BANCA D'ITALIA
EUROSISTEMA

Annual Report

Rome, 31 May 2019

125th FINANCIAL YEAR

2018

Financial Year 125th

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EUROSISTEMA

Annual Report

2018 – 125th Financial Year

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The Bank of Italy's Annual Accounts and the Statistical Appendix to the Annual Report are available on the Bank of Italy's website.

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SYMBOLS AND CONVENTIONS

Unless otherwise specified, Bank of Italy calculations; for Bank of Italy data, the source is omitted.

In the tables:

- – the phenomenon does not exist;
- .... the phenomenon exists but its value is not known;
- .. the value is nil or less than half of the final digit shown;
- :: not statistically significant.

In the figures with different right- and left-hand scales, the right-hand scale is identified in the notes.

For the abbreviations of the names of the European countries used in this publication, please refer to the EU's Interinstitutional Style Guide.

THE INTERNATIONAL ECONOMY

1. CYCLICAL DEVELOPMENTS AND WORLD TRADE

In 2018 protectionist pressures prevailed over world trade liberalization processes, marking a reversal in the trend compared with the previous two years.

World economic growth decreased to 3.6 per cent, falling short of expectations of a strengthening. This reflected the progressive deterioration of the economic situation, first in the emerging countries and then in many advanced countries.

Specific factors, partly of a temporary nature, such as the natural disasters that hit Japan and the stalling of the auto industry in the euro area, interacted with the high degree of uncertainty at global level, which was mainly due to the trade tensions between the United States and China. This had an impact on investment expenditure and international trade, which slowed sharply in the second half of the year; in the United States, however, GDP rose, in part owing to the expansionary effects of the tax reform enacted in December 2017.

The increase in US interest rates led to episodes of turbulence in the financial markets, with sharp rises in volatility. During the summer, the currencies of the emerging economies depreciated, risk premiums rose and capital inflows declined, especially in the countries most reliant on external sources of funding. In the last part of the year, heightened fears of a global slowdown led to a correction in the prices of the riskiest assets in the advanced countries and a drop in oil prices.

At the start of 2019 the monetary policy stance of the United States became more accommodative, leading to an easing on financial markets, a decline in long-term yields, and a rise in stock prices.

The risk of the United Kingdom's exit from the European Union without an agreement persists, although it is no longer immediate.

The economic situation and macroeconomic policies

The main advanced economies. – In 2018 economic activity in the advanced countries slowed slightly, to 2.2 per cent (Table 1.1). The slowdown was more marked in Japan, partly owing to temporary factors, and less pronounced in the United Kingdom; the United States recorded a robust acceleration. Inflation rose slightly, averaging 2 per cent in the year as a whole.

In the United States, GDP accelerated to 2.9 per cent, in line with the IMF's initial forecasts (Figure 1.1.a). The expansion was led mainly by private consumption and, in the first part of the year, productive investment, driven by both the tax

Table 1.1

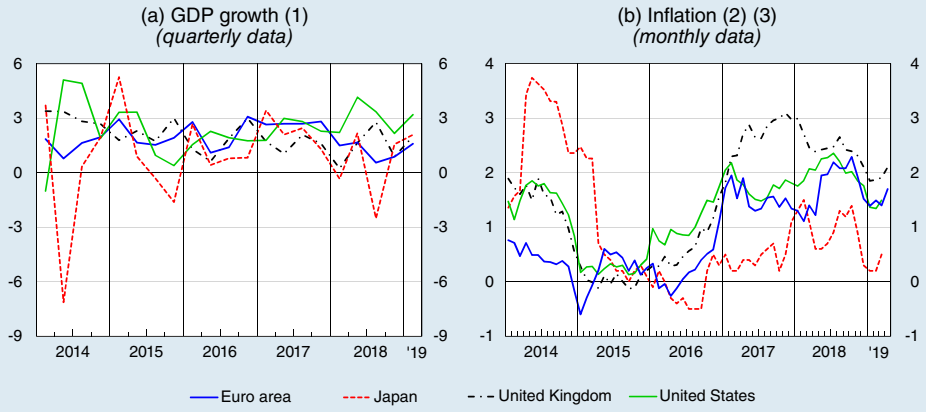
GDP and inflation in the main advanced and emerging countries
(percentage changes on previous period)

	GDP		Inflation (1)	
	2017	2018	2017	2018
Advanced economies	**2.4**	**2.2**	**1.7**	**2.0**
Japan	1.9	0.8	0.5	1.0
United Kingdom	1.8	1.4	2.6	2.3
United States	2.2	2.9	1.8	2.0
Emerging and developing countries	**4.8**	**4.5**	**4.3**	**4.8**
Brazil	1.1	1.1	3.5	3.7
China	6.8	6.6	1.6	2.1
India	6.9	7.4	3.3	3.9
Russia	1.6	2.3	3.7	2.9

Sources: IMF and national data.
(1) For Japan, the Consumer Price Index (CPI); for the United States, the Personal Consumption Expenditure (PCE) deflator; for the United Kingdom, the Harmonized Index of Consumer Prices (HICP).

Figure 1.1

GDP and inflation in the main advanced countries



Source: National statistics.
(1) Seasonally adjusted data; annualized quarterly percentage change. – (2) Year-on-year percentage change. – (3) For the United States, the Personal Consumption Expenditure (PCE) deflator; for Japan, the Consumer Price Index (CPI); for the euro area and the United Kingdom, the Harmonized Index of Consumer Prices (HICP).

reform that came into force in January and the high oil prices that fostered capital accumulation in the oil sector (see the section 'Commodity prices and markets'). In the first half of the year exports made a significant contribution to growth, also in anticipation of the imminent introduction of protectionist measures in the form of tariffs (see the box 'Recent trade tensions and their implications'). In the second half, however, in an environment that had become far more uncertain, investment and exports slowed. According to the latest IMF projections, in 2019 economic growth will decrease to 2.3 per cent, partly owing to the gradual petering out of the effects of fiscal stimulus. Based on preliminary estimates, in the first quarter of

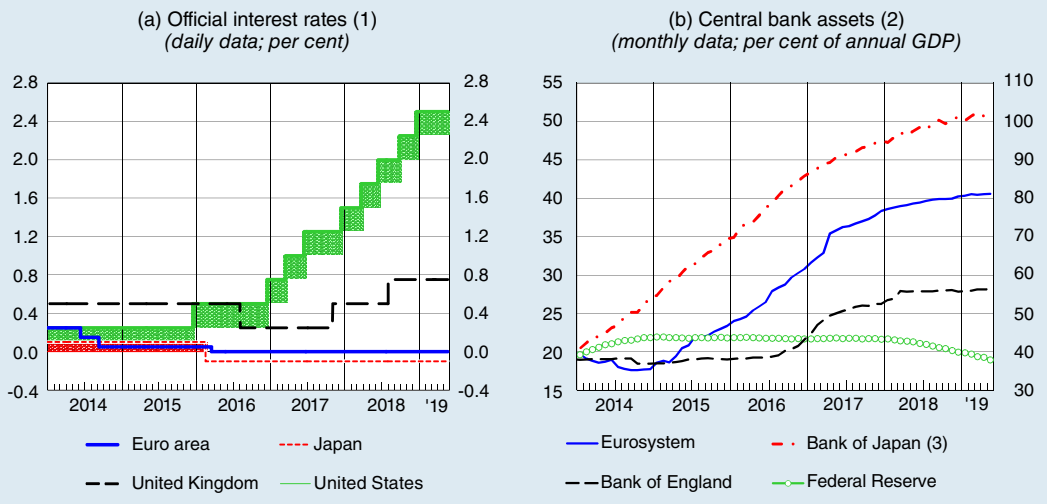
2019 economic activity expanded by more than 3 per cent, driven by the recovery in exports and the contribution of inventories; conversely, investment slowed and consumption weakened.

Labour market conditions continued to improve. The unemployment rate declined to 3.8 per cent, the lowest level in almost 50 years. This benefited wages, which grew by 3.0 per cent at end-2018, but not price developments. Average inflation for the year, considering as well the metric that excludes the most volatile components, rose to a level consistent with the US Federal Reserve's target (Figure 1.1.b).

Over the course of 2018, the Federal Reserve continued monetary policy normalization, raising the federal funds range on four occasions, by a total of 100 basis points, to 2.00-2.25 per cent (Figure 1.2.a), and gradually downsizing its balance sheet.

Figure 1.2

Official interest rates and balance sheets of the main central banks



Sources: ECB and national statistics.
(1) For the United States, federal funds target range; for Japan, uncollateralized overnight call rate (up to 15 February 2016 the Bank of Japan's monetary policy was based on a quantitative target; since then it has also been based on the official reference rate); for the euro area, rate on main refinancing operations; for the United Kingdom, rate on commercial banks' reserve deposits with the Bank of England. – (2) For the Bank of England, from 2 October 2014, only assets purchased in monetary policy operations (over 90 per cent of the total). – (3) Right-hand scale.

Since the beginning of 2019, the intensification of downside risks to growth and the low inflation environment have made the Federal Reserve more prudent, as when it announced that it was putting on hold any further rises in interest rates and that the balance sheet reduction programme would be completed by the end of September. While much larger than it was prior to the financial crisis, its balance sheet is now close to a level deemed consistent with the current monetary policy operational setup (Figure 1.2.b).

The tax reform passed in December 2017 led to an increase in the federal budget deficit equal to 3.8 per cent of GDP. According to the Congressional Budget Office, the deficit will reach 4.4 per cent on average per year in the next five years, pushing federal debt to over 86 per cent in 2024. Over the same period,

according to IMF estimates, the overall public debt will go from 105.8 per cent to more than 110 per cent of GDP.

In Japan, economic activity slowed more than initially expected, to 0.8 per cent, owing to the natural disasters that hit the country during the summer. Compared with 2017, the contributions of private consumption and of investment more than halved, and that of exports also decreased considerably, partly owing to the slowdown in sales in China. Growth is expected to pick up slightly over the course of this year.

Inflation rose until October 2018, mainly owing to the increase in the prices of energy and food products, but then fell to around zero in the final months of the year. The core component remained barely positive for the year as a whole. Against the backdrop of expectations still far from its 2 per cent target, in 2018 the Bank of Japan confirmed its yield curve control strategy; it also began to provide forward guidance on the official interest rates, announcing that it intended to keep them at the current low levels for an extended period of time.

Very weak price growth remains one of the main problems for the Japanese economy. Wages are barely responsive to conditions in the labour market, where the unemployment rate reached the lowest levels seen in 25 years (2.4 per cent). According to the Bank of Japan, this was due both to permanent workers' tendency to favour job stability over wage claims and to the high elasticity of the labour supply of older workers and women, who are employed on more flexible contracts.

In the United Kingdom growth slowed to 1.4 per cent in 2018. The slowdown in the second half of the year reflected, on the one hand, weak investment due to uncertainty about the outcome of Brexit and, on the other hand, weak exports in connection with the slowdown in world growth and the wearing off of the effects of the depreciation of the pound in the previous quarters.

Core inflation, which had climbed back to 3.1 per cent in November 2017 owing to the sharp depreciation of the pound, decreased to an average 2.3 per cent in the year as a whole, remaining in any case above the Bank of England's target. The core component was driven by wages, which in 2018 recorded their fastest rate of growth in ten years (about 3 per cent), whereas the unemployment rate fell to historical lows. While maintaining an overall accommodative stance also owing to the persistent uncertainty about Brexit, the Bank of England raised its reference rate by 25 basis points last August, to 0.75 per cent.

On 14 November 2018 the European Union and the United Kingdom came to an understanding concerning the withdrawal agreement and the political declaration regarding their future relationship, which were subsequently approved by the British government and the European Council. The British Parliament has repeatedly rejected the ratification of the withdrawal agreement (on 15 January and on 12 and 29 March of this year). To prevent a no-deal Brexit, the British government has twice requested and obtained from the European Council an extension of the 29 March deadline, first to 12 April and then to 31 October 2019. If the United Kingdom were to ratify the agreement before the new deadline, the withdrawal would take place on the first day of the following month. While postponed, the risk of a no-deal Brexit has not, however, been averted, given the high level of uncertainty still surrounding the British political situation.

The EU countries of Central and Eastern Europe. – In 2018 economic activity in the EU countries of Central and Eastern Europe that are not part of the euro area slowed to 4.3 per cent. Inflation mirrored developments in the prices of energy products, picking up in the first nine months of 2018 but eventually slowing to 1.6 per cent at the end of the year. Among the economies that do not have a fixed exchange rate regime or a managed floating regime vis-à-vis the euro, the monetary policy reference rates were raised in the Czech Republic and Romania, by 125 and 75 basis points respectively; they were unchanged in Poland and Hungary.

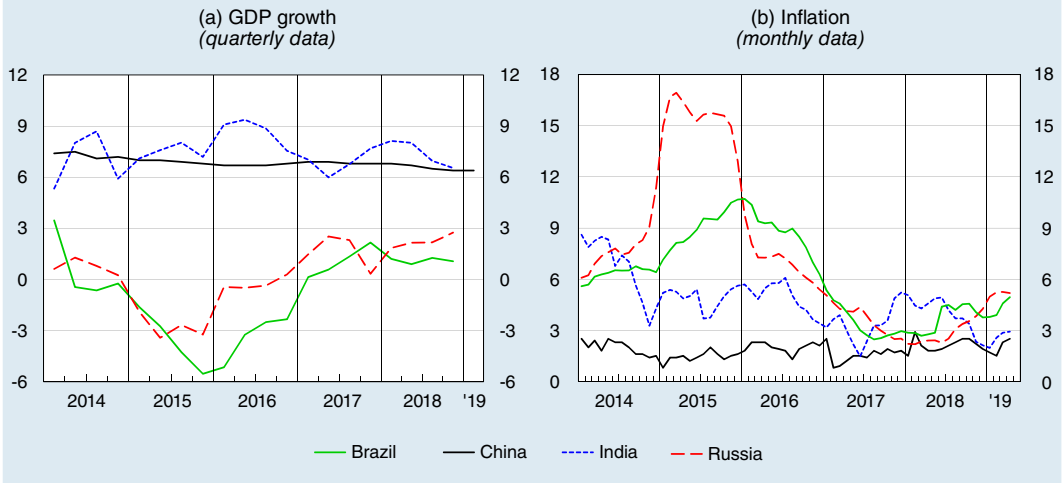
The main emerging economies. – Economic activity in the emerging and developing countries decelerated overall, but the effects of the deterioration of foreign demand and of the less favourable financial conditions differed from country to country (Table 1.1).

In China, GDP growth slowed to 6.6 per cent, the lowest figure in the last 25 years (Figure 1.3.a). The slowdown was more pronounced in the second half of the year on account of the deceleration of investment in infrastructure; consumption and value added in industry also weakened during the year.

Consumer price inflation held stable at around 2 per cent (Figure 1.3.b), while the pressures on producer prices receded, with negative repercussions on corporate profits.

Figure 1.3

GDP and inflation in the main emerging countries (1)



Source: National statistics.
(1) Year-on-year percentage change.

Trade in goods, which up to the third quarter had been supported by front loading purchases in anticipation of the entry into force of the US tariffs, contracted sharply in the last two months of 2018, especially trade with the United States (see the box 'Recent trade tensions and their implications'). Overall, net foreign demand made a negative contribution of 0.6 percentage points to growth.

RECENT TRADE TENSIONS AND THEIR IMPLICATIONS

Since the beginning of 2018, the exacerbation of trade tensions has led to an increase in tariffs, which has affected just over 2.5 per cent of global trade so far. This increase has been more marked in the United States, where it has concerned 11.2 per cent of the country's total imports. Some of the economies hit by the new duties, including the European Union (EU) and China, have reacted by introducing their own tariffs on imports from the US market, although spread out over time and on a more limited range of goods.

Between June and September 2018, following a series of surveys on China's commercial behaviour carried out by the US Trade Representative, the Trump administration imposed higher duties on imports from China, worth $250 billion and equal to about half the total purchases of Chinese goods. The Chinese authorities reacted by announcing new tariffs on a smaller amount of imports from the United States, worth about $60 billion. Under the threat of a further tightening of protectionist policies, the two countries have suspended the introduction of new tariffs since the end of November and started a broader negotiation on trade relations. After a number of bilateral meetings, the US decided that there had been insufficient progress in the negotiations. At the beginning of May this year, tensions therefore resurfaced between the two countries, leading to a further rise in duties on flows of goods that were already affected.

In the first three quarters of 2018, international trade recorded strong growth, though lower than in 2017, followed by a downturn in the fourth quarter, which continued into the early months of 2019. Almost in conjunction with the introduction of the new duties, Chinese sales to the United States fell, following the increase in the previous months due to US operators attempting to bring forward purchases in anticipation of the introduction of the new tariff regime.[1] The impact of the protectionist policies, which affect the relative price of imports too, was almost entirely passed through to the final prices of the goods concerned, thereby transferring the greater costs caused by trade tensions to US consumers. This led to an overall estimated reduction of around $20 billion in the disposable income of US households.[2] Imposing tariffs might not favour the reshoring of production processes hoped for by the Trump administration, thus limiting the impact on the US labour market. This is ascribable to the tendency of firms to consider outsourcing as an alternative to automating routine activities that make little use of human capital.[3]

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[1] V. Gunnella and L. Quaglietti, 'The economic implications of rising protectionism: a euro-area and global perspective', ECB, *Economic Bulletin*, 3, 2019, 43-67.

[2] M. Amiti, S.J. Redding and D.E. Weinstein, 'The impact of the 2018 trade war on U.S. prices and welfare', CEPR Discussion Paper, 13564, 2019.

[3] 'International trade and risks of protectionism', testimony by G. Parigi, the Head of the International Relations and Economics Directorate of the Bank of Italy, Senate of the Republic, Rome, 25 October 2018 (only in Italian).

The dynamics of world trade have also been affected by the tightening of financial conditions and the increase in uncertainty. Between early June, when the tensions between the United States and China resulted in the application of tariffs, and the end of November, when the presidents of the two countries agreed on a trade truce, the MSCI World Index fell by 3.5 per cent, while that relating to the firms most exposed to China decreased by almost 15 per cent (see the box 'Trade tensions, uncertainty and economic activity', *Economic Bulletin*, 4, 2018).

According to the International Monetary Fund's estimates in October's World Economic Outlook, in 2019 the downturn in world economic activity attributable to the direct effect of tariffs will be slightly more than 0.1 percentage points and the US and Chinese economies will be the hardest hit. Nevertheless, should trade tensions intensify, the consequences would be even more serious: in 2019, world GDP would decline by almost 1.0 per cent compared with a scenario with no tariff increases; GDP in the US and in China would decrease even more (by 1.0 and 1.6 per cent respectively), but the contraction in the euro area would be modest (0.3 per cent). Within the euro area, the German economy would be particularly affected, being more exposed to international trade, as would the Italian economy, which is closely integrated into regional value chains. The models used for these simulations are unsuited for providing an assessment of the impact of profound and structural changes in the set-up for trade and production organization – in the form of sectoral and geographical shifts – such as those that might occur in the event of a more marked raising of tariff barriers: the figures indicated above could therefore underestimate the impact of a significant tightening of protectionist policies.

Quantifying the indirect effects of such policies is made more complex by the fragmentation of production processes on a global scale, which has made strong productivity growth possible in recent years.[4] The presence of value chains operating in more than one customs regime tends to amplify the negative effects on world trade of introducing new duties. With reference to the tariff barriers introduced by the United States, flows of goods worth about $165 billion have already been rerouted to avoid tariffs. Reorganizing the current supply relationships could be very costly for participating firms.

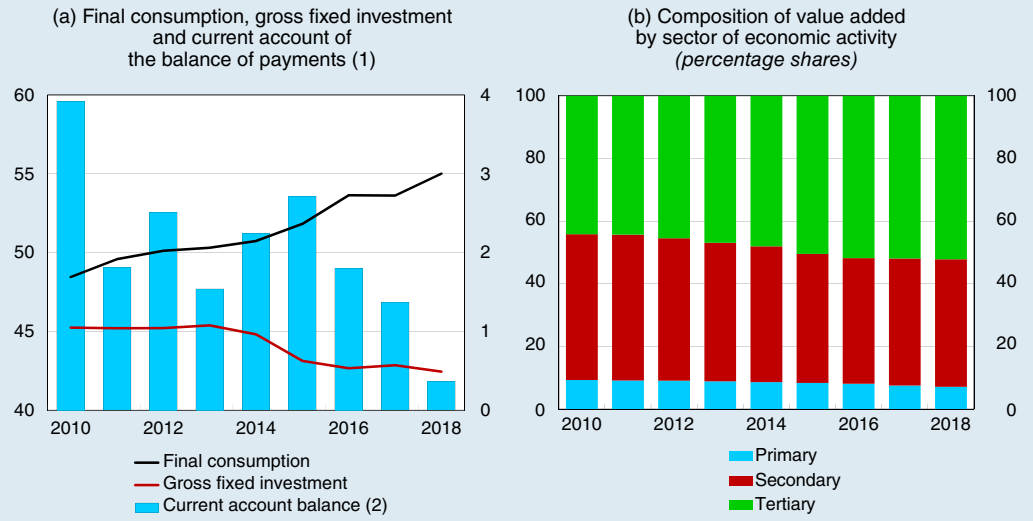
[4] S. Formai and F. Vergara Caffarelli, 'Quantifying the productivity effects of global sourcing', Banca d'Italia, Temi di Discussione (Working Papers), 1075, 2016.

In 2018 the Chinese economy continued its rebalancing towards a greater supply of services and a greater contribution of national demand, especially household and government expenditure. The share of consumption in GDP continued to grow, reaching 55 per cent, while the current account surplus of the balance of payments was virtually eliminated (Figure 1.4).

The Chinese authorities announced their new GDP growth target for 2019, set at 6.0-6.5 per cent, half a percentage point lower than that indicated for 2018. This appears consistent with the objective of not interrupting the rebalancing of the economy under way. In the first quarter of this year GDP growth was on target (6.4 per cent year-on-year).

Figure 1.4

Rebalancing of demand and supply in China



Sources: IMF and national statistics.
(1) Per cent of GDP. – (2) Right-hand scale.

Investment in infrastructure has been affected by the tighter policies implemented vis-à-vis local governments to limit their indebtedness, especially off-balance-sheet indebtedness, which according to IMF estimates had reached 30 per cent of GDP. If these liabilities were included in local governments' balance sheets, the consolidated public debt would come close to 70 per cent of GDP.[1]

Regulatory and prudential measures were introduced to reduce the amount of loans granted by banks through alternative financial instruments to traditional bank credit (i.e. the shadow banking system), with the objective of reducing leverage in the economy. These loans, which had picked up pace in 2017, contracted in the second half of 2018. The retrenchment of this form of funding was only partially offset by the issuance of bonds, especially on the part of large corporations or government-owned companies; traditional bank loans continued to grow at an unchanged pace. This led to a progressive reduction of financing to the economy. According to data released by the Bank for International Settlements, at the end of the third quarter of 2018, non-financial corporate debt stood at 152.9 per cent of GDP, about 7 percentage points below the peak reached in 2016. Lending to households decelerated sharply.

Less accommodative credit conditions and trade tensions with the United States impaired business confidence indicators in China; the authorities responded with expansionary monetary and fiscal policy measures, mainly to support private demand. Between April 2018 and May 2019, the People's Bank of China repeatedly cut the required reserve ratio for banks and adopted further measures to increase liquidity and facilitate lending to small and medium-sized enterprises. The government cut tax rates for low- to medium-income earners, reduced taxes on value added, and stimulated public investment.

[1] IMF, *Fiscal Monitor*, October 2018 and April 2019.

In 2018 the Chinese authorities continued to take steps to open up the economy by raising the minimum threshold for foreign investors' shareholdings in the financial sector and by making it easier to carry out portfolio investments in the domestic stock and bond markets, thereby facilitating the inclusion of Chinese financial assets in the main global stock and bond indices.

In India, GDP accelerated to 7.4 per cent last year, driven by the growth in public investment in infrastructure, which rose by more than 20 per cent. Private consumption also recorded strong growth (of 7.8 per cent), supported by the increase in household income; the improvement in living standards has been reflected in the rebalancing of expenditure, which is increasingly directed towards the consumption of durable goods and services to the detriment of the food component, which decreased to less than one third of the total.

Between June and August, the Reserve Bank of India raised its main refinancing rate from 6.0 to 6.5 per cent to counter the external inflationary pressures linked to the rise in oil prices and the marked depreciation of the rupee. The subsequent sharp drop towards the lower limit of the target range (set at between 2 and 6 per cent) and weaker economic activity led the Reserve Bank to raise the reference rate in early 2019, bringing it back to the levels of June 2018.

In Brazil GDP growth remained subdued (1.1 per cent) on account of both the political uncertainty that prevailed until last autumn's presidential election and the financial tensions that hit the main emerging countries during the summer. More specifically, it was affected by the repercussions of the economic crisis in Argentina, a market that absorbs about 20 per cent of Brazil's manufacturing exports.

The high degree of unutilized capacity limited the inflationary pressures arising from the depreciation of the Brazilian real, enabling the central bank to maintain relaxed monetary conditions, including during the summer turbulence. The public deficit has remained high and the risks to the sustainability of the public finances have continued to highlight the need for social security reform: the new government has presented a proposal to Parliament envisaging cumulative savings equal to about 18 per cent of GDP over the next ten years.

In Russia economic activity in 2018 picked up pace, growing by 2.3 per cent thanks to the rise in oil prices and the acceleration in investment in infrastructure. The public finances benefited from the higher receipts from the energy sector. The authorities have announced further plans for investment in infrastructure, partly to increase economic diversification, and redistributive measures to reduce the incidence of poverty. Supply-side constraints and the depreciation of the ruble have progressively pushed inflation above the 4 per cent target set by the central bank, which has raised the reference rate several times since last September.

International trade and global current account imbalances

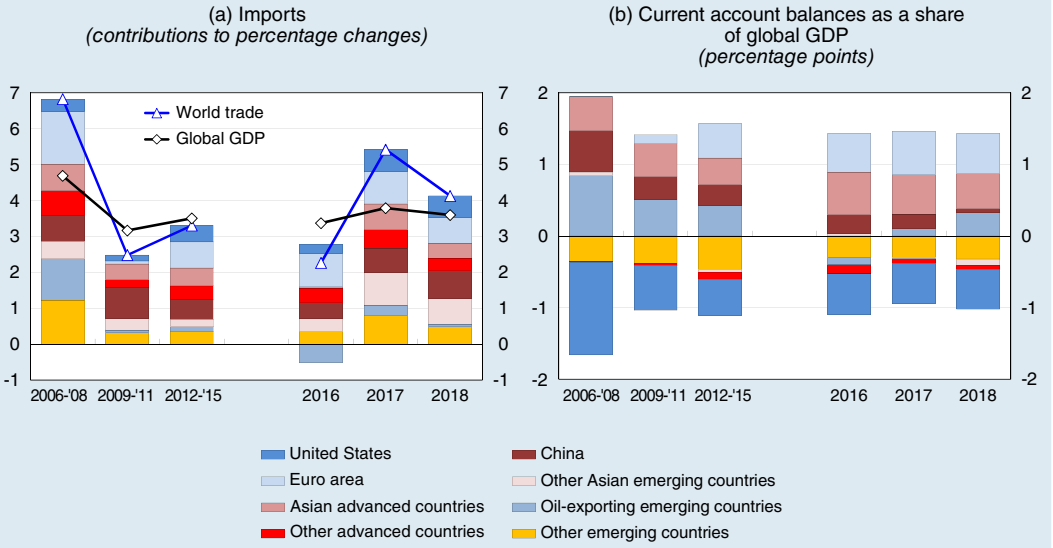
In 2018 protectionist pressures prevailed over world trade liberalization processes, marking a reversal in the trend compared with the previous two years. According to the World Trade Organization (WTO), in the twelve months ending in

October the new import restriction measures (both tariff and non-tariff) introduced by WTO members affected 3 per cent of global trade, twice the share affected by liberalization measures.

World trade growth slowed considerably in 2018 and was only barely in excess of global GDP growth (Figure 1.5.a). The worsening, which was mainly concentrated in the last quarter of the year, reflected the tariff increases introduced by the United States and China on bilateral imports (see the box 'Recent trade tensions and their implications') as well as the slowdown in global manufacturing activity.

Figure 1.5

International trade of goods and services by volume and current account balance in the main countries and areas



Source: Based on data from IMF, *World Economic Outlook*, April 2019.

Trade in goods and services decelerated by more than 1 percentage point compared with 2017, owing to the slowdown in the goods component, especially in the euro area and Asia, which together account for almost 60 per cent of global trade flows. Imports of goods and services grew by 5.6 per cent for the emerging countries combined, and by a little more than 3 per cent for the advanced countries.

Current account imbalances were unchanged as a percentage of GDP (Figure 1.5.b). The surplus widened for petroleum-exporting countries but narrowed for China (down to 0.4 per cent of GDP), reflecting a smaller surplus in the goods component and a larger deficit in the service account. For Japan and the euro area the surplus narrowed marginally (to 3.5 and 3.0 per cent of the respective GDPs); for the United States the deficit was unchanged at 2.3 per cent of GDP.

Trade integration continued at bilateral and multilateral level, mainly on a regional scale. The areas most active in this regard were Europe and East Asia. The EU and Japan have recently signed the EU-Japan Economic Partnership Agreement, the most far-reaching regional agreement in the world, involving economies that together represent almost one third of global GDP. The European Union is also negotiating

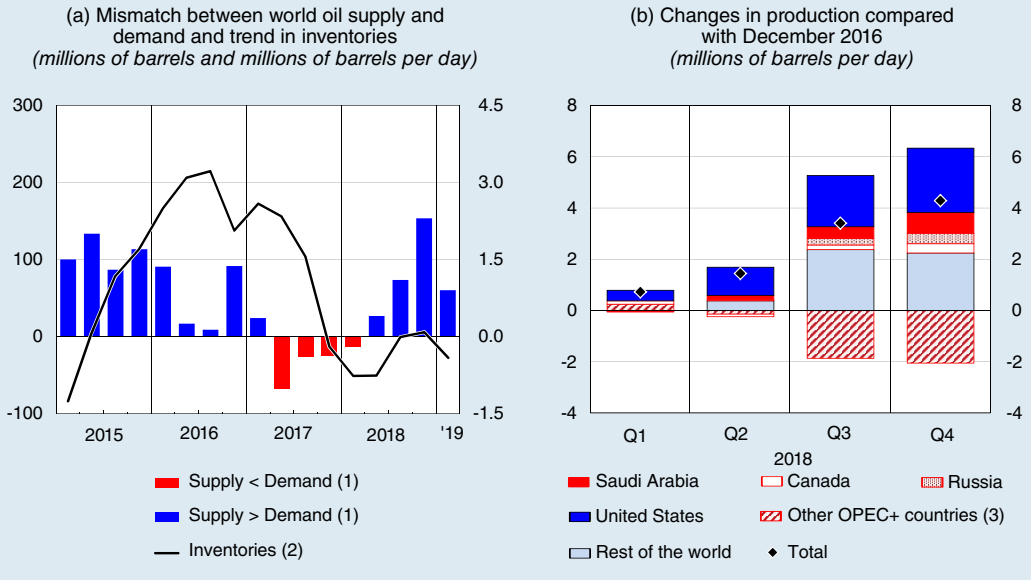
agreements with countries in the Mercosur, Africa, the Caribbean and the Pacific. It has announced the beginning of negotiations with Australia and New Zealand. The Comprehensive Economic Trade Agreement (CETA) between the European Union and Canada remains provisionally in force, pending ratification by national parliaments. In Asia, following the signing in early 2018 of the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) by eleven Pacific Rim countries, negotiations continue for the Regional Comprehensive Economic Partnership (RCEP) between Australia, China, South Korea, Japan, India, New Zealand and the ten ASEAN countries.

Commodity prices and markets

Oil prices. – In 2018 oil prices fluctuated sharply, peaking at $86 per barrel in October but subsequently falling by almost $40 in the last two months of the year, the largest drop since 2016. According to the latest estimates released by the International Energy Agency (IEA), the global demand for oil increased by a total of 1.3 million barrels per day compared with 2017, while the global supply grew by a total of 2.7 million barrels per day; this enabled an increase in inventories which, since the last quarter of 2017, had fallen below the average for the previous five-year period (Figure 1.6.a).

Figure 1.6

Oil supply and demand and changes in crude oil production



Sources: Based on data from EIA, IEA and Refinitiv.
(1) Millions of barrels per day. Right-hand scale. – (2) Change compared with average for previous 5 years; millions of barrels. – (3) OPEC+ countries excluding Saudi Arabia, Venezuela and Russia.

The increase in prices in the first part of 2018 was driven by the still robust performance overall of global economic activity and by the production cuts agreed in December 2017 by OPEC and other oil-producing countries including Russia (OPEC+). Later in the year, further upward pressures stemmed from the progressive

reintroduction of sanctions on Iran on the part of the US government following the withdrawal from the Joint Comprehensive Plan of Action (JCOPA). At the end of the third quarter, financial operators' long positions were 19 times their short positions, the widest gap recorded in the last ten years, signalling strong expectations of an increase in oil prices.

The recovery in oil prices stimulated the increase in crude oil production in the United States, which in 2018 became the world's largest producer with more than 12 million barrels per day (Figure 1.6.b). The US supply was driven by oil extracted using unconventional technologies (shale oil), which at times exceeded 60 per cent of total production. The higher price elasticity of the shale oil production has led to a structural modification of the US energy sector, with repercussions that have extended to the world market as well. The lower ratio of fixed to variable costs in unconventional drilling enabled the entry into the market of small and medium-sized producers that mainly rely on external funding to cover their exploration and drilling expenses. The credit quality of these companies is closely linked to the estimated value of their crude oil reserves and, consequently, to oil prices.[2]

Since mid-October oil prices have declined, following the weakening of world demand and the production increases in Russia, Saudi Arabia and the United States. Global inventories grew rapidly, returning to levels in line with the average for the previous five-year period. At the end of the year, oil prices reached $50 per barrel; the slope of the term structure of futures contracts became negative, signalling a glut in the spot market and expectations of a further decrease in prices. The reduction in oil prices negatively impacted the borrowing costs of US unconventional producers.

The renewal of the OPEC+ agreement to make new production cuts starting in early 2019, compounded by the cuts in Canada and the restrictions on crude oil production in Venezuela and Iran on account of the sanctions applied by the US government, contributed to the recovery in oil prices in the early months of this year and to the rebalancing of the market.

Other commodity prices. – Other commodity prices, which had been rising since 2017, fell sharply in the second half of 2018: metal prices dropped by about 20 per cent compared with the beginning of year, mainly owing to the weakening of economic activity in China. Iron prices moved in the opposite direction, influenced by the sudden contraction in supply following the environmental disaster in Córrego do Feijão, Brazil, responsible for about 15 per cent of total iron production of that country – the world's second largest producer.

International financial markets

In 2018 the trends observed in the international financial markets mirrored changing expectations regarding the stance of monetary policies, the outlook for

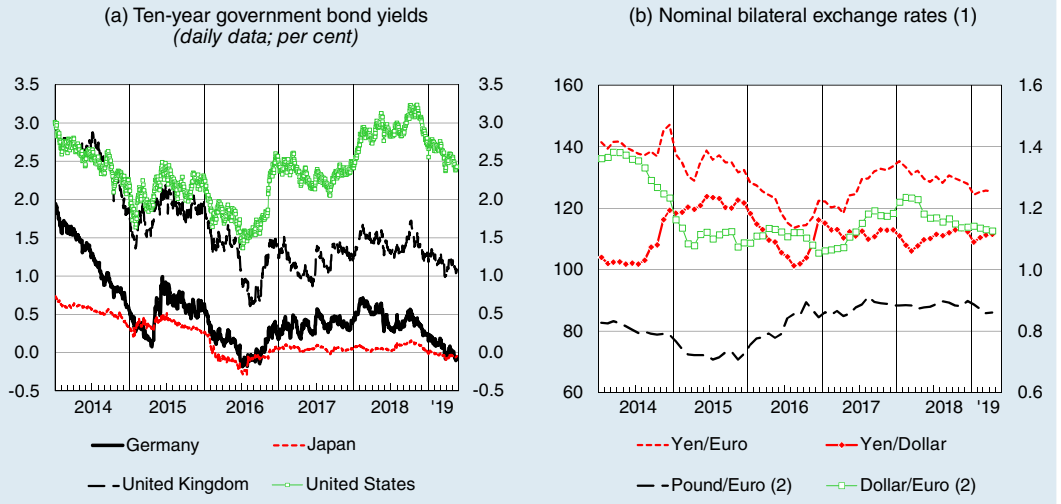
[2] F. Ferriani and G. Veronese, 'U.S. shale producers: a case of dynamic risk management', Banca d'Italia, Temi di Discussione (Working Papers), 1211, 2019.

growth, and global tensions, with bouts of severe turbulence. In February fears of a more rapid normalization of US monetary policy led to a sudden rise in volatility and a marked downward adjustment in the global equity markets. During the summer there were strong tensions in some of the emerging countries considered most vulnerable, e.g. Argentina and Turkey. At the end of the year an abrupt fall in the prices of risky assets in the major advanced countries reflected the intensification of downward risks to global growth and the possible exacerbation of trade tensions between the United States and China.

Long-term interest rates in the main advanced economies rose in September, in anticipation of a further rise in the Federal Reserve's monetary policy rate, but began to fall again in the last two months owing to the heightened fears of a global slowdown (Figure 1.7.a); the reduction continued into the early months of 2019, as a more accommodative stance prevailed among the major central banks.

