved in this to a limited extent only. Firms in depopulated areas face particular difficulties that could be addressed by further extending the online offer of training and better sharing of training offers across regions. The impact of the March 2019 measures to improve the provision of adult learning has yet to be assessed. These measures include changes in the procedure to update the catalogue of training specialisations, public funding of training for employment and the state register of training entities. The national PES, FUNDAE and several big technological companies recently signed a collaboration framework to allow workers to access free online training in digital skills.

4.3.3. SOCIAL POLICY

Job creation continues to support a reduction in the share of people at risk of poverty or social exclusion. In 2018 (income year 2017), the share of people at-risk-of-poverty or social exclusion (AROPE) decreased for the fourth consecutive year, to 26.1% (see Graph 4.4.4). However, the gap with the EU average remains large (4.2 pps) and is increasing. Large regional disparities prevail, with much lower rates in the northern regions (e.g. 12% in the Basque Country and Navarre) than in the south (e.g., 45% in Extremadura), partly reflecting strong differences in labour market outcomes.

Monetary poverty remained high, but the income of the poorest improved. The fall in the at-risk-of-poverty or social exclusion rate was mainly due to the 2.1 pps drop in the share of people living in jobless households (10.7%) in 2018, thanks to declining unemployment. At the same time, severe material deprivation increased again slightly (from 5.1% to 5.4%), as did material and social deprivation (14.7% to 15.1%) ([39]). The at-risk-of-poverty rate (at 60% threshold of median equivalised income) remained static at 21.5%, 4.4 pps above the EU average. However, there was a significant reduction in the depth of poverty as measured by the at-risk-of-poverty gap ([40]) (from 32.4% to 28.5%), although it remained among the highest in the EU.

Graph 4.3.4: **At-risk-of-poverty or social exclusion rate and its components**

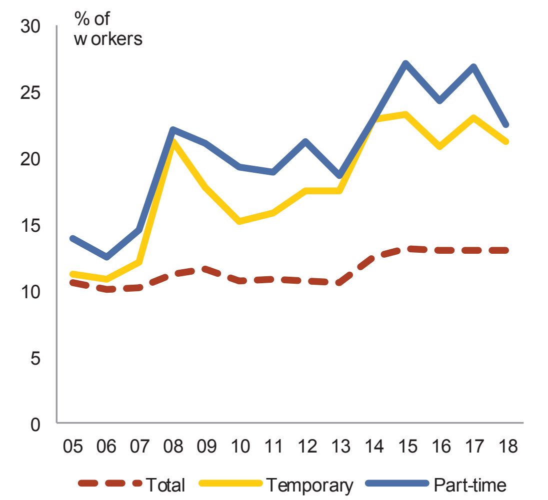


Source: Eurostat, EU-SILC [ilc_peps01, ilc_li02, ilc_mddd11, ilc_lvhl11]

Disposable income inequalities declined, but remained among the highest in the EU. In 2018, the income share of the 20% richest households was 6.0 times higher than that of the 20% poorest, down from 6.6 in 2017. This is the lowest S80/S20 ratio since 2010, but it remains well above the EU average (5.2). While job creation helped improve the income of the poorest, the income share of the poorest 40% of the population, at 19.1% in 2018, remained below its pre-crisis levels and the EU average (21.0%).

In-work poverty remains very high and this points to poor job quality. The share of people in employment at risk of poverty reached 13.0% in 2018, 3.4 pps above the EU average ([41]). This share remained static since the significant hike observed in 2014 and 2015. The risk of poverty for workers on temporary contracts (21.3%) is three times higher than that of permanent workers (7.3%), resulting in a 14.0 pps gap (much wider than the EU average of 10.1 pps) (see Graph 4.3.5). Lone-parents households are also highly exposed to in-work poverty (28.3%, 4.7 pps above the EU average), with an upward trend since 2012. In-work poverty has increased particularly in households with a medium to high work intensity ([42]), which may indicate that the Spanish social protection system is not doing enough to support the incomes of people at work, including those with children.

Graph 4.3.5: **In-work poverty rate**



Source: Eurostat, EU-SILC [ilc_iw01, ilc_iw05, ilc_iw07, ilc_iw02]

The weaknesses of family benefits and income guarantee schemes limit the capacity of social transfers to reduce poverty. Social transfers other than pensions reduced the overall risk of poverty in Spain by 22.9% in 2018. As flagged up in the Social Scoreboard, this is one of the lowest values in the EU, 10.3 pps below the EU average. The poverty-reduction effect is particularly low for children, in a context of low and poorly targeted income support for families (see Box 4.3.3).

([39]) The material and social deprivation indicator rate is the share of people in the total population lacking (because of an enforced lack) at least 5 out of the 13 selected items.

([40]) The at-risk-of-poverty gap is the difference between the median equivalised disposable income of people below the at-risk-of-poverty threshold and the threshold itself (60% of median equivalised disposable income).

([41]) These data refer to income year 2017, so they do not yet reflect the increase in the statutory minimum wage in 2018 and 2019, designed to reduce in-work poverty.

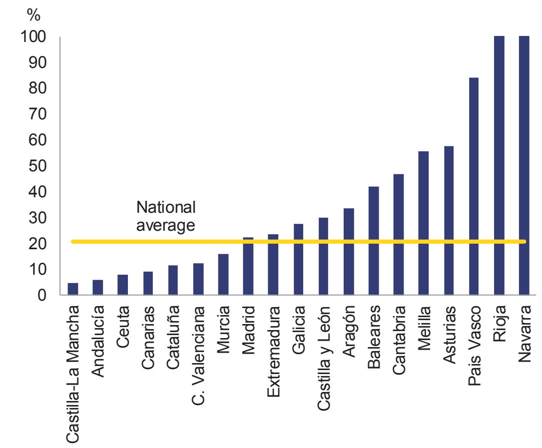
([42]) Households in which working age people achieve only part of their full time, full year potential. This category includes single-earner couples, and people working part time or only part of the year.

Contributory unemployment benefits are relatively effective in Spain in terms of coverage and adequacy ([43]). By contrast, the non-contributory unemployment assistance has major shortcomings. 77% of the very long-term unemployed ([44]) in Spain receive no benefits (EPA, Q1-2019). The maximum amount of non-contributory unemployment assistance received is €430 a month, equivalent to less than half the statutory minimum wage.

Plans to streamline the national income guarantee schemes are on hold. At national level, non-contributory unemployment assistance remains split up into multiple schemes targeting different groups of unemployed people. Although in Royal Decree Law 28/2018, the Government committed to putting forward a new model by April 2019, this reform was put on hold. The 2019-2023 National Strategy to Prevent and Combat Poverty and Social Exclusion, approved in March 2019, announced that a subsistence minimum income (‘*Ingreso Mínimo Vital*’) was to be developed by 2023, possibly taking on board the findings of the ad-hoc report produced by the independent fiscal authority (AIReF, 2019g) ([45]). The introduction of such a scheme at national level may require changes to the existing regional minimum income schemes.

The take-up of regional minimum income schemes remains limited. Currently, only three Spanish regions still make the right to their means-tested income support schemes conditional on budgetary availability. However, coverage remains very low in most regions. According to EUROMOD ([46]) simulations performed by the European Commission Joint Research Centre, only 20% of potential beneficiaries (according to regional eligibility criteria) were receiving regional minimum income benefits in 2018 (see Graph 4.3.6). Nationwide, the number of beneficiaries decreased by 7% between 2016 and 2018 (MSCBS, 2019), but trends differ across regions. Take-up seems to have improved in some regions (for instance, the number of beneficiaries tripled in the Balearic Islands), while it fell in others (in Andalusia, for instance, the number of beneficiaries fell by 49%). The average amount of the benefits increased by 2.9% in 2018, but there are still large regional disparities in terms of adequacy. Simulations suggest that the schemes have a limited but varying impact on reducing the at-risk-of-poverty gap (by 1.5 pps in 2018 nationwide, with zero impact in half of the regions but a very significant effect in others, such as Navarre, the Basque Country and Asturias). No progress has been made on the portability of benefits across regions in 2019.

Graph 4.3.6: **Estimated coverage ratio of regional minimum income schemes, 2018**



(1) The estimated number of beneficiaries in small regions is highly dependent of the sample size in EU-SILC. In those cases, the estimated confidence intervals are large and results must be interpreted cautiously.
Source: European Commission, Joint Research Centre, based on the EUROMOD model and MSCBS data.

([43]) Contributory unemployment benefits cover around one in three people in short-term unemployment (in line with the EU average). However, temporary workers face difficulties with completing the required qualifying period (at least 360 days over the previous 6 years). Moreover, the duration of the benefit is among the shortest in Europe (European Commission, 2020a), between 4 and 24 months depending on the qualifying period.

([44]) Those who have not had a job for 24 months or more.

([45]) AIREF estimates that the nationwide minimum income scheme featured in the Popular Legislative Initiative submitted to Parliament in 2016 would reduce extreme poverty by 28% and improve income distribution by 4%, with an annual budget impact of between €7.2 and 9.8 billion. AIREF put forward two alternatives to this scheme that, according to their analysis, would be more effective and cost less.

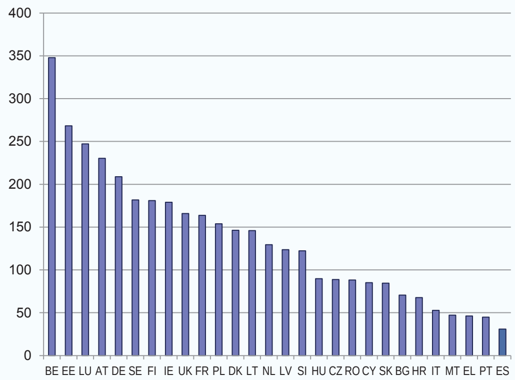
([46]) EUROMOD is the tax-benefit microsimulation model for the EU. It simulates individuals' and households' benefit entitlements and tax liabilities (including social security contributions) according to the rules applicable in each Member State. Simulations are based on representative survey data from the 2017 European Statistics on Income and Living Conditions (EU-SILC) and cover the main elements of direct taxation, social contributions and non-contributory benefits. Incomes reported in the 2017 EU-SILC refer to 2016. Incomes are uprated to match the simulated policy year.

Box 4.3.3: Child poverty in Spain

Children in Spain face one of the highest risk of poverty or social exclusion in the EU, although it has started to decline. In 2018, 29.5% of children (0-17 years) in Spain were at-risk-of-poverty or social exclusion, 6.3 pps less than in 2014 but still 5.5 pps above the EU average. Monetary poverty affects especially children with a migrant background (49.2%) or lone parent households (42.9%).

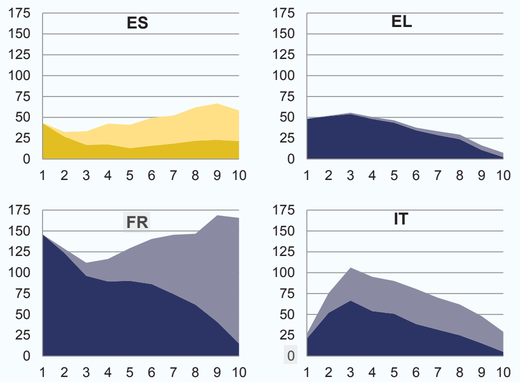
Despite very low and decreasing fertility rates, Spain is the country providing the lowest family benefits in the EU. Public spending on family benefits in Spain represented 1.2% of GDP in 2017, half of the EU average (2.3%) (Eurostat, ESSPROS). Family benefits come to just €31 PPS per month per child, ten times less than the best performer (Graph 4.3.7.a) ([1]). This is equivalent, on average, to less than 1% of equivalised household disposable income in Spain. Even when other benefits are taken into account, the overall impact of social transfers (excluding pensions) in reducing child poverty in Spain is the lowest in the EU (18%, compared to 42% on EU average).

Graph 4.3.7.a: **Average family benefits per child (PPPs/month) – 2019**



Source: European Commission, Joint Research Centre, based on the EUROMOD model [EU-SILC 2017 data)

Graph 4.3.7.b: **Children support in 2019 from taxes and benefits (pps/month) - breakdown by decile**



Source: European Commission, Joint Research Centre, based on the EUROMOD model [EU-SILC 2017 data).
Taxes: light colour. Benefits: dark colour.

Support to middle-income families is weak as child benefits target the most deprived while tax allowances tend to benefit the highest incomes. EUROMOD microsimulations reveal that the family benefits only have a meaningful impact on the income of the 10% poorest (decile 1), accounting for 9.5% of their equivalised household disposable income. This share decreases rapidly in the remaining deciles (2.4% for households in decile 2, 1.4% in decile 3, etc.). Meanwhile, child-related tax deductions benefit only families with taxable incomes above the tax-exempted threshold. As a result, the combined effect of the tax and benefit system for families with low-to-medium income (especially, deciles 2 and 3) is very low, as they are excluded from the means-tested child benefit and have limited access to tax deductions. Overall, child-related tax deductions outpace child benefits, so that financial support to families with children in Spain follows a regressive pattern (Graph 4.3.7.b) ([2]). This pattern differs from that of other EU countries with low levels of benefits, which tend to be more progressive. Other countries have neutral or regressive patterns but provide much higher levels of support for children, reflecting stronger solidarity between childless households and those with children.

The increase in means-tested child benefit is not helping to reduce the risk of poverty, and it has a very limited impact on the poverty gap. According to EUROMOD simulations performed by the European Commission Joint Research Centre, the impact of the recent reform on the Gini index and the risk of poverty is negligible. Some impact is observed on the at-risk-of-poverty rate of lone parents (-0.6 pps) and on the overall at-risk-of-poverty gap (-0.4 pps). The effects are limited because the benefits are very low (€341 or 588 annually, depending on annual income) and because the strict means test, which results in low coverage. The benefits are available only to families with very low incomes (around €14,200 per year for two parents with two children, well below the poverty threshold of €22,200 – children aged 14-17). As a result, roughly one in two children at risk of poverty or social exclusion receives benefits. Standard families above that threshold do not receive regular child benefits, except for children with disabilities.

([1]) EUROMOD simulations performed by the European Commission Joint Research Centre. The family benefits used here are childbirth–related benefits (e.g. maternity and paternity benefits, parental benefits, etc.) as well as other regular benefits associated with the cost of raising children (e.g. child grant, periodic child allowances, etc.). The average is calculated for all children, not only those receiving benefits. PPS: Power Purchasing Standards.

([2]) Only the simulated family benefits are captured in this graph (i.e., all type of child benefits, including refundable tax credits). Maternity /paternity leave benefits are not included.

Although steps to combat child poverty were taken in 2019, they are still not commensurate with the scale of the challenge. In March 2019, the amount of the means-tested child benefit was increased after an 18-year freeze, from €291 per year and child to €341 (or €588 for the most deprived families). However, the impact of this measure on child poverty is limited (see Box 4.3.3). Tackling child poverty is one of the main priorities for the 2019-2023 National Strategy to Prevent and Combat Poverty and Social Exclusion that was approved in March 2019. To this end, the strategy proposes to step up the coverage and adequacy of the child allowance, without, however, setting any quantified objectives. Other measures adopted in 2019 include an increase in the budget for the VECA programme for vulnerable children.

Family-friendly policies could contribute to mitigating demographic challenges, in a context of very low birth rates and ageing population. Life expectancy in Spain (83.4 in 2017) is the highest in the EU, and in 2018 there were on average 1.2 persons older than 64 for every person under 16 years old. Spain also has the second lowest fertility rate in the EU (1.31 children per woman in 2018, compared to 1.59 on EU average) and women tend to have their first child later (at 30.9 years in 2017, against 29.1 years on EU average).

Older adults face a much lower risk of poverty or social exclusion than children and working age adults. In 2018, 17.6% of people over 65 were at-risk-of-poverty or social exclusion, 0.7 pps below the EU average. This rate has been rising since 2014 but remains well below the pre-crisis level and the rate for other age groups. Spanish pensions compare well with other pension systems in the EU in terms of adequacy (see the 2019 country report). The increases in the minimum pensions may help to keep the at-risk-of-poverty gap relatively small.

Coordination between employment and social services is improving, but still varies across regions. Two new working groups were set up in 2019 as part of the Social Inclusion Network (RIS), to discuss tools to improve the assessment of vulnerability and the sharing of information between the third sector and public employment and social services. Progress has been limited so far. Pilot projects are under way to improve the cooperation between regional employment services and social services. Meanwhile, the 'universal social card' continued to be rolled out in 2019. This improves service providers' access to information on benefits received by individuals and thereby facilitating coordination between employment and social services. All data on recipients of national benefits are uploaded into the system, but significant gaps remain on benefits managed by regional and local authorities.

Non-EU migrants and Roma population continue to face integration challenges. Non-EU born people face a much higher risk of severe material deprivation (14.8%) than natives (3.9%). They are more exposed to precarious working conditions and to in-work poverty (44.3%, compared to 17.1% for natives). The Roma community also shows high social vulnerability. Only 17% of Roma complete lower secondary education and 63% of young Roma are neither in employment, nor in education or training (Fundación Secretariado Gitano, 2019). Poor educational outcomes result in low employment rate (30%), very high unemployment (52%) and extremely high at risk-of-poverty or social exclusion (92%). These results are consistent with the work of the Fundamentals Rights Agency (FRA, 2016), which showed that Roma in Spain face similar challenges to those of other deprived Roma communities in the EU. The 2012-2020

National Roma Integration Strategy will need to be updated in the near future. There are also some regional strategies (e.g. Andalusia, Catalonia. They face the challenge of achieving a real impact on sectoral policies.

The number of homeless people spending the night in shelters continues to rise. In 2018, 18,000 people were hosted in a shelter daily on average, 9.5% more than in 2016 (INE, 2019). The implementation of the 2015-2020 National Strategy against Homelessness, including the development of the 'housing first' approach, has been limited and lacks synergies with an overarching housing strategy. A legislative change in March 2019 strengthened the protection for vulnerable households at risk of eviction.

Spain has adopted a national strategy to combat energy poverty. In 2018, 9.1% of people were not able to keep their homes adequately warm, 1.1 pps more than in 2017 and 1.8 pps above the EU average. The situation deteriorated particularly among people at risk of poverty (20.8%, compared to 19.4% in 2017) (EU-SILC), pointing to problems in the deployment of the social tariff. The 2019-2024 Strategy against Energy Poverty adopted in April 2019 aims to reduce the number of people affected by the different dimensions of energy poverty by at least 25% by 2025. This Strategy restricts the conditions for cutting the electricity supply and outlines a reform of the social tariff. The political deadlock has impeded further development.

4.3.4. HEALTHCARE AND LONG-TERM CARE

Spain guarantees universal access to healthcare but out-of-pocket payments on dental care are a barrier to access for low-income households. Spaniards report one of the lowest levels of unmet needs for medical care in the EU (0.2% in 2018). By contrast, the share of unmet needs for dental care is relatively high (4.6%, 1.7 pps above the EU average), particularly among people in the lowest income quintile (12%, 6 pps above the EU average). Direct out-of-pocket spending by households (mainly on dental care and to some extent, on pharmaceuticals) reached 23.6% of total health expenditure in 2017, 7.8 pps above the EU average (OECD, 2019e). A spending review by AIReF highlights that the current co-payment model for pharmaceuticals mostly penalises low-income workers and recipients of minimum income benefits relative to pensioners (AIREF, 2019a).

The primary care system performs well, but needs further adaptation to cope with the demographic and epidemiological shifts. Population ageing creates new health care needs, as nearly 60% of Spaniards aged 65+ have at least one chronic disease, more than 20% have some limitations in daily activities and almost 40% have reported symptoms of depression. A new strategic framework for primary and community care (April 2019), is designed to strengthen the role of the Interterritorial Council in its commitment to prioritise financial and human resources dedicated to primary care and step-up the provision of primary care as well as the use of information technologies. The strategic framework still needs to be implemented, including through allocation of relevant resources. Moreover, resources for preventive measures are limited.