Figure 1.7

Long-term interest rates and exchange rates in the main advanced countries



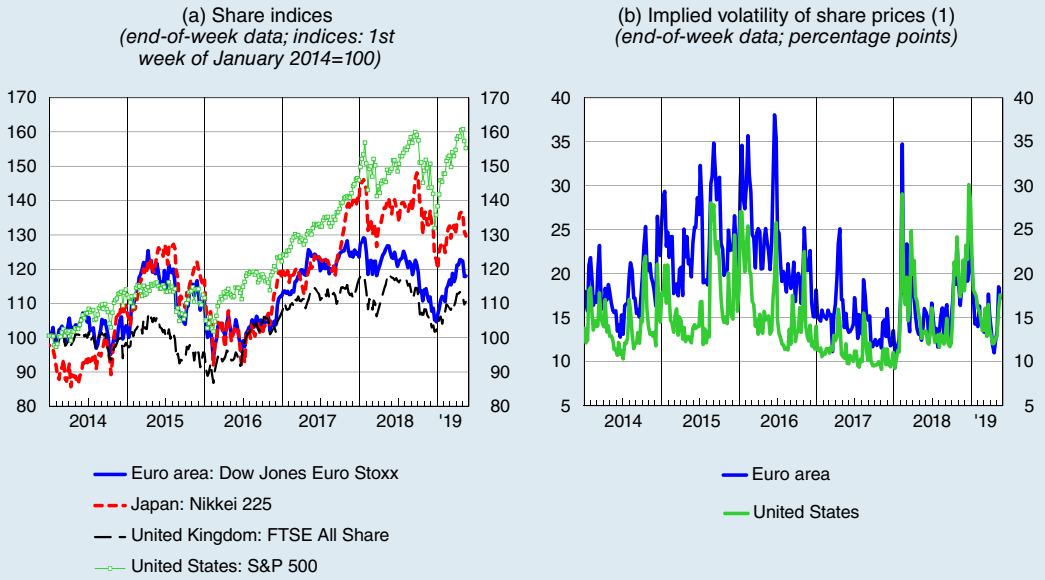
Sources: Refinitiv, Bank of Italy and ECB.
(1) Units of the first currency per single unit of the second. – (2) Right-hand scale.

In the early months of 2018, the dollar appreciated against the main currencies, owing to both the US economy's robust growth and the progressive normalization of monetary policy (Figure 1.7.b). Around the end of the year, following the Federal Reserve's decision to put further rate rises on hold, the dollar depreciated against the pound sterling and the yen, while it held stable against the euro.

Tensions were recorded in the stock markets between February and March, ascribable to fears of a more rapid tightening of monetary conditions by the Federal Reserve and the exacerbation of the trade tensions between the United States and China; in the last quarter, heightened uncertainty about world growth led to a fall in share prices and to a simultaneous increase in US risk premiums on high-yield corporate bonds (Figure 1.8). In the first few months of 2019, owing to the more accommodative monetary policy stance in the major advanced countries, volatility eased and share prices began to rise again, reaching high levels in the United States.

Figure 1.8

Share indices and implied volatility in the main advanced countries



Source: Refinitiv.
(1) Stock market indices: VSTOXX for the euro area and VIX for the United States.

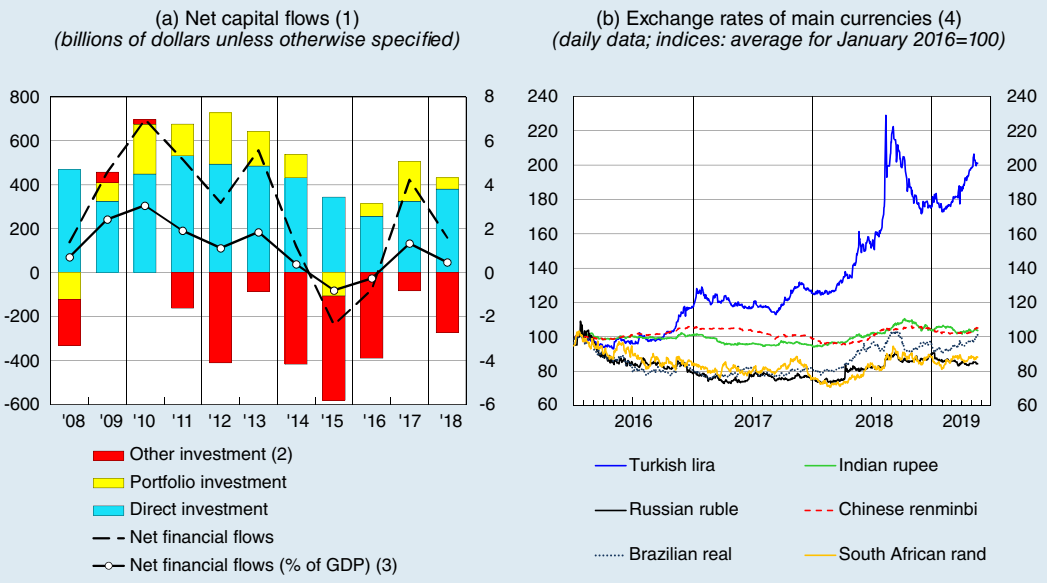
In the emerging economies, external financial conditions became less favourable overall as they were affected by the US monetary policy normalization process and the greater risk aversion of international investors. The second and third quarters of the year were marked by sizeable capital outflows, considerable reductions in equity prices and significant depreciation of currencies (Figure 1.9). These developments were most intense in the countries with the greatest macroeconomic imbalances and large current account deficits. In June the Argentinian government, despite repeatedly intervening in the foreign exchange market and proceeding to institute steep interest rate increases to counter the depreciation of the peso, had to take out a 36-month loan from the IMF, which was extended in September, as part of a programme of drastic fiscal consolidation and monetary tightening. In Turkey, the central bank implemented significant interest rate rises to counter capital outflows, contain the depreciation of the currency, and bring down inflation.

In China, the exacerbation of the trade tensions with the United States and the slowdown in the economy impacted the share markets, which lost up to 20 per cent between April and November. Nevertheless, capital inflows from abroad remained abundant, supported by both direct and portfolio investment, the latter mainly in the bond segment, to which they were attracted by the prospect of the inclusion of Chinese sovereign bonds in the Bloomberg Barclays global index, which eventually took place in April 2019. The renminbi depreciated by about 5 per cent against the dollar, but remained virtually stable in nominal effective terms. The country's official reserves fluctuated at around €3.1 trillion.

The debate on reforming the international monetary system and global governance. – In recent years, especially after the global financial crisis, the debate has reignited

Figure 1.9

Capital flows and exchange rates in the emerging countries



Sources: Based on IMF and Refinitiv data.
(1) Balance of inflows and outflows of capital to and from emerging countries; does not include changes in official reserves and other flows relating to the official sector. – (2) Includes bank and commercial loans, currency deposits, and other assets and liabilities. – (3) Right-hand scale. – (4) Exchange rate against the dollar. An increase in the index signals a depreciation.

about the risks stemming from the high volatility of capital flows, especially for the emerging economies, whose financial markets are not yet fully developed. Discussion is ongoing about the merits of adopting capital controls and their implementation and coordination. According to the IMF's institutional view set out in 2012,[3] the excessive volatility of capital flows must be countered first and foremost through appropriate macroeconomic policies and the effective supervision of the financial system. However, should systemic risks arise, the possibility of introducing restrictions on capital flows is envisaged, as long as these measures are transparent and do not discriminate against foreign investors. The IMF has recently compiled a classification of the capital control measures adopted by the various countries since 2012 to complement its institutional view and make it easier to understand.

For OECD members, the liberalization of capital flows is regulated by a specific code, drafted in 1961, whereby the countries pledge to not introduce additional restrictions and to gradually repeal any existing ones, guided by the principles of cooperation and transparency. Recourse to restrictive measures for macroprudential purposes by some OECD members and some leading emerging economies stimulated a review of the code with the goal of increasing its flexibility and making its implementation more effective. The revised version allows macroprudential measures, especially those regarding banks' foreign currency liquidity requirements.

[3] IMF, 'The liberalization and management of capital flows: an institutional view', 14 November 2012.

Last year the Eminent Persons Group on Global Financial Governance (EPG), established by the G20 in 2017, presented its report on global governance which contains proposals about capital flows as part of a broader reform of the international monetary system (see the box 'The reform of global governance: the proposals of the Eminent Persons Group to the G20').

THE REFORM OF GLOBAL GOVERNANCE: THE PROPOSALS OF THE EMINENT PERSONS GROUP TO THE G20

In April 2017, the Finance Ministers and the Governors of the G20 central banks asked a group of leading experts, known as the G20 Eminent Persons Group on Global Financial Governance (EPG), to draw up some proposals for reforming the governance of the global financial architecture, designed to promote stable and sustainable growth and to redefine the role of the G20. In October 2018, the EPG presented its final report which, at a time of protectionist pressures and turbulence on the global financial markets, aimed to refresh the multilateral dialogue on a broad range of topics.[1] Specifically, the report contains proposals to: (a) reinforce the impact of policies for achieving sustainable development objectives; (b) safeguard the benefits of global financial integration; and (c) redraft the role of the G20, its relationship with international financial institutions (IFIs) and their governance.

With reference to development policies, the report underlines that the dimensions of the challenges require a decisive step change in the scale of resources, as well as in the role and operating methods of multilateral development banks (MDBs). The massive amount of resources needed means greater recourse to private funding sources, which the MDBs are called on to promote, both by means of a review of their own business model and through the securitization of loans to finance investment in infrastructure. The securitizations need to be carefully structured so as to achieve a high degree of risk diversification and the subsequent packaging of attractive securities for private investors.

One of the EPG's proposals supports, among other things, the need to review the methodologies for assigning credit ratings to MDBs,[2] since it is widely agreed that those currently used do not take sufficient account of the special nature of such institutions and therefore hinder their lending capacity. A recent study[3] concludes that applying different rating methodologies could more than double the overall lending capacity of four MDBs,[4] maintaining an AAA rating for each of them. It also estimates that, in a hypothetical scenario in which the four MDBs decide to operate with higher financial leverage, accepting a marginal reduction in their

[1] G20-EPG, *Making the global financial system work for all. Report of the G20 Eminent Persons Group on Global Financial Governance,* October 2018.

[2] Proposal 5: 'Right size' capital requirements for MDBs and other infrastructure investors, given their default experience.

[3] R. Settimo, 'Higher multilateral development bank lending, unchanged capital resources and triple-A rating. A possible trinity after all?' Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 488, 2019.

[4] The International Bank for Reconstruction and Development, the Asian Development Bank, the Interamerican Development Bank and the African Development Bank.

rating (from AAA to AA+), their lending capacity could more than triple, with an impact of no more than 40-50 basis points on the cost of funding.[5]

As far as safeguarding the benefits of international financial integration is concerned, the EPG report recognizes that countries (especially the emerging and developing economies) should be able to set up more inclusive, deep and resilient internal financial markets, with the support of the IFIs. As well as proposing better supervision of the international monetary and financial system and a stronger and more cohesive global network for financial support, the EPG suggests identifying a set of measures that could, among other things, limit any negative international spillovers as a result of the policy choices adopted by the main economies.[6]

A recent analysis shows how capital flows to the emerging economies are affected by both domestic policies and those of the main advanced economies.[7] Inflows tend to be more substantial in countries with greater financial soundness (measured by general government net lending/borrowing) and under favourable global financial conditions (proxied by the implied volatility of share prices on the US market). The evidence shows that the sensitivity of portfolio investments in emerging countries.

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[5] The assessments of the increase in lending capacity need to be considered with caution, since they are made by assuming both an expansion of the MDBs' lending portfolio, the composition of which remains unchanged in terms of borrowing countries, and the unchanged creditworthiness of the borrowing countries and of the MDB shareholder countries.

[6] Proposal 11b: Develop an understanding of policy options that enable sending countries to meet domestic objectives while avoiding large adverse international spillovers.

[7] I. Buono, F. Corneli and E. Di Stefano, 'Capital inflows to emerging countries and their sensitivity to the global financial cycle', Banca d'Italia, Temi di Discussione (Working Papers), forthcoming.

THE EURO-AREA ECONOMY

2. THE ECONOMY AND FISCAL POLICIES OF THE EURO AREA

There was a slowdown in GDP in the euro area and in the main Member States, reflecting the deterioration in world trade and, in the last quarter of the year, in domestic demand. Growth resumed at a stronger rate in the first quarter of 2019, but the confidence of firms and households is still weak.

Inflation remained moderate, particularly in the core component, reflecting the still uncertain outlook for the economy, which also dampened the pass-through of wage acceleration to prices.

According to the European Commission's estimates, the euro area's fiscal policy was neutral in 2018 and is expected to be slightly expansionary this year; however, the fiscal stance varied from country to country. The most recent assessments of the long-term underlying trends of the public accounts, in part based on the new demographic projections, indicate that the risks to the sustainability of the public finances are higher than in the past for the main euro-area economies, with the exception of Germany.

Cyclical developments

Growth averaged 1.9 per cent in the euro area and slowed compared with the previous year in the leading economies (Table 2.1). Industrial activity was affected by weak foreign trade (see Chapter 1, 'Cyclical developments and world trade'). In the second half of the year, the automotive sector was held back by temporary factors, such as the entry into force of more stringent legislation on polluting emissions, but also by the downturn in global demand: the impact was especially noticeable in Germany and Italy owing to the very important part played by this sector and by its ancillary activities.

There was a sharp deceleration in export growth, which grew by 3.1 per cent. The trade tensions sparked by protectionist measures, the cyclical slowdown in China and the uncertainty over the timeframe and arrangements for the United Kingdom's withdrawal from the European Union also contributed to a marked deterioration in business confidence, as indicated by the purchasing managers' indices (PMI). This led to a progressive downward revision of investment plans, especially by more export-oriented firms (see the box 'Trade tensions, uncertainty and economic activity', *Economic Bulletin*, 4, 2018).

Over the year as a whole, investment nevertheless remained robust and continued to benefit from favourable borrowing conditions, ample profit margins and high levels

Table 2.1

GDP in the main euro-area countries (1)
(chain-linked prices; percentage changes on previous period)

	2016	2017	2018	2018				2019
				Q1	Q2	Q3	Q4	Q1
Euro area (2)	2.0	2.4	1.9	0.4	0.4	0.1	0.2	0.4
France (3)	1.1	2.3	1.7	0.2	0.2	0.3	0.3	0.3
Germany	2.2	2.2	1.4	0.4	0.5	-0.2	0.0	0.4
Italy	1.1	1.7	0.9	0.1	0.1	-0.1	-0.1	0.2
Spain	3.2	3.0	2.6	0.6	0.6	0.5	0.6	0.7

Sources: Based on national statistics and Eurostat data.
(1) The quarterly series are adjusted for seasonal and calendar effects. – (2) Reference is to the current euro area, with 19 members. – (3) The quarterly series do not include the revised annual data released on 16 May.

of capacity utilization in a number of countries. The growth in private consumption slowed compared with the previous year, despite the acceleration in disposable income and the good performance of the labour market.

In 2018, employment rose by 1.4 per cent and the unemployment rate fell further, to 8.2 per cent. The share of European citizens residing in a country other than their native one is gradually rising, up by 0.2 percentage points to 5.0 per cent in the 15-64 age group (see the box 'Labour mobility and shock absorption in the euro area').

LABOUR MOBILITY AND SHOCK ABSORPTION IN THE EURO AREA

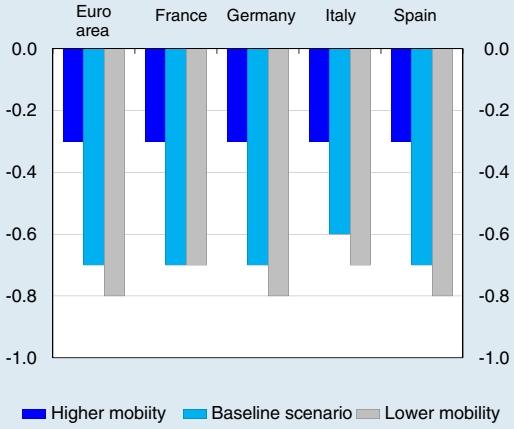
In a currency area, individual countries' capacity to absorb labour demand fluctuations may depend on the workers' degree of geographical mobility.[1] The empirical literature has traditionally highlighted that there is significantly lower mobility in Europe than in the United States.[2] Various factors come into play, including language barriers and limited reciprocal recognition of qualifications and professional experience.

[1] E. Fahri and I. Werning, 'Labour mobility within currency unions', NBER Working Paper, 20105, 2014; C.L. House, C. Proebsting and L.L. Tesar, 'Quantifying the benefits of labor mobility in a currency union', NBER Working Paper, 25347, 2018; R.A. Mundell, 'A theory of optimum currency areas', *The American Economic Review*, 51, 4, 1961, 657-665.

[2] A. Arpaia, A. Kiss, B. Palvolgyi and A. Turrini, 'Labour mobility and labour market adjustment in the EU', *IZA Journal of Development and Migration*, 5, 2016, 1-21; R.C.M. Beyer and F. Smets, 'Labour market adjustments and migration in Europe and the United States: how different?', *Economic Policy*, 30, 84, 2015, 643-682; M. Dao, D. Furceri and P. Loungani, 'Regional labor market adjustment in the United States: trend and cycle', *The Review of Economics and Statistics*, 99, 2, 2017, 243-257.

A recent study, based on microdata from the European Union Labour Force Survey and the American Community Survey for the period 2007-2016, confirms this result.[3] A reduction in employment of 1.0 per cent in a euro-area country[4] is associated with greater mobility to look for work abroad, measured by a fall in working-age population equal, on average, to 0.2 per cent, a value four times lower than that estimated for the United States.

Change in the employment rate following a 1.0 per cent drop in labour demand (1)
(percentage points)



Source: Based on Eurostat data.
(1) Baseline scenario: change in the employment rate following a negative variation in employment equal to 1.0 per cent. Higher mobility scenario: the mobility response of foreign-born workers is extended to all workers. Lower mobility scenario: the mobility response of native workers is extended to all workers.

The workers with the highest mobility in response to a change in labour demand are the youngest individuals, those with higher education, and those born in another state (who have therefore already migrated). Following a 1.0 per cent reduction of employment in a euro-area country, the fall in the working-age population is barely 0.1 per cent in the case of nationals, but 0.7 per cent for workers born in another state, a value very similar to the overall average estimated for the United States.[5]

In the period under consideration, the share of people born abroad in the working-age population increased in almost all the euro-area countries,[6] rising on average from 12.3 to 14.9 per cent. The estimates obtained show that a 1.0 per cent decrease in employed persons would have led to an 0.8 percentage point drop in the employment rate in the absence of foreign workers (see the figure); the presence of immigrants, who are more mobile, reduces this variation by a tenth. The estimated effects are similar in all the main euro-area countries.

Going forward, apart from a larger immigrant population, which will be more mobile than the native population, the labour-market institutions of the euro-area countries will be more integrated, possibly reducing the wide gap in mobility compared with the United States.

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[3] G. Basso, F. D'Amuri and G. Peri, 'Immigrants, labor market dynamics and adjustment to shocks in the Euro Area', Banca d'Italia, Temi di Discussione (Working Papers), 1195, 2018, forthcoming in *IMF Economic Review*.

[4] A 1.0 per cent change in the number of employed persons is approximately equal to half of a standard deviation of the series on the changes in employment in euro-area countries during the reference period.

[5] G.J. Borjas, 'Does immigration grease the wheels of the labor market?', *Brookings Papers on Economic Activity*, 1, 2001, 69-134; B.C. Cadena and B.K. Kovak, 'Immigrants equilibrate local labor markets: evidence from the Great Recession', *American Economic Journal: Applied Economics*, 8, 1, 2016, 257-290.

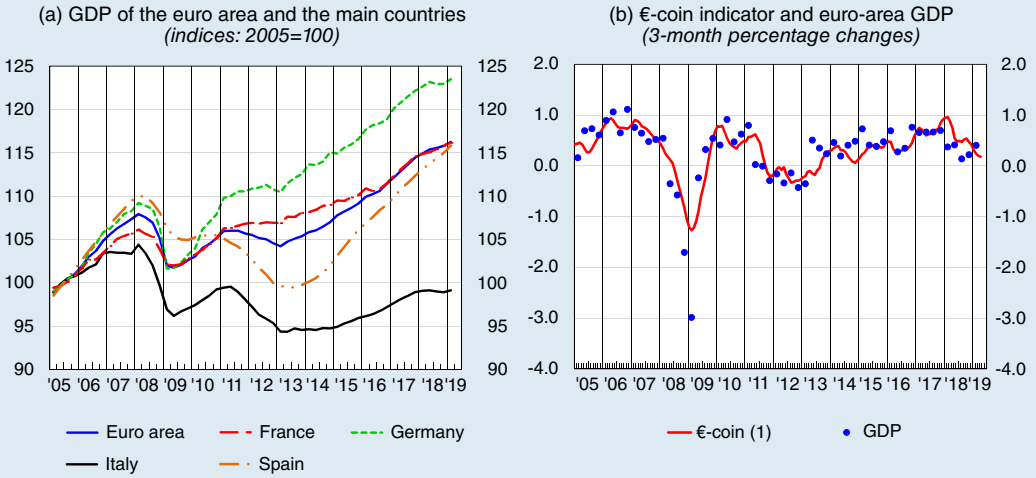
[6] In Estonia and Latvia, the share of foreign workers in the working-age population fell by 3 percentage points from 2007 to 2016, to stand at 11 and 10 per cent respectively.

Nevertheless, it may be risky to rely entirely on population mobility as an adjustment mechanism to deal with idiosyncratic shocks, in the absence of structural readjustments to the economy. Indeed, migration flows are more likely to be made up of younger, better educated and often more entrepreneurial people; if the flows continue over time, they could permanently lower a country's human capital, reducing longer-term growth prospects (see the box 'Italy's risk of a brain drain after the Great Recession' in Chapter 8).

Growth strengthened in the first quarter of 2019, reaching 0.4 per cent compared with the previous quarter, thanks above all to the improved economic activity in Germany and Italy, the two countries where it had declined most markedly in the previous six months (Figure 2.1.a). However, the outlook remains uncertain: the Bank of Italy's €-coin indicator, which provides a monthly estimate of GDP growth in the euro area, net of short-term volatility,[1] has declined further since the beginning of the year, affected by the fall in business and household confidence. Last April it was at its lowest level since the beginning of 2015 (0.18 per cent; Figure 2.1.b).

Figure 2.1

Euro-area GDP and the €-coin indicator



Sources: Bank of Italy, Eurostat and Istat.
(1) See the section dedicated to the €-coin: April 2019 on the Bank of Italy's website. The €-coin estimate for April 2019 was completed before GDP data for the first quarter of 2019 became available.

Prices and costs

In 2018, consumer price inflation in the euro area rose on average to 1.8 per cent, although it weakened again at the end of the year. Among the leading economies, the growth in prices was robust in France and Germany, at 2.1 and 1.9 per cent

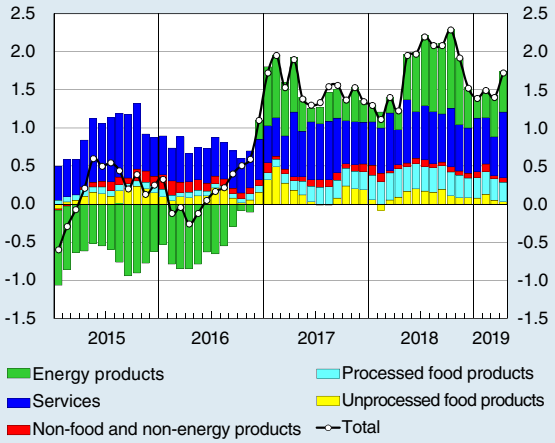
[1] See the methodology described in F. Altissimo, R. Cristadoro, M. Forni, M. Lippi and G. Veronese, 'New eurocoin: tracking economic growth in real time', *The Review of Economics and Statistics*, 92, 2010, 1024-1034, also published by the Bank of Italy in Temi di Discussione (Working Papers), 631, 2007. The monthly updates of the indicator are published on the websites of the Bank of Italy and the Centre for Economic Policy Research.

respectively, and moderate in Italy, at 1.2 per cent. Over the year, the increase in prices was largely attributable to the acceleration in the prices of energy goods (Figure 2.2).

Figure 2.2

Euro-area inflation and contributions of its components (1)

(monthly data; 12-month percentage changes and percentage points)



Source: Based on Eurostat data.
(1) Harmonized Index of Consumer Prices.

Despite stronger wage growth, inflation net of the most volatile components remained modest at 1.0 per cent, reflecting the weak boost from aggregate demand (see the box 'Why has wage growth not passed through to prices yet?'). Only eight euro-area countries (accounting for 37 per cent of the overall index) recorded growth in non-food and non-energy prices of more than 1.0 per cent, and just six countries (accounting for 5 per cent of the overall index) recorded an increase of more than 1.5 per cent.

WHY HAS WAGE GROWTH NOT PASSED THROUGH TO PRICES YET?

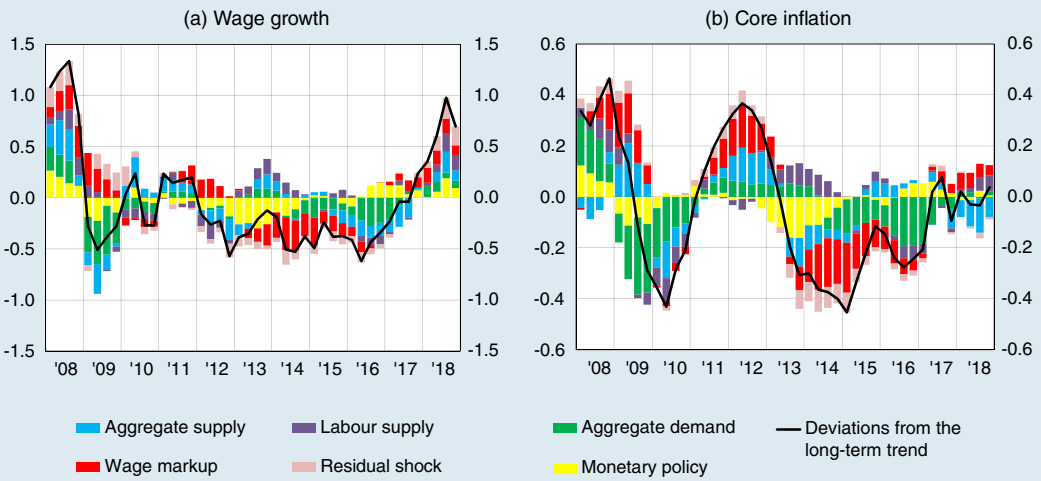
Since the end of 2016, the growth in compensation per employee in the euro area has strengthened markedly in all the main countries: in 2018, it reached 2.2 per cent for the area overall, 2.0 per cent in Italy and 3.0 per cent in Germany. At the same time, core inflation, measured by the harmonized index of consumer prices excluding energy and food products, has remained weak, at modest values by historical standards and below the initial forecasts. This indicates an incomplete pass-through of wage pressures to price growth.

The evidence suggests that the elasticity of consumer prices to wages is not constant, but depends on the nature of the shocks that hit the economy; it is greater when the outlook for aggregate demand is favourable and able to sustain itself, but lesser in other cases. This regularity is confirmed by assessments based on an autoregressive model (structural VAR), estimated for the period 1999-2018 for the euro area, which includes the main macroeconomic variables (gross domestic product, core inflation, compensation per employee, labour productivity, the unemployment rate and a measurement of the monetary policy stance).[1]

The pass-through of wage increases to prices is stronger when there is an autonomous shock to aggregate demand and weaker when the wage increase

[1] A.M. Conti and A. Nobili, 'Wages and prices in the euro area: exploring the nexus', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), forthcoming.

Contributions of various shocks to wage and price dynamics
(percentage points; deviation from the long-term average)



Source: Based on ECB data.

originates solely from the impact of the expansionary monetary policy stance. Finally, it can become nil in the event of positive aggregate supply shocks, such as technological innovations or an increase in competition, which lead to an increase in labour productivity and an increase in wages in the event of a decline in consumer prices. These results are in line with recent studies that refer to the main euro-area economies and to the main sectors of economic activity.[2]

In the two years 2017-18, euro-area wage growth was mainly supported by a particularly expansionary monetary policy, which on average means a weaker pass-through to prices, and was associated with a reduction in firms' profit margins; the independent contribution of an increase in aggregate demand that is capable of sustaining itself was very limited and is still slight (see the figure).

[2] E. Bobeica, M. Ciccarelli and I. Vansteenkiste, 'The link between labor cost and price inflation in the euro area', European Central Bank, Working Paper Series, 2235, 2019; J.E. Gumiel and E. Hahn, 'The role of wages in the pick-up of inflation', ECB, *Economic Bulletin*, 5, 2018.

While the core components of inflation were consistently weak, the change in the prices of energy goods, compared with the same period in 2017, rose from 2.2 per cent in the first quarter to over 9 per cent in the third quarter, before falling sharply at the end of the year (6.4 per cent on average in 2018).

The outlook for inflation remains moderate. According to the medium-term expectations of the professional forecasters polled by Consensus Economics in May, inflation will remain low in 2019 and in 2020, at 1.4 per cent. Signs of an even more modest trend can be inferred from the financial markets: at the end of April, inflation expectations as implied by inflation swap yields over the two- and five-year horizons stood at 1.1 per cent in both cases.

The financial markets

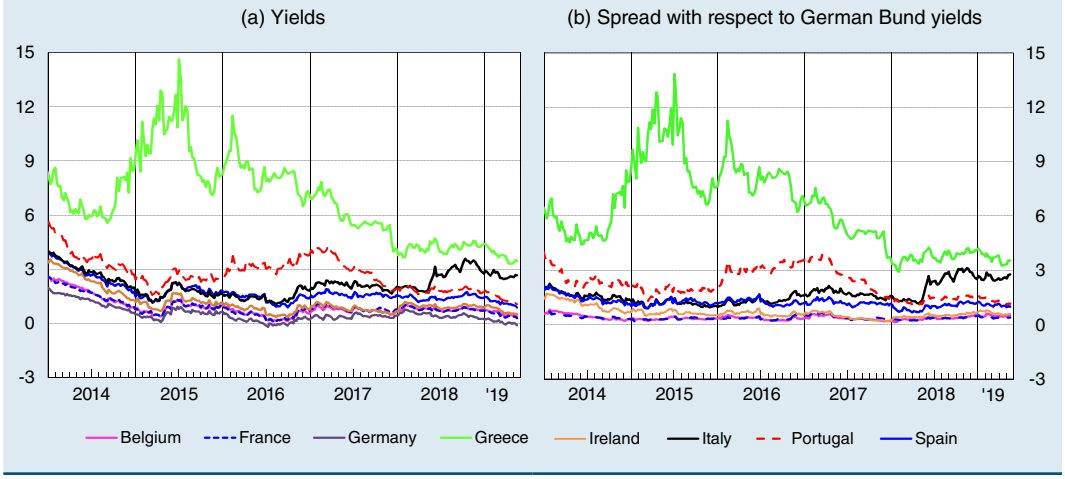
In 2018, conditions on the euro-area financial markets were affected by the uncertainty over economic policies in a number of countries, the trade tensions at global level and, over the last months of the year, by the worsening economic outlook.

The economic slowdown, which led to a more gradual normalization of monetary policy, contributed to the decline in the yield on German ten-year bonds of around 20 basis points (Figure 2.3).

Sovereign risk premiums, measured by the spread between euro-area countries and German ten-year bonds, increased moderately, reflecting the signs of economic weakening; however, the tensions observed on the Italian government securities market have not passed through to the other countries (see the box 'The trend in Italian government bond spreads', Chapter 14).

Figure 2.3

Government securities yields and spreads
(end-of-week data; percentage points)



Source: Based on Bloomberg data.

Greater global uncertainty led to a rebalancing of portfolios from riskier assets towards government securities. Risk premiums on corporate bonds in euros rose in both the investment grade and high-yield segments.

Share prices for euro-area companies declined, pushed down by the uncertainty over the trade tensions at global level, the US monetary policy stance, Italy's economic policies, the process for the withdrawal of the United Kingdom from the EU and, in the latter part of 2018, the worsening outlook for world and euro-area growth. The fall in the general stock market index, which mainly occurred in the fourth quarter, was 15 per cent over the year as a whole; banking shares instead decreased by 33 per cent. The volatility in share prices implied in the prices of options spiked in February and December of last year.

In the first four months of 2019, the conditions on financial markets benefited from the new expansionary measures adopted by the ECB and from the slowdown

in the normalization of US monetary policy. Long-term interest rates declined: the German ten-year Bund yield reached slightly negative levels.

Sovereign risk premiums fell in most euro-area countries and corporate bond spreads declined. Share prices recovered the losses recorded in the fourth quarter and the volatility of share prices implied in options prices declined considerably.

From May onwards, however, the heightened trade tensions between the United States and China led to an increase in risk aversion, which translated into a substantial fall in share prices, a rise in implied volatility and an increase in the spreads on public and private sector bonds.

Fiscal policies

The fiscal policy stance. – According to the latest European Commission forecasts, the euro-area fiscal policy stance in 2018, measured as the change in the cyclically adjusted primary surplus, was practically neutral, in line with the trend under way since 2014. This result is consistent with the Commission's recommendations of November 2017, which were based on (a) the economic recovery forecast at that time; (b) the high public debt inherited from the crisis; and (c) the recalibration of the ECB's asset purchases expected at that time. The Commission deemed that an essentially neutral fiscal policy stance in the euro area as a whole would guarantee equilibrium between the long-term sustainability of the public finances and short-term macroeconomic stabilization.

With reference to the leading economies, fiscal policy was contractionary in Germany, where the widening of the cyclically adjusted primary surplus amounted to 0.7 percentage points of GDP, while there was a positive output gap and a debt-to-GDP ratio of 60.9 per cent. The policy stance varied among the main countries with a debt-to-GDP ratio above the euro-area average: under favourable cyclical conditions, fiscal policy was slightly expansionary in Spain and contractionary in Portugal, but neutral in Belgium, France and Italy, the only country, together with Greece, with a negative output gap.

For 2019, the Commission expects a reduction of 0.4 percentage points of GDP in the cyclically adjusted primary surplus. In its recommendation for euro-area fiscal policy in the two years 2019-20,[2] submitted to the Council last November, the Commission advocated a return to fiscal positions that, going forward, would allow automatic stabilizers to operate fully in euro-area countries with high levels of public debt, support private and public investment, and improve the quality and composition of the balance sheet. Last January, the EU Council concurred with this position,[3] also highlighting that strengthening fiscal sustainability in the euro area and its Member States requires diverse national policies that take account of spillovers between countries.

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[2] European Commission, 'Council Recommendation on the economic policy of the euro area', COM(2018) 759 final, 2018.

[3] EU Council, 'European semester 2019: macroeconomic and fiscal guidelines for member states', outcome of the Ecofin Council meeting, 22 January 2019.

Budget outturns for 2018 and the forecasts for 2019. – The deficit reduction process continued in the euro area as a whole, falling on average to 0.5 per cent of GDP from 1.0 per cent in 2017. This improvement is linked above all to a higher primary surplus relative to GDP (1.3 per cent, against 1.0 per cent in 2017), in part owing to the fall in interest expenditure (of 0.1 percentage points of GDP, to 1.8 per cent). The Commission's forecasts indicate that the deficit is expected to increase in 2019: it is likely to exceed 3 per cent of GDP in France and to reach 2.5 and 2.3 per cent respectively in Italy and Spain; Germany is expected to record a surplus of 1.0 per cent.

The debt-to-GDP ratio for the euro area as a whole fell by two percentage points, to 87.1 per cent. The fall reflects not only the primary surplus, but also the effect of nominal GDP growth outpacing the average cost of the debt; a set of other factors instead caused it to increase by 0.3 percentage points of GDP. The debt-to-GDP ratio fell in Germany and Spain, stabilized in France, and increased in Italy.

The Commission's forecasts for the current year indicate that the debt-to-GDP ratio will decrease in the euro area. As regards the leading economies, the decrease will be greater in Germany (2.5 percentage points) and in Spain (almost one percentage point). The debt-to-GDP ratio is likely to increase in France and Italy (by 0.6 and 1.6 percentage points respectively).

Sustainability of the public finances and review of the medium-term objectives. – In May 2018, the Commission updated the spending estimates linked to population ageing.[4] In light of these new projections and of the latest assessments of the structural performance of the public accounts in the early months of 2019, the Commission reviewed both its assessment of the risks associated with the public finances and the minimum medium-term objectives[5] of the various countries.

More specifically, last January the Commission updated its periodic assessments of the sustainability of the public finances in EU countries (for those on Italy, see Chapter 11 'The public finances').[6] These assessments are based on short-, medium- and long-term indicators: each country is assigned a risk level over the various time horizons. According to the Commission, there is a low level of short-term risk for all the euro-area countries, except for Cyprus. For the leading European economies, while the medium-term risk assessments have remained unchanged compared with those published in 2016, the long-term ones are worse, except for Germany.

Last April,[7] the Commission also carried out its three-year review of the figures for minimum medium-term objectives for the euro-area countries. The objectives are set so as to guarantee the sustainability of the public finances, and sufficient room for using automatic stabilizers during adverse economic cycles. The minimum medium-term

[4] European Commission, 'The 2018 Ageing Report: 'Economic & Budgetary Projections for the EU Member States (2016-2070)', Institutional Paper, 79, 2018.

[5] The choice of medium-term objective is the responsibility of each country; nevertheless, the figure chosen cannot be less ambitious than the minimum calculated by the Commission and updated every three years.

[6] European Commission, 'Fiscal Sustainability Report 2018', Institutional Paper, 94, 2019. The previous report was published in 2016.

[7] European Commission, 'Vade Mecum on the Stability & Growth Pact', Institutional Paper, 101, 2019.

objectives have been confirmed, or made less binding, for all the leading economies except for Italy.

The excessive deficit and macroeconomic imbalance procedures. – In June 2018, the excessive deficit procedure was closed for France and the only one still open is for Spain. Last November, based on the deficit estimates for the three years 2018-20, the European Commission estimated that this procedure would be closed during the current year.

In the same month, based on the Draft Budgetary Plans for 2019, the Commission highlighted the particularly serious risks of Italy violating the Stability and Growth Pact (see the box 'The budget cycle within the context of the European Semester', Chapter 11). It also detected risks of a violation of European fiscal rules, confined to the preventive arm of the Pact, in four countries: Belgium, France, Portugal and Slovenia.

As part of the macroeconomic imbalance procedure, last February the Commission published the results of its in-depth analyses of 13 EU countries that had shown signs of imbalance in the previous months. These include the four leading euro-area economies, three of which are not considered as having an excessive imbalance: Germany continues to be affected by a large current account surplus, linked above all to low investment levels; for France and Spain, this assessment is mainly due to the high level of public and private debt; other risk factors in Spain are the still high unemployment rate and the strong dualism of the labour market.

Along with Cyprus and Greece,[8] Italy is regarded as a country with excessive macroeconomic imbalances. According to the Commission, the main risk factors continue to be the high public debt and weak productivity growth, largely due to limited investment and innovation, barriers to competition, weaknesses in the public sector and an unfavourable business environment.[9] The Commission also found a high degree of inequality in Italy, with the biggest intra-country differences found in poverty and social exclusion indicators; education levels are low, especially in the South.

Financial assistance to countries in difficulty. – In August of last year, the financial assistance programme disbursed to Greece by the European Stability Mechanism (ESM) was concluded. The European Commission's assessments show that Greece carried out a huge number of reforms and improved the sustainability of its public finances. The Greek authorities made a commitment to maintaining a primary surplus of 3.5 per cent of GDP until 2022, a move approved by the Eurogroup.

In 2018, the primary surplus in Greece stood at 4.4 per cent of GDP, and the debt-to-GDP ratio reached 181.1 per cent. The Commission's forecasts indicate a primary surplus of 4.0 per cent in 2019 and 3.6 per cent in 2020; the debt-to-GDP

[8] Having concluded its financial assistance programme in the summer of 2018, Greece took part in the evaluation exercise for the first time.

[9] For an analysis of these topics, see M. Bugamelli and F. Lotti (eds.), 'Productivity growth in Italy: a tale of a slow-motion change', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 422, 2018.

ratio is expected to decrease significantly this year and the next, reaching 168.9 per cent in 2020.

European economic governance

Member States and EU institutions have continued their efforts to reform European governance. Despite the adoption of a number of legislative measures in the financial arena, progress has been limited.

In May of last year, as part of the preparations for the EU's long-term budget for the years 2021-27,[10] the Commission proposed the creation of a European Investment Stabilisation Function (EISF), capable of providing funds quickly to finance public investment in the event of strong shocks in individual countries. The Commission would decide the characteristics of the loans and any interest rate concessions according to set criteria, including the severity of the cyclical conditions. Loans of up to €30 billion would be guaranteed by the EU budget. In order to limit moral hazard at national level, only countries in compliance with the framework for macroeconomic and budgetary supervision would be able to obtain funding.

Last June in Meseberg, France and Germany signed a joint declaration that, among other things, encourages a number of reforms of the governance of the Economic and Monetary Union. Firstly, the declaration included an extension of the ESM's role in managing a backstop for the Single Resolution Mechanism (SRM). The backstop would be used if the SRM's resources proved insufficient in the event of a banking crisis. Secondly, it advocated strengthening the ESM's work in sovereign crisis prevention and management by increasing the chances of intervening with loans to support countries in difficulty. Later on, the ESM would become an institution covered by EU law rather than one based on an intergovernmental agreement. The Franco-German stance is also favourable to setting up a European deposit guarantee scheme, the third pillar of the banking union, although this is conditional on a prior and significant reduction of risks. The declaration also refers to the need to create a separate euro-area budget, which should promote competitiveness, convergence and stabilization and provide for the creation of a tool for macroeconomic stabilization. On this last point, the opinions of the various EU countries still differ greatly.

In its December meeting, the summit of Heads of State endorsed the proposal to strengthen the ESM's role, especially as regards managing the backstop for banking crises. However, the mechanism will only become operative when the risks in banks' balance sheets have been reduced, specifically when the non-performing loan rate falls below set thresholds. The first review will take place in 2020. It was agreed to continue the debate on setting up a euro-area budget, but no consensus was reached on creating a tool for macroeconomic stabilization. As regards the deposit insurance scheme, the Eurogroup set up a high-level working group to formulate new proposals by the end of the first half of this year. Finally, it was agreed that, at some point in the future, a

[10] 'Audizione su quadro finanziario pluriennale 2021-2027 dell'Unione europea', testimony by P. Sestito, Head of the Structural Economic Analysis Directorate at the Bank of Italy, before the Chamber of Deputies, Rome, 3 April 2019 (only in Italian).

change would be made to the current rules on the collective action clauses applied to securities issued by euro-area countries.

Last December, the EU Parliament and Council reached an agreement on the banking package, for which negotiations have been under way for some time. Among other things, the package includes measures to align EU rules with international standards by introducing requirements for financial leverage and liquidity, and for loss-absorption capacity[11] (see Chapter 13, 'Banks and institutional investors'). The work already promoted by the EU Council in 2017 continued, aimed at reducing the high levels of non-performing loans found in a number of banking systems.[12] Last year, the European Commission proposed various legislative measures, including a proposal for a regulation, recently agreed upon, to introduce common minimum coverage levels for new loans that might become non-performing at a later date.

Finally, almost all of the Commission's legislative proposals for promoting a capital markets union in Europe were approved. The project was launched in 2015 and aims to integrate national markets and diversify the sources of financing to the economy, thereby lowering the heavy reliance of European firms on bank loans.

In the last few months, the EU Parliament and Council have reached agreements on several points, including: a European regime for an individual pension product to facilitate cross-border portability; appropriate prudential treatment for different kinds of investment firms, reinforced for the biggest firms and simplified for smaller ones; the lowering of barriers to the cross-border distribution of investment funds; standard rules for the preventive restructuring of businesses in financial difficulty; and a harmonized regime for covered bonds and for the greater integration of the national markets for these products.

The Commission has also launched two new action plans for the financial sector. The objective of the first plan is to use innovative technologies in the supply of financial services (FinTech); the project envisages a review of technological developments and limited legislative intervention, including the proposal for a harmonized regime in relation to crowdfunding. The second, for which some measures have already been adopted, concerns loans for sustainable growth.

Despite the results indicated above, there has been limited progress so far in the actual integration of capital markets. On the one hand, to start being effective, the measures will have to be transposed into national legislation; on the other hand, there are still barriers owing to the marked differences between the national rules, specifically concerning corporate and bankruptcy law, taxation and supervisory procedures for financial markets.

[11] This refers to the total loss-absorbing capacity (TLAC) of global systemically important banks and to the minimum requirements for own funds and eligible liabilities (MREL) subject to bail-in for the other banks.

[12] Council of the European Union, 'Council conclusions on action plan to tackle non-performing loans in Europe', press release of 11 July 2017.

3. MONETARY POLICY IN THE EURO AREA

The ECB Governing Council gradually reduced net purchases under the expanded asset purchase programme (APP), terminating them at the end of 2018. At the same time, it maintained an ample degree of monetary accommodation, communicating that it intended to keep the key interest rates unchanged for an extended period and to continue reinvesting the principal payments from maturing securities under the APP for an extended time past the date when it starts raising policy rates.

Monetary policy instruments were very gradually recalibrated; this was done on the one hand, in response to the vanishing of deflation risks seen in previous years, and on the other hand, in order to take account of the persistent uncertainty over the development of the economy and the speed at which inflation adjusts towards levels that are below, but close to, 2 per cent in the medium term.

Towards the end of 2018 and in early 2019, global tensions led to weakening growth prospects and diminishing actual and expected inflation. In March, the Governing Council announced a set of decisions, including a new series of targeted longer-term refinancing operations, in order to continue to maintain an expansive monetary stance and to ensure its full transmission to the real economy. The Council also reiterated that it stands ready to use all instruments available and to intervene, if necessary, to support economic growth and to ensure the conditions for a sustained recovery of inflation.

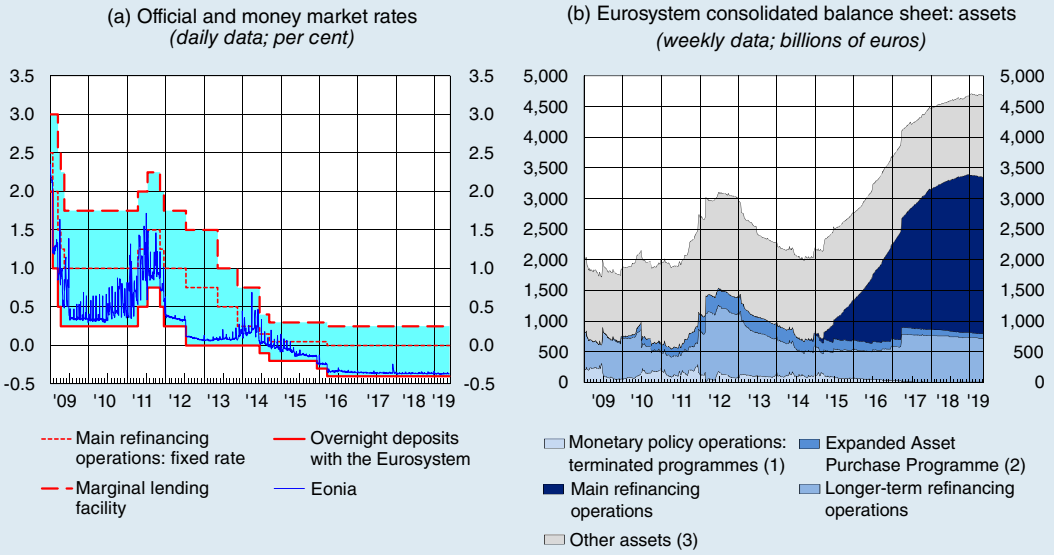
Monetary policy action

The ECB Governing Council recalibrated its monetary policy instruments, adopting a prudent and patient approach: it kept official rates unchanged at a very low level (0.0 per cent for the main refinancing operations and -0.4 per cent for the deposit facility; Figure 3.1), and reiterated that it would leave them at these levels for a prolonged period of time, in any case well beyond the end of the APP. At the same time, in view of the disappearance of deflation risks, it gradually reduced the pace of net purchases of securities, from €60 to €30 billion per month from January onwards; they were halved in October and concluded in December.

However, significant uncertainty remains over the pace at which inflation will recover and its underlying trend, as well as over the amount and speed of absorption of the slack in production capacity and in the labour force still present in the economy. This has made it necessary to proceed gradually and to maintain a significant monetary stimulus. The Council reinforced the forward guidance on the official rates and on the duration of the full reinvestment of the principal payments from securities purchased under the APP. In June it communicated its intention to leave the reference

Figure 3.1

Official interest rates in the euro area and the Eurosystem's consolidated balance sheet



Sources: ECB and Refinitiv.
(1) Covered bond purchase programmes (CBPP and CBPP2) and securities markets programme (SMP). – (2) Covered bond purchase programme (CBPP3), asset-backed securities purchase programme (ABSPP), public sector purchase programme, (PSPP) and corporate sector purchase programme (CSPP). – (3) Marginal lending facility, gold and other assets denominated in euros and foreign currency.

rates unchanged, at least through the summer of 2019 and in any case for as long as necessary. In December it announced that the reinvestment would continue for an extended time past the date when it starts raising the key ECB interest rates, and in any case for as long as necessary to maintain favourable liquidity conditions.

The end of the net asset purchases has not led to adverse reactions on the financial markets. The ongoing significant monetary stimulus, in part guaranteed by the ample stock of assets in portfolio, has continued to exert downward pressures on the term structure of interest rates. The risks for financial stability that could stem from an extended period of low rates have been limited so far and are constantly monitored by the Council. Financial market conditions have remained relaxed overall; in the real estate sector, there were some signs of excessive evaluations only in some parts of the euro area, where they are being overseen by the macroprudential authorities.[1] So far, low interest rates do not seem to have caused a significant rise in the risk tolerance of banks in granting loans (see the box 'Expansionary monetary policy and the risk tolerance of banks').

EXPANSIONARY MONETARY POLICY AND THE RISK TOLERANCE OF BANKS

The non-standard monetary policy measures, introduced by the central banks of the main advanced economies to counter the effects of the global financial crisis, contributed to the recovery of economic activity and helped to dispel deflation risks, which had been significant in the euro area in 2015 and 2016. Some economists think,

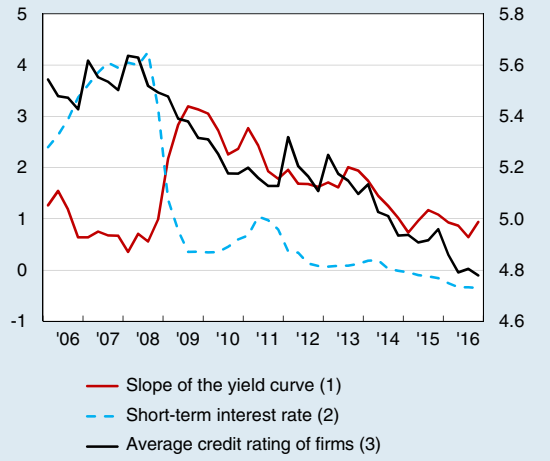
[1] ECB, *Financial Stability Review*, November 2018.

however, that very low interest rates and large-scale asset purchases by central banks, which lowered the yield curve and squeezed banks' net interest margin, could have encouraged the latter to fund riskier counterparts, fuelling risks to financial stability.[1]

The relationship between the slope of the yield curve and the risk tolerance of banks is, in reality, uncertain: a drop in profits may encourage banks to take on higher risk in pursuit of higher returns, although weaker balance sheets could also cause them to be more cautious.[2] To date, empirical studies on the euro area and some of the largest Member States have found no significant negative correlation between the yield curve slope and credit risk.[3]

The available evidence also confirms this result for Italy where, since the onset of the global financial crisis, as in the rest of the euro area, short-term rates and the slope of the yield curve have fallen steadily. The average riskiness of loans, measured on the basis of the credit ratings of a sample of more than 400,000 Italian companies[4] to which new loans were granted by about 200 Italian financial intermediaries, recorded a downward trend, which has continued also during the more recent phase of monetary accommodation (see the figure).

Average business risk class and money market interest rates
(quarterly data)



Sources: Based on data from the Bank of Italy, Istat and Refinitiv.
(1) The slope is measured by the spread between the 10-year Eurirs rate and the Eonia rate. – (2) The Eonia rate. – (3) Calculated as the simple mean, in each quarter, of the score assigned by Cerved (z-score) to firms that received a new loan from a sample of banks selected by the Bank of Italy, representative of the entire system. The z-score assumes discrete values from 1 to 9, where the highest scores are given to the riskiest firms. Right-hand scale.

It is possible to perform a more accurate analysis based on the individual credit relationships between banks and firms, allowing us to estimate the empirical relationship between short and long-term market rates and the credit risk associated with new bank loans, controlling for other relevant individual factors. The

[1] C. Borio and H. Zhu, 'Capital regulation, risk-taking and monetary policy: a missing link in the transmission mechanism?', BIS Working Papers, 268, 2008; F. Lambert and K. Ueda, 'The effects of unconventional monetary policies on bank soundness', IMF Working Papers, 152, 2014.

[2] G. Dell'Ariccia, L. Laeven and G.A. Suarez, 'Bank leverage and monetary policy's risk-taking channel: evidence from the United States', *The Journal of Finance*, 72, 2, 2017, 613-54.

[3] A. Maddaloni and J.L. Peydró, 'Bank risk-taking, securitization, supervision, and low interest rates: evidence from euro-area and U.S. lending standards', *The Review of Financial Studies*, 24, 6, 2011, 2121-65; G. Jiménez, S. Ongena, J.L. Peydró and J. Saurina, 'Hazardous times for monetary policy: what do twenty-three million bank loans say about the effects of monetary policy on credit risk taking?', *Econometrica*, 82, 2, 2014, 463-505; D. Bonfim and C. Soares, 'The risk-taking channel of monetary policy: exploring all avenues', *Journal of Money, Credit and Banking*, forthcoming.

[4] The attribution of a firm to a risk class is based on the score assigned by Cerved (z-score) to the borrower in the individual bank-firm relationship using a logistic model to estimate the firm's probability of default in two years, with reference to a number of balance sheet indicators; the z-score assumes discrete values, from 1 to 9, in ascending order according to risk class.

results suggest that the flattening of the yield curve, to which the Eurosystem's public and private securities purchase programmes contributed, did not correspond to an increase in the credit risk tolerance of Italian banks.[5]

[5] G. Ferrero, A. Nobili and G. Sene, 'Credit risk-taking and maturity mismatch: the role of the yield curve', Banca d'Italia, Temi di Discussione (Working Papers), 1220, April 2019. In addition to the slope of the yield curve, the analysis takes into account a number of other potential determinants of the credit risk assumed by banks, such as economic activity, financial market conditions, the characteristics of banks' balance sheets (e.g. business model, size, degree of capitalization, degree of liquidity and non-performing loans-to-assets ratio) and the characteristics of the individual loan (e.g. amount, cost, duration and period of interest rate determination).

Since the early months of 2019, the factors weighing on economic activity in the latter part of 2018 have been more persistent than expected. The outlook for growth has worsened and inflation expectations have decreased. These developments have been matched by the forecast of a slower convergence of inflation towards the ECB's objective.

In March of this year, the Council intervened with new expansionary measures; it extended the minimum time horizon over which it expects to keep the key interest rates unchanged through the end of 2019, reiterated that it will continue reinvesting the principal payments from maturing securities under the APP for an extended time past the date when it starts raising interest rates, and announced a new series of targeted longer-term refinancing operations (TLTRO III). These operations will have a maturity of two years: they will be carried out on a quarterly basis from September 2019 until March 2021, and will include incentives to maintain favourable credit conditions. The Council also decided that refinancing operations will continue to be conducted with fixed-rate and full allotment at least until March 2021.

Should the medium-term outlook worsen, the Council confirmed that it stands ready to use all the instruments available within its mandate to ensure convergence towards inflation levels below, but close to, 2 per cent.

Overall, in the twenty years since the launch of the economic and monetary union, the ECB's monetary policy has successfully pursued the objective of maintaining price stability in the medium term, defined as consumer price inflation below, but close to, 2 per cent, despite the very difficult conditions faced over the last decade.[2] Price growth was stable at around 2 per cent until the onset of the 2008 global financial crisis and of the 2010 sovereign debt crisis; it then recorded large fluctuations as a result of the double-dip recession (see Figure 3.2). Between autumn 2013 and the end of 2016, inflation was below 1 per cent and deflation risks emerged, which were reabsorbed after the adoption of a wide range of monetary accommodation measures, such as the asset purchase programmes, the targeted longer-term refinancing operations and the reduction of the deposit facility interest rate into negative territory.[3] From 1999 to 2018, inflation in the euro area averaged 1.7 per cent; it was slightly higher in Italy (1.8 per cent, from close to 20 per cent in the early 1980s and around 5 per cent in the first half of the 1990s).

[2] P. Hartmann and F. Smets, 'The first twenty years of the European Central Bank: monetary policy', European Central Bank, Working Paper Series, 2219, 2018.

[3] S. Neri and S. Siviero, 'The non-standard monetary policy measures of the ECB: motivations, effectiveness and risks', *Credit and Capital Markets*, 51, 4, 2018, 513-560, also published by Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 486, 2019.

Figure 3.2

Inflation in the euro area (1)
(monthly data; 12-month percentage changes)

Source: Eurostat.
(1) Harmonized index of consumer prices (HICP).

Monetary policy operations

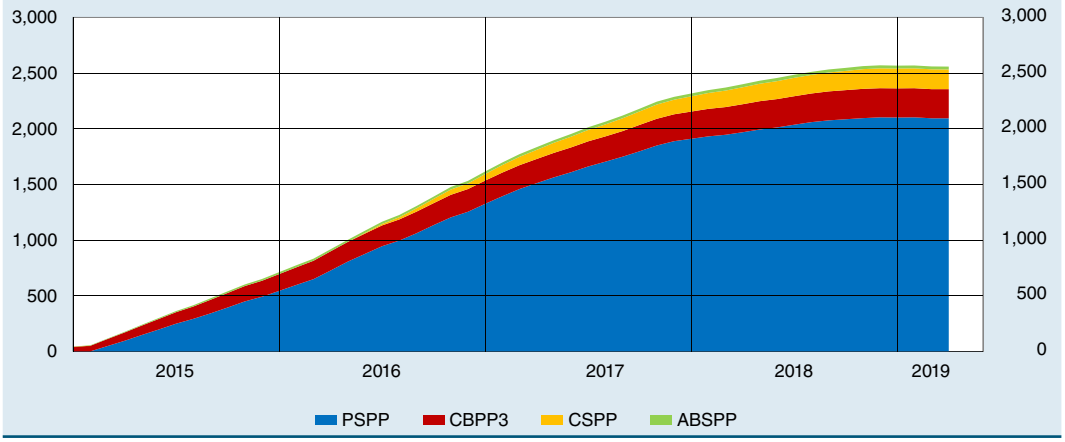
In 2018, the Eurosystem continued to provide funds to banks through fixed-rate tenders with full allotment of the amounts requested. The liquidity provided by refinancing operations, though down by €40 billion, remained ample, totalling €724 billion at the beginning of May 2019. This fall was partly due to the maturing of the first series of targeted longer-term refinancing operations (TLTRO I), which accounted for €9 billion, and partly due to voluntary early repayments from the second series of operations (TLTRO II), which accounted for €21 billion.

Overall, the excess liquidity held by the banking system at the end of 2018 amounted to €1,726 billion (of which €73 billion held by Italian banks).

The Eurosystem made net asset purchases under the APP worth about €315 billion (Figure 3.3); at the end of December, the size of the portfolios connected with

Figure 3.3

Developments in the portfolios of assets purchased under the APP (1)
(billions of euros; April 2019)



Source: ECB.
(1) For the acronyms below the graph, see footnote (2) of Figure 3.1.

public and private securities purchase programmes reached €468 and €2,102 billion respectively; of these, €60 billion and €320 billion respectively were held by the Bank of Italy (Table 3.1). Last year and in early 2019, the Eurosystem continued to reinvest in full the principal payments from maturing securities.

Table 3.1

Securities held for monetary policy purposes under the APP (1)
(millions of euros; 31 December 2018)

	Eurosystem	Bank of Italy
CBPP3	262,201	40,115
ABSPP	27,511	0
PSPP	2,102,048	320,003
CSPP	178,050	19,556

Sources: ECB and Bank of Italy.
(1) For the acronyms, see footnote (2) of Figure 3.1.

Interest rates and the euro exchange rate

Given the abundant liquidity in the banking system, money market interest rates remained stable throughout the year, at levels close to the negative return (-0.4 per cent) of the deposit facility (Figure 3.1).

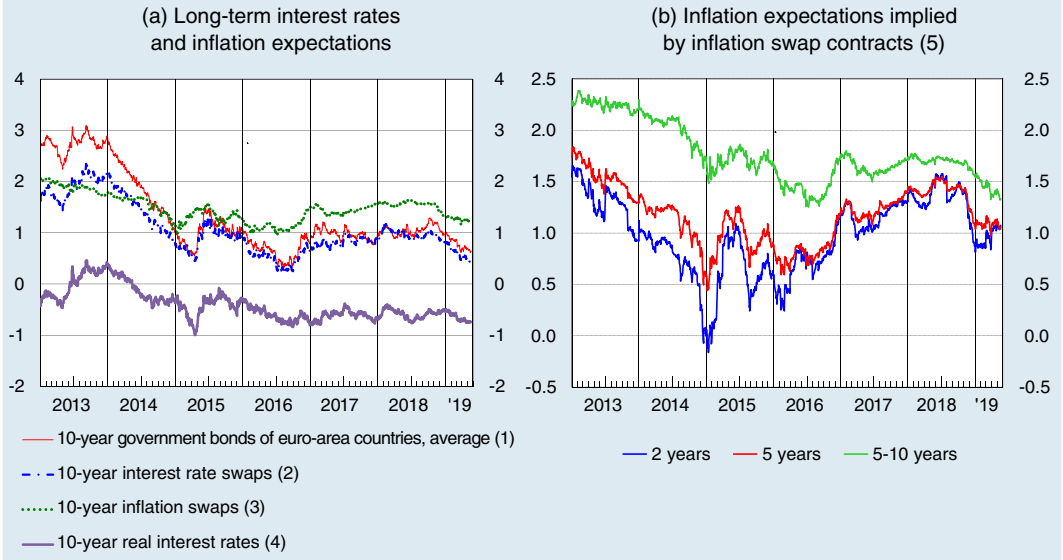
The ample monetary stimulus helped to keep long-term nominal yields at very low levels too. Interest rates have decreased further since last autumn, reflecting the fall in inflation expectations and the worsening of the macroeconomic scenario. The yield on ten-year government bonds averaged 0.6 per cent in the main euro-area countries on 20 May 2019; long-term real interest rates reached -0.7 per cent on the same date, after remaining virtually unchanged in 2018 and contracting in the early months of the current year (Figure 3.4.a).

The inflation expectations derived from inflation-linked swap contracts, which had increased over the previous two years, have decreased steadily since the autumn, affected by both the fall in oil prices and the lower growth prospects. The expectations over two- and five-year horizons stood at 1.1 per cent on 20 May 2019, and at 1.3 per cent for the five-year, five years forward ones, which were down by 0.4 percentage points (Figure 3.4.b).

The euro has been depreciating against the dollar since spring 2018, reflecting the risks of a slowdown in the euro-area economy. Up until mid-May of this year, the euro had weakened overall by 7 per cent against the dollar; it strengthened slightly in nominal effective terms, because the currencies of some emerging countries weakened as a result of last summer's financial tensions (Figure 3.5; see Chapter 1 'Cyclical developments and world trade').

Figure 3.4

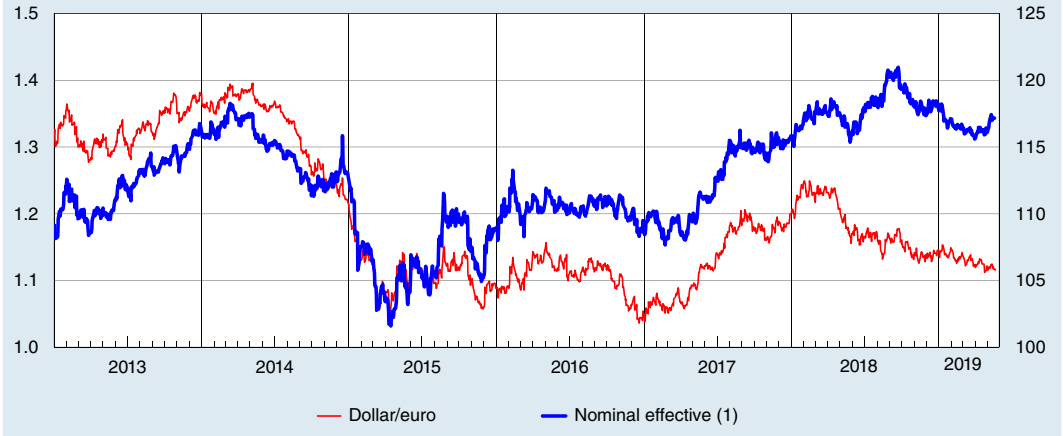
Long-term interest rates and inflation expectations in the euro area
(daily data; per cent)



Sources: Based on Bloomberg and Refinitiv data.
(1) Average yields on the benchmark 10-year government bonds of Austria, Belgium, Finland, France, Germany, Ireland, Italy, the Netherlands, Portugal and Spain, weighted by GDP at constant 2018 prices. – (2) Fixed rate on 10-year interest rate swaps in euros.– (3) Fixed rate on 10-year euro-area inflation swaps. – (4) Fixed rate on 10-year interest rate swaps deflated by the fixed rate on 10-year inflation swaps. – (5) Expected inflation rates implied by inflation swap contracts, 2 years ahead, 5 years ahead and 5-year forward inflation swaps 5 years ahead.

Figure 3.5

Dollar/euro exchange rate and nominal effective euro exchange rate
(daily data)



Source: Refinitiv.
(1) Index: 1999 Q1=100. A rise in the index corresponds to an appreciation. Right-hand scale.

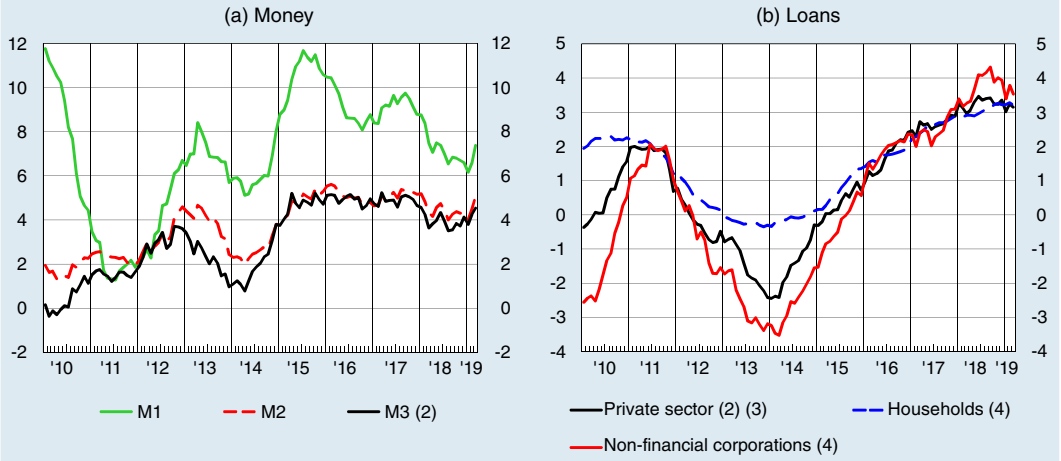
Money and credit

M3 money continued to grow at a pace close to 4 per cent; the holding of liquid assets was driven by its low opportunity costs, following the modest return on alternative assets (Figure 3.6.a).

Figure 3.6

Monetary and credit aggregates in the euro area (1)

(monthly data; 12-month percentage changes)



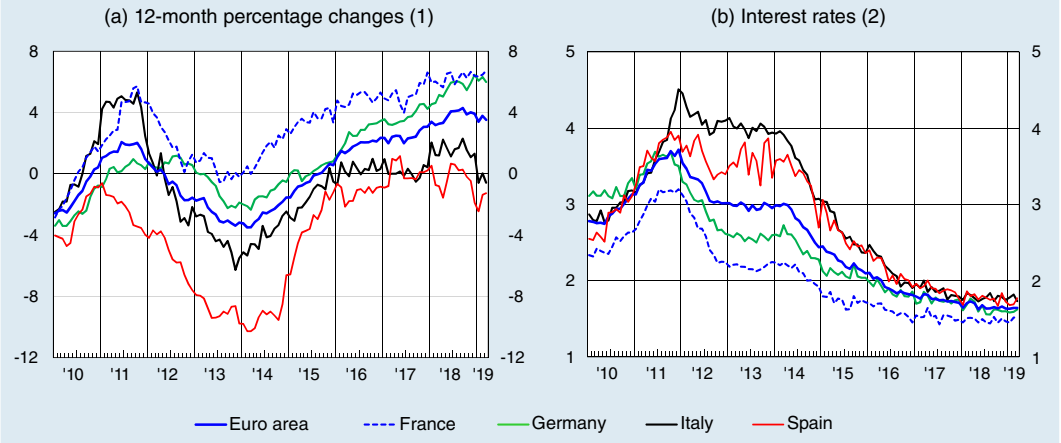
Source: ECB.
(1) Changes calculated on data adjusted for seasonal and calendar effects. – (2) From June 2010 onwards, the data do not include repos with central counterparties. – (3) Loans in euros and other currencies granted by monetary financial institutions, adjusted for the accounting effects of securitizations. The private sector consists of households, non-profit institutions serving households, non-financial corporations, insurance companies and pension funds, non-money-market investment funds and other financial institutions. – (4) Loans in euros and other currencies granted by monetary financial institutions, adjusted for the accounting effects of securitizations.

The growth in bank lending to the private sector rose slightly (3.4 per cent in the twelve months ending in December 2018, from 2.9 per cent in December 2017; Figure 3.6.b) and stayed at the same levels in the early months of this year (3.1 per cent in March). However, the pace of lending to firms has slowed in recent months because of the cyclical slowdown, and become more varied across the main countries. It has remained robust in France and Germany but turned negative in Italy and in Spain (Figure 3.7.a).

Figure 3.7

Loans to non-financial corporations in euro-area countries

(monthly data)



Source: ECB.
(1) Loans in euros and other currencies granted by monetary financial institutions, adjusted for the accounting effects of securitizations. – (2) Weighted average of interest rates on new short-term and medium/long-term loans, with weights equal to the 24-month moving average of new disbursements; includes current account overdrafts.

Private sector financing conditions have remained favourable, continuing to benefit from the broadly expansionary stance of monetary policy and from the targeted longer-term refinancing operations launched in 2016 (see the box 'The effects of TLTRO IIs on the credit market'). Average interest rates on new loans stayed at minimum levels by historical standards (1.8 per cent for households for house purchase and 1.5 per cent for firms as at March 2019; Figure 3.7.b).

According to the quarterly survey on bank lending in the euro area, credit supply conditions remained relaxed, reflecting above all the favourable impact of competitive pressure. However, since autumn the surveys have indicated that credit standards for firms have been affected by the increase in risk perception regarding the general economic outlook. The growth in demand for business lending has also progressively weakened, coming to a standstill in the early months of this year.

THE EFFECTS OF TLTRO II ON THE CREDIT MARKET

Since the onset of the global financial crisis, the European Central Bank's Governing Council has reduced official interest rates and adopted a series of unconventional measures to strengthen monetary stimulus and preserve its full transmission to the real economy. These measures include the targeted longer-term refinancing operations (TLTROs), with which the Eurosystem has offered euro-area banks longer-term funding and with an incentive system designed to support lending to firms and households.

During the first two series of TLTROs, announced in June 2014 and in March 2016, eight and four quarterly operations were carried out, which lasted between two and four years. In both programmes the initial funding obtainable by each participating bank was linked to the amount of loans to firms and households (excluding mortgages for house purchase) outstanding on the date of the announcement.

However, they offered different reward mechanisms designed to stimulate lending to the private sector, linked to achieving the loan growth objective set for each bank according to its performance in the period prior to the launch of the operations. In the case of TLTRO I, the banks that achieved their loan growth objectives were given the opportunity to request additional loans on top of the initial ones (see the box 'The monetary policy measures adopted in June 2014', *Economic Bulletin*, 3, 2014); in the case of TLTRO II, the banks that achieved their objectives received a discount on the cost of funding (see the box 'The monetary policy measures adopted in March 2016', *Economic Bulletin*, 2, 2016).

Econometric estimates made by the Bank of Italy and by the ECB indicate that the operations carried out as part of TLTRO I have contributed significantly to supporting credit supply and lowering the cost of bank lending to firms in a number of countries, including Italy.[1] An econometric analysis that uses data on the

[1] M. Benetton and D. Fantino, 'Competition and the pass-through of unconventional monetary policy: evidence from TLTROs', Banca d'Italia, Temi di Discussione (Working Papers), 1187, 2018; D. Andreeva and M. Garcia-Posada, 'The impact of the ECB's targeted long-term refinancing operations on banks' lending policies: the role of competition', Banco de España, Documentos de Trabajo, 1903, 2019; ECB, *Economic Bulletin*, 3, 2017.

balance sheets of Italian banks and on individual bank-firm relationships suggests that TLTRO II has also been particularly effective.[2]

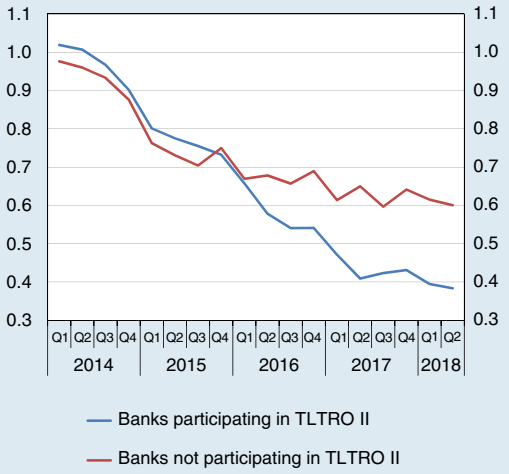
After the launch of these latest operations, the cost of bank funding in Italy fell more markedly for participating banks than for others, thanks to the recomposition of funding sources that made it possible to reduce the share of the most expensive long-term liabilities, such as bonds (Figure A).

The fall in the average cost of funding and the TLTRO II incentive system helped to improve the credit supply of participating banks. According to estimates, a firm that obtained funds from these banks benefited on average from a reduction of about 35 basis points in the cost of credit and from an increase of over 10 per cent in loans received (Figure B) compared with what the same firm obtained from non-participating banks. The increase in credit granted affected above all firms with lower risk profiles, while the reduction in the cost of credit was more marked for riskier firms. The benefits were generally greater for smaller firms.

Last March, the Governing Council announced that a third series of operations (TLTRO III) will be carried out on a quarterly basis from September 2019 until March 2021, in a total of seven operations, with a reward mechanism and cost conditions that are yet to be defined in detail.

Figure A

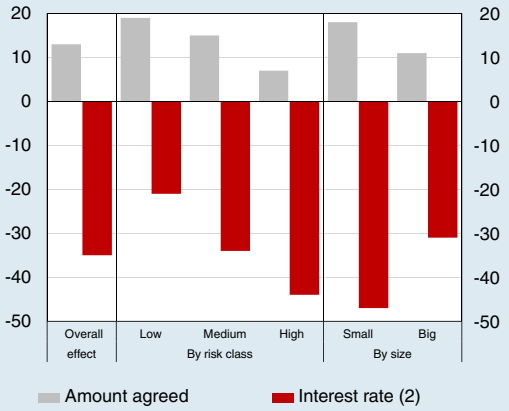
Average cost of funding
(quarterly data; percentage points)



Source: Supervisory reports.