There are inefficiencies in the purchase and use of pharmacy-dispensed medicines. A spending review (AIREF, 2019a) concluded that regional variations in spending on pharmacy-dispensed medicines are not explained by healthcare needs. Some measures, including a new tool for assessing the therapeutic value of medicines, aim to tackle these inefficiencies. The use of generic medicines remains below the EU average, and has not increased since 2014 (48%). An Action Plan for a more sustainable use of medicines is being prepared and includes 17 measures to increase the use of generics and biosimilars. Spending on pharmaceuticals in hospitals continues to rise while spending levels also vary considerably across regions. A spending review of hospital drug and investment expenditure, which is due by 2020, should provide recommendations.

Inefficiencies are also linked to the recruitment and working conditions of health workers. The persistent use of temporary contracts contributes to the large turnover of health workers. The authorisation to recruit 83,100 permanent workers nationwide in 2018-2019 aims to address this challenge, although the recruitment competitions are progressing at slow pace and the transition to permanent employment for healthcare professionals remains insufficient. The number of nurses per 1,000 people is well below the EU average (5.7 in Spain vs. 8.5 in the EU) and the new advanced nurse practice is still not in place in all regions. There are plans to continue increasing the places accredited and offered for the training of specialists in Family and Community Medicine. However, there is a lack of consensus between educational and health authorities on medium to long-term needs. Measures to promote teamwork in primary care and a better territorial distribution of healthcare professionals still have to be defined.

In a context of rapid ageing of the population, growing needs for long-term care are likely to increase in the future. The number of beneficiaries of the long-term care system rose by 5.8% over 2019. The coverage ratio remains slightly above 80% (December 2019), but large regional disparities persist (from 68% in Catalonia to 99% in Castile and León). People with severe dependency have lower coverage (66%) than those with moderate dependency (88%).In a context of rapid population ageing, public services lack the resources ([47]) to meet the demand. As of April 2019, exemption from social security contributions boosted the affiliation of informal carers, 89% of whom are women, to the system (from 6,700 in March 2019 to 55,100 in December). There are shortcomings in the coordination between social and health services and in the quality of the services. Increasing needs for long-term care may add to other fiscal concerns in the long run (see Box 4.1.1).

([47]) Out-of-pocket costs are near 100% of the disposable income for care recipients with severe needs in Spain (OECD, 2019d).

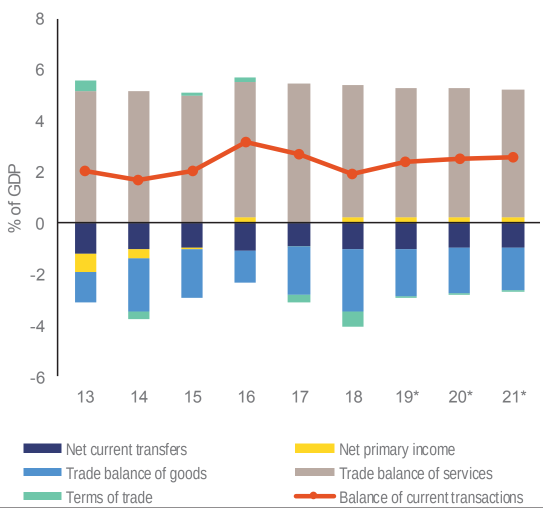
4.4. COMPETITIVENESS, REFORMS, AND INVESTMENT

4.4.1. INVESTMENT, COMPETITIVENESS, AND PRODUCTIVITY *

Medium to long-term growth prospects will depend on investments to increase productivity and innovation and foster the green transformation. The level of Spanish non-construction investment has reached its pre-crisis peak, but remains below the euro area average (see Section 1 and Box 4.4.3). Investment needs persist in public and private R&D and innovation; digitisation; and the green transformation, including eco-innovation, resource efficiency and the circular economy. Such investment would be more effective if accompanied by appropriate labour and product market measures, as well as improvements in the skills of the workforce (see Section 4.3). Spain is well served overall with transport infrastructure, but the improvements in rail freight and energy connections with neighbouring countries would improve access to markets, both domestic and European, in an environmentally sustainable way.

Competitiveness

Graph 4.4.1: **Changes in current account and drivers**

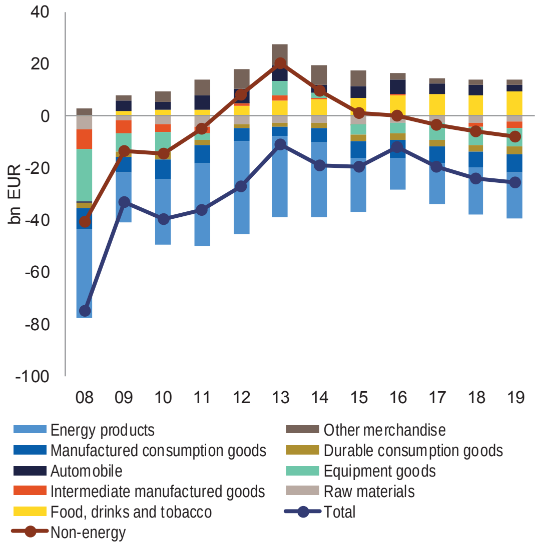


Source: Ameco.

Spain's current account has been in surplus since 2013. The current account surplus is the result of a large surplus in services, notably tourism, which more than offsets the deficit in goods and a small surplus in net primary income (see Graph 4.4.1). The current account balance has moved from a large deficit in the pre-crisis years to a solid surplus since 2013, driven by an improvement in both the goods and services balance. In the case of goods, this was due to both an increase in exports and, in the earlier stages of the crisis, a decline in imports. In the case of services, the improvement has been mostly due to an increase in exports. The balance of net primary income has also improved mostly due to the decline of interest payments to the rest of world, as a consequence of the reduction of both interest rates and the total amount of external liabilities.

Spain's dependency on imported energy acts as a major drag on the goods trade balance. By product type, Spain has consistently recorded a surplus in food and drink products, as well as automobiles (Graph 4.4.2). However, this surplus is not enough to offset the large deficit in energy products. Spain's energy import dependency (measured as the share of net imports in gross inland energy consumption) is 74%, substantially higher than the EU average of 55%. This implies that energy prices have a major impact on Spain's trade balance of goods. Equipment goods, manufactured and durable consumption goods (other than vehicles), and to some extent, intermediate manufactured goods, also show a deficit.

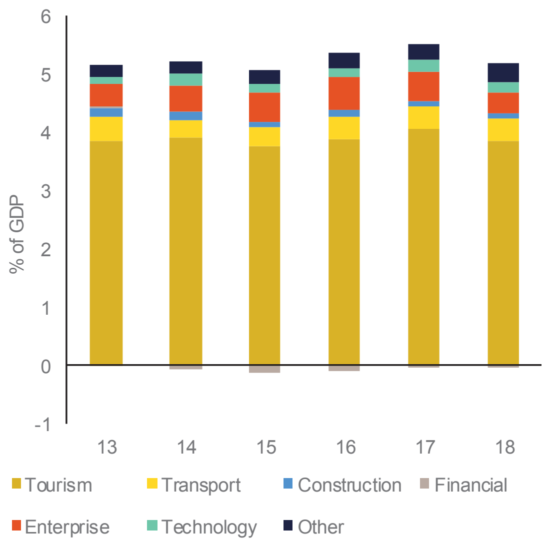
Graph 4.4.2: **Trade balance by product type (Jan-Sep)**



Source: Datacomex

Spain also records a trade surplus in most categories of non-tourist services. Although tourism revenues represent about half the total exports of services, they account for most of the service trade surplus (see Graph 4.4.3, see also Box 4.4.1). However, non-tourist services also record a surplus in most categories, which is largest in non-tourist transport services and business services (R&D, consultancy, and professional services). In contrast, intellectual property services (a subpart of "technological services" not depicted separately), record a small deficit linked to the reliance of Spain on imported technology, as well as financial services.

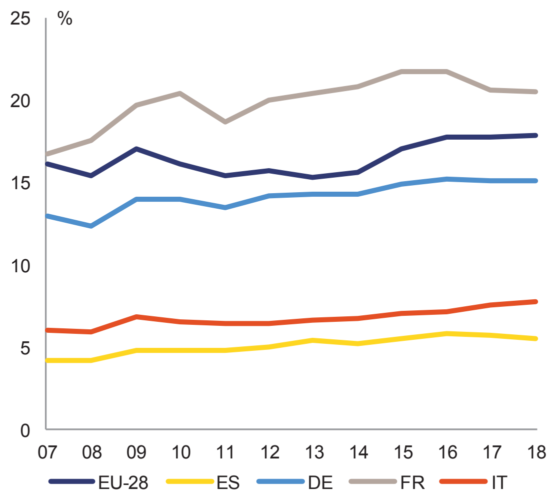
Graph 4.4.3: **Trade balance in services**



Source: BDE, own calculations.

Spain is largely reliant on cost competitiveness for its exports. There have been structural improvements in the development of exports in recent years. Namely, exports have become somewhat less price sensitive (European Commission, 2018a), and the number of regular exporters has continued to increase, also during 2019. Still, Spanish exports are concentrated in goods and services that compete mainly on prices. The share of high-tech exports remains below that of other large EU Member States (see Graph 4.4.4), and in terms of value added, Spain is more present in the downstream part of global value chains, which is more exposed to competition from emerging countries (European Commission, 2016a, 2017a, 2018a, 2019a, and Bank of Spain, 2019e). Much of the increase in exported value in recent years has been achieved by very large exporters, which have on average recorded more favourable unit labour cost developments than smaller exporters, given their higher productivity growth (see European Commission, 2017a).

Graph 4.4.4: **Share of high-tech exports**



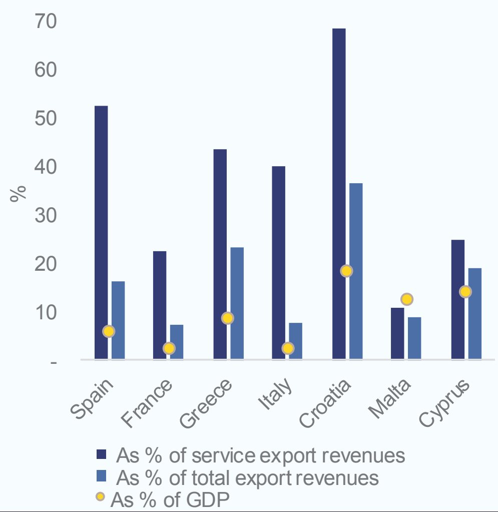
Source: Eurostat.

Enhancing productivity and non-cost competitiveness are crucial in preserving Spain's external surplus. From 2009 to 2018, Spain's cost-competitiveness against the main 37 industrial countries – as measured by the real effective exchange rate – improved by around 15% based on unit labour costs. However, as wage growth is expected to rise and productivity growth to remain subdued, this should result in moderate cost-competitiveness losses vis-à-vis the euro area in 2019 and 2020 (see Sections 1 and 3). Maintaining external competitiveness could become a challenge unless it is supported by productivity growth and improved non-cost competitiveness through innovation quality upgrading.

Box 4.4.1: Tourism industry

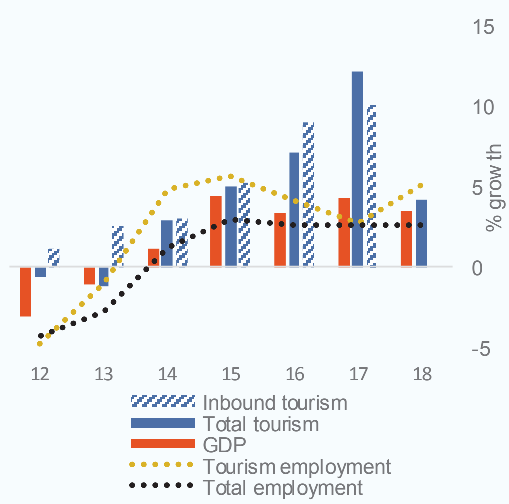
Building upon its coastal natural beauty and cultural heritage, tourism has always been an important source of foreign revenue for Spain. International tourism expenditure accounts for 16.4% of Spain's export revenues and about half of its service export revenues. While inbound tourism is a key economic driver for many of the Mediterranean countries (Graph 4.4.5.a), Spain also enjoys a prominent domestic tourism. With 90% of resident tourists travelling inside the country, domestic tourism expenditure represents 2.2% of GDP ([1]). Overall, the total contribution of Spanish tourism to GDP in 2018 was 12.3% and the share of tourism-related employment a sizeable 12.7%. Moreover, the tourism-related economy contracted less in 2012-2017, and then recovered faster than the overall economy both in terms of both tourism value ([2]) (total and inbound) and tourism-related employment (Graph 4.4.5.b).

Graph 4.4.5.a: **Expenditure by international tourists, 2018**



Source: Eurostat, BoP data

Graph 4.4.5.b: **Tourism demand, employment and GDP; annual growth**



Note: 2019 data release for: GDP (all years), total tourism (2016-2018), total employment (all years), tourism employment (2016-2018); and 2018 data release for all other data.
Source: INE - Tourism Satellite Account (TSA), The Economically Active Population Survey (EAPS).

Spain is seeking to diversify from the typical "sun and sea" tourism model and move towards a higher value added production of tourism by attracting interest in culture, heritage and sports. The National and Integral Tourism Plan 2012-2015, adopted by the government in 2012, focused on providing differentiated products and addressing new markets. In line with this strategy, the share of international tourist expenditure for cultural reasons has increased over the past three years by roughly four percentage points (reaching approximately 15%), while the share of seaside tourism expenditure gradually decreased from just over half in 2016 to 43.4% in 2018 (Egatur, INE). Moreover, while the number of tourism-related firms increased by 2.3% (1.2% excluding tourism related real estate) between 2015 and 2019, the number of companies providing sports, recreation, creative and arts activities has grown by an annual average of 7.5% since 2015 (INE). In January 2019, the government also developed the Strategy for Sustainable Tourism 2030, designed to strengthen the sector with a focus on its socio-economic, environmental and territorial sustainability. The strategy seeks to promote the natural and cultural values of different destinations, while overcoming the potential negative effects of tourism such as loss of identity of destinations, (seasonal) saturation of spaces and environmental pollution.

Despite the heavy concentration of tourist activities along the coastline, Spain also has several emerging tourism regions where the sector is developing fast. With a share of 10.3% of the total inbound tourists' expenditure in 2018, Madrid has seen rapid development, constantly overtaking the national growth of international expenditure since 2014. Extremadura and Galicia recorded even faster development of their tourist potential, though they account for much smaller shares of non-resident tourist expenditure (1.9% and 2% in 2018, respectively). Moreover, during the past two years, regions such as Catalonia, Galicia and Murcia have seen an increase in average expenditure per tourist that exceed the rise in GDP/capita, potentially indicating a move towards a more quality-oriented tourism model.

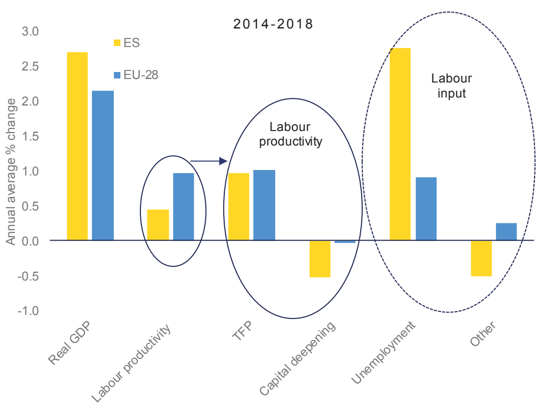
Despite recent positive trends, the tourism sector might be vulnerable to both a general slowdown of global demand and external shocks (see Section 4.5). After two years marked by significant growth of foreign tourist arrivals, by 10.5% in 2016 and 8.6% in 2017, figures for 2018 show an abrupt deceleration, to 1.2%. In addition, there is a slowdown in total expenditure growth, from 10% in 2017 to 1% in 2018. The cause might be the overall European growth slowdown or the fading away of security risks in North African countries and Turkey. Moreover, with 22.3% of visitors coming from the UK, the bankruptcy of the British travel group Thomas Cook might also have a short-term negative effect on Spain's 2019 figures, given the group's outstanding debt of €260 million to over 600 Spanish hotels (3). With an estimated loss of direct employment of more than 3,400 jobs (workers at the company's head office in Spain and other hotel representatives), the bankruptcy might also generate spill-over effects on other sectors, such as transport or commerce.

(1) Eurostat, expenditure on tourism trips by purpose (tour_dem_expur)
(2) According to the Tourism Satellite Account, tourism demand is measured as the sum of tourism-related amounts within each GDP demand component (consumption by resident consumers or domestic tourists' expenditure; public expenditure - e.g. grants provided for the development of the sector; gross fixed capital formation – e.g. accommodation or transport infrastructure; exports or foreign tourists' expenditure; and imports or resident tourists' expenditure abroad).
(3) However, the government recently approved the opening of a credit line worth €200 million, meant to help companies affected by Thomas Cook's bankruptcy.

Productivity developments

Labour productivity growth has been relatively weak in recent years. Between the start of the economic recovery in 2014, and 2018, apparent labour productivity, measured as real output per worker, has been growing at a pace below the EU average, at an average annual rate of 0.5%. It even fell slightly in 2018 and was projected to fall further in 2019. Based on a standard growth accounting exercise, Graph 4.4.6 dissects the supply-side determinants of average annual growth in Spain and the EU during the past five years of economic expansion. The picture reveals that total factor productivity (TFP) has grown in line with the EU average. By contrast, capital deepening has decreased, as the increase in the capital stock has not kept pace with the rapid job creation recorded by Spain in the recovery years. Indeed, Graph 4.4.6 shows that Spain outperformed the rest of the EU in terms of the contribution of labour input to growth, in particular thanks to a significant fall in the unemployment rate. However, the level of unemployment remains very high in Spain.

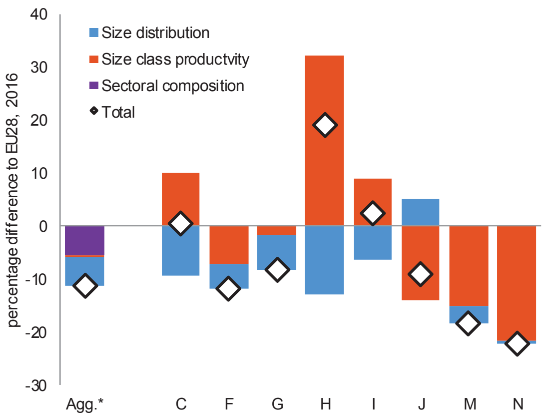
Graph 4.4.6: **Real GDP growth and its supply-side determinants**



Note: "unemployment" is shown with opposite sign
Source: Ameco, own calculations.

Labour productivity in Spain remains below the EU average. When measured over a representative aggregate of the market economy and expressed in purchasing power standards (PPS), the level of apparent labour productivity in Spain was 11.5% below the EU average in 2016, and significantly below that of other large euro area Member States (European Commission, 2019a).

Graph 4.4.7: **A decomposition of Spain's productivity gap to the EU average**



Sectors: C: manufacturing; F: construction; G: wholesale and retail trade; repair of motor vehicles and motorcycles; H: transportation and storage; I: accommodation and food service activities; J: information and communication; M: professional, scientific and technical activities; N: administrative and support service activities.
These sectors account for 60% of Spanish GDP.
Source: Eurostat SBS and JRC calculations, Bauer et al., 2020.

Spain's productivity gap to the EU average is due to a larger proportion of employment in low-productivity firms and low-productivity activities. Graph 4.4.7 shows a breakdown of Spain's productivity gap with respect to the EU average along three dimensions: (i) firm size distribution, (ii) size class productivity, and (iii) sectoral composition (Bauer et al. 2020) ([48]). The graph shows that about half of Spain's productivity gap to the EU average is attributable to the sectoral composition of its economy. This means that Spain has a relatively high share of sectors characterised by lower apparent labour productivity. The other half of the gap is explained by Spain's larger share of employment in smaller firms (size distribution effect). This is consistent with the general finding that small firms tend to be less productive than large firms for a number of reasons such as smaller economies of scale, less capital intensity, more difficult access to (non-bank) finance, and lower capacity to adopt new technologies.