Figure B

Impact of TLTRO II on cost and quantity of loans to firms (1)
(percentage deviations and basis points)



(1) The impact is measured as the difference in the change in the cost or in the quantity of credit granted to the same firm by banks participating or not participating in the TLTRO II. – (2) Right-hand scale, basis points.

[2] L. Esposito, D. Fantino and Y. Sung, 'The impact of TLTRO-II on the Italian credit market: some econometric evidence', Banca d'Italia, Temi di Discussione (Working Papers), forthcoming.

THE ITALIAN ECONOMY

4. OVERVIEW

The growth of the Italian economy lost momentum, averaging 0.9 per cent for the year as a whole (Table 4.1), which was much less than initially expected by the leading professional forecasters; it was slightly negative in the second half of the year.

Table 4.1

Sources and uses of income in Italy
(per cent)

	% of GDP in 2018 (1)	2017			2018		
		Change		Contribution to GDP growth (2)	Change		Contribution to GDP growth (2)
		Chain-linked volumes	Deflators		Chain-linked volumes	Deflators	
Sources							
GDP	–	1.7	0.5	–	0.9	0.8	–
Imports of goods FOB and services (3)	28.7	5.5	3.6	-1.4	2.3	2.9	-0.7
of which: goods	22.6	5.1	4.1	-1.1	2.3	3.5	-0.5
Uses							
National demand	97.2	1.4	1.1	1.3	0.9	1.2	0.9
Spending of resident households (4)	60.6	1.6	1.1	0.9	0.6	1.1	0.3
General government expenditure	18.6	0.3	1.7	..	0.2	2.1	..
Gross fixed investment	18.0	4.3	0.4	0.7	3.4	0.5	0.6
Plant, machinery, armaments and cultivated biological resources	7.0	9.0	0.1	0.6	5.4	0.1	0.4
Intellectual property products	2.9	2.5	0.1	0.1	0.8	0.6	..
Construction	8.1	1.3	0.7	0.1	2.6	0.8	0.2
Changes in stocks (5)	–	–	–	-0.4	–	–	..
Exports of goods FOB and services (6)	31.5	5.9	1.5	1.8	1.9	1.7	0.6
of which: goods	25.7	5.6	1.7	1.4	1.6	1.8	0.4
Net foreign demand	–	–	–	0.3	–	–	-0.1

Source: Istat, national accounts.
(1) At previous year's prices. – (2) Chain-linked volumes. Percentage points. – (3) Includes residents' expenditure abroad. – (4) Includes non-profit institutions serving households. – (5) Includes valuables. – (6) Includes non-residents' expenditure in Italy.

The weakening of the economy, which mirrored the situation in all the leading euro-area countries and in Germany in particular, reflected the effect on exports of the slump in world trade and the revision of investment plans stemming from uncertainty fueled by trade tensions and by the economic policy stance (see the box 'Determinants of economic activity in 2018 according to the Bank of Italy's model').

DETERMINANTS OF ECONOMIC ACTIVITY IN 2018 ACCORDING TO THE BANK OF ITALY'S MODEL

In the course of 2018, the expansion of the Italian economy progressively lessened, coming to a halt in the last few quarters. Overall, growth was less than initially estimated by all the leading analysts and professional forecasters. This was due to both the slowdown in foreign sales and the weakening of national demand, which in the second half of the year mainly affected investment (especially in capital goods) and, to a lesser extent, household spending.

The table shows the divergence of GDP growth, investment, exports and inflation from the projections made at the beginning of 2018 (see *Economic Bulletin*, 1, 2018) and assesses the contributions of the various determinants, estimated by means of simulations of the quarterly model of the Italian economy.[1]

Revisions of the forecasts and contributions of the main determinants
(annual growth rates; per cent)

	GDP	Investment	Exports	Inflation
Final outturns for 2018 (1)	0.7	3.2	1.4	1.2
Forecast made in January 2018 (1)	1.4	4.3	3.4	1.1
Difference (2)	-0.7	-1.1	-2.0	0.1
of which: foreign demand	-0.2	-0.1	-1.1	0.0
competitiveness and exchange rates	0.0	0.0	0.1	0.0
commodity prices	-0.1	0.0	-0.1	0.2
financial factors	0.0	-0.1	0.0	0.0
uncertainty and confidence	-0.2	-1.1	0.0	0.0
other factors (3)	-0.2	0.2	-0.9	-0.1

(1) For GDP and its components: chain-linked volumes; growth rates calculated on the basis of quarterly data adjusted for seasonal and calendar effects. – (2) The contributions to the revisions of GDP growth, investment, exports, and inflation are derived from the changes in the trends of each exogenous factor listed in respect of what is assumed in the forecasting scenario described in *Economic Bulletin*, 1, 2018. – (3) Macroeconomic effects not explained by the trends of the main determinants included in the econometric model; also includes data revisions following the release of the new national accounts at the beginning of last March.

Annual GDP growth was 0.7 percentage points less than initially estimated. The main factors among the determinants were the slowdown in global demand, which affected Italian exports, the deterioration of business confidence and the increase in uncertainty, which led to a downward revision of planned investment.

Following the escalation of global trade tensions, the growth of foreign demand was more than one percentage point less than expected, causing a slowdown in our exports. Global uncertainties have also contributed to a progressive worsening of expectations concerning the economic outlook, considerably reducing firms' propensity to invest (see the boxes 'Recent trade tensions and their implications', Chapter 1 and 'Trade tensions, uncertainty and economic activity', *Economic Bulletin*, 4, 2018). There is evidence that in the past, a sharp deterioration in

[1] A description of the general characteristics and main equations of the quarterly model of the Italian economy can be found in G. Bulligan, F. Busetti, M. Caivano, P. Cova, D. Fantino, A. Locarno and L. Rodano, 'The Bank of Italy econometric model: an update of the main equations and model elasticities', Banca d'Italia, Temi di Discussione (Working Papers), 1130, 2017.

confidence regarding the global situation was associated with significant downward revisions of business investments compared with what could be expected on the basis of traditional determinants.

Business surveys conducted by the Bank of Italy at the end of last year indicate a worsening of confidence accompanied by a revision of investment plans (see the box 'Italian firms' investment according to the Survey on Inflation and Growth Expectations', *Economic Bulletin*, 1, 2019). Firms reported that their own business has been influenced, among other things, by the uncertainty connected with economic and political factors and by the international tension surrounding trade liberalization policies.

Since the middle of 2018, the increase in Italy's sovereign risk premium (see the box 'The trend in Italian government bond spreads', Chapter 14) and an increase in stock market volatility may have further contributed to the deterioration in confidence. These developments were reflected in financing costs for households and firms, albeit to a limited extent, in part due to the persistence of exceptionally expansionary monetary policies.

The trend in GDP growth in the second half of the year was also influenced by other factors, including the weakening of activity in the automotive sector. This trend was connected with the temporary effects of the introduction of the more stringent EU legislation on polluting emissions, which particularly affected Germany and Italy (see *Economic Bulletin*, 1, 2019), but there were also more persistent factors, such as the marked slowdown in demand from China and the uncertainties linked to the shift in motor vehicle manufacturing towards hybrid and electric engines.

Inflation was broadly in line with the forecast, since the impact of higher prices for imported raw materials was largely offset by the persistent weakness of the core component.

In the first quarter of 2019, GDP growth turned positive (0.2 per cent compared with the previous quarter, according to Istat's preliminary estimates). However, many cyclical indicators are still weak; in April, the Ita-coin indicator fell to its lowest level since the summer of 2013.[1] GDP is still far below its potential (see the box 'Italy's output gap').

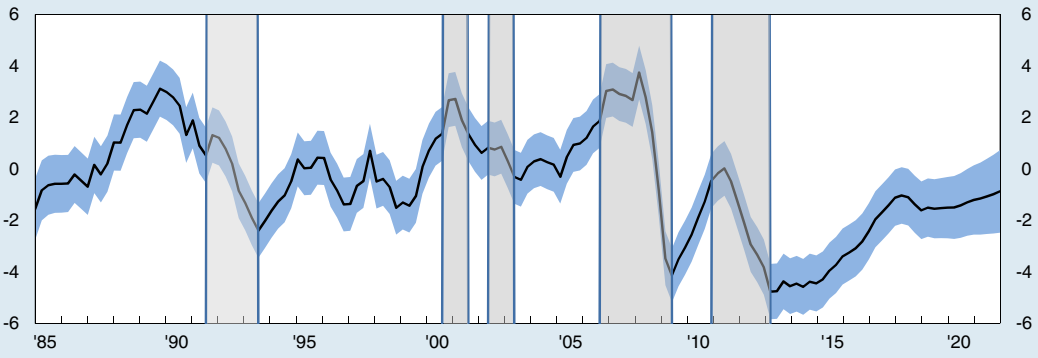
ITALY'S OUTPUT GAP

The output gap is defined as the difference between actual GDP and potential GDP (the maximum level that could be sustained using production factors to the full); it is an indicator used to assess the cyclical conditions and the intensity of price pressures. Since it cannot be directly observed, the quantification of potential GDP is subject to broad margins of uncertainty and depends on the estimation methodology used.

[1] The Ita-coin indicator, developed by the Bank of Italy, tracks the underlying trend of the Italian economy. For the methodology used to construct the indicator, see the box 'Ita-coin: a coincident indicator of the Italian economic cycle', *Economic Bulletin*, 2, 2015.

According to the Bank of Italy's estimations, carried out using a number of models, the output gap in 2018 fell within an interval of between -2.5 and -0.3 per cent, with a central value of -1.4 per cent (see the figure). According to the projections, idle production capacity will stay at this level this year; it could be reabsorbed slowly over the next two years, at the end of which, however, the output gap will still be equal to -1.0 per cent.

Italy's output gap (1)
(percentage points)



Sources: Based on data from Istat up to 2018 and Bank of Italy forecasts for 2019-21.
(1) The confidence intervals shown in the figure measure the uncertainty around the central value of the estimate.

These assessments are similar to those of the OECD, which signal the persistence of a greater degree of idle production capacity than that assumed by both the European Commission, according to which Italy's output gap would already have been almost entirely reabsorbed by 2018, and the International Monetary Fund, which forecast that it will be eliminated in 2021.

The Bank of Italy's estimates are obtained from the results of a combination of four approaches: the production function method; a structural vector autoregression model; an unobserved components model; and an autoregressive model with variable parameters.[1]

Estimates of the output gap can be distorted by several factors, such as cyclical changes in the use of capital and labour, changes in the degree of installed machinery's technical efficiency, and inaccuracies in estimating the structural rate of unemployment and the labour force participation rate. A line of research is currently assessing these effects by using individual data. The results available so far confirm that there is a considerable degree of idle production capacity in Italy.[2]

[1] A. Bassanetti, M. Caivano and A. Locarno, 'Modelling Italian potential output and the output gap', Banca d'Italia, Temi di Discussione (Working Papers), 771, 2010.

[2] R. Torrini and F. Zollino (eds.), 'Reassessing the production function approach to potential output in Italy' Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), forthcoming.

In geographical terms, the North of Italy drove GDP growth, being almost double that recorded in the Centre and South of the country (see the box 'Regional trends').

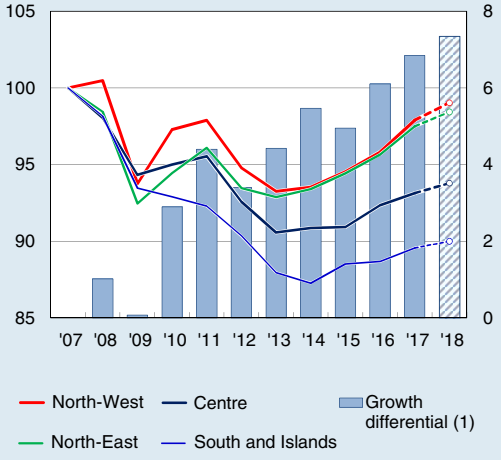
REGIONAL TRENDS

The moderate increase in economic activity was observed throughout Italy in 2018. The Bank of Italy's quarterly indicator of regional economic activity (ITER) shows higher growth, on an annual basis, in the North (1.2 per cent in the North-West and 1.0 per cent in the North-East) than in the Centre (0.7 per cent) and the South and Islands (0.5 per cent).[1] These results are in line with Prometeia's estimates of GDP growth. In the last two quarters of 2018, expansion slowed in all areas of the country, more markedly in the South and Islands, where economic activity recorded a slight contraction in the last quarter compared with the same period of the previous year.

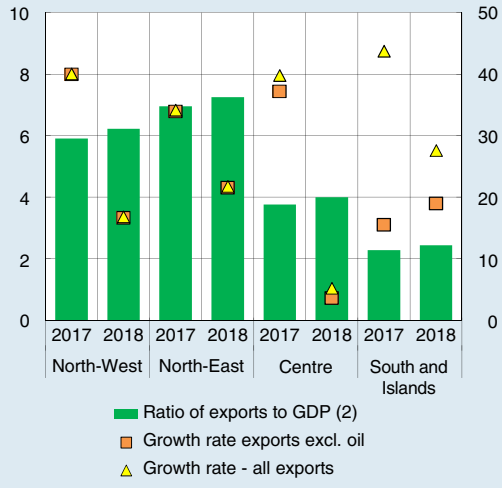
Our calculations show that, compared with 2007, the last year before the start of the global crisis, in 2018 GDP was lower by 3 percentage points in the Centre and North and by 10 points in the South and Islands (see panel (a) of the figure). At national level, GDP fell by just over 4 percentage points. The difference between the two areas of the country is less marked in terms of per capita GDP due to the population dynamics which, especially as regards net migration, was positive in the Centre and North and negligible in the South and Islands: between 2007 and 2018 per capita GDP fell by almost 7 percentage points in the Centre and North, and by about 10 points in the South and Islands. In 2018, per capita GDP in the South and Islands was about 55.7 per cent of that of the Centre and North (57.7 per cent in 2007).

GDP and exports

(a) GDP at chain-linked values
(indices: 2007=100; percentage points)



(b) Exports and ratio to GDP
(annual growth rates and per cent)



Sources: For panel (a), based on data from Istat's Regional Accounts up to 2017 and ITER estimates for 2018; for panel (b), based on Istat data.
(1) Difference between GDP growth in the Centre and North and in the South and Islands. The growth rate is calculated between 2007 and time t. Right-hand scale. – (2) Based on data for 2016 and 2017. Right-hand scale.

[1] V. Di Giacinto, L. Monteforte, A. Filippone, F. Montaruli and T. Ropele, 'ITER: a quarterly indicator of regional economic activity in Italy', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 489, 2019.

In the South and Islands, between 2007 and 2017 there was a net population outflow (Italian and non-Italian citizens) towards the Centre and North of almost 540,000 people and a net international inflow of almost 570,000 people. Looking specifically at Italian citizens, net international migration has been negative for southern Italy over the last ten years (amounting to 115,000 people); the net outflow towards the Centre and North amounted to about 480,000 units; as for graduates, the net outflow was about 193,000, of which 165,000 towards the Centre and North. In the same period, the Centre and North experienced a net international outflow (300,000); for graduates the net international outflow was 69,000 (see the box 'The risk of a brain drain from Italy', Chapter 8, 'The labour market').

In 2018, all the macro-areas recorded an increase in exports, albeit less than in 2017. Net of refined petroleum products, which are concentrated in Sicily and Sardinia, export growth in the South and Islands was 3.8 per cent, lower only than that in the North-East (see panel (b) of the figure). The low growth of exports in the Centre reflects difficulties in the export sectors in the regions of Lazio and Marche. In all the macro-areas, the performance of export sales was below that of potential demand, after five years of steady improvement in competitiveness on international markets (see the box 'Exports, market share and potential demand in the Italian macro areas' in 'The economy of the Italian regions. Short-term dynamics and structural features', Banca d'Italia, *Regional Economies*, 23, 2017, not available in English). The negative difference is greater as regards markets outside the euro area because of the decrease in the price competitiveness of Italian firms following the appreciation of the nominal effective exchange rate of the euro (see Chapter 9, 'Prices, costs and competitiveness', and Chapter 10, 'Foreign demand and the balance of payments').

According to the Bank of Italy's Survey of Industrial and Service Firms, industrial firms increased their investments across the country, more markedly in the Centre and in the South and Islands. The Regional Bank Lending Survey, conducted by the Bank of Italy, found that loan applications for investment purposes increased across the country in the first part of the year, and weakened in the second half (see 'Regional credit demand and supply', Banca d'Italia, *Regional Economies*, forthcoming in Italian).

Consumption was weaker than in 2017 across the whole country: the estimates provided by Prometeia show that in 2018, Italy's household consumption expenditure grew by 0.8 per cent in the Centre and North and by 0.4 per cent in the South and Islands (1.7 and 1.4 per cent respectively in 2017).

Istat's Labour Force Survey shows that employment increased by 0.8 per cent in both the Centre and North and in the South and Islands, where the number of employed is still lower than in 2007. In both areas, employment growth was driven by increases in payroll employment. The employment rate fell by 0.4 percentage points in the Centre and North and by 1 percentage point in the South and Islands, where it is still more than double that of the rest of the country (see Chapter 8, 'The labour market').

The tensions surrounding trade policies had an impact on exports, which slowed. Sales of goods outside the euro area were also affected by the appreciation of the euro.

Sales within the area fared better, thanks to the greater competitiveness of Italian exporters, even if the cyclical weakness in Germany was reflected in a sharp deceleration in sales to that country.

Capital investment, which was robust in the first half of 2018, stagnated in the second half. Our surveys show that, starting in the summer, companies reduced their own investment plans as a result of the political and economic uncertainty in Italy, and of the continuing trade tensions at international level.

The confidence indicators declined over the year; the purchasing managers' indices dropped below the threshold compatible with an expansion in activity; in services, the indicators were close to this threshold.

A contributory factor to the slowdown in growth was the low spending on public investment which stayed below the levels of the leading European economies; the available indicators show a delay in infrastructure endowment, which was particularly marked in the South (see Chapter 16, 'Public investment').

The increase in household consumption continued, thanks to the boost provided by disposable income, but growth fell to 0.6 percentage points owing to households' assessments of the economic situation gradually worsening since the spring of last year.

In relation to gross disposable income, national saving reached 20.4 per cent (Table 4.2); after declining for three years, household saving increased to 5.2 per cent, probably for precautionary reasons linked to greater uncertainty over the economic outlook. The ratio of gross investment to national income grew moderately; it remains at historically low levels, especially in the construction sector. The external current account balance remained broadly positive, as in the preceding two years. Italy's net foreign debtor position went down to 3.9 per cent of GDP over the year and has fallen by about 19 percentage points over the last six years.

Table 4.2

Saving and gross investment in Italy
(per cent of gross national disposable income)

	Average 1981-1990	Average 1991-2000	Average 2001-2010	2014	2015	2016	2017	2018
General government saving	-6.6	-3.3	0.7	0.3	1.0	0.5	1.1	1.0
Private sector saving	28.8	24.6	19.4	18.8	17.9	19.7	19.1	19.4
of which: consumer households (1)	20.0	14.0	8.0	6.1	5.7	5.6	5.0	5.2
Gross national saving	22.3	21.3	20.1	19.1	18.9	20.2	20.2	20.4
Gross investment	23.2	20.5	21.3	17.2	17.6	17.7	17.7	18.0
Memorandum item:								
Balance on current transactions with the rest of the world	-0.9	0.9	-1.3	1.9	1.3	2.5	2.5	2.4

Source: Based on Istat data.
(1) Includes non-profit institutions serving households.

Employment continued to rise, albeit at a slower pace than in 2017 (by 0.9 per cent, against 1.2 per cent). This growth, concentrated in the first half of the year, then came to a standstill in conjunction with the worsening cyclical conditions (see Chapter 8, 'The labour market'). Labour market participation continued to rise, though less so than in previous years. The main contributory factor was that individuals in the oldest age categories have remained in the labour market longer as a result of past pension-related measures. The unemployment rate declined to 10.6 per cent on average in 2018 (against 11.2 per cent in 2017).

Inflation was weak, at 1.2 per cent, although it fluctuated greatly over the year, owing to the price developments for the most volatile items, especially energy commodities. Core inflation, calculated net of these components, was even lower, at 0.6 per cent; it was affected by the ample margins of spare capacity and, in the second half of the year, by the progressive worsening of cyclical conditions (see Chapter 9, 'Prices, costs and competitiveness').

GDP remains below the levels prevailing prior to the onset of the global financial crisis (by over 4 percentage points), levels which the rest of the euro area as a whole left behind more than three years ago. Value added is still below these levels by about 6 per cent in manufacturing and by over 30 per cent in construction, while the service sector has completely caught up with them, having also benefited from the favourable performance of the tourism sector (see Chapter 15, 'Tourism in Italy: figures and development potential'.

Fiscal policy remained substantially neutral in 2018. Owing mainly to GDP growth, net borrowing fell further to 2.1 per cent of GDP; by contrast the public debt returned to growth, reaching 132.2 per cent.

Since the spring of 2018, the uncertainty over the new Government's plans has contributed to increase yields on new Italian government bond issues (see Chapter 14, 'The money and financial markets'). On some occasions this has led to outflows from this market by non-resident investors, with potentially adverse repercussions for the economy and for the financial system (see the box 'The implications for the Italian economy of an increase in the yields on government securities', *Financial Stability Report*, 2, 2018). In the latter part of the year, tensions on the financial markets partially abated, also thanks to the agreement negotiated by the Italian government with the European Commission on the budgetary objectives for the current year (see Chapter 11, 'The public finances').

Bank loans to households continued to increase considerably; business lending rose substantially in the first half of the year, and then progressively lessened because of both the drop in demand and the tightening of supply conditions. The high level of bank capitalization, the rebalancing of funding towards less costly sources and the ample liquidity slowed the transmission of an increase in government securities yields to the cost of credit; it could strengthen in the future if higher yields on government securities persist.

The main features of the market regulation measures adopted over the last year were the extension of direct awards of public goods and the deferral of liberalization measures. The Business Crisis and Insolvency Code, enacted in the early months of 2019,

rationalizes business crisis management and liquidation procedures to make them more rapid and efficient. The tools for prosecuting corruption have been strengthened; however, the reform of the statute of limitations could extend the duration of criminal proceedings (see Chapter 12, 'Business activity regulation and the institutional environment').

5. HOUSEHOLDS

The growth in households' disposable income strengthened, buoyed by the expansion in employment, higher wages and the increase in social security benefits. According to our estimates, equivalent income inequality for individuals who live in active households, after increasing significantly between 2009 and 2014, fell slightly, mainly as an effect of higher employment.

The increase in private consumption, under way since the spring of 2014, continued at a slower pace compared with 2017. The propensity to save of consumer households began to increase once more, potentially affected by precautionary reasons tied to greater uncertainty, as shown by the confidence indicators; though remaining at high levels, these indicators began to fall in the latter part of 2018.

The growth in sales continued in the real estate market, although this did not lead to a recovery in house prices, which have been falling almost uninterruptedly since 2012. As a result, household wealth in the form of real assets has declined.

Income and income distribution

In 2018, the growth in the disposable income of consumer households increased slightly at both current prices and in real terms (Table 5.1). The main contributory factor was the greater increase in payroll employment income, buoyed by the rise in employment and by the sharp acceleration in earnings per capita; the latter particularly benefited from the public sector contracts that were renewed early in the year (see Chapter 8 'The labour market'). The redistributive measure introduced by general government boosted household income, thanks above all to the increase in social security benefits.

According to Istat's estimates, reported by the Ministry of Economy and Finance (MEF),[1] the equivalized income[2] held by 20 per cent of the most well-off population as a whole remained 6.0 times that of the 20 per cent with the lowest income in 2018 (against a maximum figure of 6.3 recorded in 2015).

[1] MEF, 'Report on measurements of equitable and sustainable well-being' (BES), attached to the 2019 Economic and Financial Document, April 2019.

[2] Equivalized income is equal to the ratio of total household income to the number of equivalized adults. The latter is calculated using the OECD modified equivalence scale, which assigns a value of 1 to the head of the household, 0.5 to each member aged 14 and over and 0.3 to each member under the age of 14.

Table 5.1

Household gross disposable income and savings rate (1)
(at current prices, unless otherwise indicated)

	% of households' gross disposable income in 2018	2016	2017	2018
		Percentage change		
Payroll employment income	62.2	2.5	2.3	3.2
Income per full-time equivalent payroll worker	–	0.3	0.3	1.9
Self-employment income (2)	25.6	0.2	1.4	0.5
Income per full-time equivalent self-employed worker	–	1.0	3.1	0.8
Net property income (3)	22.0	0.1	1.2	1.1
Social benefits and other net transfers	32.1	1.3	1.5	1.9
of which: net social benefits	–	1.1	1.4	2.1
Net social security contributions (-)	23.6	1.6	2.2	3.9
of which: paid by employers	–	1.1	2.3	4.4
Current taxes on income and wealth (-)	18.3	1.3	1.2	0.6
Gross disposable income	**100.0**	**1.4**	**1.7**	**1.9**
In real terms (4)	–	1.2	0.6	0.9
In real terms, adjusted for expected inflation (4) (5)	–	1.0	-0.5	0.3
In real terms, adjusted for past inflation (4) (6)	–	1.2	0.1	0.6
		Percentage share		
Average propensity to save (7)	**–**	**8.1**	**7.3**	**7.5**
Calculated on income adjusted for expected inflation	–	7.9	6.1	5.9
Calculated on income adjusted for past inflation	–	7.7	6.5	6.5

Sources: Calculations and estimates based on Istat and Bank of Italy data.
(1) Data for consumer households. – (2) Mixed income and income drawn by members of quasi-corporations. – (3) Gross operating profit (mainly rental income), net rents from land and intangible assets, actual net interest, dividends and other profits distributed by companies. – (4) Deflated using the consumer household consumption deflator. – (5) Gross disposable income net of expected losses on net financial assets due to inflation (estimated on the basis of the Consensus Economics survey). – (6) Gross disposable income net of losses on net financial assets due to inflation, calculated ex post. – (7) Ratio of saving (gross of depreciation and net of changes in pension fund reserves) to gross disposable income.

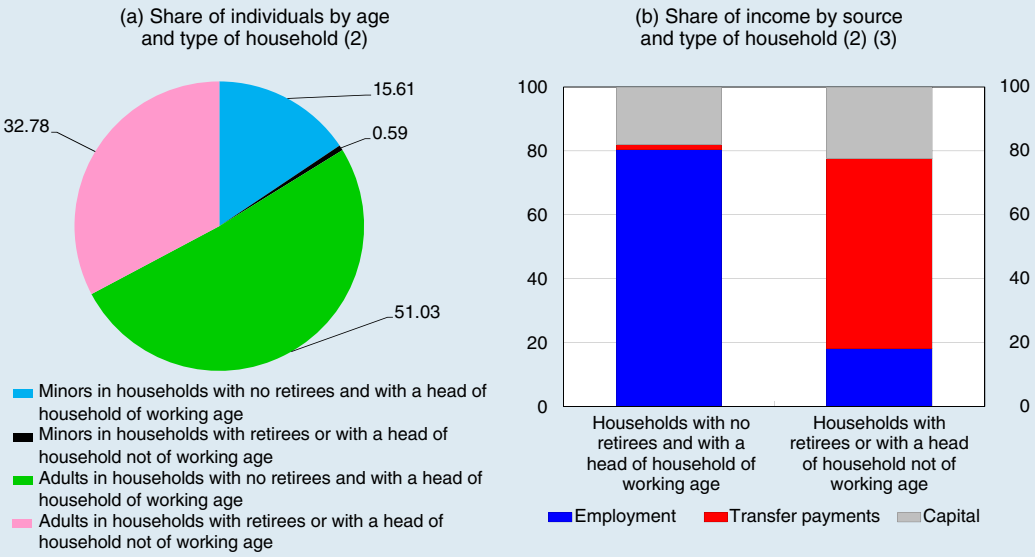
Our calculations based on Istat's labour force survey indicate that, starting from the peak of 2014, the inequality of equivalized labour income for individuals who live in active households (with no retirees and headed by someone between 15 and 64 years of age) fell slightly, following the rise in employment (see the box 'Labour income inequality across households'). This inequality remained higher in the South and Islands than in the Centre and North, reflecting the larger share of individuals who live in households with no employed members (18.7 per cent in the South and Islands against 5.4 per cent in the Centre and North).

LABOUR INCOME INEQUALITY ACROSS HOUSEHOLDS

Around 60 per cent of Italian households, which include 70 per cent of the population and almost all minors (see panel (a) of Figure A), have a head of the household of working age and have no pensioners among their members. For these households, labour income, estimated very rapidly and with a detailed geographical breakdown based on microdata from Istat's labour force survey,[1] represents 80 per cent of the income available and provides a fairly complete picture of their economic conditions (see panel (b) of Figure A).

Figure A

Shares of individuals and of income by type of household (1)
(per cent)



Sources: Based on Istat's labour force survey, Bank of Italy, Survey on Household Income and Wealth, Historical Database (Version 10.0, January 2018).
(1) Households are differentiated based on the presence of retirees in the household and on the age of the head of household. – (2) Estimates weighted with sample weights. – (3) Capital income includes imputed rents on owner-occupied properties.

Similarly to what was observed in the Survey on Household Income and Wealth (SHIW),[2] equivalized labour income inequality, calculated using data from the labour force survey, increased significantly in the period 2009-2014 for individuals who live in households headed by someone between 15 and 64 years of age and without retirees: the Gini index rose from 33.7 to 36.8 per cent (see panel (a) of Figure B). This increase is attributable to the growth in the share

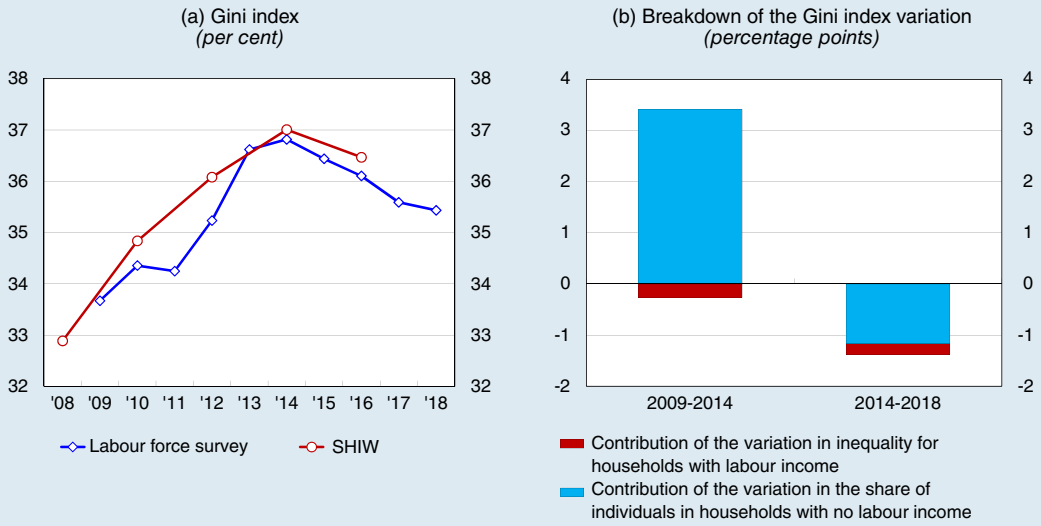
[1] F. Carta, 'Timely indicators for labour income inequality', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), forthcoming. The paper uses the data contained in the labour force survey on the number of hours worked per week by employed persons and on the net monthly pay of employees. By estimating hourly wages according to individual and household characteristics, a measurement of monthly labour income for self-employed workers was created. Individual incomes were then aggregated at household level.

[2] The analysis of distributional trends in Italy is usually carried out based on microdata from the Bank of Italy's Survey on Household Income and Wealth and from Istat's survey on households' income and living conditions. The information relating to income is available on average two years after the reference period; using data from the labour force survey reduces the delay by about five to six months.

of individuals belonging to households with no labour income (see panel (b) of Figure B). The subsequent slight reduction in the inequality indicator (to 35.4 per cent in 2018) can be ascribed to the rise in the number of job positions: individuals in households with no employed persons fell to 10.0 per cent of the reference population (from 11.2 per cent in 2014); of which 20.9 per cent are minors (1.6 points lower). A contributory factor to this decrease was the decline of 0.6 percentage points in inequality across individuals living in households with employed members, owing to the greater growth in equivalized labour income in the lowest quintiles of the distribution (of 10.9 and 7.5 per cent in the lowest and highest quintiles of the distribution respectively).

Figure B

Gini index on equivalized labour income (1)



Sources: Based on Istat's labour force survey and Bank of Italy, Survey on Household Income and Wealth, Historical Database (Version 10.0, January 2018).
(1) The Gini concentration index ranges from 0 (perfect equality) to 100 (maximum inequality). In both surveys it is calculated on equivalized labour income, on the subsample of individuals who live in households with no retirees and headed by someone between 15 and 64 years of age. Equivalized labour income is equal to the ratio of total household labour income to the number of equivalized adults. We adopt the OECD-modified equivalence scale to calculate this; it assigns a value of 1 to the head of household, 0.5 to each member aged 14 and over and 0.3 to each member under the age of 14. The unit of reference is the person. All estimates are weighted with survey weights.

In the ten years considered (from 2009 to 2018), the Gini index, calculated on equivalized labour income, increased by 3.6 percentage points in southern Italy and Islands (to 43.0 per cent), and by less in the Centre and North (by 1.1 percentage points, to 29.8 per cent). The higher income dispersion in the South and Islands is mainly attributable to the lower employment rate, in conjunction with a higher number of households with no labour income recipients and a smaller number of households with more than one employed person.[3]

[3] E. Ciani and R. Torrini, 'The geography of Italian income inequality: recent trends and the role of employment', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 492, 2019.

According to Istat's latest household budget survey, about 5 million people were living in absolute poverty[3] in 2017 (8.4 per cent of the population; 0.5 percentage points higher compared with 2017 and 5.3 per cent higher than in 2007). The share remained considerably higher in the South and Islands (11.4 per cent, from 3.8 per cent in 2007), among minors (12.1 per cent, from 3.1 per cent in 2007) and among households consisting entirely of non-Italian citizens (29.2 per cent, from 23.4 in 2014, the year when the data began to be available).

In 2018, a minimum income scheme (*Reddito di inclusione* or ReI) was introduced as a nationwide anti-poverty measure, provided for by Legislative Decree 147/2017; according to INPS data, some 462,000 households (1.3 million people) benefited from this scheme. The average monthly amount received was €296 (€309 in the South and Islands). As of April 2019, the ReI was replaced by a new minimum income scheme (*Reddito di cittadinanza* or RdC; Law 26/2019). The RdC – which for households consisting entirely of individuals of at least 67 years of age is known as the minimum pension scheme (*Pensione di cittadinanza*) – is a guaranteed minimum income which supplements any other income up to a certain threshold.

The greater generosity of the RdC compared with the ReI – in terms both of unit amounts, especially for people living alone, and of the range of potential recipients – will entail a significant increase in spending and in the limiting of poverty (see the box 'An analysis of the redistributive effects of recent anti-poverty measures). The RdC requires all members of the recipient household aged between 18 and 64 to follow a programme for employment integration or for social inclusion (see the box 'The role of public employment services in the labour market', Chapter 8).

AN ANALYSIS OF THE REDISTRIBUTIVE EFFECTS OF RECENT ANTI-POVERTY MEASURES

In April 2019, a new minimum income scheme (*Reddito di cittadinanza* or RdC) replaced the previous one (*Reddito di inclusione* or ReI) as a nationwide measure to combat poverty.[1] The RdC could potentially reach a greater number of recipients, and guarantee larger individual benefits. The overall expenditure according to government estimates, which assume a partial take-up of the measure by those potentially eligible, would be €7.2 billion when fully phased in, roughly three times that envisaged for the ReI. By 30 April of this year there had already been one million claims sent to INPS.

To analyse the RdC, estimates of the redistributive effects are reported, based on the Bank of Italy microsimulation model (BIMic)[2] for the Italian tax and social

[1] The ReI came into force on January 2018 and starting from July 2018 became a universal measure to combat poverty, since the access restrictions other than those linked to means testing no longer apply.

[2] N. Curci, G. Grasso, P. Recchia and M. Savegnago, 'Anti-poverty measures in Italy: a microsimulation analysis', Banca d'Italia, Temi di Discussione (Working Papers), forthcoming.

[3] Persons living in absolute poverty are members of households whose expenditure is less than that needed to buy a basket of goods and services, as defined by Istat, which is considered essential in Italy for a minimum acceptable standard of living.

benefit system and assuming a full take-up: the analysis therefore refers to the range of potential recipients and not to that of actual recipients, normally more limited. It is estimated that around 2 million households are potential recipients (5.3 million individuals), costing €10.3 billion overall (for the ReI the estimate was for 1.1 million households and 3.1 million individuals at a cost of €3.3 billion).

The RdC provides for a more generous individual benefit than the ReI and includes an additional contribution for rent or mortgage expenses for the primary residence. For a one-person household where the individual lives in a rented property and has no other income, the amount paid is €780 per month against the €188 of the ReI. This theoretical maximum benefit is close to the relative poverty threshold estimated by Eurostat for 2016, a high level by international standards (the ratio of the benefit expected from similar measures to the abovementioned threshold is 63 per cent in Spain, 50 per cent in France and 39 per cent in Germany).[3] In addition, according to the Bank of Italy's Survey on Household Income and Wealth (SHIW), the maximum benefit is equal to 58 per cent of the median labour income for one-person households. The consequent effects of disincentives to work can only be mitigated by the planned upgrading of job centres (for a discussion of these effects, see Chapter 8, 'The labour market').