Productivity in the Spanish manufacturing sector is on a par with that in the EU, but most other market sectors display a negative gap. When looking at individual sectors, the decomposition analysis reveals that in manufacturing, transportation and storage, and accommodation and food services, Spanish firms are, on average across size classes more productive than their EU peers (size-class productivity). This tends to (more than) outweigh the negative impact of the smaller average size of Spanish firms in these sectors (size distribution effect). By contrast, in construction, wholesale and retail trade, professional services, and administrative and support activities, Spanish firms tend to be both less productive than their EU peers on average across size-classes, and also suffer from the negative impact of being smaller. Unlike the other sectors, information and communication activities benefit from a larger average firm size, but overall the sector records lower apparent labour productivity because firms are on average across size-classes less productive than their European peers.

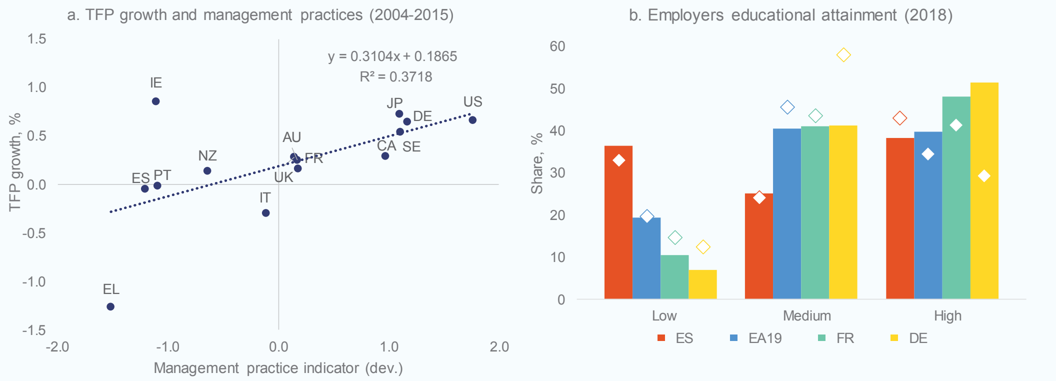
Improving within-firm productivity and allocative efficiency are key to raising overall productivity in Spain. Within-firm productivity depends on the ability of firms to innovate, invest in tangible and intangible assets and make best use of their human capital endowment, as well as on their organisation and management. On many of these dimensions, Spain underperforms its peers. The quality of human capital is affected by low and/or under-utilised skills and skills mismatches on the labour market. Evidence also points to significant gaps in managerial practices in Spain compared to best international practices (see Box 4.4.2), as well as under-investment in research and innovation. In addition, regulatory fragmentation and labour market segmentation hamper the efficient allocation of resources.

([48]) Firm size is measured in terms of number of employees and is divided into five size classes: 0-9, 10-19, 20-49, 50-249, and 250 and more employees. The size class productivity compares Spain's and the EU's average level of productivity for each of the five firm size classes.

Box 4.4.2: **Management practices and productivity**

Managerial proficiency in the organisation and utilisation of labour and capital (sometimes called "organisational capital") is key to firm productivity (e.g. McGowan and Andrews, 2015, and Giorcelli, 2019). A positive correlation is found between "best management practices" –as measured by the World Management Survey indicator ([1])–, and GDP per head, as well as with TFP (Graph 4.4.8.a) (Bloom et al, 2012, 2014). Management skills and practices are particularly important for the introduction of new technologies such as information technology (IT) and digitisation, because the adoption of IT usually requires management capacity to introduce the appropriate changes in firm organisation ([2]).

Graph 4.4.8: **TFP growth, management practices indicator and employers' educational attainment**



(*) Diamonds indicate the share of employment in each educational level for each country
Source: OECD, WMS, Eurostat, Commission services.

On average, Spanish firms rank second-lowest among advanced economies on the World Management Survey indicator of best management practices, well below the US, as well as below the best performers in Europe (Graph 4.4.8.a). For Spain, a large part of the difference in management quality stem from a larger proportion of firms that perform poorly, in the low tail of the distribution. Given that best management practices tend to be more widespread in larger firms ([3]), it is also likely that Spain's bad performers are of small size and usually less productive. This could point to a comparatively low level of product market competition, which would result in low performers being able to stay in the market.

The use of innovative practices by managers is also likely to be favoured by managers' educational attainment and learning process, as shown by the positive association between management human capital -measured by the share of employers with a university degree- and management practices (Bloom et al., 2014 and Broszeit et al., 2016). In Spain, a larger proportion of entrepreneurs have a low level of educational attainment relative to the Eurozone average (Graph 4.4.8.b), and this proportion is also higher than the overall share of the low skilled in the total working population. By contrast, in the other large euro area Member States and in the euro area as a whole, employers are more highly educated on average than the working population.

([1]) The World Management Survey (WMS) collects answers from firm managers in 33 countries from Europe, Asia and America in four main management areas: innovative operations, performance monitoring, target setting and incentives for workers and management. WMS data aggregate responses from these different areas into a combined indicator as a whole measure of management practices, which is shown in Graph 4.4.8.a in deviations from the average of advanced economies for the period (2004 - 2015).

([2]) Management and IT adoption are complementary inputs in the production process (Saia et al., 2015, Andrews et al. 2018, Schivardi and Schmitz, 2019).

([3]) There is a positive correlation between best management practices and firm size in most countries.

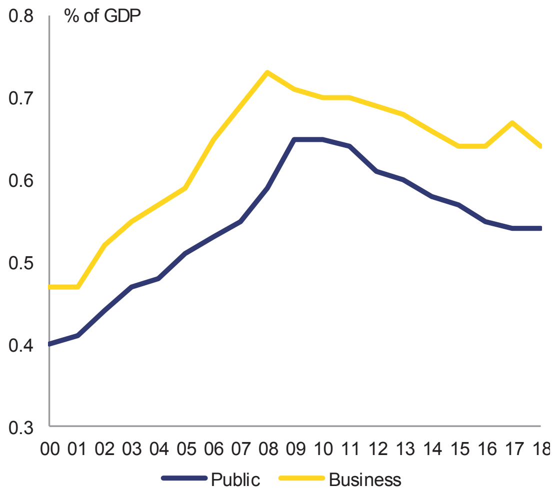
Research and innovation

Spain's innovation performance is below the EU average, though it has recorded some improvement since 2011. Spain ranks as a "moderate innovator" in the EU (European Innovation Scoreboard, 2019). Spain scores high on indicators such as sales of new-to-market/firm innovations, broadband penetration, new doctorate graduates and tertiary education. Weak points are firm expenditures on R&D, links between innovative small and medium-sized companies, and links between academia and business, knowledge-intensive service exports, and the proportion of innovative SMEs. Spain also ranks below the EU average in knowledge-based capital assets, including organisational capital (OECD, 2018 and 2019). Overall Spain's weak innovation performance hampers productivity growth and the structural change towards a knowledge-based and green economy. Measures to improve the Spanish research and innovation performance would contribute to advancing towards SDG 9 (Industry, innovation and infrastructure).

Low investment in R&D is holding back Spain's innovation performance. Total R&D expenditures declined from 1.35% of GDP in 2009 to 1.24% in 2018. Public R&D expenditure was cut during the crisis and the cuts have not been reversed. Public investment in R&D declined from 0.65% to 0.54% of GDP between 2009 and 2018, well below the EU average of 0.69%. Private investment in R&D fell from 0.73% of GDP in 2007 to 0.64% in 2016. It has since recovered to 0.7% in 2018, but it is still low compared with the EU average of 1.41% (2018).

Although the quality of the Spanish public research system has improved in recent years, on average the quality is still lagging behind. The research system has changed in various ways, including an update of the evaluation criteria for research staff. This has spurred growth in the volume of research. However, the quality of research, measured by the percentage of Spanish scientific articles in the top 10% most cited publications worldwide, is still lagging behind (Salazar-Elena J.C. and Sanchez-Martinez, M., 2020), and it remains below the EU average (European Innovation Scoreboard, 2019).

Graph 4.4.9: **Evolution of business and public R&D intensity, 2000-2017**



(1) Business R&D intensity: business enterprise expenditure on R&D (BERD) as% of GDP.
(2) Public R&D intensity: government intramural expenditure on R&D (GOVERD) plus higher education expenditure on R&D (HERD) as% of GDP.
(3) Business R&D intensity: breaks in series between 2002 and the previous years and between 2008 and the previous years.
Source: Eurostat.

There has been limited progress in developing systematic evaluations of public research and innovation policy. Spain has made progress on the evaluation of research projects submitted for public funding, but there is still scope for improvements in other aspects of public research and innovation policy, especially impact evaluations. More could be done to apply international best practices and expertise to evaluation.

Human resources are still a critical challenge for the Spanish research and innovation system. The low proportion of researchers employed by firms (in 2017 0.55% of total employment against 0.85% in the EU as a whole, and more than 1% in other big Member States (Eurostat) reduces Spain's capacity to absorb innovations. The proportion of the population with tertiary education has risen to above the EU average over the past decade. However, Spanish tertiary education does not seem to be responding adequately to the need to improve the innovation capacity or meet market needs (see also above under 'productivity' and Section 4.3.2).

Spain has taken action to improve coordination and synergies in research and innovation policies. The Spanish Ministry for Science, Innovation and Universities led the design of the post-2020 strategic framework for innovation in coordination with other relevant national and regional bodies. The splitting of that Ministry into two in early 2020 - a Ministry for Science and Innovation and a Ministry for Universities - could make coordination more challenging. Spain has also actively engaged with smart specialisation strategies, notably through the participation of Spanish regions as leaders of 12 out of 32 interregional partnerships on energy, agri-food and industrial modernisation. The Spanish Network on Public Policies for Research, Development and Innovation (RED IDI) has published guidance on monitoring and evaluation of smart specialisation strategies in preparation for the next Structural Funds programming period (RED IDI, 2019). However, ensuring that Spain's multi-level system of research and innovation governance operates smoothly remains challenging.

SME participation in innovative projects is low. Besides Technological Centres and Platforms, Spain's Association of Science and Technology Parks includes at least 23 technology parks sponsored by universities, with Tecnocampus (Barcelona) and The Cube (Madrid) being among the leading start-up hubs in Europe. However, while in the EU as a whole the percentage of SMEs cooperating with partner organisations on innovative projects is almost 12%, the figure in Spain is 6.4%. The low level of utilisation of available knowledge by Spanish firms prevents them from participating in innovation projects on a larger scale (Salazar-Elena J.C. and Sanchez-Martinez, M., 2020). Some improvements have recently introduced with the Cervera Transfer Network Programme and the Missions Programme, both managed by CDTI, along_with the new University Sexennium on Knowledge Transfer. However, more could be done to promote SME participation in innovative projects.

The "General Guidelines of the New Industrial Policy 2030" focus on five priority themes: competitiveness, sustainability, digitisation, alignment with EU policy and the role of SMEs. The guidelines were issued by the Ministry of Industry, Trade and Tourism in February 2019. They provide a framework for industrial policy measures in areas of high relevance for growth and jobs and the greening of the economy. Implementation, resources and efficiency of spending will be key for the success of the new industrial policy. In this regard, the AIReF spending review of the national Re-industrialisation and Industrial Competitiveness Programme (RIC) (AIReF, 2019e) showed that the Programme does not improve firm's competitiveness, has a high financial cost, does not respond to identified needs, and that procedures for using the programme are cumbersome (see Box 4.1.4). This Program has been reviewed to respond to AIReF's recommendations. In addition, the Strategic Framework on SME Policy 2030 was adopted in April 2019. It aims at improving SME competitiveness and promoting a growth friendly environment.

Public support for private investment in research and innovation has a low impact. Public support in the form of loans has become less attractive with the normalisation of credit conditions. Spain offers one of the most generous tax benefits for research amongst OECD countries and partner economies, through a combination of tax credit for research and exemption for social security contributions exemption for qualified research staff. However, the tax scheme has had a limited impact (see Section 4.1.4.). Furthermore, venture capital is underdeveloped in Spain (see Section 4.2.3.).

Digital economy

Spain is committed to the advancement of new technologies. While the Ministry of Science has published its strategy for research in the field of artificial intelligence (AI) (Ministry of Science, Innovation and Universities, 2019), eleven other ministerial departments are working on a new National AI Strategy. Furthermore, Spain benefits from having in place a high-performance computing infrastructure and a national cybersecurity strategy designed to complement EU policies with national policies (Department of National Security, 2019).

Box 4.4.3: **Investment barriers and challenges in Spain**

Investment has rebounded strongly in recent years, led by business investment, and the level of non-construction investment is back at its pre-crisis level. However, investment in intangibles remains below the euro area average, despite steady growth in recent years. Construction investment has been growing strongly since 2014, but from very low levels after the collapse of construction investment during the crisis. Only public investment did not contribute to the overall rebound in investment, and has instead kept declining during the recovery. It now stands at 2.0% of GDP, slightly less than half its pre-crisis peak level.

Table 4.4.1: **Investment barriers**

Area	Barrier	CSR	Area	Barrier	CSR
Public administration/ Business environment	Regulatory/ administrative burden	CSR	Financial Sector / Taxation	Taxation	
	Public administration	CSR		Access to finance	
	Public procurement /PPPs	CSR	R&D&I	Cooperation btw academia, research and business	
	Judicial system			Financing of R&D&I	CSR
	Insolvency framework		Sector specific regulation	Business services / Regulated professions	
	Competition and regulatory framework			Retail	
Labour market/ Education	EPL & framework for labour contracts	CSR		Construction	
	Wages & wage setting			Digital Economy / Telecom	
	Education, skills, lifelong learning	CSR		Energy	CSR
				Transport	CSR

Legend:

	No barrier to investment identified		Some progress
CSR	Investment barriers that are also subject to a CSR		Substantial progress
	No progress		Fully addressed
	Limited progress		Not assessed yet

Source: European Commission.

In Spain the most common long-term barriers to investment remain uncertainty about the future (cited by 80% of firms), followed by business regulations (74%), energy costs (68%), labour market regulations and the availability of skilled staff (both 65%) Business regulation and access to finance are more likely to be considered barriers by SMEs than by large firms ([1]).The share of external finance is about 40%, somewhat higher than the EU average (36%). Bank loans account for most of external finance (76%). Firms receiving external finance are on balance satisfied with the amount, cost, maturity, collateral and type. The highest proportions of dissatisfaction are with the cost (7%) and the collateral requirements (6%).

Selected investment barriers

1. Skills mismatches constrain productivity growth and innovation (see Sections 4.3.1, 4.3.2, and 4.4.1). The high share of temporary employment reduces both workers' and employers' incentives to invest in training and improving job-specific skills. Skills mismatches are high, especially for tertiary graduates. Enrolment rates to secondary vocational educational training (VET) are relatively low. In order to strengthen the VET system a new strategy for VET has been adopted by the government (see Box 4.3.2).

2. Restrictive and fragmented regulations across regions continue to discourage investment (see Section 4.4.2). Despite the commitment to implement the Law on Market Unity there are still few tangible results. Reform of professional services are still pending. No measures have been taken to eliminate unnecessary size-contingent regulations that prevent firms from growing. Policies designed to support investment in research and innovation have a limited impact, and despite improvements, science-business cooperation could be improved.

European Fund for Strategic Investments

The EU supports investment in Spain also via the European Fund for Strategic Investments (EFSI). By December 2019 total financing under the EFSI amounted to €10.4 billion, intended to trigger in total €49.8 billion in additional investments.

The current experience with the EU financial instruments and the EFSI budgetary guarantee demonstrated a need for simplification, streamlining and better coordination of the EU's investment support instruments during the next 2021-27 programming period. By the end of 2020, EFSI and other EU financial instruments will come under the roof of the new InvestEU programme that promotes a more coherent approach to financing EU policy objectives and increases the choice of policy implementation options and implementing partners to tackle country specific market failures and investment gaps. In addition, under InvestEU, Member States can set-up a national compartment by allocating up to 5% of their structural funds to underpin additional guarantee instruments supporting the financing of investments with a higher level of local specificities. InvestEU will be policy-driven and focus on four main areas: Sustainable Infrastructure, Research, Innovation, and Digitisation, Small Businesses, and Social Investment and Skills.

(1) EIB Investment Survey, Spain (2019).

Several technological frameworks designed at national level have already been put in place or are to be tested. Part of Industry 4.0 Strategy, the HADA platform, a free online application that enables companies to obtain an assessment of their digital maturity, is meant to incentivise and improve company digitalisation. As for 5G technology, 24 Spanish cities will host several pilot projects and the launch of commercial 5G services. The public consultation to define the spectrum management of the 700 MGz, 1.5 GHz and 26 GHz bands was closed in mid-2019 and Spain expects to finalise the migration to the band 700 MGz by June 2020.

Spanish SMEs make little use of new technologies. In 2016, 19% of SMEs were selling online (in comparison with 17% of EU SMEs), against 36% for large firms, and only 10% of their turnover comes from online sales. The adoption by SMEs of other technologies also remains low in the field of big data (10% of companies) and cloud access (21% of companies). The low level of adoption of digital technologies by SMEs might be due to a general lack of digital skills and shortage of ICT specialists in Spain (see Box 4.3.2) (European Commission, 2020c). With the main objective of fostering the adoption of digital technologies in the Spanish agro-food and forestry sector, the Ministry of Agriculture, Fisheries and Food adopted a Digitisation Strategy for the Agri-Food and Forestry Sector and Rural Areas in March 2019.

Spain is doing well in the area of digital public services, having implemented its e-government strategy in good time. The digital-by-default principle is the central point of the strategy for improving and simplifying Spanish public administration, reducing burdens and saving costs. The 2015-2020 Plan for the Digital Transformation of the Public Administration sets out the strategy for the implementation of digital-by-default services throughout the central administration. The deadline for its implementation has been extended until October 2020 to make allowances for some specific aspects that are not yet fully developed, mainly in some smaller administrations.

The low share of ICT specialists renders the challenge of digitisation more difficult. Although more and more Spaniards are going online, only 57% of people aged between 16 and 74 have at least basic digital skills. In addition, the share of ICT specialists as a percentage of the total workforce is below the EU average (3.2% compared to 3.9%), and is particularly low among women (only 1.1% of total female employment). However, Spain performs above the EU average as regards well as regards to ICT graduates ([49]) (4.0% of graduates, above the EU average of 3.6%). The Government is working in a new digital strategy with a focus on addressing digital skills in different areas of the economy.

(49) ICT graduates are a consolidated figure for graduates in Information and Communication Technologies, Computer use, Database and network design and administration, Software and applications development and analysis, and Inter-disciplinary programmes and qualifications involving information and Communication Technologies.

4.4.2. MARKET FUNCTIONING AND GOVERNANCE

Regulatory framework

Restrictiveness and fragmentation of regulation within Spain weigh on the business environment and prevent companies from benefitting from economies of scale ([50]). According to the World Bank "Doing Business" report (2020), Spain was ranked 30th out of 190 countries in the world on "ease of doing business" (see also EIB Investment Survey, 2019).

Restrictions in retail services remain high. According to the Retail Restrictiveness Indicator (see European Commission, 2018f), Spain is among the ten Member States with most restrictions on setting up retail premises, while it is the second most restrictive when it comes to operating them. According to the OECD Product Market Regulation Indicator (OECD, 2018d), Spain is also more restrictive than most of the 22 EU members of the OECD. Regulating retail business is the responsibility of the autonomous communities, and there are significant differences between regions in the level of restrictions on establishing and running retail businesses. The most restrictive autonomous communities (La Rioja, Extremadura and Galicia) appear to be more than three times more restrictive than the least restrictive ones (Murcia and Castilla-La Mancha), which suggests that there may be scope for reform in a number of regions (Ministry of Industry, Trade and Tourism, 2019).

Regulatory barriers continue to restrict competition in certain professional services. The restrictiveness indicator developed by the Commission in 2016 (COM(2016) 820 final) showed that a number of professional services in Spain (e.g. architecture, civil engineering, tourist guide services) are subject to more restrictive regulation than the EU average. Moreover, regional differences as regards membership of professional bodies can affect the efficient allocation of services and the free movement of professionals throughout Spain ([51]).