Compared with the ReI, the RdC is relatively less generous for households with minors compared with those having only adult members: the equivalence scale adopted to adjust the benefit to take account of household size actually envisages smaller increases for additional household members, especially minors.[4] The application to the RdC of the same equivalence scale adopted for the ReI would increase the cost by 43 per cent; keeping the total cost of the measure the same would have meant lowering the maximum monthly benefit available to one person to €680.

The RdC is also more selective than the ReI as regards foreign nationals, as they now need to have been resident in Italy for ten years instead of two in order to make a claim. This requirement excludes about 90,000 households that would have been entitled to the ReI (8 per cent of the total). The higher presence of foreigners in the Centre and North (where they represent roughly half of the individuals in the first decile of the equivalized disposable income distribution) emphasizes the concentration of households benefiting from the RdC in the South and Islands (53 per cent, against 40 per cent who benefited from the ReI).

The introduction of the RdC means that the income situation for the section of the population with the lowest incomes is improving (see panel (a) of the figure). Compared with a hypothetical situation with no support measures, the RdC with

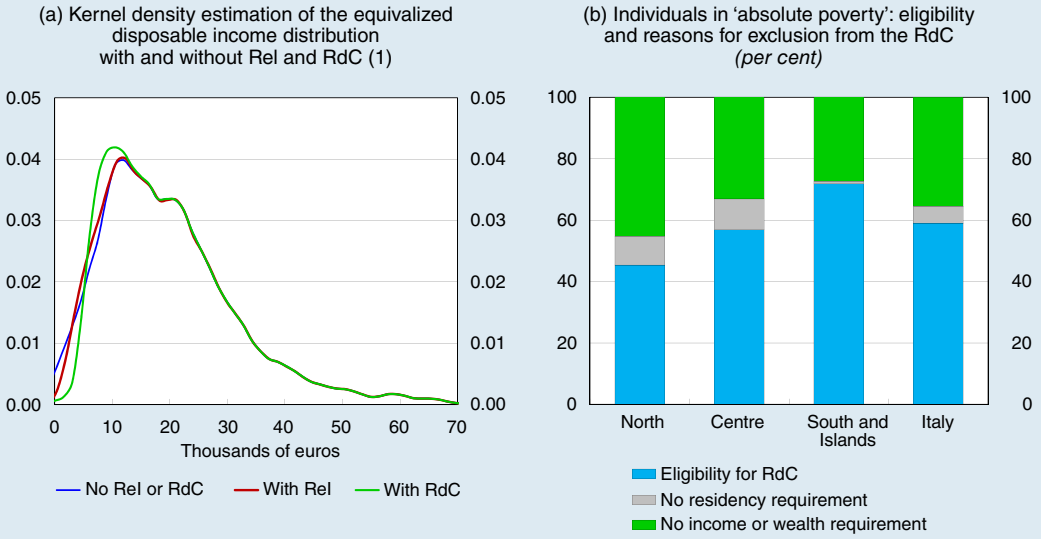
[3] 'Preliminary hearing on the Update to the 2018 Economic and Financial Document', testimony by L.F. Signorini, Deputy Governor of the Bank of Italy, before the Chamber of Deputies, Rome, 9 October 2018.

[4] The equivalence scale for the RdC assigns a value of 1 to the first member and is increased by 0.4 for each additional adult and by 0.2 for each minor in the household, up to a maximum of 2.1 (2.2 if there is a disabled person). The scale for the ReI assigned a value of 1 for a one-person household, 1.57 for two members, 2.04 for three members, 2.46 for four members, 2.85 for five members and 3.20 for six or more members.

a full take-up would lead to a reduction in the 'absolute poverty' rate[5] estimated by the BIMic from 7.3[6] to 4.4 per cent (with the ReI, the indicator would stand at 6.2 per cent).

The range of those potentially eligible for the RdC only partially coincides with that of the individuals classified as being in 'absolute poverty' (see panel (b) of the figure). This partial mismatch is explained by the fact that eligibility for the benefit is conditional on meeting income, wealth and residential requirements, while the classification of 'absolute poverty' is based on the household consumption levels reported in statistical surveys. Specifically, about 6 per cent of the individuals classified as being in 'absolute poverty' do not comply with the residential requirement and about 35 per cent do not possess the income and wealth requirements.

Effects of the recent measures introduced in Italy to combat poverty



Source: Based on the BIMic microsimulation model.
(1) To take account of the different composition of households, the OECD-modified equivalence scale was used to calculate equivalized disposable income.

There is a marked geographical discrepancy in the degree of overlap between the range of those eligible for the RdC and those classified as being in 'absolute poverty': in the South and Islands, 72 per cent of the latter would benefit; in the North and Centre the figures would be 45 and 57 per cent respectively. Both the larger numbers of foreigners, and the higher cost of living, which is not reflected in differentiated eligibility requirements, help to explain this difference.

[5] The poverty rate represents the share of individuals living in 'absolute poverty'. Households are considered to be in 'absolute poverty' when their overall expenditure is lower than the corresponding poverty threshold calculated by Istat based on its household budget survey, taking account of household composition, geographical location and typology of place of residence.

[6] To attribute the condition of 'absolute poverty' in the BIMic, the model's database – based on the SHIW – has been enhanced by means of a statistical matching procedure with data on consumption from Istat's household budget survey. The estimated poverty rate reported here differs from the value calculated by Istat for 2017 because it refers to different years and databases.

Consumption

In 2018, household spending, on an upward trend since spring 2014, grew in real terms at less than half the pace in 2017 (0.6 per cent; Table 5.2 and Figure 5.1). This slowdown is attributable above all to the services component, which accounts for just over half of all private consumption. Purchases of goods also slowed: those of non-durable goods declined, while those of durable goods increased.

Table 5.2

Households' expenditure
(chain-linked values, unless otherwise indicated; percentage changes)

	% in 2018 (volumes at previous year's prices)	2015	2016	2017	2018
Goods	47.0	2.8	1.2	1.3	0.7
Non-durable goods	30.1	1.4	0.3	0.4	-0.3
of which: food and non-alcoholic beverages	14.1	1.2	1.1	0.5	-0.1
Semi-durable goods	9.0	2.9	1.1	1.2	1.9
of which: clothing and footwear	6.2	1.8	0.7	0.2	2.3
Durable goods	8.0	8.8	5.4	5.1	3.6
Services	53.0	1.5	1.3	1.8	0.7
of which: hotels and restaurants	10.3	2.4	1.7	3.7	0.9
education	1.0	-0.4	2.0	2.9	1.0
Total domestic expenditure	**100.0**	**2.1**	**1.3**	**1.6**	**0.7**
Spending abroad by Italian residents (1)		-4.3	3.4	8.1	2.9
Spending in Italy by non-residents (1)		3.8	2.4	6.4	5.0
Total national expenditure		**1.9**	**1.3**	**1.5**	**0.6**
Memorandum item:					
National consumption deflator		0.2	0.2	1.1	1.1

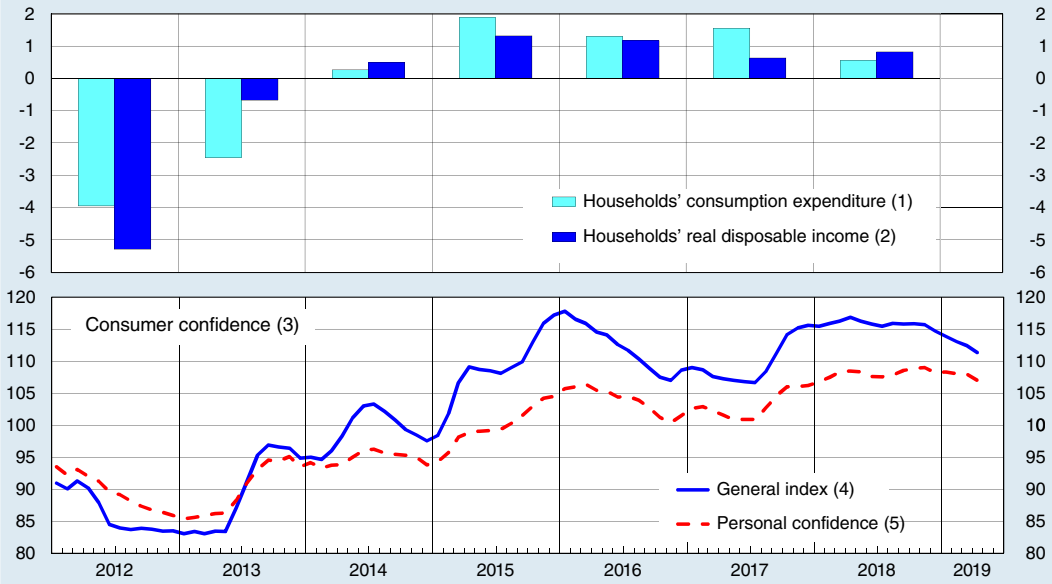
Source: Istat, national accounts.
(1) In 2018, spending abroad by Italian residents and in Italy by non-residents came to 1.9 and 3.9 per cent respectively of national expenditure.

Consumption was sustained by the growth in households' purchasing power and by relaxed conditions for consumer lending. The propensity to save, which had fallen in the three previous years, rose again to 7.5 per cent (Figure 5.2),[4] probably driven by greater precautionary concerns: in 2018 as a whole, 91 per cent of households believed saving to be advisable (over 7 percentage points more than in 2017). The gap between those who want to save and those who think they are able to save

[4] The propensity to save returned to growth (to 9.9 per cent), also according to Eurostat's definition, which refers to consumer and producer households as a whole.

Figure 5.1

Consumption, real income and consumer confidence
(growth rates and indices)



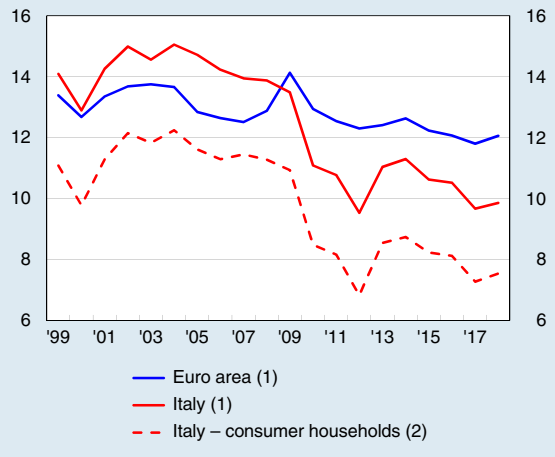
Source: Based on Istat data.
(1) Consumer expenditure of households and non-profit institutions serving households; chain-linked values; percentage changes on the previous year. – (2) Disposable income of consumer households and non-profit institutions serving households, deflated using the consumption expenditure deflator for resident households. – (3) Indices: 2010=100; seasonally adjusted data; moving averages for the 3 months ending in the reference month. – (4) Obtained by calculating the average of the balances between the percentages of replies indicating a situation that is improving or worsening in response to questions on: the general economic situation in (a) the past 12 months and (b) over the next 12 months; the respondent's personal situation in (c) the past 12 months and (d) over the next 12 months; (e) the advisability of durable goods purchases; (f) expected unemployment; (g) the possibility and (h) advisability of saving; and (i) their household's financial situation. – (5) Average of the balances between the percentages of replies to (c), (d), (e), (g), (h) and (i).

widened slightly. The confidence indicator, though remaining high, fell gradually during the latter part of the year, above all due to the effect of the worsening assessments on the general economic situation and on employment; these trends continued in the early months of 2019, bringing the confidence indicator to its lowest level for a year and a half in April.

For some types of households, particularly the most indebted ones, consumption may also have been affected, as in the recent past, by the continuing weakness of inflation expectations (see the box 'The role of inflation expectations in Italian households' consumption decisions').

Figure 5.2

Households' saving ratio
(annual data; per cent)



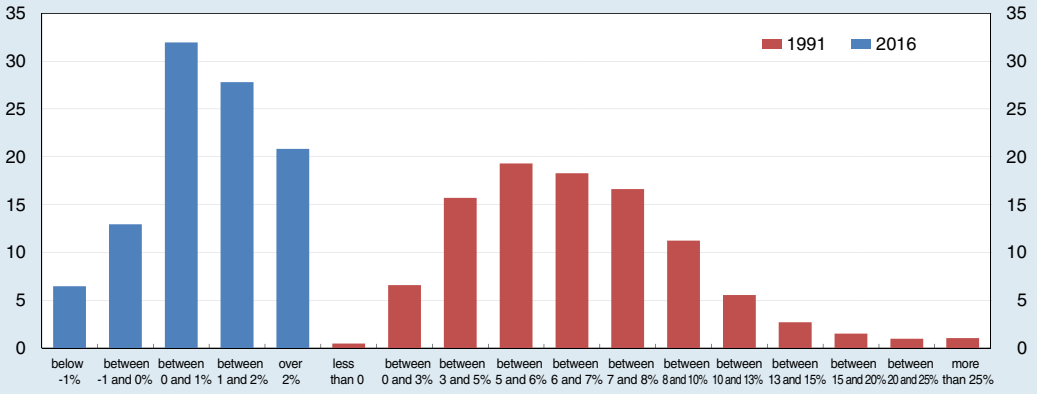
Sources: Based on Eurostat and Istat data.
(1) Includes consumer and producer households and non-profit institutions serving households. – (2) Savings are calculated gross of amortization and depreciation and net of changes in pension fund reserves.

THE ROLE OF INFLATION EXPECTATIONS IN ITALIAN HOUSEHOLDS' CONSUMPTION DECISIONS

Inflation expectations can play a fundamental role in households' spending decisions. On the one hand, if a bigger change in prices is expected, this will lead to a decline in the real interest rate (if nominal interest rates are fixed), thus creating an incentive to bring forward consumption (the substitution effect); on the other hand, it will reduce (other conditions being equal, especially nominal income) households' purchasing power, with a negative impact on spending (the income effect). The response of consumption to changes in expected inflation is also affected by the financial situation of households: an upward revision of inflation expectations squeezes both the real value of their wealth and that of their debt, with diverging effects on their spending decisions.

To assess the importance of the different channels through which expected inflation impacts on consumption, reliable measures of household expectations are needed, which are less readily available than those of professional forecasters or of those derived from the prices of financial assets.[1] Some editions of the Bank of Italy's Survey on Household Income and Wealth (SHIW)[2] directly measured inflation expectations in Italy; generally speaking they correctly approximate the actual dynamics of the consumer price index that is subsequently published by Istat. As an example, in the 1991 survey, at a time of high and volatile inflation, about 70 per cent of inflation expectations were between 3.0 and 8.0 per cent, with an average of 7.0 per cent, compared with an official variation in prices of 6.2 per cent that year; in the 2016 survey, given consistently low inflation, average

Distribution of inflation expectations
(per cent)



Source: Bank of Italy, Survey on Household Income and Wealth (SHIW).

[1] For an analysis of the inflation expectations expressed by Italian firms, see the box 'The inflation expectations of Italian firms and the labour market', Chapter 9, *Annual Report for 2017*, 2018.

[2] The Bank of Italy's survey on household budgets for the year 1991, in *Supplements to the Statistical Bulletin*, 44, 1993 and 'Survey on Household Income and Wealth', Banca d'Italia, Statistics Series, 12 March 2018.

expectations stood at 0.9 per cent (against 1.3 per cent for official inflation) and the distribution was heavily concentrated on very modest values (see the figure).

Our estimates for Italy[3] show that in 1991, a year when inflation was still relatively high and salaries and monetary incomes were closely indexed to price changes, the substitution effect prevailed: higher inflation expectations led to a lower real interest rate and a widespread increase in current expenditure; the effect was greater for younger and indebted households. In more recent years – for which there is only information on purchasing intentions for one category of durable goods, albeit a very important one (cars) – there has been a more varied response among groups of households. Against a backdrop of interest rates with less room for reduction and virtually zero inflation, the impact of higher individual inflation expectations on the propensity to spend is confirmed as being positive and significant for indebted households only.

[3] C. Rondinelli and R. Zizza, 'Spending today or spending tomorrow? The role of inflation expectations in consumer behaviour', Banca d'Italia, Temi di Discussione (Working Papers), forthcoming.

Property wealth and the housing market

In 2017, the wealth held by consumer households in the form of real assets (almost entirely accounted for by houses) declined by 0.6 per cent in nominal terms. It has cumulatively fallen by about 7 per cent since 2012, in conjunction with the onset of the fall in house prices; according to our estimates it fell still further last year. Total household wealth, which also includes net financial assets and refers to consumer and producer households as a whole, declined by just over 2 per cent, falling to 8.1 times disposable income (see Chapter 7 'The financial situation of households and firms').[5]

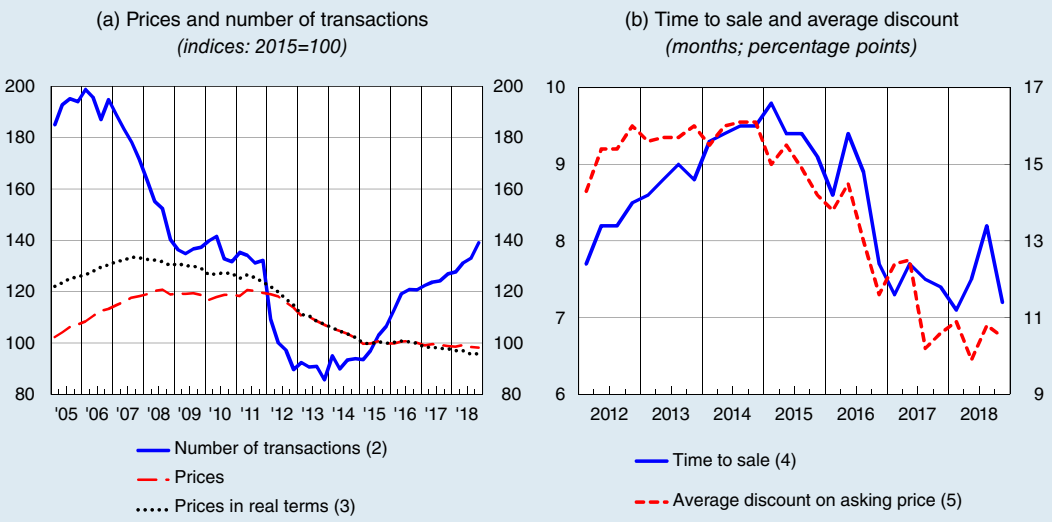
Based on data from the Revenue Agency's Property Market Observatory (OMI), house sales grew by 6.5 per cent on average in 2018; they returned to the levels of summer 2010, prior to the sovereign debt crisis, but they are still far below the historically high levels reached prior to the global financial crisis (Figure 5.3.a). The recovery in sales has yet to lead to higher market prices. There are, however, signs of recovery in some metropolitan areas, such as Milan and Turin, where house prices have risen by 2.9 and 0.5 per cent respectively. Despite the fall in prices, over the last few years there has been a steady increase in rental prices in the provincial capitals (see the box 'The rental market in Italian cities').

According to the quarterly Housing Market Survey, conducted by the Bank of Italy with Tecnoborsa and OMI, time to sale and the discount on the initial price both remained low on average in 2018 (Figure 5.3.b).

[5] For more details, see Banca d'Italia and Istat, 'La ricchezza delle famiglie e delle società non finanziarie italiane: 2005-2017', May 2019.

Figure 5.3

Residential property market (1)



Sources: Based on data from Agenzia delle Entrate, Bank of Italy, Istat, *Consulente immobiliare* and the Italian Housing Market Survey.
(1) Quarterly data. – (2) Adjusted for seasonal and calendar effects. – (3) House prices deflated using the consumer price index. – (4) Time to sale is measured in months. – (5) Right-hand scale.

THE RENTAL MARKET IN ITALIAN CITIES

In Italy, as in other European countries, data on property rentals is fragmentary and only available after a long delay, which precludes any timely analysis of a market of significant size. According to the latest Bank of Italy Survey on Household Income and Wealth (SHIW), in 2016 about 20 per cent of Italian households rented their homes, a share that reached 38 and 46 per cent among the younger and less well-off households respectively; rents accounted for 23 per cent on average of the annual income of tenant households overall.

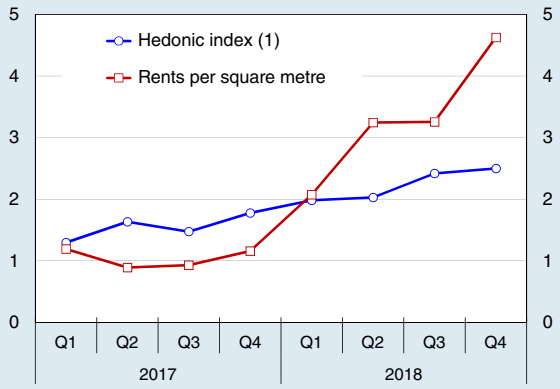
Timely information on the rental market can be drawn from the adverts published on specialized websites, which have spread rapidly over the last few years. A recent study[1] used an extensive database of rental adverts for dwellings in provincial capitals, published since January 2016 on the Immobiliare.it website. In contrast to the other statistical sources available, mainly of an administrative or qualitative kind, this database contains detailed information about the characteristics of individual properties which, given the marked variety of Italy's housing stock, must be taken account of to limit the distortions in measuring market value dynamics. It also shows the rents asked by landlords, which accurately approximate the growth in actual rents in the new rental agreements segment. According to the quarterly Housing Market Survey, conducted by the Bank of Italy with Tecnoborsa and the Property Market Observatory, between spring 2017 and the end of 2018 the average discount compared with the initial asking price remained virtually stable, at around 3 per cent.

[1] M. Loberto, 'Il mercato degli affitti nelle città italiane: un'analisi basata sugli annunci online', Banca d'Italia, Temi di Discussione (Working Papers), forthcoming.

Based on hedonic regressions, which take account of the impact of the characteristics of individual properties on rental costs, it is estimated that rentals per square metre in the provincial capitals went up by 1.6 per cent in 2017 and accelerated to 2.2 per cent in 2018 (see the figure). The different trend in average rents per square metre calculated directly from the adverts, which increased over the last year by 3.3 per cent, indicates an ongoing shift in supply in favour of smaller properties that are furnished and better maintained; these characteristics are associated with higher rents per square metre.

Rents asked

(quarterly data; year-on-year percentage changes)



Source: Based on Immobiliare.it data.
(1) The hedonic index shows the developments in rents, taking account of how they are influenced by the different characteristics of properties.

Over the course of a prolonged decline in sales prices, the rise in rents has led to an increase in the rate of return on properties. The increase in rents could be affected by the recent spread of short-term rental agreements, which could then lead to a reduction in the supply of long-term rentals.

The diverging trends of the property and rental markets could be caused by real estate property being less attractive or accessible in the current economic situation, especially for some population sectors: according to the SHIW, the share of tenants among the youngest cohorts rose gradually, from around 31 per cent in 2006 to 37 per cent in 2016.

6. FIRMS

In Italy, value added slowed both in industry excluding construction and in services, reflecting the weakening of the international cycle and, especially in the second half of the year, the uncertainty that held down domestic demand. It accelerated in the construction sector, however, thanks to the relatively robust increase in investment spending in the residential sector, and returned to growth in agriculture.

The number of active firms continued to rise, but at a slower pace than in 2017, owing to the decline in the firm birth rate, which has been falling since 2010, and to a slight increase in the death rate, spread across almost all sectors.

Growth in investment was sustained on average over the year, but less so than in 2017. The recovery in capital spending that began at the end of 2014 came to a standstill in the second half of the year because of the weakening economic cycle and the loss of business confidence.

According to the survey conducted by the Bank of Italy's branches, just over half of firms took advantage of at least one investment incentive, prompting one third of the beneficiary companies to increase their investment. Overall, firms' plans for the current year point to a slight expansion in investment, despite the prevailing expectations of a reduction in manufacturing.

Labour productivity in the private sector as a whole stagnated, although the trend varied greatly from firm to firm; growth was higher for larger and more innovative firms.

Economic developments

Value added and production. – In 2018, value added in the Italian economy as a whole grew by 0.9 per cent, against 1.7 per cent in 2017. Economic activity decelerated in the first half of the year, owing to the abrupt slowdown in manufacturing, and then declined slightly in the second half of the year, weakening across all sectors except for construction.

Industrial production decelerated on average in 2018, growing by 1.3 per cent, down from 3.1 per cent in 2017. Over the year, it was initially affected by the decline in sales abroad; the decrease in industrial production became more marked in the second half of the year, in conjunction with the worsening of domestic demand.

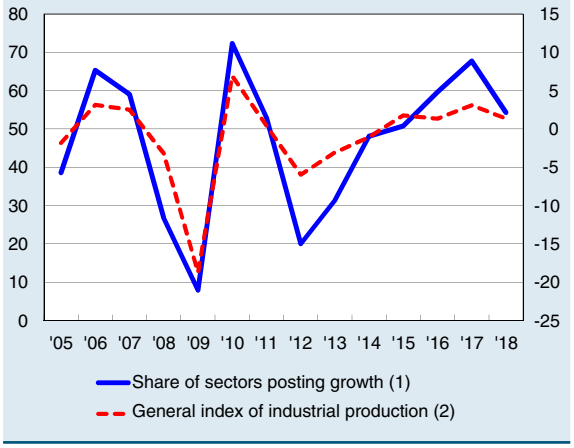
The slowdown in industrial production also affected the other main euro-area countries. The automotive sector was particularly hard hit, especially in Italy

and Germany, due to the effect of adapting to the new legislation on polluting emissions in force since September, as well as to the reduction in global demand. In Italy, as in the other main euro-area countries, signs of lower vitality in industrial activity were widespread; over the year as a whole, output declined in the durable and energy goods sectors and only accelerated in the non-durable goods sector. The share of sectors posting growth declined by over 10 percentage points to 54 per cent (Figure 6.1). In the first quarter of 2019, production increased again, although it only partly recouped the downturn under way since the beginning of last year.

Figure 6.1

Industrial production: sectoral diffusion of growth

(percentage shares; percentage changes)



Source: Based on Istat data.
(1) As a proportion of the total (based on the ATECO 2007 classification); sectors posting growth are those that have expanded since the previous year. – (2) Right-hand scale.

In the construction sector, value added accelerated from 0.7 to 1.7 per cent; it is still around 30 per cent lower than it was before the global financial crisis. Economic activity benefited from the relatively robust increase in residential investment. According to the estimates made by Cresme Ricerche SpA, an institute that deals with social and economic analysis of the construction market and of Italy, the number of completed houses returned to growth for the first time in over a decade. The non-residential sector also contributed to the expansion in construction, driven by the recovery in private sector investment despite the persistent weakness of public sector investment (see Chapter 16, 'Public investment'). In the first nine months of last year, construction permits, which provide forward guidance on the growth of activity, continued to increase on an annual basis, reaching much higher levels than the minimum recorded in 2014.

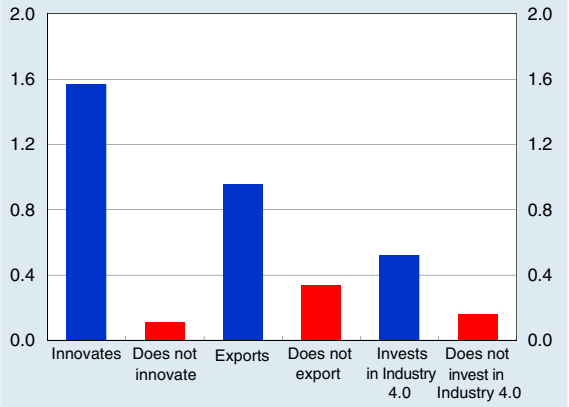
Value added for services decelerated to 0.6 per cent (1.4 per cent in 2017), recording a slight downturn in the second half of the year. Economic activity declined in the financial and insurance sectors, in information and communication services and in professional activities; accommodation and catering services, boosted by the positive trend in spending linked to tourist flows, continued to increase, albeit at a more modest pace than in 2017 (see Chapter 10, 'Foreign demand and the balance of payments' and Chapter 15, 'Tourism in Italy: figures and development potential').

Profitability. – The operating profitability of firms, equal to the ratio of gross operating profit (EBITDA) to value added, fell for the second consecutive year, returning to below pre-crisis levels. This trend reflects a more rapid increase in labour costs than in value added (see Chapter 9, 'Prices, costs and competitiveness'). Profitability, measured as the ratio of gross operating profit to total assets, remained stable (see Chapter 7, 'The financial situation of households and firms').

The Survey of Industrial and Service Firms run by the Bank of Italy's branches at the beginning of this year, on over 4,000 firms with 20 or more employees in non-construction industry and private non-financial services, found that the share of profitable firms has fallen to 73 per cent of the total, though this figure is still well above pre-crisis levels. This decrease was more marked in industry, especially in metalworking, and hit all the firms in this sector in Italy, except for the biggest firms (with more than 500 workers). The share of profitable firms continued to expand in the South and Islands, from 69 to 71 per cent.

Figure 6.2

Business strategies and growth in turnover in 2018 (1)
(per cent)



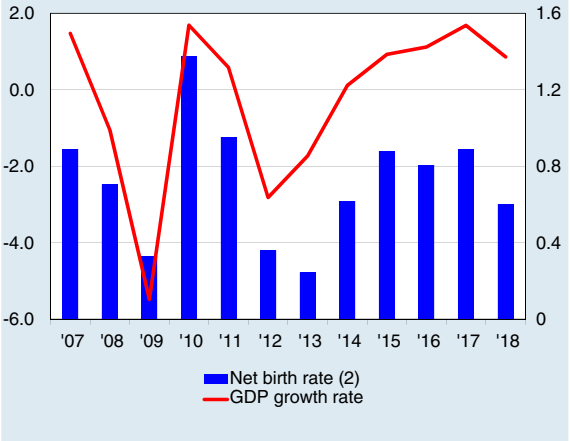
Source: Bank of Italy's Survey of Industrial and Service Firms.
(1) The bars show the average change in turnover at constant prices for the various categories of firm, calculated assuming the same size, sector and firm location. The 'innovates' ('does not innovate') category includes firms that in 2018 invested (did not invest) in research and development; the 'exports' ('does not export') category includes those that in 2018 realized more (less) than a third of their turnover in foreign markets; the 'invests in industry 4.0' ('does not invest in Industry 4.0') category includes those that in 2018 invested (did not invest) in advanced digital technologies.

According to the survey, growth in turnover was more subdued in 2018 than in 2017 (0.6 per cent in real terms, against 2.3 per cent in 2017). As in the previous two years, performance differed considerably from firm to firm and, controlling for size, sector and location, sales were higher for innovative and exporting businesses that have invested in advanced digital technologies (Figure 6.2).

Business demographics. – In 2018, the net birth rate of firms stood at 0.6 per cent (about 30,000 more firms), 0.3 percentage points lower than in 2017 (Figure 6.3). The fall in the gross birth rate of firms, under way since 2010, continued, while the death rate rose slightly, after declining for four years.

Figure 6.3

Net birth rate of firms and GDP growth rate (1)
(per cent; percentage changes on previous period)



Sources: Istat, national accounts and based on Infocamera data. The net birth rate of firms is calculated as the difference between the birth and death rates.
(1) GDP at chain-linked volumes, reference year 2010. – (2) Right-hand scale.

The growth in the death rate affected almost all sectors, though to varying degrees, apart from agriculture, mining, real estate services and transport. In 2018, the death rate increased most for firms of an intermediate age (11-20 years), while it remained stable for more mature firms, at the same figure recorded for the last four years; for

younger firms (0-10 years) the fall in the death rate, which began in 2014 after they had been particularly affected by the global crisis, came to a halt.

The ratio of limited companies to total active firms continued to grow (to 23 per cent, against 14 per cent in 2007); it reached 33 per cent for the firms born in 2018 (against 21 per cent in 2007). The share of sole proprietorships fell still further; their birth rate was negative for the seventh consecutive year.

The balance between registrations and deaths of firms was particularly positive in the South and Islands (19,000 firms), accounting for 60 per cent of the increase at national level. As in the rest of Italy, firms with more complex legal forms increased: the ratio of limited companies to total active firms in the South and Islands rose to 19 per cent, from 12 per cent in 2009.

Investment. – Capital accumulation rose by 3.4 per cent, from 4.3 per cent in 2017 (Table 6.1), due to the acceleration in construction expenditure and to steady growth in purchases of capital goods, albeit lower than in the previous three years. Expansion in investment was less robust in Italy than in Spain, but higher than in Germany and in France. Investment as a share of GDP rose for the fourth consecutive year, to 18.0 per cent; the gap compared with the value added recorded prior to the global financial crisis, which was more than 3 percentage points, is entirely due to investment in construction.

Table 6.1

Fixed investment in Italy
(chain-linked volumes unless otherwise indicated; per cent)

	% composition in 2018 (1) *(volumes at previous year's prices)*	Changes			% of GDP (1) *(volumes at previous year's prices)*	
		2016	2017	2018	2000	2018
Construction	45.0	0.9	1.3	2.6	9.8	8.1
Housing (2)	24.8	1.2	2.7	3.8	4.7	4.5
Other (2)	20.2	0.6	-0.2	1.3	5.1	3.6
Costs of change of ownership	4.4	16.7	6.3	6.6	0.8	0.8
Plant, machinery, arms and cultivated biological resources	38.7	6.6	9.0	5.4	7.9	7.0
of which: transport equipment	9.4	23.7	38.7	14.5	1.6	1.7
Intellectual property	16.3	4.5	2.5	0.8	2.5	2.9
Total gross fixed investment	**100.0**	**3.5**	**4.3**	**3.4**	**20.2**	**18.0**
Total excluding housing	–	4.3	4.9	3.3	15.4	13.6
Total excluding construction	–	5.9	6.9	4.0	10.4	9.9

Source: Istat, national accounts.
(1) Rounding may cause discrepancies in totals. – (2) Includes costs of change of ownership.

However, the recovery in investment, under way since the fourth quarter of 2014, came to a halt in the second half of the year. Capital accumulation was affected by weakened economic activity, by increased uncertainty and by the progressive deterioration in business confidence.

Purchases of capital goods and intangible assets, though slowing, continued to benefit in 2018 from the extension of a large portion of the tax incentives already available the previous year (see Chapter 6, 'Firms', *Annual Report for 2017*, 2018). About half of the firms interviewed as part of the Survey of Industrial and Service Firms said they had made use of the super-amortization or hyper-amortization schemes for new capital goods. At the end of 2018, the latter scheme was extended through the whole of 2019 by the 2019 Budget Law, while the super-amortization scheme, which was not initially extended, was proposed again at the end of April 2019 in Decree Law 34/2019 (the 'Growth Decree'); this, however, introduces a limit on the spending for which fiscal benefits can be obtained.

Investment in construction accelerated, benefiting from both the new increase in the residential segment (see Chapter 5, 'Households') and the partial recovery in that of other construction. Capital accumulation in the latter segment was buoyed by the private works component, given the attenuated fall in non-residential real estate prices; this was offset by the decline in investment by general government, despite the new increase in the value of public procurement contracts (see Chapter 16, 'Public investment'). The survey conducted by the Bank of Italy on a sample of more than 500 construction companies confirms a reduction in public sector construction last year.

The stock of capital net of housing, down by 3.5 per cent since 2011, recorded its first slight increase.

Investment in the Survey of Industrial and Service Firms. – According to this survey, investment grew in 2018, above all for non-construction industrial firms with more than 200 employees (Table 6.2). In contrast to the three years 2015-17, actual spending was higher than previously planned in industry, but less than planned in services.

As in 2017, the share of firms taking advantage of at least one investment incentive was just over 50 per cent, and the incentives led to an increase in investment for about a third of these firms.

The plans for 2019 envisage a very modest increase in capital spending, though with varying trends across sectors: the increase for service, energy and mining firms, which is expected to be smaller than in 2018, will be offset by a sharp fall for manufacturing, held back in particular by smaller and less export-oriented firms spending less.

Innovation. – Investment in intellectual property decelerated for the second year in a row (it increased by 0.8 per cent; Table 6.1), following the sustained growth in the two years 2015-16 (see the box 'Financial crisis and technological

Table 6.2

Gross fixed investment of firms according to Bank of Italy surveys, by class size, capacity utilization and change in turnover (1)
(percentage changes at 2018 prices unless otherwise specified)

	Total	Number of employees				Capacity utilization (2) (3)		Change in turnover (2)	
		20 to 49	50 to 199	200 to 499	500 & over	Low	High	Low	High
Industry excluding construction									
Outturn for 2018	8.6	3.9	6.3	11.9	10.9	2.8	15.2	2.3	13.9
Realization rate (4)	102.8	117.3	102.7	106.5	96.6	97.7	108.5	98.8	106.1
Planned investment for 2019	0.3	-11.7	-3.0	-1.6	8.3	1.8	-1.5	2.0	-1.4
of which: manufacturing									
outturn for 2018	7.4	5.4	5.6	12.5	8.0	-4.3	16.7	-1.6	15.0
realization rate (4)	105.7	118.2	104.0	106.4	99.5	100.5	109.2	100.9	109.3
planned for 2019	-3.2	-12.5	-4.9	-6.9	7.1	-2.8	-3.5	-1.9	-4.2
Service sector (5)									
Outturn for 2018	1.2	5.9	2.6	11.5	-3.4	....	....	-4.4	7.4
Realization rate (4)	94.3	111.3	94.0	99.8	87.6	....	....	90.2	98.8
Planned investment for 2019	0.5	-13.9	-7.1	-9.2	12.0	....	....	-5.6	5.2
Total									
Outturn for 2018	4.9	5.0	4.7	11.8	2.8	....	....	-1.3	10.8
Planned investment for 2019	0.4	-12.8	-4.6	-4.3	10.3	....	....	-1.3	2.0

Sources: Bank of Italy, Survey of Industrial and Service Firms
(1) Robust means (Winsorized) of the distribution of annual changes in investment. Investment is deflated using the individual deflators provided by the firms. – (2) Firms are divided according to whether they fall below (low) or above (high) the median, calculated separately for industry and services, relating to 2018 for the outturn and realization rate, and relating to projections for 2019 for planned investment. – (3) Industrial firms only. – (4) Percentage ratio, at current prices, of realized investment to planned investment (recorded in last year's survey) for 2018. – (5) Private non-financial services.

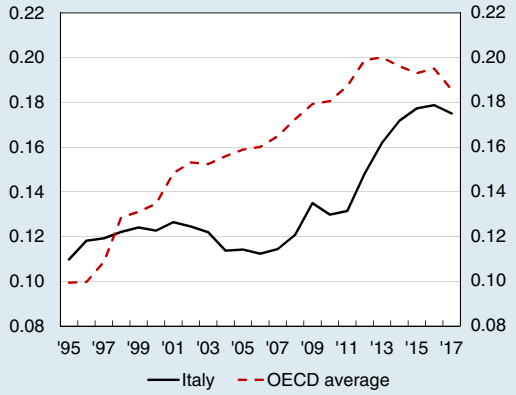
change: the role of start-ups'). Expenditure on this type of investment followed a similar trend in Germany, while it accelerated in France; it remained constant in Italy in proportion to GDP (at 2.9 per cent), fell slightly in Germany (to 3.7 per cent) and increased in France (to 5.7 per cent).

FINANCIAL CRISIS AND TECHNOLOGICAL CHANGE: THE ROLE OF START-UPS

The share of expenditure on research and development, software and other intellectual property in OECD countries has almost doubled on average over the last twenty years, reaching 20 per cent of total investment, and supporting technological innovation and growth (Figure A).[1] By contrast, the share of investment in intangible assets in Italy remained constant until 2007 and only increased sharply from the financial crisis onwards, when growth in investment in intangibles (equal to 20 per cent overall between 2007 and 2018) was associated with a decline in physical capital of around 25 per cent.

Figure A

Share of intangible assets in total gross fixed investment (1)



Sources: Istat and OECD.
(1) Ratio of spending on intellectual property goods to gross fixed investment for the total economy. Chain-linked series.

Based on an analysis of balance sheet data for the universe of Italian corporations,[2] it can be stated that the increase in the share of investment in intangible assets recorded during the double-dip recession (2008-13) is entirely attributable to firms established in those years,[3] given the decline in the share of investment among firms already present on the market (Figure B).[4]

The former are more productive on average, with a lower capital-to-output ratio, and more oriented towards intangible assets compared with both the values observed for existing firms and those prevailing for the start-ups created before the crisis.

The empirical evidence and the simulation of a macroeconomic model with different types of firm show how the restrictions in credit supply recorded in the

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1 J. Haskel and S. Westlake, *Capitalism without capital: the rise of the intangible economy*, Princeton, Princeton University Press, 2018.

2 G. Gonzales-Torres, F. Manaresi and F. Scoccianti, 'Born in hard times: start-ups and intangible investments', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), forthcoming.

3 Specifically, between 2008 and 2013 start-ups, though representing less than 15 per cent of the sample analysed, accounted for more than 50 per cent of the investment in intangible assets. For an analysis of the contribution of Italian start-ups and young firms to capital formation during various economic cycles, see F. Manaresi and F. Scoccianti, 'Battle scars. New firms' capital, labor, and revenue growth during the Double-dip Recession', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 390, 2017.

4 Some studies have examined the decline in investment in intangibles of firms already on the market during the crisis, in Italy and in the other developed countries, and have shown how the most fragile and indebted firms have preferred to invest in physical capital because it is easier to collateralize. For further details, see F. Manaresi and N. Pierri, 'Credit supply and productivity growth', Banca d'Italia, Temi di Discussione (Working Papers), 1168, 2018 and R. Duval, G.H. Hong and Y. Timmer, 'Financial frictions and the great productivity slowdown', IMF Working Paper, 17/129, 2017.

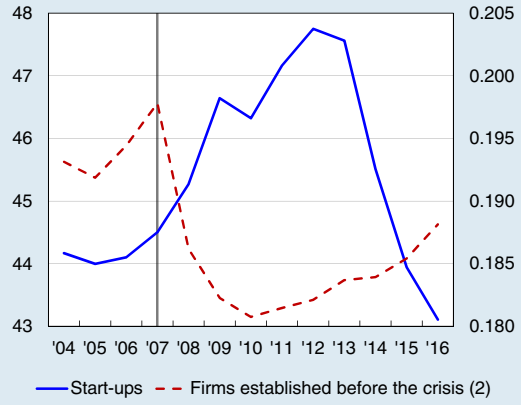
crisis years not only exacerbated the fall in entry rates caused by the decline in aggregate supply, but also led to a more marked selection of new high intensity intangible firms. Their entry rates fell by less than those of other types of firm (Figure C), despite it being more difficult to use intangible assets as collateral for debt financing.

Start-ups that make extensive use of intellectual property have been less affected by the credit crunch thanks to a better self-financing capacity, the result on the one hand of lower demand for overall capital per product unit and on the other hand of more profitable investments.

As of 2014, with the normalization of credit conditions, selection at entry in favour of such firms no longer applies (Figure B). The cohorts of firms established during the crisis have, however, continued to sustain the accumulation of intangibles, laying the foundations for reviving technological innovation and growth.

Figure B

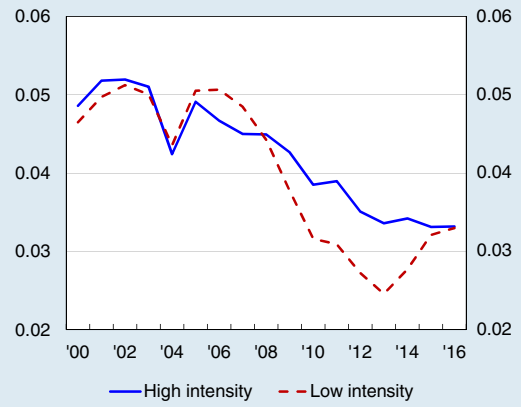
Share of intangible assets in total fixed capital (1)



Source: Based on data from the Company Accounts Data Service.
(1) Intangible assets and physical capital are calculated from balance sheet data using the permanent inventory method. The figure shows the average share of intangible goods in total fixed capital (intangible assets and physical capital) for start-ups (firms established one year ago or less) and for firms founded before 2007 (net of start-ups). – (2) Right-hand scale.

Figure C

Entry rate of firms according to the intensity of intangible goods (1)



Source: Based on data from the Company Accounts Data Service.
(1) The intensity of intangible goods is measured on the basis of the distribution of the share of intangible assets in total physical capital on establishment in the period prior to the global crisis (1999-2006). The figure shows the ratio of the new firms for the year to the stock of firms already in existence the previous year. New firms are divided into those whose intangible goods intensity is equal to or greater than the median of the distribution itself (high intangible intensity) and those with an intensity below the median (low intangible intensity).

In 2018, spending on research and development, measured at chain-linked prices, diminished slightly; it stood at 1.5 per cent of GDP, about half the figure for Germany and France. In 2017, the latest year for which data at institutional sector level are available, Italian firms increased their spending on research and development by 1.8 per cent, a higher rate than that of universities and other public institutions: the business sector accounted for 61.5 per cent of total expenditure, up from 52.8 per cent in 2009.

This trend is observed in the other main European economies too; the private sector's share reached 54.9 per cent in Spain, 65.0 per cent in France and 69.8 per cent in Germany. According to our calculations based on data from the Survey of Industrial and Service Firms, in 2018, spending on research and development, taking account of firm size, declined for service firms but continued to increase in manufacturing, although it has slowed considerably since 2017.

In 2018, the number of Italian patents filed with the European Patent Office grew for the fourth consecutive year, and at a faster pace in the electronic engineering (especially semiconductors) and chemical sectors; the mechanical engineering sector still has the highest number of patents filed. Despite the recent improvement, there is still a noticeable gap between Italy and the main European countries: Italian patents account for 2.6 per cent of the total filed in Europe, against 15.4 and 6.6 per cent respectively for German and French patents.

According to the Survey data, the share of firms investing in advanced digital technologies increased from 38 to 44 per cent in the last year. For almost half of these firms, this spending accounted for less than 5 per cent of total investment for the year. By international standards, it is clear that Italy lags behind in the adoption and use of digital technologies (see the box 'Italy's digital lag').

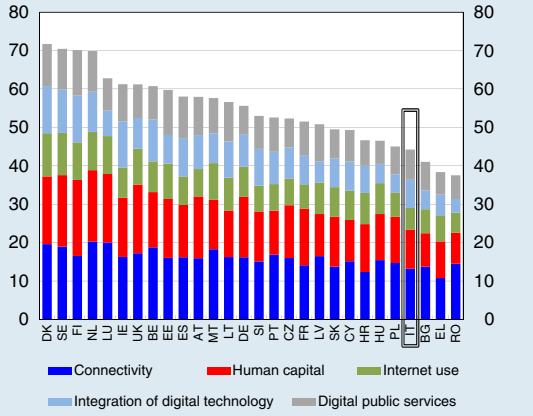
ITALY'S DIGITAL LAG

Since the mid-90s the productivity gap between Europe and the United States has widened, mainly because of how slowly ICT and digital technologies (e.g. advanced robotics and artificial intelligence) have spread within the European economies. Italy lags behind considerably in these fields.[1] According to the European Commission's Digital Economy and Society Index (DESI), which tracks the digital performance of Europe as a whole and of individual Member States, Italy ranks 25th (Figure A).

In Italy in 2010 the digital economy sector[2] contributed 5.7 per cent to value added for the total economy, below the European

Figure A

The Digital Economy and Society Index 2018 (1)



Source: European Commission, 2018.
(1) DK=Denmark; SE=Sweden; FI=Finland; NL=Netherlands; LU=Luxembourg; IE=Ireland; UK=United Kingdom; BE=Belgium; EE=Estonia; ES=Spain; AT=Austria; MT=Malta; LT=Lithuania; DE=Germany; SI=Slovenia; PT=Portugal; CZ=Czech Republic; FR=France; LV=Latvia; SK=Slovakia; CY=Cyprus; HR=Croatia; HU=Hungary; PL=Poland; IT=Italy; BG=Bulgaria; EL=Greece; RO=Romania.

[1] OECD, *OECD Science, Technology and Industry Scoreboard 2017*, 2017.

[2] The digital economy includes the following sectors: ICT, telecommunications, ICT services, programming and broadcasting, publishing, electrical equipment manufacturing, manufacture of computers and electronic and optical products.

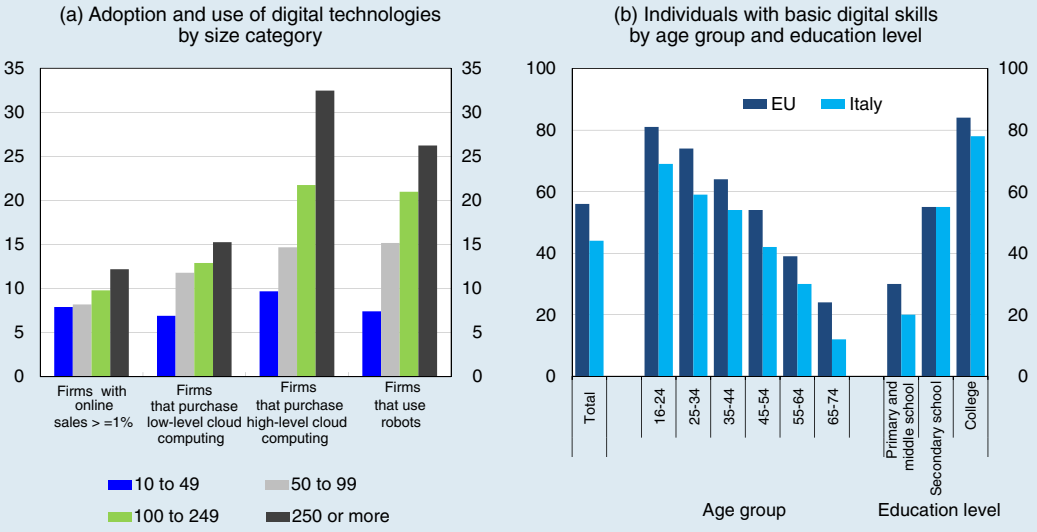
average of 6.5 per cent. In Italy this share fell to 5 per cent in 2017, in contrast with Germany and with the EU average.

The rate of adoption of new technologies in various economic activities is low. In 2018, only 10 per cent of Italian firms derived at least 1 per cent of their turnover from e-commerce, compared with a European average of 17 per cent and 20 per cent in Germany. The share of firms that use cloud computing is still lower in Italy, but is closer to the international average (23, as against 26 per cent). The use of industrial robots in Italy (2.6 robots per 1,000 employees) is higher than in France and Spain, but continues to be much less frequent than in countries with a similar sectorial specialization (4.5 robots per 1,000 employees in Germany).

The lag in adopting and utilizing digital technologies is not just related to the fact that small firms, which tend to be less inclined to avail themselves of such technologies, particularly the most advanced ones, make up a large portion of Italian businesses, (see panel (a) of Figure B),[3] but also to the gap between the rate of adoption of new technologies by Italian medium-sized and large enterprises compared with that of the main European countries.[4]

Figure B

Digital technologies and skills
(percentages)



Source: Based on Eurostat data.

The modest degree of digitalization of the productive system is also reflected in the labour demand composition (see the box 'The impact of broadband internet

[3] 'Low level' refers to cloud computing services such as email, office software, and file storage. 'High level' refers to cloud computing services such as finance and accounting software, customer relationship management (CRM) software and computing processing power.

[4] M. Bugamelli and F. Lotti (eds.), 'Productivity growth in Italy: a tale of a slow-motion change', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 422, 2018.

on Italian firms', Chapter 8). Despite the progress made in recent years, in 2018 only 33 per cent of Italians used ICT at work; in the EU this figure rises to 42 per cent. A similar difference can be observed in the share of ICT specialists in the total workforce. A mere 17 per cent of firms have provided on-the-job training in the use of digital technologies, 6 percentage points below the European average.

Digital competence is also lacking among the population: only 41 per cent of adults possess basic digital skills, 15 percentage points fewer than the EU average; the gap is common to all age groups and is especially pronounced among those who never completed secondary school (see panel (b) of Figure B) (see also the box 'Online banking and portfolio choices', Chapter 7). The limited demand for digital competence in the labour market and the population's lack of familiarity with digital technologies reinforce one another:[5] on the one hand, individuals may find little benefit in acquiring skills not much requested by firms, and on the other, the difficulty in recruiting a workforce with adequate skills may discourage firms from implementing innovative production processes.

The slow adaptation of production processes to the new technological paradigm has had negative repercussions on productivity growth and helps widen the efficiency gap between large and medium-sized enterprises and small firms. Because of the delays in digital transformation, Italy risks missing an opportunity that could allow it to regain competitiveness.

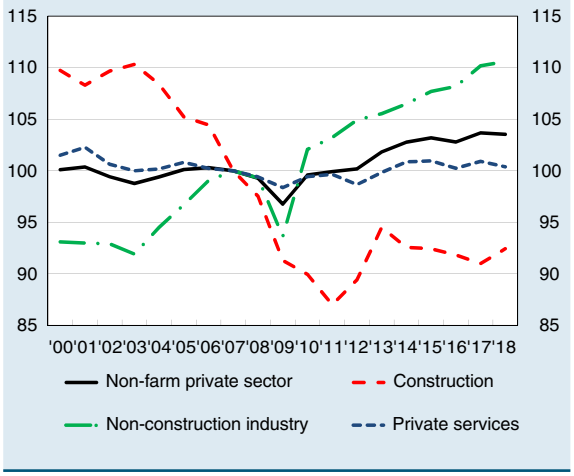
[5] P. Sestito, 'Understanding human capital in Italy: an introduction', *Politica economica*, 33, 1, 2017, 3-12.

Labour demand. – Last year, total hours worked by payroll employees in the non-farm private sector rose by 2.1 per cent, mainly because of the increase in the number of persons in employment. The number of hours worked per employee has essentially been stable for two years at a level that is 4.6 per cent below pre-crisis levels (see Chapter 8, 'The labour market'). There was a uniform increase in total hours worked at sectoral level. According to our calculations based on the Survey of Industrial and Service Firms, in 2018, as in the previous two years, the growth in the number of hours worked was greater for firms with a high propensity to export and to adopt advanced digital technologies.

Productivity. – After recovering in 2017, hourly productivity in the non-farm private sector stagnated in 2018 (0.9 per cent; Figure 6.4). The

Figure 6.4

Hourly productivity in Italy
(index numbers; indices: 2007=100)



Source: Istat, national accounts.

growth in non-construction industry, a trend under way since 2010, was offset by the fall in private services (-0.5 per cent); productivity returned to growth in construction, interrupting the downturn that began in 2013.

Productivity growth in Italy is extremely varied among firms (see the box 'The characteristics of highly productive Italian firms'): according to the Survey of Industrial and Service Firms, over the last two years labour productivity growth has been greater for the largest firms and, taking account of size, for the most innovative firms. Firm productivity, other factors being equal, is also positively correlated with the quality of managers and directors (see the box 'Directors and firm performance').

THE CHARACTERISTICS OF HIGHLY PRODUCTIVE ITALIAN FIRMS

From the early 2000s onwards, growth in average productivity has been modest in many OECD countries. According to some studies, based mainly on US data, this trend is due to more productive firms (frontier firms) which, having acquired a high degree of market power, are less likely to be motivated to innovate further.[1] In contrast, other studies suggest that the growing complexity of the new technologies has curbed their development.[2]

In Italy, where productivity growth has been disappointing for over twenty years, there has been an increasing divergence in the performance of firms, especially in terms of firm size, innovative capacity and propensity to internationalize.[3]

A recent paper, based on the universe of Italian firms in the period between 1995 and 2016, identifies frontier firms – defined as those whose total factor productivity (TFP) each year is in the highest tenth of their sector nationally – and studies their main characteristics, productivity performance and economic importance in terms of revenues and workforce.[4]

Frontier firms in Italy are known for their higher investment rate, profitability measured by return on equity (ROE) and capital intensity (capital-to-assets ratio); despite being larger than average in terms of workers, they are smaller than the firms in the eighth and ninth deciles. These firms are younger than average and make less use of long-term bank loans for funding, while there is little difference in their use of short-term loans. These characteristics indicate low sectoral variability, despite the differences in the use of technology and in market structure. The conditions of frontier firms are relatively persistent: about three quarters of manufacturing firms and two thirds of service firms are still in the vanguard the following year, but the figures decrease over a five-year period, to 43 and 33 per cent respectively.

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1 G. Gutiérrez and T. Philippon, 'Declining competition and investment in the US', NBER Working Paper, 23583, 2017.

2 D. Andrews, C. Criscuolo and P.N. Gal, 'The best versus the rest: the global productivity slowdown, divergence across firms and the role of public policy', OECD Productivity Working Papers, 5, 2016.

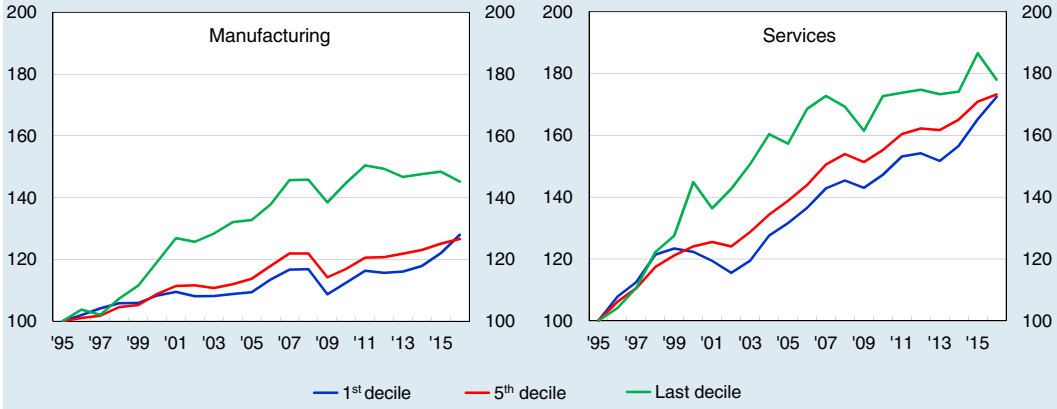
3 M. Bugamelli and F. Lotti (eds.), 'Productivity growth in Italy: a tale of a slow-motion change', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 422, 2018.

4 F. Lotti and E. Sette, 'Frontier and superstar firms in Italy', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), forthcoming.

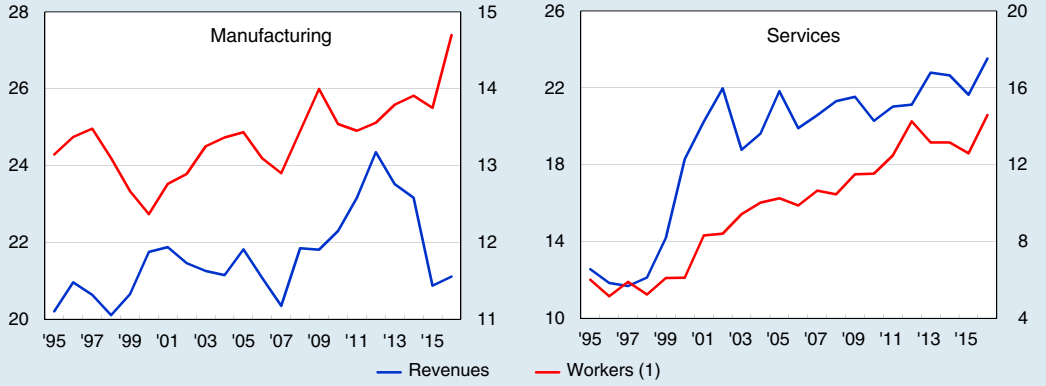
Between 1995 and 2007, the average productivity of frontier firms increased in both manufacturing and services; with the onset of the global crisis this upward trend came to a halt in the manufacturing sector but continued in services, albeit at a slower pace (see panel (a) of the figure). Frontier manufacturing firms have consistently recorded higher productivity growth rates than those belonging to the fifth decile and to the lowest TFP-distribution decile, except for the years following the most acute phase of the crisis (2013-16), when an increase in the death of the worst firms narrowed the gap.[5] The growth differential for services remained more stable.[6]

Productivity and firms' market share

(a) Firms' productivity
(index numbers; indices: 1995=100)



(b) Market share of the most productive firms
(percentage points)



Sources: Based on Cerved and INPS data.
(1) Right-hand scale.

[5] A. Linarello and A. Petrella, 'Productivity and reallocation: evidence from the universe of Italian firms', *International Productivity Monitor*, 32, 2017, 116-136.

[6] The growth observed in manufacturing, a sector for which suitable data are available for an international comparison, is similar to the average for OECD countries and is therefore not specific to Italian firms. For further details, see D. Andrews, C. Criscuolo and P.N. Gal, 'Frontier firms, technology diffusion and public policy: micro evidence from OECD countries', OECD Working Paper, 2015.

Recent analyses, mainly carried out using US data, report the presence of 'superstar effects', which apply to the growing market share of a few highly productive firms.[7] This reflects on the one hand, a more efficient allocation of factors to more productive firms and on the other hand, an increase in the market power of a few firms that could have negative consequences on medium and long-term growth for the sector as a whole.

In Italian manufacturing, frontier firms have increased their share of workers, especially since the onset of the global financial crisis; their contribution has also risen in terms of turnover, although their performance has been more volatile (see panel (b) of the figure). This trend is more marked in the services sector. The sum of the market shares of the top four frontier firms in terms of their TFP (the most commonly used concentration index in the literature) stood at about 2 per cent in 2016 in terms of revenue and at 0.7 per cent in terms of workers in manufacturing (1.5 and 1.3 per cent in business services); these figures indicate that the 'superstar effects' have very little weight by international standards.[8]

Overall, this evidence suggests that the disappointing performance of the productivity of Italy's economy is not due to weak growth on the part of frontier firms nor to their excessive market power, but it may be attributable to more general structural weaknesses in the production system as a whole.[9]

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[7] D. Autor, D. Dorn, L.F. Katz, C. Patterson and J. Van Reenen, 'The fall of the labor share and the rise of superstar firms', NBER Working Paper, 23396, 2017.

[8] There are no immediately comparable estimates available for an international comparison. As shown in G. Gutiérrez and T. Philippon, 'How EU markets became more competitive than US markets: a study of institutional drift', NBER Working Paper, 24700, 2018, the concentration in the EU's economic sectors is much lower than that in the United States.

[9] M. Bugamelli and F. Lotti (eds.), 2018, op. cit.

DIRECTORS AND FIRMS' PERFORMANCE

How firms perform is one of the determinants of a country's long-term potential growth. The productivity and technological progress of firms are influenced by, among other things, the quality of directors and managers, as well as by the managerial practices they adopt.[1]

According to several in-depth interviews with entrepreneurs carried out by Bank of Italy branches, the firms that use modern management practices – based on production targets and performance pay systems for employees – are at the technological frontier of the sectors where they operate, regardless of their size. Not only do these firms have higher adoption rates for advanced digital technologies, but they are also better able to integrate them into production

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[1] M. Bertrand and A. Schoar, 'Managing with style: the effect of managers on firm policies', *The Quarterly Journal of Economics*, 118, 4, 2003, 1169-1208; N. Bloom and J. Van Reenen, 'Measuring and explaining management practices across firms and countries', *The Quarterly Journal of Economics*, 122, 4, 2007, 1351-1408.

processes. In the case of firms that are family-owned businesses, their management is mainly external.

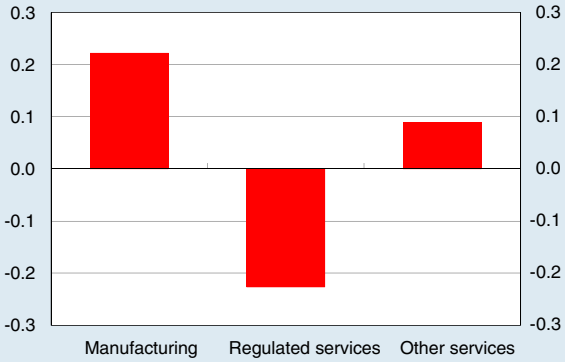
Some recent analyses of the universe of Italian firms, which employ more than half the workers in the non-farm private sector, examine the main characteristics of directors and assess their impact on firms' productivity.[2]

In 2016, around one million directors were working for Italian companies, over 75 per cent of whom male, fewer than 10 per cent below the age of 35, and in almost two out of three cases from the same province as the firm's head office.

Many directors hold positions in more than one firm during their careers (every year about 11 per cent of directors join or leave a firm's board of directors) or hold more than one position at the same time (15 per cent have positions in a number of firms in the same year). The firms affected by this phenomenon tend to be 'close' to each other, both geographically speaking (in about nine in ten cases they are within 100 kilometres of one another) and in terms of sector (in almost one in three cases they are in the same sector of economic activity).[3]

The involvement of the same director in the management of more than one firm makes it possible to estimate an individual director's contribution to firm productivity holding constant a number of other firm characteristics.[4] This contribution is important, as it is equal to over half of that attributable to employees' overall educational levels, a factor considered to be one of the main determinants of productivity.[5] The analysis also shows that the average 'quality' of directors is higher in the manufacturing sector, which is exposed to international competition, and lower in regulated services (see the figure).

Quality of directors by sector (1)
(index)



(1) The figure shows a quality index for directors measured in terms of their relative contribution to firms' total factor productivity; the index is equal to zero on average. Regulated services are defined as those subject to product market regulation (OECD definition) and those in which most employees belong to regulated occupations.

[2] A. Baltrunaite, E. Brodi and S. Mocetti, 'Assetti proprietari e di governance delle imprese italiane: nuove evidenze e effetti sulla performance delle imprese', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), forthcoming; A. Baltrunaite, G. Bovini and S. Mocetti, 'Directors' talent and firm productivity', Banca d'Italia, Temi di Discussione (Working Papers), forthcoming.

[3] The sectors are classified using the two-digit Ateco 2007 codes.

[4] These characteristics include both observable factors that vary over time and those that are unobservable but constant.

[5] M. Bugamelli and F. Lotti (eds.), 'Productivity growth in Italy: a tale of a slow-motion change', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 422, 2018.

7. THE FINANCIAL SITUATION OF HOUSEHOLDS AND FIRMS

The financial situation of households was affected by the cyclical slowdown and by the tensions in the financial markets in the second half of the year. During these months the growth in disposable income weakened and the value of portfolio assets decreased considerably. Borrowing from banks and financial companies continued to increase, supported by low interest rates.

The deterioration in the economy interrupted the recovery of profitability by non-financial companies that had been under way since 2012. In the first half of the year, the increase in indebtedness to banks reached its highest level since the sovereign debt crisis; it then declined as a result of the drop in demand and the adoption of more prudent supply policies by banks. The smallest firms appear to be more financially vulnerable than the larger ones to the economic slowdown owing to their limited ability to self-finance and to less favourable credit access conditions.

HOUSEHOLDS

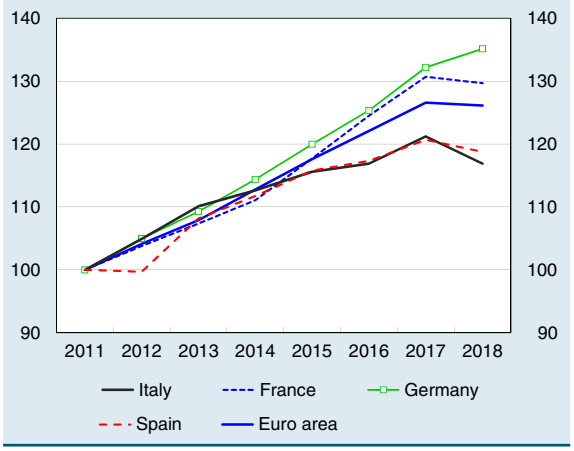
Financial wealth and investment

The weakening of the economic cycle was accompanied by a slowdown in disposable income, which in the second half of the year grew by 1.4 per cent compared with the same period in 2017 (2.3 per cent in the first half).

Based on our estimates, net wealth, i.e. the difference between real and financial assets and liabilities, declined by a little more than 2 per cent, falling to 8.1 times disposable income (8.4 times in 2017), the lowest level since 2005. In part owing to households' limited borrowing, net wealth in relation to the population is still close to the levels of France and Germany.[1]

Figure 7.1

Financial assets in household portfolios
(index numbers: 2011=100)



Sources: Based on data from the Bank of Italy (Financial Accounts) and the ECB.

[1] The latest data available for international comparison refer to 2017; see the report by Banca d'Italia and Istat, *The wealth of Italian households and non-financial corporations: 2005-2017*, 9 May 2019.

The decline in Italian households' net wealth in 2018 mostly concerned the financial component and was determined by the sharp fall in share and bond prices. In the opening months of 2019, less than half of the losses on financial assets, which during 2018 came to 4.4 per cent or more than €190 billion, were recovered. Among the main euro-area economies, in 2018 Italy recorded the biggest drop in financial assets in household portfolios (Figure 7.1). Since 2011 the growth in these assets has been comparable to that of Spain, but well below the euro-area average. The growth gaps are mainly attributable to weaker income developments and to the lower propensity to save in the countries hardest hit by the sovereign debt crisis.

Table 7.1

Financial assets and liabilities of households (1)
(millions of euros and per cent)

	End-of-period stocks			Flows	
	2018	Percentage composition		2017	2018
		2017	2018		
ASSETS (2)					
Cash	162,421	3.5	3.9	5,724	8,146
Deposits (3)	1,227,640	27.6	29.1	25,287	20,968
Italian	1,198,877	26.9	28.4	25,955	22,895
Sight deposits	760,798	16.6	18.0	38,874	35,206
Other deposits	438,079	10.3	10.4	-12,919	-12,311
Foreign	28,763	0.7	0.7	-668	-1,927
Debt securities	292,682	7.2	6.9	-38,966	-8,654
Italian	209,188	5.3	5.0	-35,506	-10,900
of which: issued by the public sector	137,567	3.0	3.3	4,754	13,525
issued by banks	64,074	2.0	1.5	-42,599	-21,063
Foreign	83,494	1.9	2.0	-3,460	2,247
Investment fund units	486,514	12.0	11.5	48,891	1,362
Italian	221,381	5.7	5.2	8,837	-9,824
Foreign	265,133	6.3	6.3	40,054	11,186
Shares and other equity	900,271	23.7	21.3	-28,430	-17,092
Italian	828,135	22.1	19.6	-28,897	-20,909
Foreign	72,137	1.6	1.7	467	3,816
Insurance, pension funds and severance pay entitlements	1,000,728	22.7	23.7	31,805	26,489
of which: life insurance reserves	717,166	16.3	17.0	24,139	23,725
Other assets issued by residents (4)	147,639	3.2	3.5	2,187	5,859
Total assets	**4,217,895**	**100.0**	**100.0**	**46,498**	**37,078**
LIABILITIES					
Short-term debt	49,005	5.5	5.2	-736	-1,036
of which: to banks	44,621	5.3	4.7	-1,830	-3,240
Medium- and long-term debt	671,443	70.9	71.3	17,675	18,013
of which: to banks	581,720	62.6	61.8	12,136	5,622
Other liabilities (5)	220,614	23.6	23.4	3,081	2,719
Total liabilities	**941,062**	**100.0**	**100.0**	**20,020**	**19,696**
BALANCE	**3,276,833**			**26,478**	**17,382**

Sources: Bank of Italy, Financial Accounts.
(1) Consumer and producer households and non-profit institutions serving households. Rounding of decimal points may cause discrepancies in totals. – (2) Individually managed portfolios are not shown; their assets are included under the individual types of investment. – (3) Includes BancoPosta current accounts and the liabilities of Cassa Depositi e Prestiti SpA. – (4) Accounts receivable and other minor items. – (5) Accounts payable, severance pay and pension provisions, and some minor items.

The latest Survey of Household Income and Wealth (SHIW) indicates that the households exposed to stock price volatility (i.e. those with investments in equity, bonds and investment fund units) make up a little more than 10 per cent of the population; by comparison with the others, these households tend to have higher incomes and larger stocks of liquid assets.

Market tensions in the second half of the year were accompanied by a reduction of around 20 per cent in net investment in financial assets (€37 billion; Table 7.1) and a prudent attitude on the part of households. The volume of sight deposits and purchases of insurance policies with guaranteed minimum returns remained high, while there were sell-offs of shares and a sharp fall in subscriptions of investment fund units. The pace of investment in funds that comply with the law on individual savings plans (*piani individuali di risparmio* or PIRs), which was steady until June, progressively slowed to zero (see *Financial Stability Report*, 1, 2019). Notwithstanding the price volatility, purchases of government securities that guarantee high yields to investors that hold them in their portfolios until maturity turned upwards again.

The share of asset management products (insurance policies, investment and pension funds other than severance pay) in household portfolios is still very high by past standards (31 per cent of financial assets, against 17 per cent in 2008). These instruments have enabled investors to achieve greater diversification of portfolio risks, including by investing more on the international markets (see the box 'Household investments through Italian asset management products').

HOUSEHOLD INVESTMENTS THROUGH ITALIAN ASSET MANAGEMENT PRODUCTS

At the end of 2018, units of investment funds and investment in insurance products and private pension schemes accounted for roughly one third of Italian households' financial wealth. In addition to facilitating savings for retirement purposes and coverage against risks, asset management products also facilitate the diversification of portfolio risk.

It is possible to reconstruct the composition of the assets underlying investments in asset management products in order to describe the final destination of household savings and to furnish elements for assessing the various types of risk to which these assets are exposed (the look-through method).[1] Gaps in the available statistics do not permit us to reconstruct the composition of the portfolio underlying the investment fund units held by institutional investors (investment funds, insurance companies and pension funds) on behalf of households.

Comparing the composition of the indirect portfolio in 2014, the first year for which detailed data are available, with 2018, reveals a sharp reduction (14 percentage points) in the share of bonds, which nevertheless continue to make up the largest proportion (65

[1] A. Cardillo and M. Coletta, 'Gli investimenti delle famiglie attraverso i prodotti italiani del risparmio gestito', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 409, 2017. Analyses are conducted on portfolio investment of open-end Italian investment funds, open-end and union-negotiated pension funds and Italian insurance products, which at the end of 2018 amounted to around €1 trillion (75 per cent of the managed asset component). The degree of risk associated with indirect investment is not uniform: the risks stemming from assets held indirectly fall entirely on households only in relation to investment funds, defined benefit pension funds and unit and index-linked insurance policies. At the end of 2018, the portfolio investments analysed underlying these products accounted for 33 per cent of the managed asset component.

per cent), coupled with an increase in the share of equity (5 percentage points) and of investment fund units, whose composition cannot be reconstructed (9 percentage points). The decline in the share of bonds is attributable to lower investment in Italian government securities and bank bonds; the share of foreign bonds instead increased, especially of those issued by non-financial corporations. However, securities issued by both Italian and foreign financial companies contributed to the expansion of the equity component, even if the share of equities issued by foreign non-financial corporations is still predominant. Through asset management products, at the end of 2018 household investment in bonds and shares issued by US and French non-financial corporations was double that in those issued by Italian firms. The sharp increase in the component allocated to investment fund units is almost entirely attributable to investment in foreign investment fund units, primarily governed by Luxembourg law, mostly for the purposes of covering the provisions of unit-linked policies.