Size contingent regulations in favour of SMEs may negatively affect their growth dynamics. Such regulations are often put in place to reduce the regulatory and fiscal burden on smaller firms, but they can have the unintended effect of discouraging growth beyond certain size thresholds. A 2017 government study by the Ministry of Economy identified more than 130 regulations with size contingent thresholds; when measured in terms of employees, many of these thresholds concentrate around 250, 50 and 10 employees. Softening or (gradually) removing the most critical ones could help firms grow. At the same time, the fact that many firms are unable to grow beyond a certain size and benefit from economies of scale is likely to be primarily related to within-firm features bearing on productivity, such as their ability to innovate, and make best use of their human capital endowment and management.

The collaborative economy is creating new opportunities for consumers and workers, but it can have undesired effects on markets and workers. While the collaborative economy has been developing strongly in sectors such as tourism (short-term rentals) or private transport, its potential extends to other areas. By exerting competitive pressure on established business, it may enhance consumers' welfare and overall productivity in the economy. In the absence of a coordinated national approach to the collaborative economy, local authorities in some areas have introduced restrictions on short-term rentals of accommodation and private-hire vehicles. These restrictions have been motivated by concerns about the availability of affordable housing and the protection of local communities and the environment. The collaborative economy also generates new employment opportunities, often enabling people to work according to flexible arrangements. However, the working conditions of platform workers should be monitored carefully, as

([50]) Mora-Sanguinetti and Pérez-Valls, 2020.

([51]) The OECD's Product Market Restrictiveness Indicator (PMR) may show different scores for the same professions. This indicator is not directly comparable to the restrictiveness indicator developed by the Commission in 2016, which uses a different methodology and takes into account additional restrictions, such as those applied at regional level.

their jobs are often precarious or of low quality (see Section 4.3.1).

Lack of effective multi-level cooperation and limited awareness of its benefits among potential users delay the implementation of the Market Unity Law. The Law was adopted in 2013 with a better regulation aim. It seeks to remove restrictions to the establishment of firms and the free movement of goods and services across the country by enhancing better regulation principles and cooperation among Administrations. Typical cases of these concern restrictions on professional activities, trade, transport and telecommunications. Sectoral conferences, bringing together regional and central government representatives to discuss and define approaches to improve regulation and overcome fragmentation in a number of policy areas, are intended to facilitate the implementation of the law. However, these important cooperation instruments are still to be fully exploited. Moreover, the enforcement of the law would be more effective if it were better known. The authorities have therefore taken steps to increase awareness of the law among potential users, and civil servants are being trained in its application.

High-speed rail passengers may reap important benefits from the forthcoming opening of the rail passenger market in Spain, although features of its rail network will hamper the spilling over of benefits from the high-speed to conventional network. The Fourth Railway Package ([52]) "market pillar" opens the domestic rail passenger markets in all Member States to competition. It will become effective with the train timetable change in December 2020. Its opening-up seems to be attracting keen interest among European train operators. However, in Spain, only the high-speed network has the International Union of Railways (UIC) standard gauge. Therefore, access to the Iberian gauge network will be hampered by the incompatibility of the national standards for its rolling stock with the UIC standards.

The level of overall enforcement of internal market rules is very low in Spain. The delays in transposing directives and the number of infringement cases double the EU average. The number of directives incorrectly transposed and the delays in complying with Court rulings are also substantial. Ineffective enforcement of single market rules increases uncertainty for economic operators, reducing their incentives to invest. Additional efforts to eliminate the compliance deficit would boost cross-border trade and boost real incomes in the long run ([53]). Moreover, in the area of the Single Market Transparency Directive([54]), Spain accounts for only 3.6% of all notifications sent by the Member States to the European Commission from 2016 to 2018, which appears low in view of the existence of regulatory powers at different levels of government in Spain. Improved administrative coordination would result in a higher number of notifications of draft technical regulations, which helps to prevent barriers to trade in the internal market.

Public procurement

Progress on establishing a new governance structure for public procurement has been modest. Two years after the entry into force of the law on public sector contracts, the new governance structure is still not fully operational (see also Section 4.1.2 and European Commission, 2019a). The Cooperation Committee has not met since it was established in February 2018. The newly established Independent Office for Regulation and Supervision of Public Procurement lacks sufficient resources to perform its duties. As a result, it has focused on its supervisory function so far leaving aside most of its other tasks. In December 2019, it adopted its first annual supervision report, whose conclusions and recommendations are expected to be used in the elaboration of the upcoming National Strategy on Public Procurement. Despite some preparatory work, the new National Evaluation Office is not yet fully operational, as the implementing regulation has not been adopted, yet, and there is a lack of resources. This office will be responsible for issuing mandatory reports on the financial sustainability of concession projects. Overall, these preventive measures designed to improve budget and contract execution are not being used.

([52]) https://ec.europa.eu/transport/modes/rail/packages/2013_en

([53]) A full transposition of internal market rules and the elimination of infringement proceedings, have been estimated to increase real income with up to 1 percent and intra-EU trade by to 14% (WIFO, 2019).

([54]) Directive (EU) 2015/1535

The adoption of the National Public Procurement Strategy has been delayed. The law on public sector contracts stipulated its adoption by August 2018. This Strategy is to be drawn up with the participation of all levels of government, based on robust analysis identifying possible inefficiencies and dysfunctions. The strategy is intended as a tool for making public procurement more efficient by clarifying responsibilities and establishing inter-institutional cooperation. It may also help to set the direction for specific policy priorities such as green innovative procurement in support of eco-innovation, the circular economy, and energy efficiency (see Section 4.5).The Strategy would also cover issues such as further interconnection of existing electronic platforms, the fight against corruption and the professionalisation of the public sector in procurement matters. In this area, there are plans for a programme of certification of high-level specialists in public procurement.

Once completed, the effective implementation of the switch to mandatory electronic procurement from March 2018 will be a significant step towards transparency in public procurement. At present, there is scope to improve the supervision of the quality of information published across the various procurement platforms. The ability to exploit available big data in an effective manner by the various institutions and bodies dealing with the different procurement aspects under Spanish law remains a challenge.

Justice system

The length of proceedings in civil and commercial litigious cases has been increasing since 2016. In addition, the clearance rate in this category of cases has fallen further (86.7% in 2018). As more cases came to court than were resolved during the period in question, the case backlog increased by 16.5%. The clearance rate in administrative courts of first instance has also been falling. In 2018 it fell below 100% (EU Justice Scoreboard, 2020, forthcoming).

Spain performs well on quality of justice. In particular as regards e-justice, in 2019, the implementation of the project “Justicia Digital” continued, and according to the 2020 EU Justice Scoreboard, Spain is among the Member States, where the availability of electronic means is more widespread. Measures to improve the performance of the justice system would contribute to advancing towards SDG 16 (Peace, justice and strong institutions).

Fight against corruption

Although perceptions of corruption have decreased significantly over the past few years, they remain high. The perception that corruption is widespread has decreased substantially since 2013 in Spain (88% in 2019 vs 97% in 2013), but it remains much higher than the EU average (63% in 2019). Half the companies surveyed see corruption as a serious problem when doing business in Spain (+6 pps more in 2019 than in 2013) and almost half say the same about patronage and nepotism (46%, 10 pps more in 2019 than in 2013). The percentage of companies that think corruption is widespread in public procurement has also risen somewhat (75% in 2019 vs 71% in 2015). (European Commission, 2019f). On a global scale, Spain’s score on the control of corruption index in the World Governance Indicators and on the Corruption Perception Index have improved somewhat in 2019 ([55]).

Legislative plans regarding lobbying and whistle-blower protection, and an omnibus anti-corruption bill were discontinued at the end of the previous legislature. However, the Spanish Parliament adopted a new ethical code for its Members in April 2019 and established a Parliamentary Office of Conflicts of Interests to interpret and oversee its implementation. The Criminal Code was revised in February 2019 with a view to transposing the Directive “on the fight against fraud to the Union's financial interests by means of criminal law” ([56]). The transparency framework continues to be implemented and all Spanish regions now have their own legal framework in this area. The workload of the Transparency Council has continued to increase, reaching 1.780 complaints 2019, compared with 517 in its first year of operation in 2015. The Council faces challenges as regards staff and

([55]) Spain now ranks in the 72th percentile on this index.
([56]) Directive (EU) 2017/1371 of the European Parliament and the Council of 5 July 2017.

budget and has had no President since November 2017.

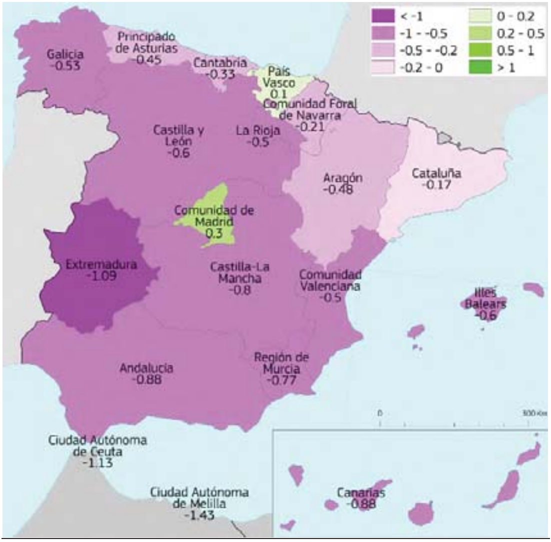
While Spain has no overarching anti-corruption strategy, the National Strategy against Serious and Organised Crime sets out some relevant initiatives. The strategy, adopted in February 2019 (Ministry of the Presidency, 2019) ([57]) is designed to improve investigative capacity and access to financial databases and to boost inter-agency cooperation. The Special Prosecutor's Office against Corruption and Organised Crime received additional staff resources following a government measure taken in April 2019. There were some visible successes with prosecuting and sanctioning high-level corruption. Despite this, with regards to perceptions, only 15% of businesses in Spain believe that individuals and businesses caught engaging in petty corruption are adequately punished (last in the EU), while only 21% believe that penalties are adequately applied for those caught bribing a senior official. Measures to address corruption would contribute to advancing towards SDG 16 (Peace, justice and strong institutions).

4.4.3. REGIONAL DISPARITIES

The vast majority of Spanish regions rank below the EU average on the 2019 EU Regional Competitiveness Index. Madrid and the Basque Country are exceptions (Graph 4.4.10). The index in 2019 was similar to the 2016 index for most regions, except for Extremadura and Melilla, where the index fell sharply. Spanish regions score well in terms of health services, but significant gaps remain with respect to the EU average, mostly in terms of labour market efficiency, higher education and lifelong learning.

Variation of regional GDP per capita within Spain is moderate in the EU context, but remains above its pre-crisis level. In 2017, GDP per capita in Madrid was almost double that in Extremadura (Graph 4.4.11). After increasing in the aftermath of the crisis, regional disparities started to decrease in 2014, but in 2017 they were still larger than before the crisis. Convergence has been somewhat uneven, with some poorer regions having converged more slowly than richer ones towards the EU average in GDP per capita (Graph 4.4.12)

Graph 4.4.10: **Regional competitiveness index, 2019**



(1) EU-28=0

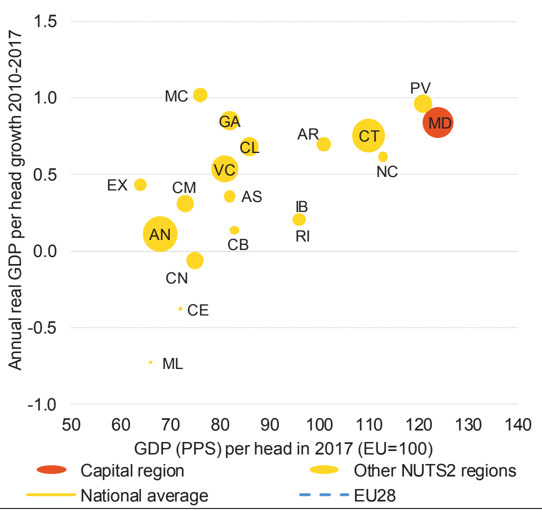
Source: Eurostat, DG REGIO elaboration.

([57]) BOE 46, of 22 February 2019, pages 17048-17074 https://www.boe.es/diario_boe/txt.php?id=BOE-A-2019-2442.

Graph 4.4.11: **GDP per capita (in PPS) in Spain, 2017**

(1) Index, EU-28=100
© EuroGeographics Association for administrative boundaries
Source: Eurostat, DG REGIO elaboration.

Graph 4.4.12: **GDP per capita by NUTS2 regions: level in 2010 and growth rate 2010-2017**



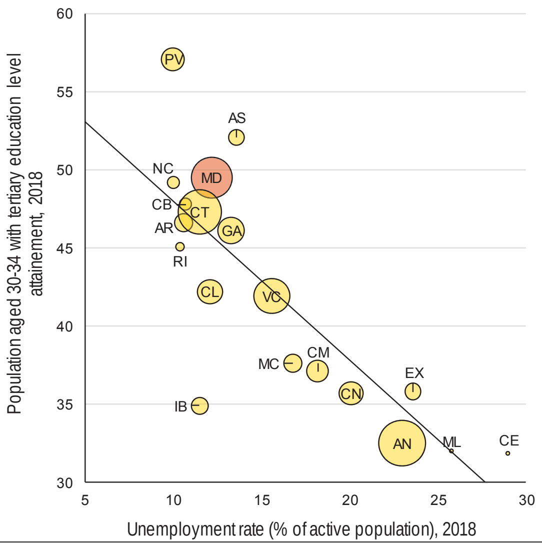
(1) Bubble size: population, 2017
(2) The orange bubble represents the capital region
Source: Eurostat, DG REGIO elaboration.

Regional variation in employment rates is wide. When measured by GDP per employed person – that is, labour productivity - regional differences within Spain are even smaller: in 2017, labour productivity in the Basque Country, Madrid and Navarre was only about 27% higher than in Andalusia, Murcia and Extremadura. Therefore, the higher regional disparities in terms of GDP per capita than in terms of labour productivity are due to the poorer labour market outcomes in the regions with lower GDP per capita: in 2018, the employment rate was above 67% in six regions with high GDP per capita and below 55% in four regions with low GDP per capita. Similarly, the unemployment rate varied between 10% and more than 20%.

Large regional disparities persist in key education and social indicators, particularly as regards early school leaving rates and participation in early childhood education and care (0-3 years). ([58]) In 2018, in half the regions, over 20% of 18-24 year-olds had completed at most lower secondary education. Around 35% of people aged 30-34 had completed tertiary education in Andalusia and Extremadura, against around half in Madrid, Asturias and the Basque Country. Unemployment tends to be higher in the regions with the lowest educational attainment levels. (Graph 4.4.13). The share of people at-risk-of-poverty or social exclusion (AROPE) also varies significantly across Spanish regions, again with a strong correlation with the unemployment rate. Over one third of people in Ceuta, Extremadura, Andalusia, the Canary Islands and Castilla-La Mancha are at risk of poverty and social exclusion, while the rate remains below 13% in the Basque Country and Navarre. As regards healthcare, waiting times for elective surgery in Spain are different amongst regions and have overall increased.

([58]) Early leavers from education and training account for less than 10% of 18-24-year-olds only in the Basque Country (6.9%) and Cantabria (9.8%).

Graph 4.4.13: **Unemployment rate and population educated to tertiary level, 2018, Spain NUTS2 regions**



Source: Eurostat, DG REGIO elaboration.

All regions in Spain score below the EU average in the 2019 Regional Innovation Scoreboard. The innovation system is highly concentrated in three leading regions (the Basque Country, Catalonia and Madrid), where R&D intensity is nevertheless below that of the EU as a whole. Furthermore, although Spain has one of highest broadband coverages of networks capable of providing gigabit speeds internet access speeds, the digital divide between rural and urban areas persists. While over 80% of households in urban areas can connect to Gigabit speeds through fiber networks, only 40.3% can do so in rural areas ([59]).

Spain faces severe demographic challenges caused by depopulation (mostly in rural areas), and ageing. Over 80% of Spain's municipalities saw their population fall between 2011 and 2018. Combined with ageing (see Section 4.3.3), the effects of depopulation pose a challenge for the provision of basic services, such as healthcare and long-term care services.

Regional and local levels of government account for a sizeable share of public expenditure in Spain. Public expenditure at sub-national levels of government reached almost 21% of GDP in 2018, while expenditure by the central government stood at 19%. Moreover, autonomous communities and local authorities hold significant regulatory powers and shape policies in a variety of socio-economic areas. Most growth-friendly public expenditure is a matter for sub-national authorities. This is why effective coordination between different levels of government is crucial for effective policy implementation of growth-enhancing public expenditures.

([59]) In December 2019, the European Commission approved a State-aid scheme for €400 million running from 2020-2022 to support the rollout of high speed networks in white and certain grey areas, mostly rural.

The Canary Islands [60]**, the Balearic Islands and the autonomous cities of Ceuta and Melilla face specific challenges**. Their remote and isolated location and small size impose higher transport and communication costs, generate limited economies of scale, and result in dependence on a limited number of economic activities. These factors constrain their growth and convergence with national indicators in a number of socio-economic areas. In the specific case of the Canary Islands and the Balearic Islands, the intensive development of tourism and related activities put their ecosystems under pressure (see Box 4.4.1 and Section 4.5).

(60) The Canary Islands is an outermost region as defined in Article 349 of TFEU.

4.5. ENVIRONMENTAL SUSTAINABILITY

Adapting to climate change, ensuring a more efficient water and waste management, reducing emissions from transport, further decarbonising energy and increasing energy efficiency are key challenges for Spain. According to the 2019 draft National Energy and Climate Plan (NECP) ([61]), the energy transition is estimated to require €236 billion in public and private investments up to 2030. This is estimated to potentially lift GDP by 1.8% and create 364,000 additional jobs by 2030 ([62]). Actions to reskill workers exposed to the consequences of climate change and the energy transition will be required to maintain social and territorial cohesion. A more systematic use of environmental taxation may also help make policies more effective (see Section 4.1).

Adapting to climate change

The geographical location and topography of Spain make it particularly vulnerable to the adverse effects of climate change. The impact of climate change will result in reduced water resources, coastal erosion, loss of biodiversity and natural ecosystems, increased soil erosion and more frequent extreme weather-related phenomena. It is estimated that flood damage alone will cost an average of €800 million per year. (Ministry for the Ecological Transition and the Demographic Challenge, 2019).

The 2006 National Climate Change Adaptation Plan is currently being implemented through a third work programme. Work is in progress to prepare the next National Adaptation Plan, 2021-2030. Spain performs well on involving stakeholders and developing knowledge to tackle climate risks. However, land use and spatial planning policies do not fully factor in climate risks, yet. Nor are prevention and preparedness strategies under the national disaster risk management plans in place, yet. Insurance or policy instruments that could provide incentives to invest in risk prevention measures are underdeveloped, except in agriculture. Certain sectors, such as agriculture, fisheries or tourism, are more exposed to these effects and sectoral strategies are needed to mitigate their impact.

Water shortages will be exacerbated by climate change. In certain areas of Spain, water demand exceeds the water resources available and this shortage will worsen in the future (European Commission, 2019g). Sectors like agriculture, tourism and energy are heavily dependent on water supply and irrigation is crucial for the economy in most rural areas ([63]). Implementing an appropriate water-pricing policy to recover the costs of water services in all river basin districts would be a means to promote a more efficient use of water, especially in the agriculture sector ([64]).

In water management, further infrastructure investments are needed to reduce leaks in the networks and improve water supply and wastewater treatment. According to INE data, in 2016, 16.3% of the water supplied at national level was lost. Wastewater reuse stood at 10.4% in 2016, which is quite high compared to the rest of the EU. However, without the regional top performers, notably Murcia, Valencia, the Balearic and the Canary Islands, the average percentage of reutilised water accounted for only 2.4% in Spain. OECD estimates the investment needed up to 2030 to ensure compliance by Spain with the Urban Waste Water Directive at €24,867 million (OECD, 2020). A National Plan for Wastewater, Sanitation, Efficiency, Saving and Water Reuse is currently being drawn up. These initiatives will help make sustained progress towards SDG 6, which seeks to ensure availability and sustainable management of water and sanitation for all.

Tackling emissions in transport

Transport is the sector where greenhouse gas emissions continue to grow most. The total

([61]) The Commission will assess, in the course of 2020, the final National Energy and Climate Plan. Spain has not yet submitted its final Plan.

([62]) An updated draft of the NECP with revised figures has been published on 20 January 2020: https://www.miteco.gob.es/images/es/pniec_2021-2030_borradoractualizado_tcm30-506491.pdf

([63]) In 2018 annual water consumption in Spain was 30,169.38 Hm3 of which 78% is for agricultural use, 18% for domestic use and 4% for industrial use.

([64]) Commission own analysis. In the River Basin Districts (RBDs), cost recovery (for irrigation water abstraction, treatment and distribution) ranges from 0.01 €/m3 on average in Minho-Sil and La Palma to 0.9 €/m3 in Eastern Cantabrian. While all RBDs reported that they include financial costs and that they "partially" included environmental and resource costs in their economic analysis, the extent to which financial costs were covered varies from 22% in the Gomera to 94% in the Balearic Islands.

external costs of road transport in Spain are estimated to be €64.3 billion annually, corresponding to 5.18% of Spain's GDP (2016) (European Commission, 2019h). This reflects mostly costs associated with road transport such as accidents and congestion, but also noise, air pollution, climate and habitat damage and fuel production costs. According to the latest national projections, in the absence of new measures, Spain is expected to miss its 2030 target by 10 pps. (percentage points) for sectors not included in the EU Emissions Trading System, such as transport, buildings, agriculture and waste. However, if the additional measures outlined in the 2019 draft NECP were implemented – such as encouraging a modal shift for transport – the 2030 target would be overachieved by 13 pps [65].

Spain heavily relies on roads for freight transport. Overall, Spain is well served in terms of transport infrastructure, but it relies almost exclusively on road transport for freight. Investments implementing the requirements of the TEN-T (Trans-European Transport) [66] network are foreseen to improve links with ports and logistic hubs, upgrade railway lines to UIC (International Union of Railways) gauge and support a gradual modal shift towards railways and short sea shipping. In this context, the completion of the Atlantic and Mediterranean corridors would facilitate using rail for exports to Central Europe. Additional investments are needed for the maintenance of the existing roads and the conventional rail lines connecting the inland cities with Madrid and the Atlantic and Mediterranean corridors. Finally, the optimisation of road transport in line with the Intelligent Transport System Strategy, and the building up of an alternative fuels infrastructure will improve the safety and sustainability of road transport.

Beyond the modal shift, further action could support and accelerate the transition to clean and sustainable mobility. Overall, emissions in Spain have fallen in recent decades. However, poor air quality (especially because of nitrogen dioxide (NO_2) emissions) is a concern in the major metropolitan areas, notably Madrid and Barcelona, where seasonal problems with air quality are exacerbated by traffic congestion (European Environmental Agency, 2019b). Encouraging the use of alternative fuels and electric vehicles in public and private transport and ensuring the efficient use of vehicles could help address this problem and meet SDG 11. For this purpose, financial incentives for zero and low emission vehicles, the set-up of low emissions zones in cities and the improvement of public transport could be helpful tools. The first National Programme for Control of Air Pollution was approved by the Council of Ministers in September 2019.

Energy efficiency and decarbonisation

Spain pursues an ambitious decarbonisation strategy. In 2017, the 14 coalmines in operation were producing 3 million tons of brown and hard coal. With the exception of one mine, all of them have been closed now. Despite the closures, coal was still an important energy source in the electricity mix (14.3%, Red Eléctrica de España). The share of coal in the electricity mix is expected to go down to 5.0% in 2019 (provisional figures for 2019, Red Eléctrica de España). Most coal-fired power plants have largely exceeded their service life and are being de-commissioned, with many plants stopping earlier than planned. Accelerated closures increase the need for new electricity generating capacity, notably renewables, to avoid increasing Spain's dependency on imported fossil fuels.

Spain has a target of 20% of renewables of final gross energy consumption in 2020 and 42% in 2030. With a share of 17.4% in 2018, Spain is on track to meet its 2020 target of 20%. However, it is the first time since 2011 that this share has decreased in comparison with the previous year. Spain introduced in 2014 a new support scheme for renewable electricity to address some of the inefficiencies and problems created by the previous remuneration schemes [67]. However, in order to reach 42% in 2030 set in the National

(65) An updated draft of the NECP with revised figures has been published on 20 January 2020: https://www.miteco.gob.es/images/es/pniec_2021-2030_borradoractualizado_tcm30-506491.pdf

(66) Regulation (EU) No 1315/2013 of the European Parliament and of the Council of 11 December 2013 on Union guidelines for the development of the trans-European transport network and repealing Decision No 661/2010/EU

(67) Approved by Decision of 10 November 2017 "SA.40348: Spain – Support for electricity generation from renewable energy sources, cogeneration and waste" (OJ C/442/2017).

Energy and Climate Plan, Spain has calculated that investments in renewable energy would amount to €101.6 billion until 2030, and legislation still needs to be put in place. If any new support scheme was needed, compliance with State aid rules would ensure a cost-effective support suitable to promote renewables. Reaching 42% renewables would greatly contribute to further reducing GHG emissions, the import dependency of fossil fuels and improving air quality. These efforts will also ensure progress on SDG 7.

Spain's electricity interconnection capacity with neighbouring countries is still well below the target of at least 10% of its installed capacity by 2020. Further investment in electricity interconnections is needed to meet this target and the target of 15% interconnection capacity by 2030. New electricity interconnectors are being developed between Spain and France (in the Bay of Biscay) and between Spain and Portugal. As some renewable sources are variable, higher interconnection capacity would enable Spain to balance its network better, when those sources are not available, while making it easier for Spain to supply surplus power to its neighbours. Higher interconnection capacity is therefore important both for security of supply and for promoting renewables.

Spain is not on track to meet its 2020 energy efficiency targets. Spain also needs to increase investments into energy efficiency in order to contribute to the EU target of 32.5% by 2030. Spain's draft NECP sets the target for primary energy consumption at 92.8 Mtoe, while the target for final energy consumption is 74.4 Mtoe. The targets were set at a sufficiently ambitious level to take account of the need to increase collective efforts to achieve the 2030 energy consumption targets. Meeting them will require continued investments in energy efficiency, notably in buildings. This would also contribute importantly to reducing emissions.

Energy decarbonisation poses threats to social cohesion in coal mining areas. Coal mining and related sectors have had a significant weight in the local economy of Asturias, Castile and León, Aragon, Andalusia and Galicia, where 6,400 jobs were directly related to coal mining ([68]). Large areas in these regions face challenges due to weak economic activity, remoteness and demographic decline ([69]). The Spanish Government is helping to tackle the social consequences in the most affected areas through its Just Transition Strategy. The European Commission has also proposed a Just Transition Fund to support people in the regions most affected (see Annex D).

Sustainable industry

The Spanish business sector is key to addressing the sustainability challenge set out in SDG 9 through digitisation, innovation, a more efficient use of resources and the upskilling of people. The General Guidelines on Industrial Policy for 2030 underline this aspect (see Section 4.4.1) addressing in particular the need to reconcile industrial progress with sustainability. One of the main challenges is the transformation of the automotive industry, which directly and indirectly accounts for more than 10% of GDP, 12.5% of exports, and 9% of employment. This transformation would contribute to the transition to a clean and sustainable mobility using more efficient technologies, emissions reductions, and improvement in connectivity, safety and comfort (ANFAC, 2019).

Digitisation has great potential for improving resource efficiency and reducing emissions. Developing and applying artificial intelligence, 5G, the internet of things, low-power processors, cloud and edge computing will facilitate more efficient use of energy and resources in manufacturing, construction, agri-food and other sectors. Digital technologies and applications can save 7-10 times more emissions than they produce and enable a 9-20% reduction of global CO2 emissions by 2030 (GeSi and Deloitte, 2019, Digital Europe, 2019).

The public sector has the potential to help achieve progress on SDG 12 through green procurement. The objective of the Plan for Green Public Procurement in the central public administration for 2018-2025 is to boost the

([68]) At national level, there were about 10 000 indirect jobs in coal related activities (Alves Dias et al., 2018).
([69]) General Guidance on the National Strategy for the demographic challenge.

Spanish circular economy strategy. The Plan includes a series of general green procurement criteria, of a voluntary nature. These may be incorporated into procurement documents as selection or award criteria, technical specifications and special conditions for contract performance. Some regions have also implemented measures on green procurement criteria (Catalonia and the Basque Country) (European Commission, 2019g).

Spain's resource efficiency has improved significantly since 2009, but waste management and the circular economy remain important challenges. In terms of resource productivity (how efficiently the economy uses material resources to produce wealth), Spain is performing better than average in the EU, with €2.72 /kg compared to € 2.24 /kg for the EU in 2018 (Eurostat). Despite the progress in the transition towards a circular economy, waste management is still a challenge, but with substantial differences between regions. The amount of landfilled waste, which remains considerable, is preventing faster progress towards the circular economy. According to the Commission's 'Early Warning Report' (2018) (European Commission, 2018o), Spain is one of the Member States at risk of missing the EU target of recycling 50% of municipal waste by 2020. According to the last available data, Spain's overall municipal recycling rate was of 36% in 2018. Barriers to investing in this sector include low landfill disposal charges and lack of co-ordination between the different administrative levels (European Investment Bank, 2019). The capital investment requirements needed to reach EU recycling targets are estimated at €2,457 million for 2021-35 for Spain as a whole (Eunomia, European Commission, COWI, 2019).

The national strategy on the circular economy drafted in 2018 is still in the process of being adopted. Regional strategies exist or are in the pipeline, but additional efforts are also needed at regional level in order to make further progress on SDG 12.

Sustainable tourism

Tourism faces the challenge of becoming more sustainable. The Spanish tourism sector faces several challenges, including the pressure of demand on infrastructure, natural resources and destinations, as well as needing to adapt to climate change and its consequences for inland and coastal tourism. A new Strategy for Sustainable Tourism 2030 was published in January 2019 by the Spanish Ministry of Industry, Trade and Tourism with the objective of diversifying the Spanish tourism sector away from its emphasis on "sun and beach" tourism (see Box 4.4.1). Important tools to make the tourism sector more sustainable could include taxation ("polluter pays principle"), certification of sites ([70]), the reskilling of workers in the sector, and as sustainable land-use planning. The Sectorial Plan for Nature and Biodiversity Tourism 2014-2020 is a positive step. Around 27% of the Spanish territory belongs to the Natura 2000 network, and Spain could further capitalise on its rich natural capital to promote green growth and job creation through tourism.

([70]) In the year 2019, Spain has 48 hotels with EMAS certificate (Eco-Management and Audit Scheme) and 31 tourist services (hotels and campsites) with certificate of the EU Ecolabel.

ANNEX A: OVERVIEW TABLE

	Summary assessment ([1])
2019 country-specific recommendations (CSRs)	
CSR 1: Ensure that the nominal growth rate of net primary government expenditure does not exceed 0.9% in 2020, corresponding to an annual structural adjustment of 0.65% of GDP. Take measures to strengthen the fiscal and public procurement frameworks at all levels of government. Preserve the sustainability of the pension system. Use windfall gains to accelerate the reduction of the general government debt ratio. (MIP relevant)	Spain has made **Limited Progress** in addressing CSR 1 (this overall assessment of CSR 1 does not include an assessment of compliance with the Stability and Growth Pact).
• Ensure that the nominal growth rate of net primary government expenditure does not exceed 0.9% in 2020, corresponding to an annual structural adjustment of 0.65% of GDP.	• *The compliance assessment with the Stability and Growth Pact will be included in Spring 2020 when final data for 2019 will be available.*
• Take measures to strengthen the fiscal framework	• **No progress**
• and public procurement frameworks at all levels of government.	• **Limited Progress.** Further progress on establishing an effective new governance structure for public procurement has been modest. Almost two years after the entry into force of the law on public sector contracts, the new governance structure is still not fully functioning. The elaboration of the Public Procurement Strategy foreseen for is delayed.
• Preserve the sustainability of the pension system.	• **No progress.** Departures from the 2013 pension reform has been made on an ad-hoc basis through Royal Decree Laws. In particular, pensions have been revalued by inflation (CPI) rather than the Index of Pension Revaluation, resulting in a more rapid increase in pension expenditure. Moreover, the sustainability mechanism, which was supposed to kick-in in 2019 and which links initial pension levels to the evolution of life expectancy, was postponed to 2023.
• Use windfall gains to accelerate the reduction of the general government debt ratio.	• *The compliance assessment with the Stability and Growth Pact will be included in Spring 2020, when final data for 2019 will be available.*

CSR 2: Ensure that employment and social services have the capacity to provide effective support. Foster transitions towards open-ended contracts, including by simplifying the system of hiring incentives. Improve support for families, reduce fragmentation of national unemployment assistance and address coverage gaps in regional minimum income schemes. Reduce early school leaving and improve educational outcomes, taking into account regional disparities. Increase cooperation between education and businesses with a view to improving the provision of labour market relevant skills and qualifications, in particular for information and communication technologies.	Spain has made **Limited Progress** in addressing CSR 2
• Ensure that employment services have the capacity to provide effective support.	• **Some progress.** During 2019 the hiring of the 3 000 new staff by the regional public employment services (PES) started, as envisaged in the 2019-2021 Action Plan for Youth Employment and the 2019-2021 ReincorporaT plan for the long-term unemployed. Both plans contain positive features to improve the effectiveness and outreach of PES and active labour market policies (ALMP), and have been complemented with other measures (e.g., the 2019-2021 call for proposals corresponding to subventions for training courses for employees). Measures to provide individualised services to jobseekers, including through profiling and IT tools, are slowly being developed. Average spending on ALMP measures per unemployed person remains low and only 1 in 4 unemployed use PES for job search. Large regional disparities remain concerning the performance of regional PES.
• Ensure that social services have the capacity to provide effective support.	• **Some Progress.** Coordination between employment and social services continues to be enhanced. Two new working groups were created in 2019 as part of the Social Inclusion Network (RIS), while three pilot projects to improve the coordination started in three regions. Further political involvement in some regions is allowing faster progress. The deployment of the Universal Social Card has continued in 2019 but its use at regional level remains limited.

• Foster transitions towards open-ended contracts,	• **Limited progress.** Spain continues to have the highest share of employees on temporary contracts in the EU, despite the increase of open-ended contracts among newly created jobs. The strengthened capacity of labour inspectorates, along with the action plans in the frame of the Master Plan for Decent Work, are contributing to the conversion of fixed-term contracts in open-ended contracts. However, temporary contracts are widespread even in sectors with little seasonality (including the public sector), and their duration is increasingly shorter (50 days on average during the year 2019, with 30% of all temporary contracts shorter than one week). Measures such as the increase of the social security costs for contracts shorter than 6 days are not having a clear effect yet. The organisation of recruitment competition to reduce fixed-term employment in the public sector sped up in 2019, but the share of public sector employees on temporary contract remains well above the 8% target set for the end of the 2020 recruitment competitions.
• including by simplifying the system of hiring incentives.	• **Limited progress.** Hiring incentives account for around 40% of total spending on ALMP, despite the lack of evidence on the positive effects of these subsidies for promoting quality employment. The Government removed some hiring incentives at the end of 2018, such as the "Contract for support to entrepreneurs". However, the plans for the young and the long-term unemployed contain new forms of hiring incentives. The ongoing spending review on hiring incentives carried out by AIReF (due by mid-2020) may provide helpful inputs on avenues for reform.
• Improve support for families,	• **Limited Progress.** The overall impact of social transfers (other than pensions) in reducing child poverty in Spain remains the lowest in the EU. This partly reflects the low coverage and adequacy of family benefits. Means-tested child benefits target only the most deprived (around one in two children at risk of poverty or social exclusion do not receive it) and tax allowances are of limited benefit for low-to-medium income families, which determines a regressive pattern of the financial support to families with children. Steps taken in 2019 to fight child poverty are an improvement but do

	not match the extent of the challenge. The rise in the child benefit for poor families is the first in 18 years and is having limited effects, as it is not helping to reduce the risk of poverty and is having a very limited impact on the reduction of the poverty gap.
• reduce fragmentation of national unemployment assistance	• **Limited progress.** There has been no further progress in this area during 2019. Political deadlock has postponed the government plans to streamline the multiple schemes of non-contributory unemployment assistance at national level, while the announced development of a subsistence minimum income is on hold. The report commissioned to AIReF and published in June 2019 offers interesting insight that may help outline these plans.
• and address coverage gaps in regional minimum income schemes.	• **Limited progress.** The take up of regional minimum income schemes remains very limited in average, estimated at around 20% of potential beneficiaries, although some regions are showing positive results. Amounts, and consequently impact on poverty reduction, present large regional disparities, and three regions still make the right to a means-tested minimum income conditional on budget availability. The issue of portability of the benefits across regions remains unsolved.
• Reduce early school leaving	• **Limited Progress.** Early school leaving (ESL) rate remains the highest in the EU and regional disparities persist, with 20 pps difference between the best and the worst performing regions. The ESL rate keeps decreasing but at a slower pace than in previous years. Measures adopted try to mitigate the challenge but are of limited scope.
• and improve educational outcomes, taking into account regional disparities.	• **Limited progress.** Levels of basic skills measured through the 2018 PISA survey have worsened slightly, amid significant differences across regions. Grade repetition in primary and lower secondary school remains very high.

• Increase cooperation between education and businesses with a view to improving the provision of labour market relevant skills and qualifications,	• **Some progress.** Cooperation between education institutions and business remains weak but improving, in a context of strong skills mismatches. The new Strategic Plan for Vocational Education and training (VET) may play a role in reducing skills mismatches and early school leaving, once fully implemented. It should help in making VET more responsive to the needs of the productive system, by expanding the range of courses, increasing the number of places and strengthening the system of distance learning. The business sector's role in the design of qualifications is being reinforced.
• in particular for information and communication technologies.	• **Some progress.** The recently adopted 2019-2022 VET Strategy proposes including a module on digitisation in all VET programmes at all levels. It also intends to ensure that the VET programmes cover the needs of the new digital sectors. Work is underway on a Digital Skills National Strategy. Basic digital skills levels remain below the EU average and the proportion of ICT specialists represents a lower percentage of the workforce compared to the EU average. Female ICT specialists account for a mere 1.1% of total female employment.
CSR 3: Focus investment-related economic policy on fostering innovation, resource and energy efficiency, upgrading rail freight infrastructure and extending electricity interconnections with the rest of the Union, taking into account regional disparities. Enhance the effectiveness of policies supporting research and innovation.	Spain has made **Limited Progress** in addressing CSR 3
• Focus investment-related economic policy on fostering innovation,	• **Limited Progress:** Spain has made limited progress on increasing investment in research and innovation. Efforts to increase R&D investment by both large and small firms through improved public support for private investments have seen limited progress. The rationale of R&I policy initiatives is not always clear. Some of the new political initiatives/strategies (IA, Blue Economy, Start Up) lack a budget, coordination with existing strategies, and an assessment of their potential impact.

• Resource efficiency	• **Limited Progress:** Overall, Spain has not increased environmental investments in 2019. However, some good initiatives have been adopted or are under preparation. The first National Programme for Control of Air Pollution was approved by the Council of Ministers in September 2019. The Plan for Green Public Procurement in the central Administration for the period 2018-2025 was approved in December 2018; it has now to be implemented. A National Plan for Wastewater, Sanitation, Efficiency, Saving and Water reuse is under elaboration. The National Strategy on Circular Economy was prepared in 2018, but it has not been adopted yet.
• and energy efficiency	• **Some progress:** Meeting the 2030 energy efficiency and consumption targets requires continued investments in energy efficiency, notably in buildings. Initiatives such as the National Plan for Energy Efficiency 2017-2020 and the National Fund for Energy Efficiency 2014-2020 can contribute to giving greater focus on investment in this area. In the building renovation sector, the State Plan for the Housing Sector 2018-2021 includes the improvement of energy efficiency in buildings through assistance and aid programs
• upgrading rail freight infrastructure	• **Limited progress:** Overall investments in rail transport infrastructure and in freight rail transport infrastructure have not increased in 2019.
• extending electricity interconnections with the rest of the Union, taking into account regional disparities.	• **Some progress:** New electricity interconnectors are under development between France and Spain (Bay of Biscay) and between Spain and Portugal. There has been some progress on ongoing projects, but further support is needed. Spain continues to be actively involved in regional fora to extend electricity interconnections with the rest of the EU.