Composition of Italian households' financial wealth before and after applying the look-through method to Italian managed asset products
(per cent)

	2014		2018	
	Before	After	Before	After
	Assets held vis-à-vis residents			
Cash and deposits	29.7	29.7	32.3	32.3
Debt securities	10.2	19.7	5.0	14.2
of which: issued by the public sector	3.9	12.1	3.3	11.4
issued by banks	6.1	6.9	1.5	2.1
other	0.2	0.7	0.2	0.8
Shares and other equity	21.4	21.5	19.6	20.5
of which: listed	1.6	1.7	1.0	1.9
other	19.8	19.8	18.6	18.6
Investment fund units (1)	5.3	1.5	5.2	1.7
Insurance reserves (2)	20.4	6.8	23.7	4.4
Other assets (3)	3.3	3.3	3.5	3.5
Total	**90.3**	**82.5**	**89.3**	**76.5**
	Assets held vis-à-vis non-residents			
Cash and deposits	0.9	0.9	0.7	0.7
Debt securities	2.4	6.7	2.0	8.2
Shares and other equity	1.5	2.3	1.7	3.2
of which: listed	0.5	1.4	0.6	2.1
other	1.0	1.0	1.1	1.1
Investment fund units (4)	4.9	7.6	6.3	11.4
Other assets (3)	0.0	0.0	0.0	0.0
Total	**9.7**	**17.5**	**10.7**	**23.5**
Total financial assets *(millions of euros)*	**4,064,274**		**4,217,895**	

(1) After the reclassification using the look-through method, this item comprises: closed-end Italian funds held directly; non-portfolio investments of Italian funds; Italian funds held through intermediaries. – (2) After the reclassification using the look-through method, this item comprises: non-portfolio investments to cover the life and non-life reserves of households; severance pay and pension provisions; discrepancies between statistical sources. – (3) Loans, derivatives, trade credits and residual assets. – (4) After the reclassification using the look-through method, this item includes foreign funds held directly and indirectly.

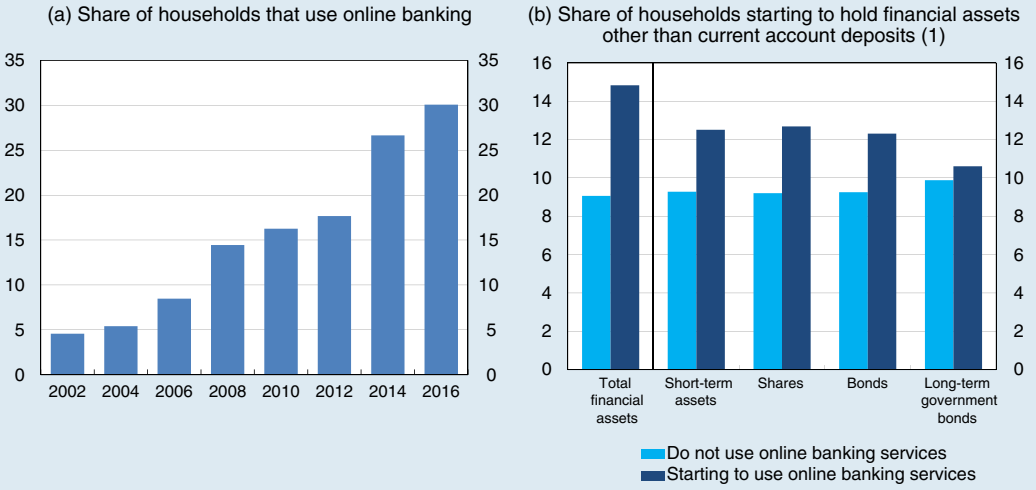
The reclassification of indirect investments entails two major changes to the composition of the financial wealth of households (see the table): an increase in the share of Italian bonds, mainly government securities (9 percentage points in 2018); the greater geographical diversification of investments through debt securities (6 percentage points) and investment fund units (5 percentage points). Although assets held vis-à-vis residents continue to predominate, after the reclassification those held vis-à-vis non-residents record a large increase (from 11 to 24 per cent of the financial portfolio).

Innovations in the distribution channels of banks have facilitated the diversification of investment towards financial instruments other than deposits (see the box 'Online banking and portfolio choices').

ONLINE BANKING AND PORTFOLIO CHOICES

Since 2011 broadband internet coverage in Italy has increased substantially.[1] This technology, which enables users to transmit and receive data very rapidly, is also changing the ways in which banking and financial services are accessed (for a description and estimate of the effects on non-financial corporations, see the box 'The impact of broadband internet on Italian firms', Chapter 8). According to the Survey of Household Income and Wealth (SHIW), the share of households that use online banking has risen to around 30 per cent (see panel (a) of the figure).

Online banking and household investments
(per cent)



Source: Based on data from the Survey on Household Income and Wealth (SHIW).
(1) The purchase of different financial instruments refers to a period of not more than 2 years after the one in which households start to use online banking services. The estimates refer to the average values recorded in the period 2012-16.

Online banking services allow small depositors to check their current account balances and transactions, and to make payments and investments. The growth in these services has also affected household portfolio choices.

An analysis of the SHIW data for 2012-16 indicates that, all other conditions being equal, households that use online banking services for the first time[2] are over 50 per cent more likely to start buying financial instruments other than current account deposits compared with those that do not use online banking services (15

[1] According to data from the European Commission, after a slow start in the early 2000s, the share of the population with access to an internet connection with a processing speed of at least 30 Mbps rose from 10 per cent in 2011 to 90 per cent in 2017.

[2] Current account deposits are excluded from the analysis because they are necessary in order to use online banking services.

and 9 per cent respectively; see panel (b) of the figure).[3] This probability is even higher for customers that live in small and medium-sized urban centres where the supply of banking services is probably more limited than in the big cities.

[3] The estimates take account of the sociodemographic variables (age, education and gender), of the province of residence and of the bank used by the household. The results are confirmed even considering that the relationship between the two phenomena could be inverted, i.e. the choice to use online banking might spring from households' desire to start making financial investments. For more details, see V. Michelangeli and E. Viviano, 'Online banking and portfolio choices', Banca d'Italia, Temi di Discussione (Working Papers), forthcoming.

Borrowing

Household debts to banks and financial companies grew by 3.2 per cent in 2018 (Table 7.2); as a share of GDP, they are equal to 41 per cent, some 3 percentage points lower compared with the peak in 2012 and significantly below the euro-area average of 58 per cent.

Table 7.2

Lending to consumer households (1)
(end-of-period data; per cent and millions of euros)

	12-month percentage changes					Stocks at March 2019 (2)
	2015	2016	2017	2018	March 2019	
			Loans for house purchase			
Banks	0.4	2.0	2.3	2.6	2.6	364,650
			Consumer credit			
Banks	5.2	8.6	9.2	8.8	8.8	105,995
Financial companies	-2.0	1.2	3.2	3.9	5.2	35,945
Total banks and financial companies	**2.1**	**6.4**	**7.6**	**7.5**	**7.9**	**141.940**
			Other loans (3)			
Banks	1.3	-0.5	0.8	0.2	-0.1	101,455
			Total loans			
Total banks and financial companies	**0.9**	**2.4**	**3.1**	**3.2**	**3.3**	**608.045**

Source: Supervisory reports.
(1) Loans include repos and bad debts. For March 2019, provisional data. – (2) Includes securitized loans. – (3) Mainly current account overdrafts and loans other than those for the purchase, construction or restructuring of residential properties.

Loans for house purchase picked up slightly. Demand benefited from the still low interest rates and relaxed supply conditions. According to the intermediaries that take part in the quarterly euro-area bank lending survey (BLS), there was a decline in the share of loan applications rejected outright. New mortgage loans with a loan-to-value ratio of more than 80 per cent accounted for 10 per cent of total disbursements, a higher share than in previous years (it was less than 7 per cent on average in the period 2008-17).

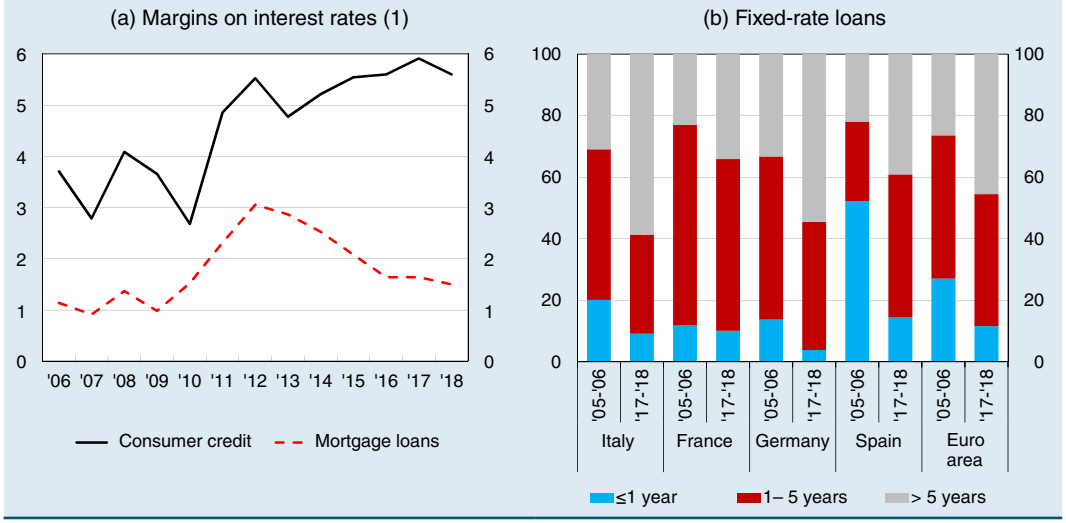
Starting in the last quarter of the year, there were signs of a moderate tightening of supply conditions: the margins on new fixed-rate mortgage loans began to rise again and the share of loan applications rejected by banks increased slightly.

Consumer credit continued to grow at a fast pace; banks are helping to expand it further in view of the high margins that can be earned on these kinds of loan (Figure 7.2.a). The share of new loans granted at a fixed rate for at least five years reached around

60 per cent, lowering borrowers' exposure to the risk of a rise in interest rates; the share of fixed-rate loan contracts has also risen in the other euro-area countries (Figure 7.2.b).[2]

Figure 7.2

Consumer credit
(per cent)



Sources: Based on supervisory reports and the ECB.
(1) The margins are calculated by subtracting from the annual percentage rate of charge (APRC) the market reference rate and the expected loss for the intermediary.

FIRMS

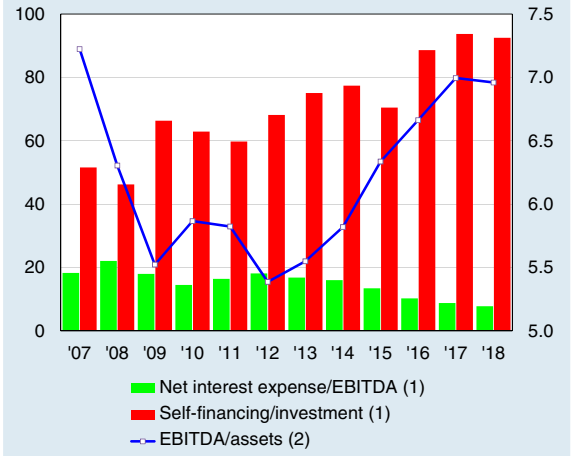
Profitability and financial balance

With the cyclical slowdown, in 2018 growth in firms' profitability came to a halt. Gross operating profit (EBITDA) remained practically unchanged after the strong increase recorded in the previous two years (6 per cent on average); as a share of assets, it is stable at 7 per cent, just below the levels observed in the run-up to the crisis (Figure 7.3).

The ratio of interest expense to EBITDA continued to diminish, above all owing to the fall in interest rates on average over the year. The Bank of Italy's Survey of Industrial and Service Firms shows

Figure 7.3

Profitability and coverage of investment
(per cent)



Sources: Based on data from the Bank of Italy, Cerved, and Istat's non-financial corporations sector accounts.
(1) Net interest expense and self-financing are estimated based on Istat data. – (2) The ratio of EBITDA to assets in 2018 is estimated based on firms' balance sheets in 2017 (Cerved data) and on the annual change in the ratio of EBITDA to financial liabilities, net of the effect of market prices (Istat and Financial Accounts data). Right-hand scale.

[2] See S. Magri, V. Michelangeli, S. Pastorelli and R. Pico, 'The expansion of consumer credit in Italy and in the euro area: what are the drivers and the risks?', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), forthcoming.

that the share of profitable firms came down slightly, to 73 per cent: the decline was marked for larger firms with at least 50 workers and for manufacturers (see Chapter 6, 'Firms').

The amount of financial resources generated internally remained very high compared with investment expenditure. The financial balance, still positive and equal to 1.1 per cent of GDP, helped to increase liquid assets, which reached 9.6 per cent of liabilities (Table 7.3) and 20.5 per cent of GDP (5.6 and 13.1 per cent respectively in 2007). The survey indicates that the balance between firms that increased their liquid assets and those that reduced them was only negative for firms with 250 or more workers.

Table 7.3

Financial assets and liabilities of firms (1)
(billions of euros and per cent)

	End-of-period stocks			Flows	
	2018	Percentage composition		2017	2018
		2017	2018		
Assets					
Cash and deposits	360,778	18.7	19.5	28,559	17,037
Securities	58,714	3.5	3.2	-2,616	-3,864
of which: Italian public sector	47,612	2.9	2.6	1,597	-2,281
Shares and other equity	683,993	37.9	36.9	39,983	35,410
Trade receivables	619,696	33.1	33.5	72,918	11,021
Other assets (2)	129,266	6.8	7.0	-6,395	991
Total assets	**1,852,447**	**100.0**	**100.0**	**132,448**	**60,595**
of which: foreign	521,873	26.7	28.2	20,072	35,606
Liabilities					
Financial debt	1,220,533	31.7	32.4	3,610	10,695
Bank loans	678,503	18.7	18.0	-34,262	-38,554
Other loans (3)	391,226	8.7	10.4	16,301	53,429
Securities	150,803	4.3	4.0	21,571	-4,180
Shares and other equity	1,777,848	48.9	47.2	22,033	10,650
Trade payables	565,476	14.3	15.0	69,583	10,597
Other liabilities (4)	199,727	5.1	5.3	6,502	3,632
Total liabilities	**3,763,584**	**100.0**	**100.0**	**101,727**	**35,575**
of which: foreign	670,273	17.4	17.8	20,131	18,812
Balance	**-1,911,137**			**30,721**	**25,020**

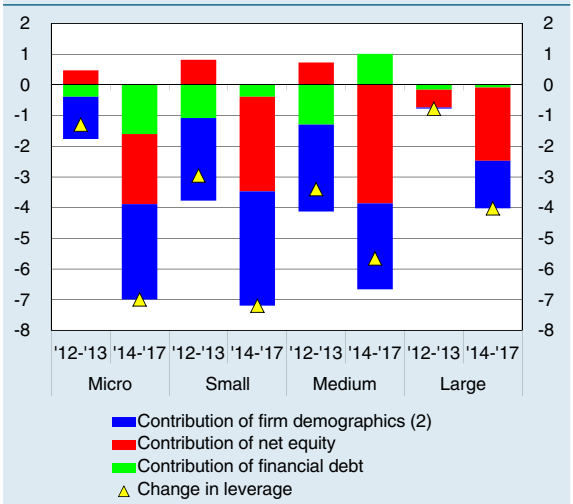
Source: Bank of Italy, Financial Accounts.
(1) The data refer to the non-financial corporations sector. Rounding of decimal points may cause discrepancies in totals. – (2) Short-term foreign claims, intra-group claims, insurance technical provisions, domestic derivatives and other items. – (3) Includes financing provided by leasing and factoring companies, intra-group loans and securitized loans. – (4) Postal current accounts, severance pay and pension provisions, domestic derivatives and other minor items.

Sources of funding

Financial structure. – In 2018 the share of firms' financial debt declined by 2 percentage points, to 69.5 per cent of GDP. Leverage, as measured by the ratio of financial debt to the sum of these debts plus equity valued at market prices, increased only owing to the reduction in share prices. It is now 9 percentage points below the peak recorded in 2011; more than half of the decline is ascribable to the fall in debt and new equity contributions.

Figure 7.4

Corporate leverage and contributions to its change (1)
(percentage points)



Source: Based on Cerved data.
(1) Leverage is calculated as the ratio of financial debt to the sum of financial debt and shareholders' equity, at book value. – (2) Net contribution of firms entering and exiting the market in the reference period.

In the two years 2012-13, the rebalancing in the composition of funding sources mainly concerned small and medium-sized enterprises, owing to the exit from the market of the most indebted firms and the sharp contraction in debt (Figure 7.4). Between 2014 and 2017, during the cyclical upswing, the decline in leverage was more generalized because of the greater profits achieved; the increase in own capital was also favoured by the strengthening of tax incentives under the allowance for corporate equity or ACE. The reduction in financial debt in this latter period was significant for micro-businesses only.

Credit. – Debt to banks and financial companies grew by 1.0 per cent in 2018 (Table 7.4), the largest increase since the start of 2012. In the second half of the year, with the economic slowdown and tensions in the financial markets, growth gradually weakened due to the fall in demand and the adoption of more prudent lending policies by banks (see *Economic Bulletin*, 2, 2019). The results of the Survey of Industrial and Service Firms indicate that the share of firms declaring that they did not receive the funds requested was especially high among the smallest ones with vulnerable balance sheets (Figure 7.5.a). In the early months of 2019, the volume of loans granted by banks began to decline again (see Chapter 13, 'Banks and institutional investors').

During the cyclical upturn, small firms had more difficulties accessing credit than they did before the global financial crisis. Since 2012, the volume of lending to firms with fewer than 20 workers has steadily declined; the fall is only partly attributable to demand and risk factors.

For small firms the share of loans backed by personal guarantees and collateral has risen by more than 6 percentage points since the end of 2012, to 78 per cent, while that of larger companies has fallen to 51 per cent. Interest rates are on average 300 basis points higher than those on loans to large firms, even when these are in the same risk

Table 7.4

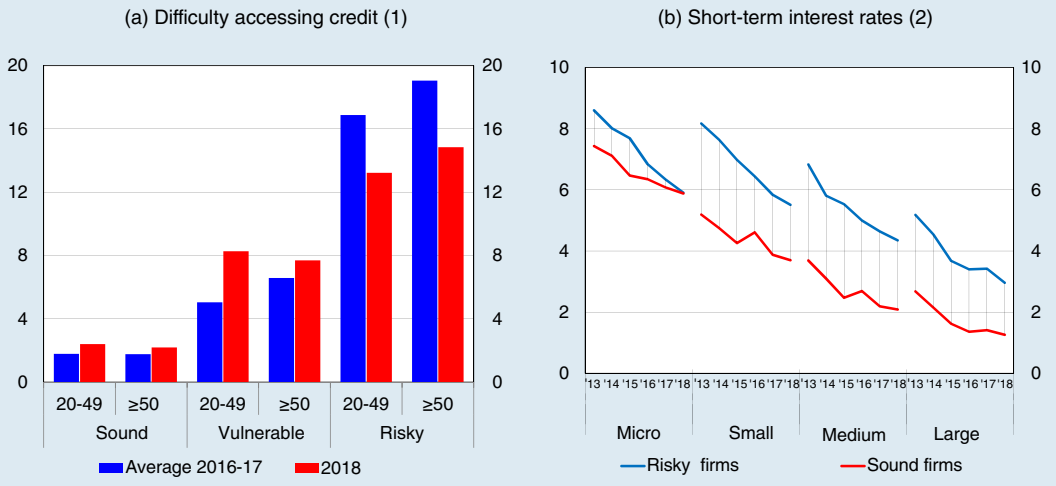
Lending to firms (1)
(end-of-period data; per cent)

	12-month percentage changes					Percentage composition at December 2018 (2)
	2015	2016	2017	2018	March 2019	
			Banks			
Economic activity						
Manufacturing	1.7	-0.6	2.6	2.4	0.4	22.4
Construction	-2.9	-5.2	-3.5	-2.8	-3.5	12.6
Services	0.2	3.4	1.7	4.6	1.9	36.6
Real estate	-1.9	1.0	-3.1	-4.6	-4.8	10.6
Other	-4.4	-1.8	-0.8	-2.9	-4.4	9.2
Size of firm						
Small (3)	-2.3	-2.1	-0.9	-1.1	-2.3	16.4
Medium-sized and large	-0.3	0.7	0.5	1.6	-0.3	74.9
Total	**-0.7**	**0.2**	**0.2**	**1.1**	**-0.7**	**91.4**
			Financial companies			
Leasing	-3.8	-2.7	-4.0	-3.5	-3.9	5.5
Factoring	4.0	11.0	4.3	8.6	10.5	2.8
Other financing	-13.8	-4.6	7.5	1.2	10.2	0.4
Total	**-2.7**	**0.6**	**-1.2**	**0.3**	**0.6**	**8.6**
			Banks and financial companies			
Total	**-0.9**	**0.2**	**0.1**	**1.0**	**-0.6**	**100.0**

Source: Supervisory reports.
(1) The data refer to non-financial corporations and producer households. The data for March 2019 are provisional. Rounding of decimal points may cause discrepancies in totals. – (2) Includes securitized loans. – (3) Limited partnerships, general partnerships, informal partnerships, de facto companies and sole proprietorships with fewer than 20 workers.

Figure 7.5

Firms' access to credit by size and risk class
(per cent)



Sources: Based on Bank of Italy and Cerved data.
(1) Share of firms reporting that they had not obtained the amount requested by number of employees and risk class. – (2) Average interest rates on outstanding short-term bank loans.

class (Figure 7.5.b). The difference between the rates paid by the most financially fragile micro-businesses and healthy firms was wiped out. This may reflect growing difficulties on the part of intermediaries in assessing this customer segment, characterized by large information asymmetries and high fixed costs relative to the very low volume of loans.

The obstacles to accessing credit encountered by smaller firms continue to be mitigated by the Central Guarantee Fund, which in the last ten years has underwritten loans of more than €120 billion. In this decade, the fund's activity has mostly been concentrated on micro-businesses and small firms, whose share of guaranteed funds rose by around 10 percentage points, to 73 per cent.

Raising funds on the capital markets. – The tensions on the financial markets that surfaced last year translated into fewer bond placements, higher issuance costs and a reduction in the duration of securities; the number of Italian companies and groups issuing bonds fell to around 220 and the value of the bonds issued to €33 billion (compared with 230 and €47 billion in 2017, respectively). The improvement in funding conditions on the market in the early months of 2019 primarily reflected greater participation by the major industrial groups from which investors demand lower risk premiums (see *Financial Stability Report*, 1, 2019). Notwithstanding the negative price developments in 2018, a total of 29 non-financial corporations obtained listings on the stock market, slightly up on 2017.

In recent years, firms have continued to diversify their sources of funding, partly thanks to legislative measures that have encouraged them to tap the markets. Recourse to the market also increased among medium-sized firms, though of these the number of companies capable of issuing marketable instruments continues to be very small. These placements are, in fact, hindered by the greater share of fixed costs, the thin liquidity of the securities, and levels of balance-sheet riskiness and opacity that are generally higher than those of large issuers.

Since the end of 2011 the share of financial debt represented by bonds has risen from 7 to 12 per cent, also benefiting from the extension of tax benefits to the securities issued by unlisted companies (minibonds), placed by around 210 firms and worth €12 billion. The average amount of the minibond issues, which was much smaller compared with other bonds (€34 million and €135 million respectively) reflects recourse to the market by small firms.

Over the last five years there has been an increase in IPOs by past standards, mainly of small and medium-sized enterprises; however, the Italian stock market continues to be much smaller than that of the main European countries (see the box 'The listing of non-financial corporations: a comparison between the main European countries').

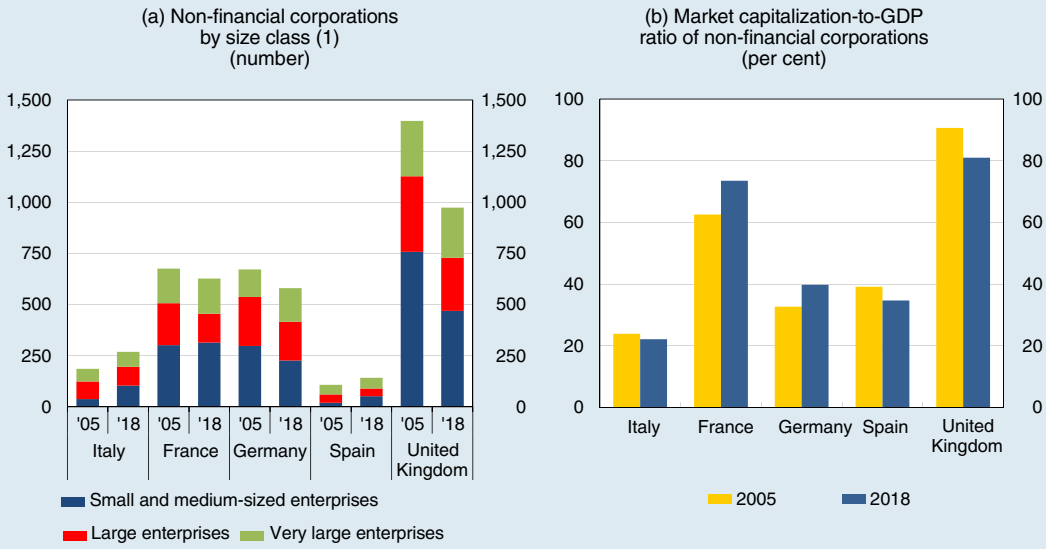
THE LISTING OF NON-FINANCIAL CORPORATIONS: A COMPARISON BETWEEN THE MAIN EUROPEAN COUNTRIES

In Italy access to the market via stock exchange listings, which has traditionally been limited, has expanded in recent years. Between 2005 and 2018 the number of listed non-financial corporations rose by 45 per cent (to around 270), exceeding by over 10 percentage points the increase recorded in Spain (see panel (a) of Figure A);

in France, Germany and the United Kingdom the number of listed firms instead declined.[1]

Figure A

Stock market development indicators
(end-of-period data)



Sources: Based on Bloomberg and Refinitiv data.
(1) Small and medium-sized enterprises are those with fewer than 250 workers. Firms with between 250 and 2,000 workers are classified as large; the remainder are classified as very large.

The rise in the number of listed firms in Italy mainly concerned those with fewer than 250 workers, whose share of the total almost doubled, reaching 39 per cent. Small companies mostly opted to list their shares on the Alternative Investment Market (AIM), a segment created in 2009 to promote recourse to equity financing through simplified procedures and access requirements (see Chapter 14, 'The money and financial markets').

Notwithstanding recent progress, in terms of its capitalization-to-GDP ratio, Italy's stock market remains small by comparison with the main European countries (see panel (b) of Figure A). The reasons for this lag are attributable both to the lower propensity of Italian firms to access the equity market and to the smaller average size of the listed firms.

In fact, looking at the number of firms listed as a share of the total, significant differences emerge between Italy and France, and Italy and the United Kingdom (see panel (a) of Figure B). Even controlling for the specific size composition and sectoral make-up of each country's production system, these differences persist.[2]

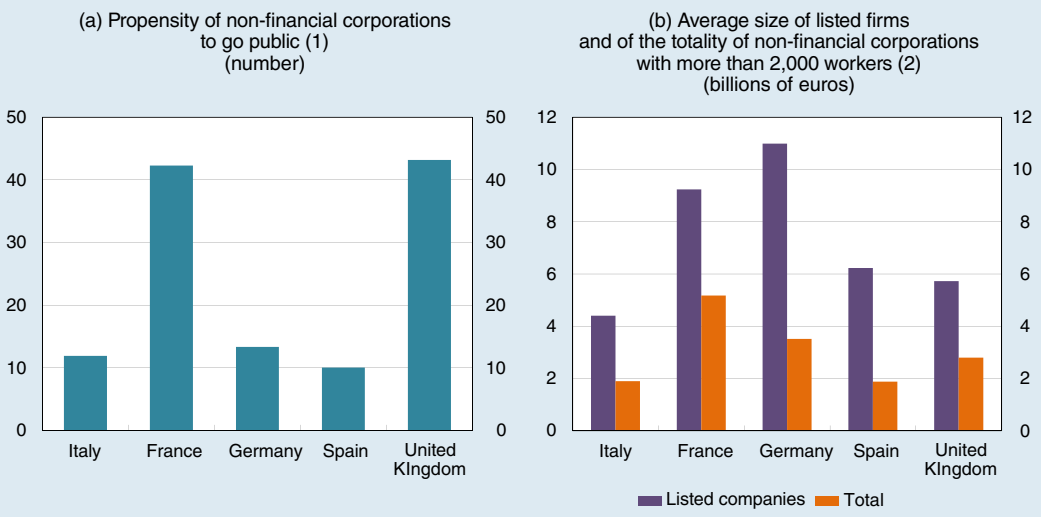
[1] The number of listed companies also fell sharply in the United States, with smaller firms most affected (see C. Doidge, G. A. Karolyi and R. M. Stulz, 'The U.S. listing gap', *Journal of Financial Economics*, 123, 3, 2017, 464-487).

[2] The results of an analysis conducted to assess the relative importance of the different sectoral composition and size of firms across countries (*shift and share analysis*) indicate that more than two thirds of the divergences with France and the United Kingdom are ascribable to the lower propensity of Italian firms to seek listings and only one third to different economic structures.

Figure B

Listing of non-financial corporations: a comparison between the main European countries

(data for the year 2016)



Sources: Based on data from Bloomberg, Eurostat and Orbis Bureau van Dijk.
(1) Number of listed companies per 10,000 firms. – (2) Average turnover.

The differing propensities to go public concern many different types of firm but especially small ones.

In Italy the ratio of listed firms to the total is instead similar to the ratios observed in Germany and Spain; differences in these countries' stock exchange capitalization are therefore mostly ascribable to the different average size of the listed firms. This difference is especially pronounced for listed companies with more than 2,000 workers: in Germany and Spain the average turnover of these firms is equal, respectively, to €11 billion and €6 billion, more than three times the average levels recorded for the totality of firms in the same size class. In Italy, instead, the average turnover of listed companies with more than 2,000 workers is equal to around €4 billion, just double what it is for all firms of comparable size (see panel (b) of Figure B). These divergences are hard to eliminate due to the absence in Italy of very large groups not yet listed on the stock exchange: according to our estimates, in fact, even if the 30 companies with the highest turnover went public, the average size of the firms listed with more than 2,000 employees would not increase.

Overall, the data suggest that to attenuate the gap between Italy and the other main European countries in terms of capital market development it is necessary to increase firms' propensity to seek a stock exchange listing, especially small firms for which there is greater scope for intervention. Some recent measures such as the tax credits for listing costs borne by small and medium-sized enterprises go in this direction.[3]

[3] The tax credit, which amounts to 50 per cent of the consultancy costs paid for a stock exchange listing, was introduced by the 2018 Budget Law (Law 205/2017). The total amount allocated for the implementation of the measures in the three years 2019-21 comes to €80 million and could enable the listing of at least a further 100 small and medium-sized enterprises.

8. THE LABOUR MARKET

Employment rose on average in the year, but stopped increasing in the second half, reflecting the weakening economy. It showed some signs of a recovery in the first quarter of 2019.

In particular, there was an increase in payroll employees hired on permanent contracts. A variety of factors contributed to the conversion of fixed-term contracts into permanent ones: the large number of fixed-term jobs inherited from 2017, the introduction of social security relief for persons aged under 35 and, in the final months of the year, new restrictions on temporary contracts under the 'Dignity Decree'. For workers hired on fixed-term contracts, the probability of remaining employed 12 months after the start of the contract nonetheless declined slightly.

The unemployment rate fell on average in the year (to 10.6 per cent, from 11.2 per cent in 2017). Labour market participation continued to rise, especially because the retirement age for the older categories of workers was postponed under reforms introduced in the last ten years. This effect is bound to diminish as a result of recent regulatory measures that have temporarily relaxed the requirements for accessing pension benefits (Law 26/2019).

Actual earnings returned to growth after two years of stagnation, driven by contract renewals that occurred between the end of 2017 and the start of 2018. In the second half of the year, with the deterioration in cyclical conditions, the share of employees with expired, unrenewed contracts began to rise again, causing slower growth in contractual earnings that has continued into the current year.

Employment and hours worked

In 2018 the number of those in employment rose by 0.9 per cent, less than in 2017 (1.2 per cent). The hours worked per capita remained stable (Table 8.1). In line with cyclical developments, the growth in employment halted in the second half of the year, then turned slightly positive again in the first three months of 2019. In the manufacturing sector the number of workers rose markedly; the decline in employment in the construction sector, which started a decade ago, continued in 2018.

For the fifth consecutive year, growth in employment was driven by payroll employees (1.3 per cent). According to administrative data from INPS, the permanent contracts component, which had returned to growth after two years of stagnation, was a contributory factor (Figure 8.1.a). The increase occurred mainly in the Centre and North, where more than 85 per cent of the new jobs were created (Figure 8.1.b).

Table 8.1

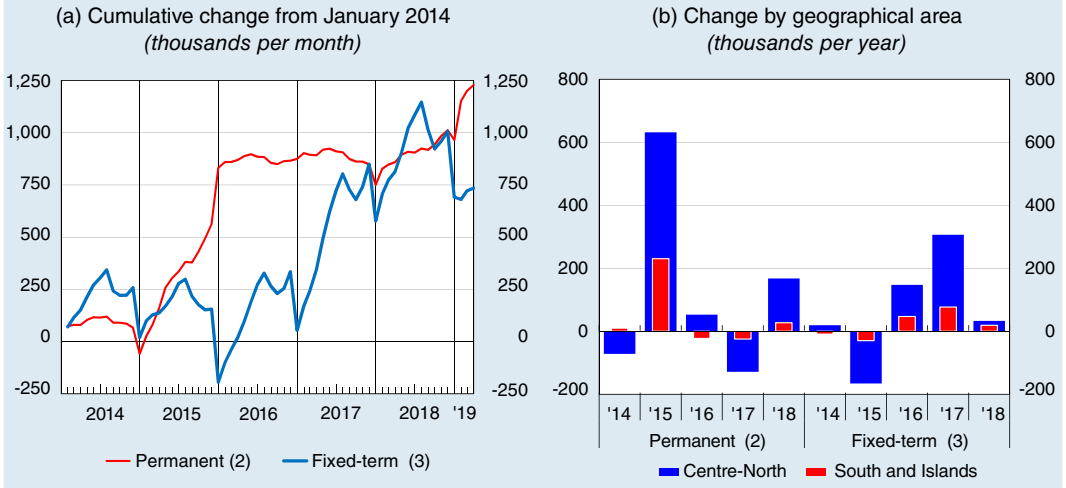
Labour input in the Italian economy by sector
(annual percentage changes)

	Persons employed			Hours worked adjusted for calendar effects (1)		
	2008-14	2014-17	2017-18	2008-14	2014-17	2017-18
Total	**-0.7**	**1.1**	**0.9**	**-1.5**	**1.1**	**0.9**
Payroll employees	-0.6	1.7	1.3	-1.5	2.1	1.4
Self-employed workers	-0.9	-1.0	-0.3	-1.6	-1.0	-0.4
Agriculture, forestry, fisheries	-1.3	0.8	0.6	-1.6	0.4	0.5
Industry excluding construction	-2.5	0.3	1.4	-3.5	1.1	1.1
of which: manufacturing	-2.7	-0.2	1.4	-3.8	1.1	1.0
Construction	-3.6	-0.3	-0.3	-4.8	0.7	-0.6
Services	0.1	1.4	0.9	-0.6	1.2	1.0
of which: mainly public (2)	-0.3	0.9	0.4	-0.5	0.7	0.6

Sources: Based on Istat data, national accounts for persons employed and quarterly national accounts for hours worked.
(1) The annual percentage changes are calculated as the changes in the sum of hours, adjusted for seasonal and calendar effects, in the four quarters of the year. This adjustment is necessary to take account of the higher number of working days in 2018. – (2) Defence, compulsory social insurance, education, healthcare and social assistance.

Figure 8.1

Net change in permanent and fixed-term positions (1)



Source: Based on INPS, 'Osservatorio sul precariato' data.
(1) In the non-farm private sector. – (2) The net change in permanent contracts is calculated as the sum of new contracts and conversions of temporary contracts and pre-existing apprenticeships, net of terminations. – (3) The net change in fixed-term contracts is calculated as the difference between new contracts and terminations; the latter include temporary contracts converted into permanent ones.

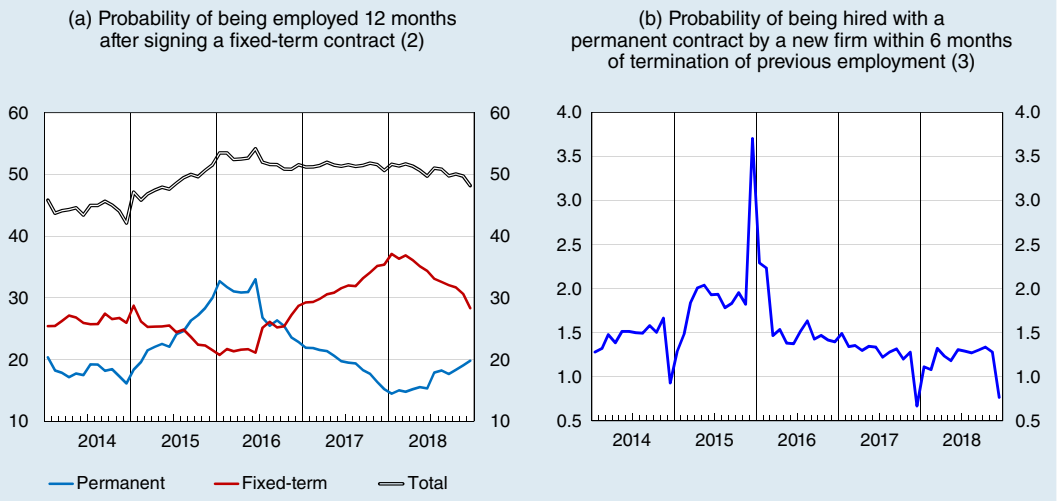
The creation of permanent positions was mainly attributable to the increase in the conversion of fixed-term contracts, both because of the high number of these contracts that were entered into in 2017 and the greater probability that employers would convert them.