• Enhance the effectiveness of policies supporting research and innovation.	• **Limited progress.** There has been limited progress on increasing the systematic use of evaluations of research and innovation policies. Some measures have been introduced to decrease red tape or to improve working conditions of researchers. Profound reforms to improve carriers of top researchers, to stimulate mobility and to promote jobs and carriers for industrial-based researchers are still lacking. Reforms to improve collaboration between public research and private firms are still missing. Coordination between Autonomous Communities and the national government could still be improved.
CSR 4: Further the implementation of the Law on Market Unity by ensuring that, at all levels of government, rules governing access to and exercise of economic activities, in particular for services, are in line with the principles of that Law and by improving cooperation between administrations. • Further the implementation of the Law on Market Unity by ensuring that, at all levels of government, rules governing access to and exercise of economic activities, in particular for services, are in line with the principles of that Law • and by improving cooperation between administrations.	• Spain has made **limited progr**ess in addressing CSR 4. • **Limited progress.** Some measures were taken to implement the Law on Market Unity with limited effect and progress is slow. The main measures are: a) the improvement of training for officials, b) awareness raising with publications on better market regulation, monthly publications on Market Unity, an improved web page, dissemination events, and c) the improvement of information and consolidation of doctrine. • **Limited progress:** Improving cooperation between national, regional and local authorities is relevant to make progress. Some measures have been implemented/initiated such as: a) fostering relations with the network of contact points for the Law on Market Unity, b) fostering relations with other departments within the national authorities, c) improving the procedures for mechanisms laid down in Article 26 of Law on Market Unity, d) cooperation with sectorial conferences through the preparation of notes and e) improved cooperation with the competition authority. In spite of these measures, progresss is slow.

Europe 2020 (national targets and progress)	
Employment rate target: 74%.	The employment rate for 20-64 age group increased to 68.0% in the first three quarters of 2019, remaining 6.7 pps below the EU average (72.2%) and 6.0 pps below the Europe 2020 target for Spain.
R&D target set in the NRP: 2% of GDP	With an overall R&D spending of 1.24%, reaching the 2% national R&D intensity target in 2020 remains practically unattainable.
National greenhouse gas (GHG) emissions target: - 10% in 2020 compared with 2005 (in sectors not included in the EU emissions trading scheme)	Emissions from sectors not covered by the EU Emission trading scheme were reduced by 14% between 2005 and 2018, which is above Spain's 2020 target of -10% compared to 2005. Based on the latest national projections taking into account existing measures, the 2020 target is expected to be exceeded by a margin of 4 pps. However, Spain is expected to miss the 2030 target of -26% by 10 pps.
2020 renewable energy target: 20%	With a renewable energy share of 17.4% (2018), Spain is above its indicative trajectory to reach the 2020 target, despite a slight decrease compared with 2017, which will make the increase to meet its 2020 target, steeper.
Energy efficiency, 2020 energy consumption targets: • Spain's 2020 energy efficiency target is 122.6 Mtoe expressed in primary energy consumption (87.23 Mtoe expressed in final energy consumption)	Latest preliminary figures (2018) show a slight decrease to 124.6 Mtoe primary energy consumption and an increase to 86.8 Mtoe final energy consumption. Whilst the figures for final energy consumption still remain below the Spanish indicative 2020 target, primary energy consumption exceeds it. Spain should further intensify its commitment to energy efficiency in order to reverse this trend and make sure that demand remains below both targets during the next years.
Early school/training leaving target: 15%.	The rate of early school leaving (ESL) (18-24 years old) decreased by 0.4 pps in 2018 to 17.9%, still the highest in the EU and almost 3 pps above the Spanish Europe 2020 target. The indicator varies greatly across regions and it is especially high for students with disabilities and non-EU born background.
Tertiary education target: 44% of population aged 30-34.	In 2018, the proportion of 30-34 year-old tertiary graduates increased further to 42.4%. It is above the EU average (40.7%) and not far from the Europe 2020 national target of 44%.

Target for reducing the number of people at risk of poverty or social exclusion, expressed as an absolute number of people: -1,400,000 compared to 2008	Although the number of people at risk of poverty or social exclusion is decreasing since 2014, in 2018 it was still 1,261,000 more than in 2008. The Europe 2020 target is therefore far from reach.

([1]) The following categories are used to assess progress in implementing the country-specific recommendations (CSRs):

No progress: The Member State has not credibly announced nor adopted any measures to address the CSR. This category covers a number of typical situations to be interpreted on a case by case basis taking into account country-specific conditions. They include the following:

- no legal, administrative, or budgetary measures have been announced
  - in the national reform programme,
  - in any other official communication to the national Parliament/relevant parliamentary committees or the European Commission,
  - publicly (e.g. in a press statement or on the government's website);
- no non-legislative acts have been presented by the governing or legislative body;
- the Member State has taken initial steps in addressing the CSR, such as commissioning a study or setting up a study group to analyse possible measures to be taken (unless the CSR explicitly asks for orientations or exploratory actions). However, it has not proposed any clearly-specified measure(s) to address the CSR.

Limited progress: The Member State has:

- announced certain measures but these address the CSR only to a limited extent; and/or
- presented legislative acts in the governing or legislative body but these have not been adopted yet and substantial further, non-legislative work is needed before the CSR is implemented;
- presented non-legislative acts, but has not followed these up with the implementation needed to address the CSR.

Some progress: The Member State has adopted measures

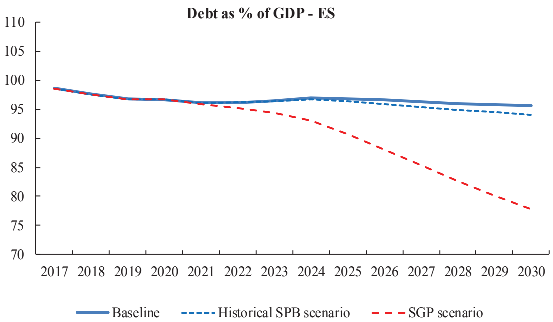
- that partly address the CSR; and/or
- that address the CSR, but a fair amount of work is still needed to fully address the CSR fully as only a few of the measures have been implemented. For instance, a measure or measures have been adopted by the national Parliament or by ministerial decision but no implementing decisions are in place.

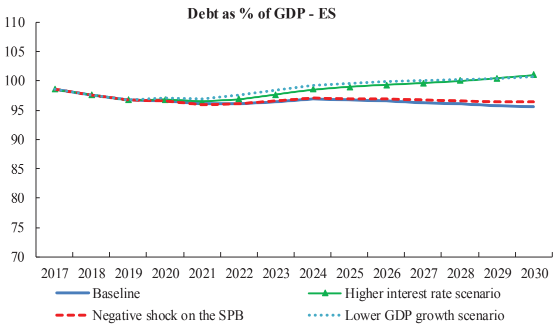
Substantial progress: The Member State has adopted measures that go a long way towards addressing the CSR and most of them have been implemented.

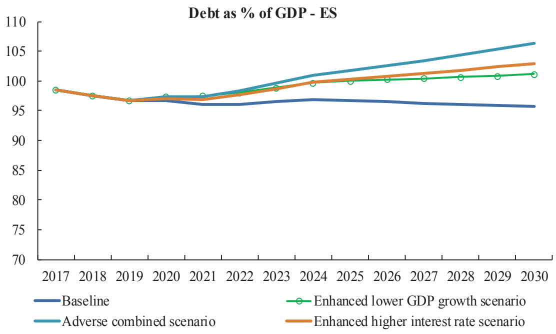
Full implementation: The Member State has implemented all measures needed to address the CSR appropriately.

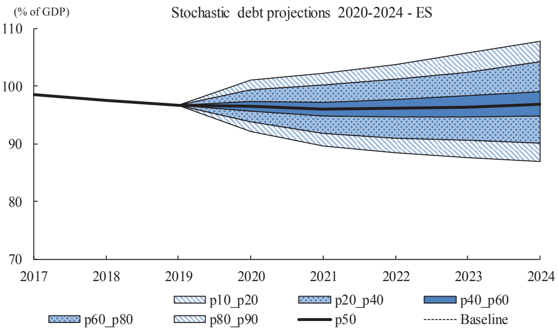
ANNEX B: COMMISSION DEBT SUSTAINABILITY ANALYSIS AND FISCAL RISKS

General government debt projections under baseline, alternative scenarios and sensitivity tests													
ES - Debt projections baseline scenario	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**
Gross debt ratio	**97.6**	**96.7**	**96.6**	**96.0**	**96.1**	**96.5**	**96.9**	**96.7**	**96.5**	**96.3**	**96.0**	**95.8**	**95.7**
Changes in the ratio (-1+2+3)	*-1.0*	*-0.9*	*-0.1*	*-0.6*	*0.1*	*0.3*	*0.4*	*-0.1*	*-0.2*	*-0.3*	*-0.3*	*-0.2*	*-0.2*
of which													
(1) Primary balance (1.1+1.2+1.3)	**-0.1**	**-0.1**	**-0.1**	**-0.1**	**-0.4**	**-0.8**	**-1.1**	**-1.1**	**-1.1**	**-1.1**	**-1.1**	**-1.1**	**-1.2**
(1.1) Structural primary balance *(1.1.1-1.1.2+1.1.3)*	***-0.4***	***-0.8***	***-1.1***	***-1.0***	***-1.1***	***-1.1***	***-1.1***	***-1.1***	***-1.1***	***-1.1***	***-1.1***	***-1.1***	***-1.2***
(1.1.1) Structural primary balance (bef. CoA)	*-0.4*	*-0.8*	*-1.1*	*-1.0*	*-1.0*	*-1.0*	*-1.0*	*-1.0*	*-1.0*	*-1.0*	*-1.0*	*-1.0*	*-1.0*
(1.1.2) Cost of ageing					*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.2*	*0.2*
(1.1.3) Others (taxes and property incomes)					*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
(1.2) Cyclical component	***0.6***	***1.0***	***1.0***	***1.0***	***0.6***	***0.3***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***
(1.3) One-off and other temporary measures	***-0.3***	***-0.2***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***
(2) Snowball effect (2.1+2.2+2.3)	**-0.9**	**-0.9**	**-0.6**	**-0.7**	**-0.3**	**-0.5**	**-0.7**	**-1.3**	**-1.3**	**-1.4**	**-1.4**	**-1.3**	**-1.4**
(2.1) Interest expenditure	*2.4*	*2.3*	*2.1*	*2.0*	*1.9*	*1.8*	*1.7*	*1.6*	*1.6*	*1.5*	*1.5*	*1.5*	*1.5*
(2.2) Growth effect	*-2.2*	*-1.8*	*-1.4*	*-1.3*	*-0.7*	*-0.5*	*-0.5*	*-1.0*	*-1.0*	*-1.0*	*-1.0*	*-0.9*	*-1.0*
(2.3) Inflation effect	*-1.1*	*-1.4*	*-1.3*	*-1.4*	*-1.5*	*-1.7*	*-1.9*	*-1.9*	*-1.9*	*-1.9*	*-1.9*	*-1.9*	*-1.9*
(3) Stock-flow adjustments	**-0.2**	**-0.1**	**0.4**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**









Short term	Medium term	S1	Debt sustainability analysis (detail)	Baseline	Historical SPB	Lower GDP growth	Higher interest rate	Negative shock on SPB	Stochastic projections	DSA	S2	Long term
LOW (S0 = 0.4)	HIGH	HIGH (S1 = 3.8)	Risk category	HIGH	HIGH	HIGH	HIGH	HIGH	HIGH	HIGH	LOW (S2 = 1.8)	MEDIUM
			Debt level (2030)	95.7	94.1	100.7	101.0	96.3				
			Debt peak year	2024	2019	2030	2030	2024				
			Percentile rank	73.0%	71.0%							
			Probability debt higher						51.1%			
			Dif. between percentiles						20.9			

Note: For further information, see the European Commission Debt Sustainability Monitor (DSM) 2019.

[1] The first table presents the baseline no-fiscal policy change scenario projections. It shows the projected government debt dynamics and its decomposition between the primary balance, snowball effects and stock-flow adjustments. Snowball effects measure the net impact of the counteracting effects of interest rates, inflation, real GDP growth (and exchange rates in some countries). Stock-flow adjustments include differences in cash and accrual accounting, net accumulation of assets, as well as valuation and other residual effects.

[2] The charts present a series of sensitivity tests around the baseline scenario, as well as alternative policy scenarios, in particular: the historical structural primary balance (SPB) scenario (where the SPB is set at its historical average), the Stability and Growth Pact (SGP) scenario (where fiscal policy is assumed to evolve in line with the main provisions of the SGP), a higher interest rate scenario (+1 pp. compared to the baseline), a lower GDP growth scenario (-0.5 pp. compared to the baseline) and a negative shock on the SPB (calibrated on the basis of the forecasted change). An adverse combined scenario and enhanced sensitivity tests (on the interest rate and growth) are also included, as well as stochastic projections. Detailed information on the design of these projections can be found in the FSR 2018 and the DSM 2019.

[3] The second table presents the overall fiscal risk classification over the short, medium and long term.

a. For the short-term, the risk category (low/high) is based on the S0 indicator. S0 is an early-detection indicator of fiscal stress in the upcoming year, based on 25 fiscal and financial-competitiveness variables that have proven in the past to be leading indicators of fiscal stress. The critical threshold beyond which fiscal distress is signalled is 0.46.

b. For the medium term, the risk category (low/medium/high) is based on the joint use of the S1 indicator and of the DSA results. The S1 indicator measures the fiscal adjustment required (cumulated over the 5 years following the forecast horizon and sustained after that) to bring the debt-to-GDP ratio to 60 % by 2034. The critical values used are 0 and 2.5 pps of GDP. The DSA classification is based on the results of five deterministic scenarios (baseline, historical SPB, higher interest rate, lower GDP growth and negative shock on the SPB scenarios) and the stochastic projections. Different criteria are used such as the projected debt level, the debt path, the realism of fiscal assumptions, the probability of debt stabilisation, and the size of uncertainties.

c. For the long term, the risk category (low/medium/high) is based on the joint use of the S2 indicator and the DSA results. The S2 indicator measures the upfront and permanent fiscal adjustment required to stabilise the debt-to-GDP ratio over the infinite horizon, including the costs of ageing. The critical values used are 2 and 6 pps of GDP. The DSA results are used to further qualify the long term risk classification, in particular in cases when debt vulnerabilities are identified (a medium / high DSA risk category).

ANNEX C: STANDARD TABLES

Table C.1: **Financial market indicators**

	2014	2015	2016	2017	2018	2019
Total assets of the banking sector (% of GDP)(1)	288.0	262.5	244.9	234.4	220.0	216.9
Share of assets of the five largest banks (% of total assets)	58.3	60.2	61.8	63.7	68.5	-
Foreign ownership of banking system (% of total assets)(2)	6.5	5.3	3.9	4.5	4.7	4.7
Financial soundness indicators:(2)						
- non-performing loans (% of total loans)	8.1	6.3	5.7	4.4	3.7	3.4
- capital adequacy ratio (%)	13.6	14.5	14.7	15.4	15.4	15.4
- return on equity (%)(3)	6.7	6.6	5.0	7.0	8.2	7.6
Bank loans to the private sector (year-on-year % change)(1)	-4.8	-2.3	-1.6	0.1	-1.9	-0.4
Lending for house purchase (year-on-year % change)(1)	-3.7	-4.2	-2.8	-2.3	-1.1	-1.4
Loan-to-deposit ratio(2)	90.3	91.7	92.5	89.3	90.6	92.3
Central bank liquidity as % of liabilities(1)	6.2	6.1	6.9	7.9	7.9	6.4
Private debt (% of GDP)	168.2	155.8	147.5	139.7	133.5	-
Gross external debt (% of GDP)(2) - public	48.8	51.3	49.6	48.9	49.9	53.8
- private	54.6	50.0	47.3	42.4	42.0	41.3
Long-term interest rate spread versus Bund (basis points)*	155.7	123.9	130.3	123.8	102.5	93.0
Credit default swap spreads for sovereign securities (5-year)*	71.4	72.6	68.1	37.8	33.6	25.4

(1) Latest data Q3 - 2019. Includes not only banks but all monetary financial institutions excluding central banks.
(2) Latest data Q2 - 2019.
(3) Quarterly values are annualised.
* Measured in basis points.
Source: European Commission (long-term interest rates); World Bank (gross external debt); Eurostat (private debt); ECB (all other indicators).

Table C.2: **Headline Social Scoreboard indicators**

	2014	2015	2016	2017	2018	2019 [5]
Equal opportunities and access to the labour market						
Early leavers from education and training (% of population aged 18-24)	21.9	20.0	19.0	18.3	17.9	:
Gender employment gap (pps)	10.2	11.2	11.5	11.9	12.1	12.0
Income inequality, measured as quintile share ratio (S80/S20)	6.8	6.9	6.6	6.6	6.0	:
At-risk-of-poverty or social exclusion rate(1) (AROPE)	29.2	28.6	27.9	26.6	26.1	:
Young people neither in employment nor in education and training (% of population aged 15-24)	17.1	15.6	14.6	13.3	12.4	:
Dynamic labour markets and fair working conditions						
Employment rate (20-64 years)	59.9	62.0	63.9	65.5	67.0	67.9
Unemployment rate(2) (15-74 years)	24.5	22.1	19.6	17.2	15.3	14.2
Long-term unemployment rate (as % of active population)	12.9	11.4	9.5	7.7	6.4	5.5
Gross disposable income of households in real terms per capita(3) (Index 2008=100)	88.0	91.7	93.9	95.0	96.7	:
Annual net earnings of a full-time single worker without children earning an average wage (levels in PPS, three-year average)	21999	22584	23077	:	:	:
Annual net earnings of a full-time single worker without children earning an average wage (percentage change, real terms, three-year average)	-0.77	1.08	1.94	:	:	:
Public support / Social protection and inclusion						
Impact of social transfers (excluding pensions) on poverty reduction(4)	28.6	26.6	24.4	23.9	22.9	:
Children aged less than 3 years in formal childcare	36.9	39.7	39.3	45.8	50.5	:
Self-reported unmet need for medical care	0.6	0.6	0.5	0.1	0.2	:
Individuals who have basic or above basic overall digital skills (% of population aged 16-74)	:	54.0	53.0	55.0	:	:

(1) People at risk of poverty or social exclusion (AROPE): individuals who are at risk of poverty (AROP) and/or suffering from severe material deprivation and/or living in households with zero or very low work intensity.
(2) Unemployed persons are all those who were not employed but had actively sought work and were ready to begin working immediately or within two weeks.
(3) Gross disposable household income is defined in unadjusted terms, according to the draft 2019 joint employment report.
(4) Reduction in percentage of the risk-of-poverty rate, due to social transfers (calculated comparing at-risk-of-poverty rates before social transfers with those after transfers; pensions are not considered as social transfers in the calculation).
(5) Average of first three quarters of 2019 for the employment rate, unemployment rate and gender employment gap.
Source: Eurostat.

Table C.3: **Labour market and education indicators**

Labour market indicators	2014	2015	2016	2017	2018	2019 [5]
Activity rate (15-64)	74,2	74,3	74,2	73,9	73,7	73,7
Employment in current job by duration						
From 0 to 11 months	15,6	16,5	16,9	17,5	17,7	:
From 12 to 23 months	6,8	7,4	8,3	8,7	9,0	:
From 24 to 59 months	13,3	12,3	12,1	13,0	14,6	:
60 months or over	64,3	63,8	62,6	60,8	58,7	:
Employment growth* (% change from previous year)	1,0	2,8	2,1	2,7	2,2	2,2
Employment rate of women (% of female population aged 20-64)	54,8	56,4	58,1	59,6	61,0	61,9
Employment rate of men (% of male population aged 20-64)	65,0	67,6	69,6	71,5	73,1	73,9
Employment rate of older workers* (% of population aged 55-64)	44,3	46,9	49,1	50,5	52,2	53,6
Part-time employment* (% of total employment, aged 15-64)	15,8	15,6	15,1	14,9	14,5	14,5
Fixed-term employment* (% of employees with a fixed term contract, aged 15-64)	24,0	25,2	26,1	26,8	26,9	26,4
Transition rate from temporary to permanent employment (3-year average)	13,6	12,2	10,7	11,5	13,9	:
Youth unemployment rate (% active population aged 15-24)	53,2	48,3	44,4	38,6	34,3	33,3
Gender gap in part-time employment	17,8	17,3	16,5	17,0	17,2	17,0
Gender pay gap(2) (in undadjusted form)	14,9	14,2	15,1	15,1	:	:
Education and training indicators	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
Adult participation in learning (% of people aged 25-64 participating in education and training)	10,1	9,9	9,4	9,9	10,5	:
Underachievement in education(3)	:	22,2	:	:	24,7	:
Tertiary educational attainment (% of population aged 30-34 having successfully completed tertiary education)	42,3	40,9	40,1	41,2	42,4	:
Variation in performance explained by students' socio-economic status(4)	:	13,4	:	:	:	:

* Non-scoreboard indicator
(1) Long-term unemployed are people who have been unemployed for at least 12 months.
(2) Difference between the average gross hourly earnings of male paid employees and of female paid employees as a percentage of average gross hourly earnings of male paid employees. It is defined as "unadjusted", as it does not correct for the distribution of individual characteristics (and thus gives an overall picture of gender inequalities in terms of pay). All employees working in firms with 10 or more employees, without restrictions for age and hours worked, are included.
(3) PISA (OECD) results for low achievement in mathematics for 15 year-olds.
(4) Impact of socio-economic and cultural status on PISA (OECD) scores.
(5) Average of first three quarters of 2019. Data for youth unemployment rate is seasonally adjusted.
Source: Eurostat, OECD.

Table C.4: **Social inclusion and health indicators**

	2013	2014	2015	2016	2017	2018
Expenditure on social protection benefits* (% of GDP)						
Sickness/healthcare	6.5	6.5	6.6	6.2	6.1	:
Disability	1.9	1.8	1.7	1.7	1.6	:
Old age and survivors	12.1	12.3	12.1	12.0	11.9	:
Family/children	1.4	1.3	1.3	1.3	1.2	:
Unemployment	3.3	2.7	2.2	1.9	1.8	:
Housing	0.1	0.1	0.1	0.1	0.1	:
Social exclusion n.e.c.	0.2	0.2	0.2	0.2	0.2	:
Total	25.5	25.1	24.3	23.4	23.0	:
of which: means-tested benefits	3.7	3.6	3.2	3.0	2.9	:
General government expenditure by function (% of GDP)						
Social protection	18.0	17.7	17.1	16.9	16.6	:
Health	6.2	6.1	6.1	6.1	6.0	:
Education	4.1	4.1	4.1	4.0	4.0	:
Out-of-pocket expenditure on healthcare	24.0	24.4	23.8	23.9	23.6	:
Children at risk of poverty or social exclusion (% of people aged 0-17)*	32.6	35.8	34.4	32.9	31.3	29.5
At-risk-of-poverty rate(1) (% of total population)	20.4	22.2	22.1	22.3	21.6	21.5
In-work at-risk-of-poverty rate (% of persons employed)	10.5	12.5	13.1	13.1	13.1	12.9
Severe material deprivation rate(2) (% of total population)	6.2	7.1	6.4	5.8	5.1	5.4
Severe housing deprivation rate(3), by tenure status						
Owner, with mortgage or loan	1.0	0.9	1.0	0.7	0.3	1.1
Tenant, rent at market price	3.8	3.3	3.0	3.1	2.8	4.2
Proportion of people living in low work intensity households(4) (% of people aged 0-59)	15.7	17.1	15.4	14.9	12.8	10.7
Poverty thresholds, expressed in national currency at constant prices*	7050	6813	6869	7084	7379	7528
Healthy life years						
Females	9.0	9.4	8.9	10.4	12.4	:
Males	9.7	10.1	9.5	10.4	12.3	:
Aggregate replacement ratio for pensions(5)	0.6	0.6	0.7	0.7	0.7	0.7
Connectivity dimension of the Digital Economy and Society Index (DESI)(6)	:	44.5	53.2	54.1	59.5	:
GINI coefficient before taxes and transfers*	51.5	52.7	52.9	52.8	52.1	:
GINI coefficient after taxes and transfers*	33.7	34.7	34.6	34.5	34.1	:

* Non-scoreboard indicator
(1) At-risk-of-poverty rate (AROP): proportion of people with an equivalised disposable income below 60 % of the national equivalised median income.
(2) Proportion of people who experience at least four of the following forms of deprivation: not being able to afford to i) pay their rent or utility bills, ii) keep their home adequately warm, iii) face unexpected expenses, iv) eat meat, fish or a protein equivalent every second day, v) enjoy a week of holiday away from home once a year, vi) have a car, vii) have a washing machine, viii) have a colour TV, or ix) have a telephone.
(3) Percentage of total population living in overcrowded dwellings and exhibiting housing deprivation.
(4) People living in households with very low work intensity: proportion of people aged 0-59 living in households where the adults (excluding dependent children) worked less than 20 % of their total work-time potential in the previous 12 months.
(5) Ratio of the median individual gross pensions of people aged 65-74 relative to the median individual gross earnings of people aged 50-59.
(6) Fixed broadband take up (33%), mobile broadband take up (22%), speed (33%) and affordability (11%), from the Digital Scoreboard.
Source: Eurostat, OECD.

Table C.5: **Product market performance and policy indicators**

Performance indicators	2013	2014	2015	2016	2017	2018
Labour productivity per person[1] growth (t/t-1) in %						
Labour productivity growth in industry	1.02	2.39	0.87	0.62	0.18	-1.87
Labour productivity growth in construction	1.99	1.69	-1.23	2.40	-0.02	-1.69
Labour productivity growth in market services	1.67	-0.18	-0.21	0.96	0.59	1.23
Unit Labour Cost (ULC) index[2] growth (t/t-1) in %						
ULC growth in industry	0.14	-2.44	-1.24	-0.94	1.35	3.07
ULC growth in construction	-4.57	-1.47	-0.13	-1.72	0.78	4.65
ULC growth in market services	-2.46	0.74	1.30	-1.04	1.00	1.04
Business environment	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Time needed to enforce contracts[3] (days)	510	510	510	510	510	510
Time needed to start a business[3] (days)	24.0	14.0	14.0	13.0	13.0	12.5
Outcome of applications by SMEs for bank loans[4]	0.98	0.97	0.66	0.56	0.49	0.55
Research and innovation	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
R&D intensity	1.28	1.24	1.22	1.19	1.21	1.18
General government expenditure on education as % of GDP	4.10	4.10	4.10	4.00	4.00	:
Employed people with tertiary education and/or people employed in S&T as % of total employment	44	45	45	46	46	47
Population having completed tertiary education[5]	31	32	32	33	33	34
Young people with upper secondary education[6]	64	66	69	71	72	73
Trade balance of high technology products as % of GDP	-0.70	-0.88	-1.07	-0.99	-1.11	-1.10
Product and service markets and competition	**2003**	**2008**	**2013**			**2018***
OECD product market regulation (PMR)[7], overall	1.79	1.59	1.44			1.03
OECD PMR[7], retail	3.67	3.48	2.88			1.67
OECD PMR[7], professional services[8]	2.92	2.74	2.43			0.94
OECD PMR[7], network industries[9]	2.27	1.65	1.59			1.09

*While the indicator values from 2003 to 2013 are comparable, the methodology has considerably changed in 2018. As a result, past vintages cannot be compared with the 2018 PMR indicators.
1 Value added in constant prices divided by the number of persons employed.
2 Compensation of employees in current prices divided by value added in constant prices.
3 The methodologies, including the assumptions, for this indicator are shown in detail here: http://www.doingbusiness.org/methodology.
4 Average of the answer to question Q7B_a. "[Bank loan]: If you applied and tried to negotiate for this type of financing over the past six months, what was the outcome?". Answers were codified as follows: zero if received everything, one if received 75% and above, two if received below 75%, three if refused or rejected and treated as missing values if the application is still pending or don't know.
5 Percentage population aged 15-64 having completed tertiary education.
6 Percentage population aged 20-24 having attained at least upper secondary education.
7 Index: 0 = not regulated; 6 = most regulated. The methodologies of the OECD product market regulation indicators are shown in detail here: http://www.oecd.org/competition/reform/indicatorsofproductmarketregulationhomepage.htm
8 Simple average of the indicators of regulation for lawyers, accountants, architects and engineers.
9 Aggregate OECD indicators of regulation in energy, transport and communications (ETCR).
Source: "European Commission; World Bank — Doing Business (for enforcing contracts and time to start a business); OECD (for the product market regulation indicators); SAFE (for outcome of SMEs' applications for bank loans)."

Table C.6: **Green growth**

Green growth performance		2013	2014	2015	2016	2017	2018
Macroeconomic							
Energy intensity	kgoe / €	0.12	0.11	0.11	0.11	0.11	-
Carbon intensity	kg / €	0.32	0.32	0.32	0.30	0.30	-
Resource intensity (reciprocal of resource productivity)	kg / €	0.38	0.38	0.38	0.36	0.36	0.38
Waste intensity	kg / €	-	0.11	-	0.12	-	-
Energy balance of trade	% GDP	-3.4	-2.9	-2.0	-1.5	-1.8	-2.1
Weighting of energy in HICP	%	12.39	12.30	12.38	11.65	10.90	11.14
Difference between energy price change and inflation	%	-1.9	2.6	-4.5	-10.2	7.2	2.6
Real unit of energy cost	% of value added	15.4	15.7	16.5	17.4	-	-
Ratio of environmental taxes to labour taxes	ratio	0.12	0.11	0.12	0.12	0.11	-
Environmental taxes	% GDP	1.9	1.9	1.9	1.9	1.8	1.8
Sectoral							
Industry energy intensity	kgoe / €	0.09	0.09	0.08	0.08	0.08	-
Real unit energy cost for manufacturing industry excl. refining	% of value added	19.2	18.7	19.5	20.4	-	-
Share of energy-intensive industries in the economy	% GDP	7.03	7.19	7.55	8.42	7.68	-
Electricity prices for medium-sized industrial users	€ / kWh	0.12	0.12	0.12	0.11	0.10	0.11
Gas prices for medium-sized industrial users	€ / kWh	0.04	0.04	0.03	0.03	0.03	0.03
Public R&D for energy	% GDP	0.01	0.01	0.01	0.02	0.01	0.01
Public R&D for environmental protection	% GDP	0.02	0.02	0.02	0.02	0.02	0.02
Municipal waste recycling rate	%	32.5	30.8	30.0	33.9	33.1	36.0
Share of GHG emissions covered by ETS*	%	38.0	38.5	41.2	38.4	40.4	38.6
Transport energy intensity	kgoe / €	0.77	0.75	0.75	0.81	0.80	-
Transport carbon intensity	kg / €	1.09	1.05	1.08	1.10	1.10	1.07
Security of energy supply							
Energy import dependency	%	70.2	72.7	72.9	71.5	73.9	-
Aggregated supplier concentration index	HHI	19.7	25.3	20.7	18.3	15.9	-
Diversification of energy mix	HHI	27.2	26.9	27.0	27.6	27.8	-

All macro intensity indicators are expressed as a ratio of a physical quantity to GDP (in 2010 prices)
Energy intensity: gross inland energy consumption (in kgoe) divided by GDP (in EUR)
Carbon intensity: greenhouse gas emissions (in kg CO2 equivalents) divided by GDP (in EUR)
Resource intensity: domestic material consumption (in kg) divided by GDP (in EUR)
Waste intensity: waste (in kg) divided by GDP (in EUR)
Energy balance of trade: the balance of energy exports and imports, expressed as% of GDP.
Weighting of energy in HICP: the proportion of 'energy' items in the consumption basket used for the construction of the HICP.
Difference between energy price change and inflation: energy component of HICP, and total HICP inflation (annual% change).
Real unit energy cost: real energy costs as% of total value added for the economy.
Industry energy intensity: final energy consumption of industry (in kgoe) divided by gross value added of industry (in 2010 EUR).
Real unit energy costs for manufacturing industry excluding refining: real costs as% of value added for manufacturing sectors.
Share of energy-intensive industries in the economy: share of gross value added of the energy-intensive industries in GDP.
Electricity and gas prices for medium-sized industrial users: consumption band 500–20 00MWh and 10 000 -100 000 GJ; figures excl. VAT.
Recycling rate of municipal waste: ratio of recycled and composted municipal waste to total municipal waste.
Public R&D for energy or for the environment: government spending on R&D for these categories as% of GDP.
Proportion of GHG emissions covered by EU emissions trading system (ETS) (excluding aviation): based on GHG emissions. (excl. land use, land use change and forestry) as reported by Member States to the European Environment Agency.
Transport energy intensity: final energy consumption of transport activity including international aviation (kgoe) divided by gross value added in transportation and storage sector (in 2010 EUR).
Transport carbon intensity: GHG emissions in transportation and storage sector divided by gross value added in transportation and storage sector (in 2010 EUR).
Energy import dependency: net energy imports divided by gross inland energy consumption incl. consumption of international bunker fuels.
Aggregated supplier concentration index: Herfindahl index covering oil, gas and coal. Smaller values indicate larger diversification and hence lower risk.
Diversification of the energy mix: Herfindahl index covering natural gas, total petrol products, nuclear heat, renewable energies and solid fuels. Smaller values indicate larger diversification.
* European Commission and European Environment Agency - 2018 provisional data.
Source: European Commission and European Environment Agency (Share of GHG emissions covered by ETS); European Commission (Environmental taxes over labour taxes and GDP); Eurostat (all other indicators).

ANNEX D: INVESTMENT GUIDANCE ON JUST TRANSITION FUND 2021-2027 FOR SPAIN

Building on the Commission proposal, this Annex ([71]) presents the preliminary Commission services' views on priority investment areas and framework conditions for effective delivery for the 2021-2027 Just Transition Fund investments in Spain. These priority investment areas are derived from the broader analysis of territories facing serious socio-economic challenges deriving from the transition process towards a climate-neutral economy of the Union by 2050 in Spain, assessed in the report. This Annex provides the basis for a dialogue between Spain and the Commission services as well as the relevant guidance for the Member States in preparing their territorial just transition plans, which will form the basis for programming the Just Transition Fund. The Just Transition Fund investments complement those under Cohesion Policy funding for which guidance in the form of Annex D was given in the 2019 Country Report for Spain[72].

With the closure of the coalmines and the ongoing decommissioning of the coal-fired power plants, Spain has engaged in an ambitious decarbonisation strategy of its energy production. This transition comes with significant social and economic consequences in the concerned areas, and a temporary increase of the energy dependency of the country.

The coal-mining sector has lost more than 8 000 jobs since 2008, mostly in Asturias, Teruel (Aragon), and León and Palencia (Castilla y León) ([73]). At the end of 2018, 14 coal-fired power plants were operating in Spain, four in Asturias, four in León and Palencia (Castilla y León), three in Cádiz, Almería and Córdoba (Andalucía), two in A Coruña (Galicia), and one in Teruel (Aragon), with an installed capacity of around 10 000 MW ([74]). Around 3 300 people were working in the operation and maintenance of these power plants, while 10 000 indirect jobs would be concerned by the closure of the coalmines and of the coal-fired power plants ([75]).

The Spanish Government has prepared a Just Transition Strategy ([76]) and adopted urgent mitigation measures, but further action is necessary to face the social consequences in the areas concerned. Most of these areas are confronted with depopulation and limited economic activities, which amplify the negative consequences of the decarbonisation process.

In order to tackle these challenges, high priority investment needs have been identified for diversifying and making the regional economy more modern and competitive in Asturias, León, Palencia, Cádiz, A Coruña, Córdoba, Almería, and Teruel. The smart specialisation strategies ([77]) of these regions provide an important framework to set priorities for innovation in support of economic transformation. Based on this preliminary assessment, it appears warranted that the Just Transition Fund concentrates its intervention on these areas, complementing the efforts of the national just transition strategy. Key actions of the Just Transition Fund could target in particular:

- investment in the creation of new firms, including through business incubators and consulting services;
- investment in deployment of technology and infrastructures for affordable clean energy, in greenhouse gas emission reduction, energy efficiency and renewable energy;

([71]) This Annex is to be considered in conjunction with the EC proposal for a Regulation of the European Parliament and of the Council on the Just Transition Fund 2021-2027 (COM (2020) 22) and the EC proposal for a Regulation of the European Parliament and of the Council laying down common provisions on the European Regional Development Fund, the European Social Fund Plus, the Cohesion Fund, and the European Maritime and Fisheries Fund and financial rules for those and for the Asylum and Migration Fund, the Internal Security Fund and the Border Management and Visa Instrument (COM (2020) 23).
([72]) SWD(2019) 1008 final
([73]) Ministerio para la transición ecológica, Consulta de estadísticas mineras 2008-2017
([74]) Ministerio para la transición ecológica, Informes de aplicación de la Ley 1/2005 por instalaciones, 2018
([75]) European Commission's Joint Research Centre, EU coal regions: opportunities and challenges ahead
([76]) Plan Nacional Integrado de Energía y Clima (PNIEC) 2021-2030 (draft, February 2019)
([77]) As defined in Article 2(3) of Regulation EU 1303/2013 (CPR)

- investment in the circular economy;
- investment in research and innovation activities and fostering the transfer of advanced technologies;
- productive investments in SMEs, including start-ups; and,
- investment in the regeneration and decontamination of sites, land restoration and repurposing projects.

Moreover, priority investment needs have been identified for alleviating the social costs of the transition in the above-mentioned areas. Key actions of the Just Transition Fund could target in particular:

- upskilling- and reskilling of workers;
- job-search assistance to jobseekers; and,
- active inclusion of jobseekers.

ANNEX E: PROGRESS TOWARDS THE SUSTAINABLE DEVELOPMENT GOALS (SDGS)

Assessment of Spain's short-term progress towards the SDGs ([78])

Table E.1 shows the data for Spain and the EU-28 for the indicators included in the EU SDG indicator set used by Eurostat for monitoring progress towards the SDGs in an EU context ([79]). As the short-term trend at EU-level is assessed over a 5-year period, both the value at the beginning of the period and the latest available value is presented. The indicators are regularly updated on the SDI dedicated section of the Eurostat website.

Table E.1: **Indicators measuring Spain's progress towards the SDGs**

SDG / Sub-theme	Indicator	Unit	Spain Starting year	Spain Starting value	Spain Latest year	Spain Latest value	EU-28 Starting year	EU-28 Starting value	EU-28 Latest year	EU-28 Latest value
SDG 1 – No poverty										
Multidimensional poverty	People at risk of poverty or social exclusion	% of population	2013	27.3	2018	26.1	2013	24.6	2018	21.9
	People at risk of income poverty after social transfers	% of population	2013	20.4	2018	21.5	2013	16.7	2018	17.1
	Severely materially deprived people	% of population	2013	6.2	2018	5.4	2013	9.6	2018	5.8
	People living in households with very low work intensity	% of population aged 0 to 59	2013	15.7	2018	10.7	2013	11.0	2018	8.8
	In-work at-risk-of-poverty rate	% of population aged 18 or over	2013	10.5	2018	12.9	2013	9.0	2018	9.5
Basic needs	Population living in a dwelling with a leaking roof, damp walls, floors or foundation or rot in window frames or floor	% of population	2013	16.7	2018	15.9	2013	15.6	2018	13.9
	Self-reported unmet need for medical care	% of population aged 16 or over	2013	0.8	2018	0.2	2013	3.7	2018	2.0
	Population having neither a bath, nor a shower, nor indoor flushing toilet in their household	% of population	2013	0.1	2018	0.2	2013	2.2	2018	1.7
	Population unable to keep home adequately warm	% of population	2013	8.0	2018	9.1	2013	10.7	2018	7.3
	Overcrowding rate	% of population	2013	5.2	2018	4.7	2013	17.0	2018	15.5
SDG 2 – Zero hunger										
Malnutrition	Obesity rate	% of population aged 18 or over	2014	16.7	2017	14.1	2014	15.9	2017	15.2
Sustainable agricultural production	Agricultural factor income per annual work unit (AWU)	EUR, chain linked volumes (2010)	2012	24 922	2017	32 459	2012	14 865	2017	17 304
	Government support to agricultural research and development	million EUR	2013	375.1	2018	434.0	2013	3 048.6	2018	3 242.5
	Area under organic farming	% of utilised agricultural area	2013	6.9	2018	9.3	2013	5.7	2018	7.5
	Gross nitrogen balance on agricultural land	kg per hectare	2010	35	2015	39	2010	49	2015	51
Environmental impacts of agricultural production	Ammonia emissions from agriculture	kg per ha of utilised agricultural area	2012	17.2	2017	19.7	2011	19.7	2016	20.3
	Nitrate in groundwater	mg NO_3 per litre	N/A	:	N/A	:	2012	19.2	2017	19.1
	Estimated soil erosion by water	km^2	2010	42 703.7	2016	43 305.4	2010	207 232.2	2016	205 294.5
	Common farmland bird index	index 2000 = 100	N/A	:	N/A	:	2013	83.9	2018	80.7
SDG 3 – Good health and well-being										
Healthy lives	Life expectancy at birth	years	2012	82.5	2017	83.4	2012	80.3	2017	80.9
	Share of people with good or very good perceived health	% of population aged 16 or over	2013	71.7	2018	73.7	2013	67.3	2018	69.2
Health determinants	Smoking prevalence	% of population aged 15 or over	2012	33	2017	27	2014	26	2017	26
	Obesity rate	% of population aged 18 or over	2014	16.7	2017	14.1	2014	15.9	2017	15.2
	Population living in households considering that they suffer from noise	% of population	2013	18.3	2018	17.0	2013	18.8	2018	18.3
	Exposure to air pollution by particulate matter ($PM_{2.5}$)	$\mu g/m^3$	2012	13.7	2017	12.1	2012	16.8	2017	14.1
Causes of death	Death rate due to chronic diseases	number per 100 000 persons aged less than 65	2011	104.4	2016	94.7	2011	132.5	2016	119.0
	Death rate due to tuberculosis, HIV and hepatitis	number per 100 000 persons	2011	4.5	2016	3.1	2011	3.4	2016	2.6
	People killed in accidents at work	number per 100 000 employed persons	2012	2.16	2017	1.99	2012	1.91	2017	1.65
	People killed in road accidents	number of killed people	2012	1 889	2017	1 830	2012	28 231	2017	25 257
Access to health care	Self-reported unmet need for medical care	% of population aged 16 or over	2013	0.8	2018	0.2	2013	3.7	2018	2.0

(Continued on the next page)

([78]) Data extracted on 9 February 2020 from the Eurostat database (official EU SDG indicator set; see https://ec.europa.eu/eurostat/web/sdi/main-tables).

([79]) The EU SDG indicator set is aligned as far as appropriate with the UN list of global indicators, noting that the UN indicators are selected for global level reporting and are therefore not always relevant in an EU context. The EU SDG indicators have strong links with EU policy initiatives.

Table (continued)

SDG / Sub-theme	Indicator	Unit	Spain Starting year	Spain Starting value	Spain Latest year	Spain Latest value	EU-28 Starting year	EU-28 Starting value	EU-28 Latest year	EU-28 Latest value
SDG 4 – Quality education										
Basic education	Early leavers from education and training	% of the population aged 18 to 24	2013	23.6	2018	17.9	2013	11.9	2018	10.6
	Participation in early childhood education	% of the age group between 4-years-old and the starting age of compulsory education	2012	97.4	2017	97.4	2012	94.0	2017	95.4
	Underachievement in reading	% of 15-year-old students	2012	18.3	2015	16.2	2015	19.7	2018	21.7
	Young people neither in employment nor in education and training	% of population aged 15 to 29	2013	22.5	2018	15.3	2013	15.9	2018	12.9
Tertiary education	Tertiary educational attainment	% of the population aged 30 to 34	2013	42.3	2018	42.4	2013	37.1	2018	40.7
	Employment rate of recent graduates	% of population aged 20 to 34	2013	59.9	2018	75.4	2013	75.4	2018	81.7
Adult education	Adult participation in learning	% of population aged 25 to 64	2013	11.4	2018	10.5	2013	10.7	2018	11.1
SDG 5 – Gender equality										
Gender-based violence	Physical and sexual violence to women experienced within 12 months prior to the interview	% of women	N/A	:	2012	4	N/A	:	2012	8
Education	Gender gap for early leavers from education and training	percentage points, persons aged 18–24	2013	7.4	2018	7.7	2013	3.4	2018	3.3
	Gender gap for tertiary educational attainment	percentage points, persons aged 30–34	2013	10.4	2018	12.5	2013	8.5	2018	10.1
	Gender gap for employment rate of recent graduates	percentage points, persons aged 20–34	2013	1.0	2018	0.9	2013	4.4	2018	3.4
Employment	Gender pay gap in unadjusted form	% of average gross hourly earnings of men	2012	18.7	2017	15.1	2012	17.4	2017	16.0
	Gender employment gap	percentage points, persons aged 20–64	2013	9.6	2018	12.1	2013	11.7	2018	11.6
	Gender gap in inactive population due to caring responsibilities	percentage points, persons aged 20–64	2013	37.0	2018	36.9	2013	25.5	2018	27.1
Leadership positions	Seats held by women in national parliaments and governments	% of seats	2014	37.7	2019	44.4	2014	27.2	2019	31.5
	Positions held by women in senior management	% of board members	2014	16.9	2019	24.7	2014	20.2	2019	27.8
SDG 6 – Clean water and sanitation										
Sanitation	Population having neither a bath, nor a shower, nor indoor flushing toilet in their household	% of population	2013	0.1	2018	0.2	2013	2.2	2018	1.7
	Population connected to at least secondary wastewater treatment	% of population	2010	93.0	2014	92.9	N/A	:	N/A	:
Water quality	Biochemical oxygen demand in rivers	mg O_2 per litre	N/A	:	N/A	:	2012	2.06	2017	2.00
	Nitrate in groundwater	mg NO_3 per litre	N/A	:	N/A	:	2012	19.2	2017	19.1
	Phosphate in rivers	mg PO_4 per litre	N/A	:	N/A	:	2012	0.096	2017	0.093
	Inland water bathing sites with excellent water quality	% of bathing sites with excellent water quality	2013	50.4	2018	48.3	2013	76.5	2018	80.8
Water use efficiency	Water exploitation index	% of long term average available water (LTAA)	2011	31.6	2016	28.1	N/A	:	N/A	:
SDG 7 – Affordable and clean energy										
Energy consumption	Primary energy consumption	million tonnes of oil equivalent (Mtoe)	2013	116.1	2018	124.6	2013	1 577.4	2018	1 551.9
	Final energy consumption	million tonnes of oil equivalent (Mtoe)	2013	80.7	2018	86.8	2013	1 115.5	2018	1 124.1
	Final energy consumption in households per capita	kgoe	2013	320	2018	321	2013	605	2018	552
	Energy productivity	EUR per kgoe	2013	7.9	2018	8.4	2013	7.6	2018	8.5
	Greenhouse gas emissions intensity of energy consumption	index 2000 = 100	2012	87.8	2017	84.7	2012	91.5	2017	86.5
Energy supply	Share of renewable energy in gross final energy consumption	%	2013	15.3	2018	17.4	2013	15.4	2018	18.0
	Energy import dependency	% of imports in gross available energy	2013	70.2	2018	73.3	2013	53.2	2018	55.7
Access to affordable energy	Population unable to keep home adequately warm	% of population	2013	8.0	2018	9.1	2013	10.7	2018	7.3

(Continued on the next page)

Table (continued)

SDG / Sub-theme	Indicator	Unit	Spain				EU-28			
			Starting		Latest		Starting		Latest	
			year	value	year	value	year	value	year	value
SDG 8 – Decent work and economic growth										
Sustainable economic growth	Real GDP per capita	EUR per capita, chain-linked volumes (2010)	2013	21 840	2018	24 880	2013	25 750	2018	28 280
	Investment share of GDP	% of GDP	2013	17.4	2018	19.4	2013	19.5	2018	20.9
	Resource productivity	EUR per kg, chain-linked volumes (2010)	2013	2.63	2018	2.63	2013	1.98	2018	2.04
Employment	Young people neither in employment nor in education and training	% of population aged 15 to 29	2013	22.5	2018	15.3	2013	15.9	2018	12.9
	Employment rate	% of population aged 20 to 64	2013	58.6	2018	67.0	2013	68.4	2018	73.2
	Long-term unemployment rate	% of active population	2013	13.0	2018	6.4	2013	5.1	2018	2.9
	Gender gap in inactive population due to caring responsibilities	percentage points, persons aged 20–64	2013	37.0	2018	36.9	2013	25.5	2018	27.1
Decent work	People killed in accidents at work	number per 100 000 employed persons	2012	2.16	2017	1.99	2012	1.91	2017	1.65
	In-work at-risk-of-poverty rate	% of population	2013	10.5	2018	12.9	2013	9	2018	9.5
SDG 9 – Industry, innovation and infrastructure										
R&D and innovation	Gross domestic expenditure on R&D	% of GDP	2013	1.28	2018	1.24	2013	2.01	2018	2.12
	Employment in high- and medium-high technology manufacturing and knowledge-intensive services	% of total employment	2013	39.8	2018	39.9	2013	45.0	2018	46.1
	R&D personnel	% of active population	2013	0.88	2018	1.00	2013	1.15	2018	1.36
	Patent applications to the European Patent Office (EPO)	number	2012	1 518	2017	1 655	2012	56 772	2017	54 649
Sustainable transport	Share of buses and trains in total passenger transport	% of total inland passenger-km	2012	19.3	2017	14.8	2012	17.2	2017	16.7
	Share of rail and inland waterways in total freight transport	% of total inland freight tonne-km	2012	5.3	2017	5.1	2012	25.4	2017	23.3
	Average CO2 emissions per km from new passenger cars	g CO_2 per km	2013	122.4	2018	118.1	2014	123.4	2018	120.4
SDG 10 – Reduced inequalities										
Inequalities within countries	Relative median at-risk-of-poverty gap	% distance to poverty threshold	2013	30.9	2018	28.5	2013	23.8	2018	24.6
	Income distribution	income quintile share ratio	2013	6.3	2018	6.0	2013	5.0	2018	5.2
	Income share of the bottom 40 % of the population	% of income	2013	18.9	2018	19.1	2013	21.1	2018	21.0
	People at risk of income poverty after social transfers	% of population	2013	20.4	2018	21.5	2013	16.7	2018	17.1
Inequalities between countries	Purchasing power adjusted GDP per capita	Real expenditure per capita (in PPS)	2013	23 800	2018	28 100	2013	26 800	2018	31 000
	Adjusted gross disposable income of households per capita	Purchasing power standard (PPS) per inhabitant	2013	17 387	2018	20 082	2013	20 392	2018	22 824
	Financing to developing countries	million EUR, current prices	2012	1 539	2017	2 301	2012	147 962	2017	155 224
	Imports from developing countries	million EUR, current prices	2013	77 020	2018	96 131	2013	817 475	2018	1 013 981
Migration and social inclusion	Asylum applications	Positive first instance decisions, per million inhabitants	2013	11	2018	62	2013	213	2018	424
SDG 11 – Sustainable cities and communities										
Quality of life in cities and communities	Overcrowding rate	% of population	2013	5.2	2018	4.7	2013	17.0	2018	15.5
	Population living in households considering that they suffer from noise	% of population	2013	18.3	2018	17.0	2013	18.8	2018	18.3
	Exposure to air pollution by particulate matter ($PM_{2.5}$)	$\mu g/m^3$	2012	13.7	2017	12.1	2012	16.8	2017	14.1
	Population living in a dwelling with a leaking roof, damp walls, floors or foundation or rot in window frames or floor	% of population	2013	16.7	2018	15.9	2013	15.6	2018	13.9
	Population reporting occurrence of crime, violence or vandalism in their area	% of population	2013	14.2	2018	10.9	2013	14.5	2018	12.7
Sustainable mobility	People killed in road accidents	number of killed people	2012	1 889	2017	1 830	2012	28 231	2017	25 257
	Share of buses and trains in total passenger transport	% of total inland passenger-km	2012	19.3	2017	14.8	2012	17.2	2017	16.7
Adverse environmental impacts	Settlement area per capita	m^2	2009	561.6	2015	572.9	2012	625.0	2015	653.7
	Recycling rate of municipal waste	% of total waste generated	2013	32.5	2018	36.0	2013	41.7	2018	47.0
	Population connected to at least secondary wastewater treatment	% of population	2010	93.0	2014	92.9	N/A	:	N/A	:

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Table (continued)

SDG / Sub-theme	Indicator	Unit	Spain				EU-28			
			Starting		Latest		Starting		Latest	
			year	value	year	value	year	value	year	value
SDG 12 – Responsible consumption and production										
Decoupling environmental impacts from economic growth	Consumption of toxic chemicals	million tonnes	N/A	:	N/A	:	2013	300.3	2018	313.9
	Resource productivity	EUR per kg, chain-linked volumes (2010)	2013	2.63	2018	2.63	2013	1.98	2018	2.04
	Average CO2 emissions per km from new passenger cars	g CO_2 per km	2013	122.4	2018	118.1	2014	123.4	2018	120.4
	Energy productivity	EUR per kgoe	2013	7.9	2018	8.4	2013	7.6	2018	8.5
Energy consumption	Primary energy consumption	million tonnes of oil equivalent (Mtoe)	2013	116.1	2018	124.6	2013	1 577.4	2018	1 551.9
	Final energy consumption	million tonnes of oil equivalent (Mtoe)	2013	80.7	2018	86.8	2013	1 115.5	2018	1 124.1
	Share of renewable energy in gross final energy consumption	%	2013	15.3	2018	17.4	2013	15.4	2018	18.0
Waste generation and management	Circular material use rate	% of material input for domestic use	2012	9.8	2017	7.4	2012	11.5	2017	11.7
	Generation of waste excluding major mineral wastes	kg per capita	2012	1 379	2016	1 480	2012	1 716	2016	1 772
	Recycling rate of waste excluding major mineral wastes	% of total waste treated	2012	46	2016	46	2012	55	2016	57
SDG 13 – Climate action										
Climate mitigation	Greenhouse gas emissions	index 1990 = 100	2012	124.0	2017	121.8	2012	82.1	2017	78.3
	Greenhouse gas emissions intensity of energy consumption	index 2000 = 100	2012	87.8	2017	84.7	2012	91.5	2017	86.5
	Primary energy consumption	million tonnes of oil equivalent (Mtoe)	2013	116.1	2018	124.6	2013	1 577.4	2018	1 551.9
	Final energy consumption	million tonnes of oil equivalent (Mtoe)	2013	80.7	2018	86.8	2013	1 115.5	2018	1 124.1
	Share of renewable energy in gross final energy consumption	%	2013	15.3	2018	17.4	2013	15.4	2018	18.0
	Average CO2 emissions per km from new passenger cars	g CO_2 per km	2013	122.4	2018	118.1	2014	123.4	2018	120.4
Climate impacts	European mean near surface temperature deviation	temperature deviation in °C, compared with the 1850–1899 average	N/A	:	N/A	:	2013	1.4	2018	2.1
	Climate-related economic losses	EUR billion, in 2017 values	N/A	:	N/A	:	2012	2 719	2017	2 649
	Mean ocean acidity	pH value	N/A	:	N/A	:	2013	8.06	2018	8.06
Support to climate action	Contribution to the international 100bn USD commitment on climate related expending	EUR million, current prices	N/A	:	2017	529.1	N/A	:	2017	20 388.7
SDG 14 – Life below water										
Ocean health	Coastal water bathing sites with excellent water quality	% of bathing sites with excellent water quality	2013	87.2	2018	92.2	2013	85.5	2018	87.1
	Mean ocean acidity	pH value	N/A	:	N/A	:	2013	8.06	2018	8.06
Marine conservation	Surface of marine sites designated under NATURA 2000	km^2	2013	10 637	2018	84 404	2013	251 566	2018	551 899
Sustainable fisheries	Estimated trends in fish stock biomass	index 2003 = 100	N/A	:	N/A	:	2012	110.0	2017	136.0
	Assessed fish stocks exceeding fishing mortality at maximum sustainable yield (Fmsy)	% of stocks exceeding fishing mortality at maximum sustainable yield ($F>F_{MSY}$)	N/A	:	N/A	:	2012	52.9	2017	42.7
SDG 15 – Life on land										
Ecosystems status	Share of forest area	% of total land area	2009	33.5	2015	39.2	2012	40.3	2015	41.6
	Biochemical oxygen demand in rivers	mg O_2 per litre	N/A	:	N/A	:	2012	2.06	2017	2.00
	Nitrate in groundwater	mg NO_3 per litre	N/A	:	N/A	:	2012	19.2	2017	19.1
	Phosphate in rivers	mg PO_4 per litre	N/A	:	N/A	:	2012	0.096	2017	0.093
Land degradation	Soil sealing index	index 2006 = 100	2009	103.9	2015	107.2	2009	101.7	2015	104.2
	Estimated soil erosion by water	km^2	2010	42 703.7	2016	43 305.4	2010	207 232.2	2016	205 294.5
	Settlement area per capita	m^2	2009	561.6	2015	572.9	2012	625.0	2015	653.7
Biodiversity	Surface of terrestrial sites designated under NATURA 2000	km^2	2013	137 365	2018	138 016	2013	787 766	2018	784 252
	Common bird index	index 2000 = 100	N/A	:	N/A	:	2013	94.7	2018	93.5
	Grassland butterfly index	index 2000 = 100	N/A	:	N/A	:	2012	72.2	2017	74.1

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Table (continued)

SDG / Sub-theme	Indicator	Unit	Spain				EU-28			
			Starting		Latest		Starting		Latest	
			year	value	year	value	year	value	year	value
SDG 16 – Peace, justice and strong institutions										
Peace and personal security	Death rate due to homicide	number per 100 000 persons	2011	0.7	2016	0.6	2011	0.9	2016	0.6
	Population reporting occurrence of crime, violence or vandalism in their area	% of population	2013	14.2	2018	10.9	2013	14.5	2018	12.7
	Physical and sexual violence to women experienced within 12 months prior to the interview	% of women	N/A	:	2012	4	N/A	:	2012	8
Access to justice	General government total expenditure on law courts	million EUR	2012	3 862	2017	3 993	2012	48 381	2017	51 027
	Perceived independence of the justice system	% of population	2016	30	2019	37	2016	52	2019	56
Trust in institutions	Corruption Perceptions Index	score scale of 0 (highly corrupt) to 100 (very clean)	2013	59	2018	58	N/A	:	N/A	:
	Population with confidence in the EU Parliament	% of population	2013	23	2018	37	2013	39	2018	48
SDG 17 – Partnerships for the goals										
Global partnership	Official development assistance as share of gross national income	% of GNI	2013	0.17	2018	0.18	2013	0.43	2018	0.48
	EU financing to developing countries	million EUR, current prices	2012	1 539	2017	2 301	2012	147 962	2017	155 224
	EU imports from developing countries	million EUR, current prices	2013	77 020	2018	96 131	2013	817 475	2018	1 013 981
Financial governance within the EU	General government gross debt	% of GDP	2013	95.8	2018	97.6	2013	86.3	2018	80.4
	Shares of environmental and labour taxes in total tax revenues	% of total tax revenues	2013	5.8	2018	5.3	2013	6.4	2018	6.1

Source: Eurostat

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