The increase in the conversion rate reflected changes in the regulatory framework. The 2018 Budget Law (Law 205/2017) introduced social security relief for hiring persons aged under 35, beginning in January. Decree Law 87/2018 (the

'Dignity Decree'), converted into Law 96/2018 in August, introduced a number of restrictions on extending fixed-term contracts with the same firm (their total maximum duration was reduced from 36 to 24 months, the requirement to justify maintaining a fixed-term relationship beyond the first 12 months was reintroduced, and the social security contributions in the event of renewal were raised). On a seasonally adjusted basis, the probability of a person with a fixed-term contract that began within the previous 12 months remaining employed went from 51 per cent in August to 48 per cent in December (Figure 8.2.a). The deterioration in cyclical conditions and the new restrictions contributed to the decline in equal measure. The reduction was more intense among individuals for whom there are no incentives to convert their contracts to permanent status (those aged at least 35 residing in the Centre and North).

Figure 8.2

Employment status transitions (1)
(seasonally adjusted data)



Source: Mandatory reporting.
(1) Non-farm private sector (excluding education, healthcare, social assistance and domestic work); temporary agency contracts are not included. – (2) Probability of being employed 12 months after signing a fixed-term contract. Estimated values net of the effects of the socio-demographic characteristics of workers, the local labour market and the firms' sector of business activity. – (3) Probability of being hired on a permanent contract by an employer for whom the employee had not worked previously, within 6 months of the end of the previous contract.

The decree also raised by 50 per cent the minimum and maximum limits, to 6 and 36 monthly salaries respectively, on the amount owed by firms with at least 15 workers in the case of a termination deemed to be illegal. Subsequently, the Constitutional Court (Judgment no. 194/2018) ruled to be illegal Article 3(1) of Legislative Decree 23/2015, which introduced a fixed and certain quantitative criterion – linked to length of service – for determining the compensation owed to workers fired illegally (see the box 'The Jobs Act: a preliminary evaluation', Chapter 8, *Annual Report for 2015*, 2016). This ruling gives the courts greater discretion in setting the amount of compensation within the minimum and maximum limits raised by the 'Dignity Decree'.

The two measures, one legislative and the other grounded in case law, have led to an increase in the average amount paid out and greater uncertainty as to the costs to firms of illegal termination. This could reduce the likelihood of workers being offered

a permanent contract from the outset, especially when there is no history of a prior relationship between them and the firm (Figure 8.2.b).

The contraction in self-employment continued in 2018 (-0.3 per cent); while reaching its lowest point in the last decade, its share of total employment (23.7 per cent in the first quarter of the year) is still almost 10 percentage points higher than that of the euro area, second only to that of Greece. Based on the most recent indications from Istat's labour force survey, after stabilizing in the latter part of last year, self-employment began to rise again in the first few months of 2019. This development may have been encouraged by the more restrictive regulations on payroll employment contracts mentioned above and the extension of the flat-rate tax scheme to sole traders and self-employed workers by the 2019 Budget Law (Law 145/2018).

In 2018 low-skilled jobs as a share of total employment fell slightly, unlike in previous years when their growth was largely responsible for the rise in employment. The share of professions requiring higher skills rose significantly (see the box 'The impact of broadband internet on Italian firms').[1]

THE IMPACT OF BROADBAND INTERNET ON ITALIAN FIRMS

High-speed broadband internet is one of those infrastructures capable of significantly altering the economic system of a country. By making it easy to store and send a large quantity of data, fast internet access enables firms to organize production and operational processes more efficiently, to reach foreign markets more easily and to improve overall productivity.

In Italy, broadband network coverage was initially hindered by structural factors (such as its mountainous terrain and the relatively low concentration of the urban population compared with other European countries) and demand (the lack of computer literacy and the low rate of digitalization of firms and general government; see the box 'Italy's digital lag', Chapter 6). Following considerable private and public investment, broadband through copper wire using digital subscriber loop (DSL) technologies now covers almost the entire country, while the development of new-generation, fully fibre-optic networks remains limited.

The performance of copper-based DSL technologies[1] depends heavily on the quality and length of the 'last mile' of the telephone network: as the distance between the user and the telephone exchange increases, the signal gradually deteriorates and connection speed falls. Exploiting this difference, a study[2] analysed the impact of

[1] DSL technologies over copper wires can reach a maximum speed of 30 megabits per second (30 Mb/s).

[2] E. Ciapanna and F. Colonna, 'Is your broadband really broad? Internet speed, labour demand and productivity outcomes: evidence from Italian firms', Banca d'Italia, Temi di Discussione (Working Papers), forthcoming.

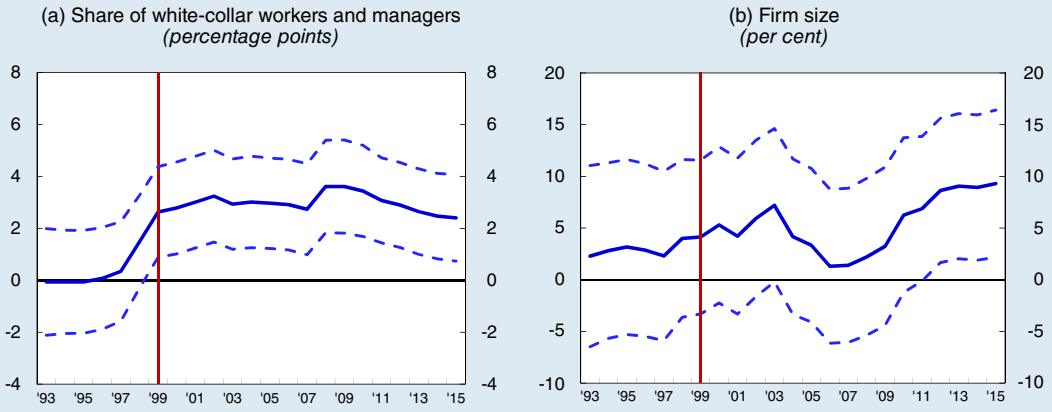
[1] On this topic see also E. Olivieri, 'The change in job opportunities', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 117, 2012; M. Goos, A. Manning and A. Salomons, 'Explaining job polarization: routine-biased technological change and offshoring', *American Economic Review*, 104, 2014, 2509-2526; G. Basso, 'The evolution of the occupational structure in Italy in the last decade', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 478, 2019.

internet connection speed on labour demand and on productivity for a representative sample of Italian firms.

Since 1999, the year in which the broadband network was introduced, firms that have had access to a faster internet connection, owing to their greater proximity to a telephone exchange, have shifted the composition of their workforce in favour of more high-skilled jobs (see panel (a) of Figure A). Starting in 2012, we can also trace a positive effect on firm size (see panel (b) of Figure A).

Figure A

Connection speed and labour demand (1)



Sources: Based on data from the Bank of Italy's Survey of Industrial and Service Firms, INPS and TIM.
(1) The lines represent the coefficients (and relative 95 per cent confidence intervals) estimated by a regression of the composition of the workforce and firm size on the maximum internet connection speed available on the firm's premises, assuming that the firm's characteristics remain constant over time. The distance between the firm's premises and the closest telephone exchange is used as an instrument to reduce possible distortions in the estimates.

Figure B

Effects of connection speed on productivity (1)

Sources: Based on data from the Bank of Italy's Survey of Industrial and Service Firms, Cerved, INPS and TIM.
(1) The two different productivity measurements are obtained using the methodology described in J. M. Wooldridge, 'On estimating firm-level production functions using proxy variables to control for unobservables,' *Economics Letters*, 104, 2009, 112-114. The lines represent the coefficients (and relative 95 per cent confidence intervals) of the maximum connection speed estimated by a regression that takes account of the firm's characteristics that remain constant over time. – (2) The figure refers to the ratio of the productivity of high-skilled workers, categorized as white-collar workers or managers, to that of blue-collar workers. – (3) Total factor productivity measures the contribution to production not attributable to traditionally considered inputs: capital, labour and intermediate goods.

Access to a faster broadband network has increased the productivity of high-skilled workers (panel (a) of Figure B), and has supported total factor productivity, a measure of a firm's overall efficiency (see panel (b) of Figure B).

Looking ahead, with the rise of digital technologies and of digital platforms integrated into complex systems (the internet of things,[3] advanced robotics, big data, artificial intelligence, etc.), ultra-broadband network coverage throughout the country is essential to increasing Italy's productivity and competitiveness. The tendency of innovative firms to favour more highly-skilled workers also highlights the need for investment in education and training to ensure that the workforce's skills remain up to date.

[3] This term refers to technologies that use a fast internet connection to transfer data between devices and objects, including everyday items.

Labour supply and unemployment

Thanks to the increase in the number of persons in employment, the unemployment rate fell to 10.6 per cent in 2018, 0.6 percentage points lower than in 2017; at 32.2 per cent, the youth unemployment rate remained high (Table 8.2). The gaps between the country's macro areas widened further: the unemployment rate in the South and Islands, equal to 18.4 per cent in 2018, was 11 points higher than in the Centre and North; on the eve of the financial crisis, the gap was about 7 percentage points (see the box 'Regional trends', Chapter 4).

Labour force participation continued to increase, albeit less intensely that in the past. The participation rate for persons aged 15-64 rose by 0.2 percentage points (to 65.6 per cent), reaching the highest level since 1977, the first year for which comparable data are available. Both men and women (to a slightly greater extent) contributed to this increase, which was wholly confined to the Centre and North; in the South and Islands, participation remained substantially unchanged at 11 points below the national average. The increase in the participation rate was concentrated among persons aged 50 and over, confirming the trend under way since the start of the millennium, driven by the various pension reforms over the years. Between 2000 and today the participation rate for those aged 55-64 has almost doubled (from 30 to 57 per cent), and, similarly, it rose for persons between 65 and 74 years of age (from 5 to 9 per cent). This trend was more marked in the Centre and North, where older workers – who are directly affected by increases in the retirement age – make up a higher share of the entire working age population.

Over the next three years, the participation of the oldest cohorts could, however, be slowed by Law 26/2019, which permits, until 2021, workers who have reached the age of 62 with 38 years of contributions to begin receiving pension benefits (the *quota 100* early retirement scheme). The law also suspended until 2026 the biennial adjustment to life expectancy of the years of contributions needed to access early retirement. Overall, the new rules make it possible to bring forward the minimum retirement age by five years or more. According to our calculations, if all those eligible were to retire, these measures could cause the participation rate

Table 8.2

Participation, employment and unemployment rates in 2018
(per cent)

	ages 15-24		ages 25-54		ages 55-64		Total (1)	
	Level (2)	Change 2017-18 (3)	Level (2)	Change 2017-18 (3)	Level (2)	Change 2017-18 (3)	Level (2)	Change 2017-18 (3)
Participation rate	**26.1**	**-0.1**	**77.9**	**..**	**57.0**	**1.5**	**65.6**	**0.2**
Men	29.9	..	88.4	-0.1	68.6	1.5	75.1	0.1
Women	21.9	-0.2	67.4	0.1	46.1	1.6	56.2	0.3
Employment rate	**17.7**	**0.6**	**69.8**	**0.4**	**53.7**	**1.5**	**58.5**	**0.6**
Men	20.8	0.8	80.3	0.4	64.2	1.4	67.6	0.6
Women	14.3	0.4	59.4	0.4	43.9	1.6	49.5	0.6
Unemployment rate	**32.2**	**-2.6**	**10.3**	**-0.5**	**5.7**	**-0.1**	**10.6**	**-0.6**
Men	30.4	-2.6	9.2	-0.6	6.3	..	9.7	-0.6
Women	34.8	-2.5	11.9	-0.4	4.9	-0.2	11.8	-0.6

Source: Based on Istat's labour force survey.
(1) The total refers to the 15-64 age groups for participation and employment rates, and to the group aged 15 and over for unemployment rates. – (2) Per cent. – (3) Percentage change.

to fall by up to 0.6 percentage points in 2020. The actual drop could, however, be limited by the fact that a portion of potential beneficiaries may not take advantage of the *quota 100* scheme so as to avoid reductions in the amount of their benefits or because of stricter restrictions on working while receiving early retirement benefits.

Based on the available evidence for the euro-area countries[2] and for Italy,[3] it is rather unlikely that the early retirement of some of the oldest categories of workers would have a significant effect on labour demand for individuals in other age categories in the private sector. In the public sector, the repercussions will depend on the provisions governing turnover and, in the short term, the time needed to hire new employees via civil service examinations.

Labour market conditions may be affected by the new minimum income scheme (*Reddito di cittadinanza* or RdC) introduced by Law 26/2019 in April. The new benefit for poorer households is targeted at a wide range of beneficiaries and entails rather high amounts, especially for smaller households (see the box 'An analysis of the redistributive effects of recent anti-poverty measures', Chapter 5).

[2] See the box by P. Tommasino and R. Zizza, 'The lump of labour fallacy: a reassessment for the euro area', in Comparisons and contrasts of the impact of the crisis on euro area labour markets, European Central Bank, Occasional Paper Series, 159, 2015.

[3] G. Bovini and M. Paradisi, 'The labor substitutability and the impact of raising the retirement age', WorkINPS Papers, 20, 2019; F. Carta, F. D'Amuri and T.M. von Wachter, 'Ageing, pension reform and firm's dynamics', Banca d'Italia, Temi di Discussione (Working Papers), forthcoming.

To improve the employment prospects for beneficiaries, the measure envisages work-for-benefit policies[4] and incentives for firms that hire them: the effectiveness of these measures in still uncertain, however. Public employment services, which are responsible for placing workers in the labour market, currently play a marginal role in this area and it would be difficult, in the short term, to improve this significantly (see the box 'The role of public employment services in the labour market'). The incentives for firms – limited in amount and duration – are conditional on meeting particularly strict requirements that could make them less effective. According to Excelsior information system surveys, firms have the most difficulty in recruiting persons with technical/specialist and managerial job skills and these persons are probably less likely to be potential recipients of the RdC.

THE ROLE OF PUBLIC EMPLOYMENT SERVICES IN THE LABOUR MARKET

Public employment services are local public offices that provide job-related services. They were created about 20 years ago by Decree Law 469/1997, which delegated the functions previously performed by centralized job placement offices *(uffici di collocamento)* to the provinces. In addition to abolishing the public monopoly on such services, thereby enabling private entities to operate in the market (*agenzie di lavoro interinale*, which were later replaced by *agenzie di somministrazione*), the legislation made the public employment services responsible for functions relating to active labour market policies, traditionally rather scarcely implemented in Italy. Although the public employment services are currently no longer under provincial jurisdiction, their governance is still complex, shared between central bodies (Ministry of Labour and Social Policies and ANPAL) and the regions, which have legislative powers in this area.[1]

In 2017 there were 840 public employment services offices (between headquarters and branches) in Italy: 32.9 per cent in the North, 24.6 per cent in the Centre and the remaining 42.5 in the South and Islands.[2] There were 562 unemployed job seekers (700 in the South and Islands) per public employment services worker. In 2018 the share of individuals who went to one of these offices in the four weeks preceding the interview for the survey was equal to 26.3 per cent among those unemployed for less than 12 months, 22.7 per cent for the long-term unemployed and 23.9 per cent for those classified as inactive who made at least one job search, but were not immediately available to work.

Overall, recourse to these services, greater in the North than in the South and Islands, began to decline in 2014, coinciding with the improvement in labour market

[1] Decree Law 150/2015, issued following Law 183/2014 (Jobs Act) centralized their governance even more. This policy was however then de facto rendered impotent by the failure to approve, in the referendum of December 2016, the constitutional reform that would have transferred to the State legislative power in the area of active labour market policies, which had been the purview of the regions since 2001. For information on previous attempts at reforming the public employment services systems, see S. Pirrone and P. Sestito, *Disoccupati in Italia*, Bologna, il Mulino, 2006.

[2] ANPAL, *Monitoraggio sulla struttura e il funzionamento dei servizi per il lavoro 2017*, Rome, 2018.

[4] Compliance with these obligations could mean that up to 300,000 more persons deemed inactive would meet the statistical requirements to be reclassified as unemployed; this would raise the participation rate by around 0.8 percentage points in 2020, when the measure will be fully in effect.

conditions. In 2018, an average of 740,000 persons per month, 90 per cent of whom were unemployed, contacted a public employment services office in search of a job. Unemployed persons most often used these services to check job listings (in 36.1 per cent of the cases), followed by the performing of various administrative tasks; only 9.7 per cent of the cases involved seeking job counselling and training.

The public employment services offices' role of acting as a link between labour demand and supply seems to be limited: in 2018 just 2.1 per cent (23,000 persons) of those who found private-sector employment in the last year did so with their help.[3] This is the result, not only of the limited contact between job seekers and these offices, but also of the latter's ineffectiveness: in 2018 only 7.0 per cent of those who turned to them found a job thanks to their assistance.

The recent introduction through Law 26/2019 of the new minimum income scheme (*Reddito di cittadinanza* or RdC), intended as a measure to combat poverty and at the same time as an active labour market policy to boost employment, made the public employment services responsible for defining and implementing employment reintegration programmes and checking whether certain requirements for receipt of such benefits are met. As a result of these changes, the public employment services could find themselves having to manage a significantly higher number of clients than they do currently; moreover, this task is further complicated by the fact that many clients are considered to be less employable.

[3] The share of individuals who seek help from agencies analogous to public employment services is higher in France and Germany (57.0 and 73.0 per cent, respectively); as well, the percentage of those who find employment with their assistance is also greater (around 7 per cent for both countries).

The benefit, the amount of which drops significantly as labour income rises,[5] could discourage the acceptance[6] or continuation of temporary, and not particularly remunerative, employment contracts. Taking account of households' financial situations, workers between 15 and 64 years of age[7] whose earnings are lower than or equal to the amount of the benefit receivable in the event that they were not in employment make up to 0.5 per cent of the total. The disincentive to seek employment is concentrated within those segments whose employment prospects are already limited (young people, those with temporary contracts and those living in the South and Islands), who could least afford extended periods of inactivity. The structure and the generosity of the benefit may also encourage irregular employment if the legal penalties prove difficult to impose.

[5] In the event of a change in employment status during the benefit receipt period, 80 per cent of the higher payroll employment income goes toward the calculation of the benefit; the entire amount goes toward it once the new status has been registered in the indicator of household composition and financial situation (ISEE) for the full year's payment. Similar provisions apply to self-employment income.

[6] Although recipients lose the benefit if they refuse job offers defined as suitable (pursuant to Legislative Decree 150/2015, as supplemented by Law 26/2019) the income requirement for determining whether the offer is adequate (at least €858 per month) is relatively high, especially in geographical areas where most potential RdC recipients are concentrated.

[7] Only fixed-term employees are counted. Those who are on permanent contracts, who nonetheless are less inclined to leave their jobs, would not have the right to receive the benefit for the first twelve months following the end of the employment relationship in the event of voluntary termination.

The increase in workforce participation, under way since 2011, has offset the negative effects on the active population of the decline in the number of residents in Italy, which began in 2015. Last year the population fell by 0.2 per cent (90,000 persons), despite the positive contribution of the net migration balance (around 190,000 persons), up slightly despite a sharp increase in migratory outflows. The number of those leaving the country reached its highest level since 1981, the year in which the data series began (see the box 'Italy's risk of a brain drain after the Great Recession'). At the end of 2018 foreigners amounted to 8.7 per cent of the population, 0.2 percentage points more than the year before, and in line with the EU average. According to the estimates provided by Fondazione ISMU[8] referring to data at the end of 2017, there were 530,000 irregular immigrants.

ITALY'S RISK OF A BRAIN DRAIN AFTER THE GREAT RECESSION

Workers' geographic mobility makes it possible for them to relocate to areas where they are more productive and serves as an important rebalancing factor, especially in a single-currency area, in the event of a shock that only hits some countries or regions (see the box 'Labour mobility and shock absorption in the euro area', Chapter 2). However, persistent migratory outflows, above all from areas experiencing difficulties, could worsen their economic situation and deprive them of highly-qualified human resources which are essential for their economic recovery.

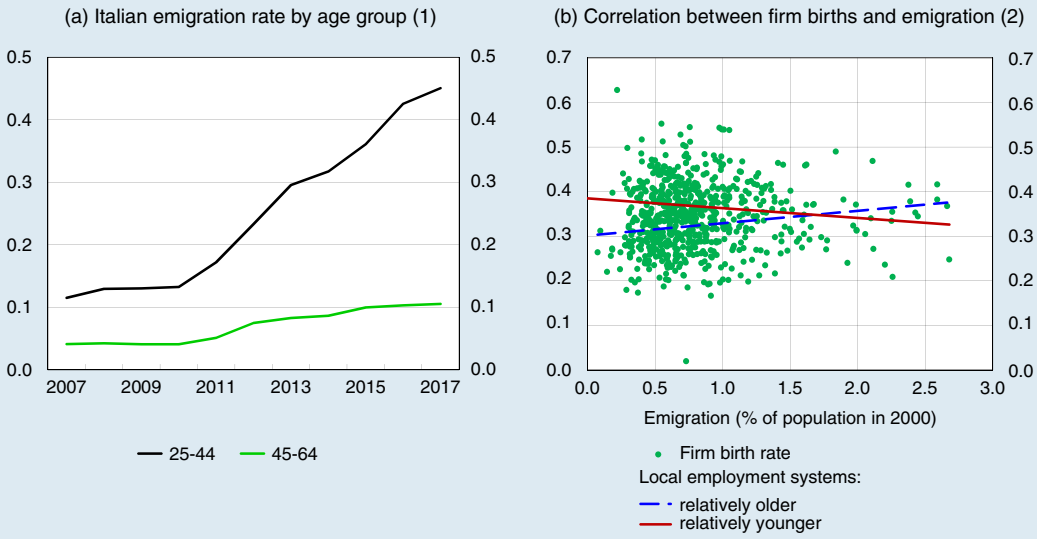
Between 2007 and 2018, there was a continuous increase in the number of Italian citizens that emigrated abroad, with a marked acceleration starting from the sovereign debt crisis: in 2018, roughly 120,000 Italians emigrated, 5,000 more than the previous year. Taking account of those that returned from abroad, the net migration balance of Italian citizens over the past ten years was negative by about 492,000 people. The outflow of young workers and graduates was especially high in the years following the Great Recession: for the former group, the percentage increased from about 0.1 in 2007 to about 0.5 in 2017 (see panel (a) of the figure), while it rose from about 0.2 to about 0.4 per cent for the latter. Outflows increased in every region, including in the more prosperous ones in the Centre and North, especially among younger workers. The increase in outflows from the South and Islands almost wholly offset the decline in relocations to the Centre and North.

A great deal of literature,[1] mainly focused on developing countries, has shown that the emigration of younger workers, especially educated ones (brain drain), has effects of an undetermined sign on the country of origin. On the one hand, benefits can be gained from the greater circulation of ideas and of entrepreneurial and managerial practices, from the trade originating in the relationship between an immigrant and his area of origin, and the monetary effects of remittances. In addition,

[1] For example, M. Beine, F. Docquier and H. Rapoport, 'Brain drain and economic growth: theory and evidence', *Journal of Development Economics*, 64, 2001, 275-289; F. Docquier and H. Rapoport, 'Globalization, brain drain, and development', *Journal of Economic Literature*, 50, 3, 2012, 681-730.

[8] Fondazione ISMU, *Ventiquattresimo Rapporto sulle migrazioni 2018*, Milano, Franco Angeli, 2018.

Italian emigration rate by age group and in relation to firm births
(per cent)



Sources: Based on Istat and Infocamere data.
(1) Per cent of the reference population by age group (25-44 and 45-64). – (2) Correlation between the rate of firm births in relation to total firms in 2005 and the cumulative flow of emigration as a percentage of the population in 2000, for each of the 686 local employment systems (SLL) between 2008 and 2015. The lines represent the linear interpolation of the two variables for the SLLs for which the average age of the population in 2002 was respectively higher (dotted line) and lower (solid line) with respect to the median age of the SLLs.

the higher return of education pursued abroad may also incentivize investment in human capital among those who have not emigrated, with positive repercussions on the country of origin (brain gain).[2] On the other hand, the loss of human capital could have significant negative effects on productivity.[3]

The country of origin also faces the risk of outflows reducing the firm birth rate, on account of the fact that the rate of entrepreneurship peaks at around age 45 and is greater in regions that are more dynamic.[4] A recent study[5] looks at the relationship between the migratory flows of Italians and the creation of new firms. It first identifies the exogenous factors that determine the flow of emigration from Italy to other countries, such as the network of immigrants from each town in all the destination countries and the countries' economic performance, to net out the local economic conditions that could push an individual to emigrate, but that also

[2] M. Gomellini and C. Ó Gráda, 'Outward and inward migrations in Italy: a historical perspective', Banca d'Italia, Quaderni di Storia Economica (Economic History Working Papers), 8, 2011; F. Giffoni and M. Gomellini, 'Brain gain in the age of mass migration', Banca d'Italia, Quaderni di Storia Economica (Economic History Working Papers), 34, 2015.

[3] European Investment Bank, *EIB Investment Report 2018/2019: retooling Europe's economy. Key findings*, 2018.

[4] J. Liang, H. Wang and E.P. Lazear, 'Demographics and entrepreneurship', *Journal of Political Economy*, 126, 2018, S140-S196; N. Engbom, 'Firm and worker dynamics in an aging labor market', Federal Reserve Bank of Minneapolis, Working Paper, 756, 2019; F. Karahan, B. Pugsley and A. Şahin, 'Demographic origins of the startup deficit', Federal Reserve Bank of New York, Staff Reports, 888, 2019.

[5] M. Anelli, G. Basso, G. Ippedico and G. Peri, 'Youth drain, entrepreneurship and innovation', Banca d'Italia, Temi di Discussione (Working Papers), forthcoming.

influence the creation of new firms. The index that collects these factors is then used to estimate the relationship between migratory flows and the creation of new firms in an instrumental variable approach.

The results of the estimates indicate that the impact of emigration on the creation of new firms is negative, especially for those with partners or managers below the age of 45 and those in areas of Italy with a younger demographic (see panel (b) of the figure), confirming the importance of an economy's demographic make-up in determining its propensity for entrepreneurship. The negative relationship between emigration and entrepreneurship affects every area of the country and every sector, both those with a low value added and those with a high one; it also negatively affects the creation of innovative start-ups.

Collective bargaining and industrial relations

In 2018 contractual earnings in the total economy accelerated to 1.5 per cent (from 0.5 per cent), contributing to an increase in actual earnings, also of 1.5 per cent (see Chapter 9, 'Prices, costs and competitiveness').

The pronounced growth in the public sector was driven by the payment of wage increases linked to collective bargaining agreements that were renewed in the first half of the year, ending the wage freeze in effect since 2010 across almost all segments.

In the private sector, too, contractual earnings accelerated from 0.6 to 1.1 per cent, owing to the approved increases in numerous contracts renewed between the end of 2017 and the start of 2018. These agreements provide for increases consistent with inflation expectations, which rose significantly in 2017, after hitting lows in 2016. After having fallen for more than four years, the components of salary that exceed the contractual minimums once again made a small positive contribution to growth in total earnings.

Since mid-2018, there have been signs of a progressive slowdown. Against the backdrop of a weakening economy, the failure to renew a number of important contracts (including, in particular, that for the retail trade sector) led to a gradual increase in the share of private-sector payroll employees working with expired collective bargaining agreements, which went from 12 per cent in July 2018 to 38 per cent in March 2019. This put another brake on wage growth in the first three months of 2019, up by 0.8 per cent in March compared with twelve months earlier, 0.3 percentage points lower compared with December of last year.

The overall structure of collective bargaining, on which the agreement signed by unions and employers' associations in March 2018 (Patto della fabbrica) did not have a substantial effect (see 'The labour market', Chapter 8, *Annual Report for 2017*, 2018), did not undergo further changes. The number of local-level contracts is still limited: in 2018 the share of industrial and non-financial services firms with at least 20 workers covered by a company-specific contract was basically stable at 23 per cent.

9. PRICES, COSTS AND COMPETITIVENESS

The still ample margins of idle capacity and, in the second half of the year, the worsening cyclical conditions translated into persistently weak inflation; the increase in energy prices was offset by the level of core inflation, which remains very low.

After two years of stagnation, nominal wages returned to growth, driven by contractual renewals, but their growth has not yet led to stronger price dynamics.

The appreciation of the effective exchange rate of the euro resulted in the price competitiveness of Italian firms worsening vis-à-vis their non euro-area competitors; in contrast, as a result of the more contained price growth, price competitiveness improved in relation to their euro-area trade partners. Over the past five years, competitiveness has improved by about 3 percentage points.

Consumer prices

Last year, inflation, as measured by changes to the harmonized index of consumer prices (HICP), remained low (1.2 per cent; Table 9.1) following the recovery recorded in 2017, despite the acceleration in energy prices. Core inflation, calculated net of food and energy products, declined to 0.6 per cent on account of the slowdown in the prices of services and non-energy industrial goods.

Table 9.1

Price indices

	Percentage changes on previous year		Percentage weights
	2017	2018	2018
Harmonized index of consumer prices (HICP)	**1.3**	**1.2**	**100.0**
Unprocessed food	3.5	1.3	9,2
Processed food	0.6	1.5	11.6
Energy products	4.6	5.7	9,4
Non-food and non-energy products	0.3	0.0	26.5
Services	1.2	1.0	43.3
Regulated goods and services	2.1	3.0	10.1
Overall index excluding food, energy and tobacco	0.8	0.6	69.8
GDP deflator	**0.5**	**0.8**	**100.0**
Index of producer prices of industrial goods sold on the domestic market	**2.6**	**3.9**	**100.0**

Source: Based on Istat data.

Inflation was lower than that of the euro area as a whole (1.8 per cent; see Chapter 2, 'The economy and fiscal policies of the euro area'). The difference was equal to 0.7 percentage points for the most volatile components, 0.5 points for services and 0.3 points for non-energy industrial goods.

The protracted weakness of the core components was partly due to the still ample margins of idle capacity, which over the course of the year were affected by the worsening cyclical conditions; the prices of services were also dampened by the temporary effect of the sharp reduction in university fees in October 2017.

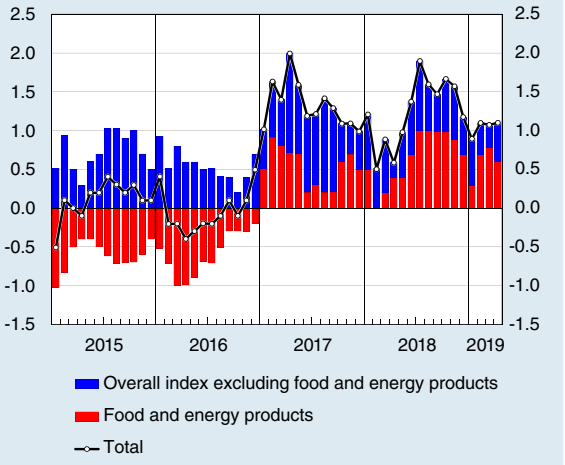
The GDP deflator rose by 0.8 per cent, from 0.5 per cent in 2017. Despite the recovery in unit labour costs (ULC) in the non-agricultural private sector, which increased by 1.5 per cent after having fallen in 2017 (see the section 'Labour costs'), the ratio of profits to value added declined following the growth recorded over the last two years.

Headline consumer inflation remained below 1 per cent in the first half of the year, and then rose to 1.6 per cent on average in the second half due to the rapid acceleration in the prices of energy and unprocessed food products (Figure 9.1). Core inflation hovered around 0.6 per cent: the slowdown in the prices of non-energy industrial goods offset the gradual strengthening in the prices of services. The difference in the trends of these two components was accentuated by the methodological changes introduced in January 2019 that resulted in the reclassification among goods, including for the two years 2017-18, of some products previously included in services and characterized by a strongly negative trend.

Figure 9.1

Inflation in Italy and contributions of the main components (1)

(monthly data; 12-month percentage changes and percentage points)



Source: Based on Eurostat data.
(1) HICP.

In the first four months of 2019 inflation declined again, reaching 1.1 per cent in April. After having strengthened in the second half of 2018, the consumer inflation expectations of the firms surveyed by the Bank of Italy (see the box 'Italian firms' inflation expectations and price strategies') declined in March, falling to 1.1 per cent over a 12-month horizon (see 'Survey on Inflation and Growth Expectations', Banca d'Italia, Statistics Series, 15 April 2019). The inflation expectations for 2019 of the analysts surveyed by Consensus Economics have also weakened since the start of this year, falling to 0.9 per cent in May.

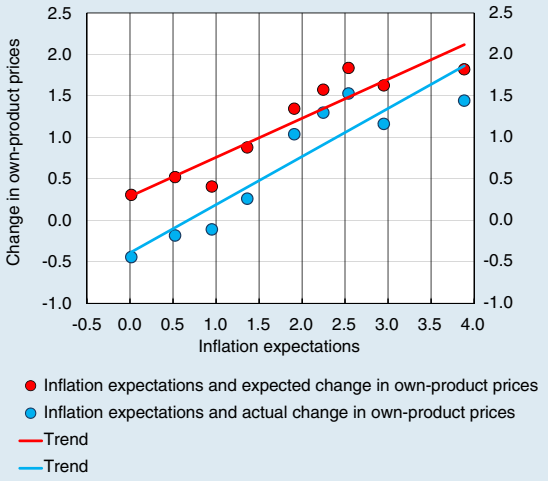
ITALIAN FIRMS' INFLATION EXPECTATIONS AND PRICE STRATEGIES

The sharp decline in consumer inflation in the euro area since the second half of 2012 and the resulting emergence of fears of a de-anchoring of inflation

expectations have reawakened an interest in analysing the formation mechanisms of inflation expectations[1] and the role they play in setting prices.

According to several economic models, in order to keep conditions consistent with maximizing profits, firms modify own-product prices in relation to their general inflation expectations, but the timing of these modifications takes account of any adjustment costs and the uncertainty surrounding their own expectations.

Italian firms' inflation expectations and changes in selling prices (1)
(per cent)



Source: Based on the results of the Survey on Inflation and Growth Expectations, carried out on a quarterly basis by the Bank of Italy. Up to October 2018 the survey was conducted jointly with *Il Sole 24 Ore*.
(1) In the figure, the inflation expectations are shown on the x-axis, grouped in intervals; the corresponding average value of the expected change (in red) and the actual change (in blue) in selling prices is shown for each interval. The data refer to the period Q4 2002 to Q4 2018.

Two recent empirical studies examine the relationship between Italian firms' inflation expectations and the decisions adopted for own-product prices,[2] using data from the Survey on Inflation and Growth Expectations, a quarterly survey carried out by the Bank of Italy since 1999 on a sample of industrial, service and construction firms with at least 50 employees. Firms' answers to the questionnaire provide quantitative data regarding both their expectations for consumer inflation in Italy over the coming 12 months and the expected (12 months ahead) and actual (over the past 12 months) changes in own-product prices.

Based on data collected since the fourth quarter of 2002, the quarter in which firms started reporting changes to own-product prices, Italian firms' inflation expectations are positively correlated with changes in own-product prices, expected and actual (see the figure). However, to assess the robustness of this relationship, other factors that may influence firms' pricing policies must be considered: if overlooked, these factors could distort the observed relationship, especially if they themselves are correlated with inflation expectations.

[1] For the determinants behind Italian firms' inflation expectations, see C. Conflitti and R. Zizza, 'What's behind firms' inflation forecasts', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 465, 2018, and the box 'The inflation expectations of Italian firms and the labour market', Chapter 9, *Annual Report for 2017*, 2018.

[2] T. Ropele, 'Inflation expectations and price setting behavior: evidence from business survey data', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), forthcoming and O. Coibion, Y. Gorodnichenko and T. Ropele, 'Inflation expectations and firms' decisions: new causal evidence', Banca d'Italia, Temi di Discussione (Working Papers), 1219, 2019.

The first study looks at the link between consumer inflation expectations and expectations relating to own-product prices using firm-level control variables, of both a prevalently cyclical nature (labour costs, competitive pressures, cost of raw materials, access conditions for bank loans, expectations concerning corporate employment dynamics and assessments of the country's general economic situation) and a structural nature (size, geographic location, sector of economic activity and share of turnover coming from exports). The introduction of time fixed effects makes it possible to take account of the macroeconomic outlook.

The results illustrate the existence of a positive and statistically significant relationship between the two variables: all things being equal, an increase of 100 basis points in inflation expectations is associated with an increase of about 10 points in expected changes to own-product prices. However, the relationship shows signs of instability over time: it weakened in the period 2011-14, in connection with the protracted macroeconomic uncertainty perceived by firms during the sovereign debt crisis, and it strengthened in the three years that followed. This could depend on the fact that, when official interest rates are expected to remain at their lower bound for an extended period of time, an increase in inflation expectations has a greater impact on real interest rates and, consequently, on aggregate demand and pricing policies.

The second study examines the effects of firms' inflation expectations on actual changes to own-product prices, focusing on a shorter estimation period in order to fully exploit the greater breadth of data collected in the surveys carried out starting in the third quarter of 2012.[3] The results of this study also point to a positive and statistically significant relationship: an increase of 100 basis points in inflation expectations is associated with an upward revision of about 20 points in own-product prices. Consistent with the results of the other study, the effect is significantly more pronounced during the sub-period 2015-18.

These studies confirm that, for monetary policy to play a role in reaching the objective of price stability, it must influence inflation expectations, especially those of firms.[4]

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[3] As of this date, for about a third of the firms in the sample, selected at random, the question regarding inflation expectations does not include the most recent official data on consumer price inflation in Italy; these data are instead provided for all the other firms in the sample. The information asymmetry between the two groups of firms has made it possible to construct an instrumental variable to control for the potential endogeneity of inflation expectations. For the treatment of data, see also L. Bartiloro, M. Bottone and A. Rosolia, 'What does the heterogeneity of the inflation expectations of Italian firms tell us?', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 414, 2017.

[4] The results of some studies that examine the direct effect of the ECB's non-conventional measures on inflation expectations are reported in S. Neri and S. Siviero, 'The non-standard monetary policy measures of the ECB: motivations, effectiveness and risks', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 486, 2019.

Producer and import prices

In 2018 producer prices of industrial products sold in the domestic market grew by an average of 3.9 per cent. This was mostly due to the increase in the energy component (to 9.5 per cent), which accounts for about one third of the overall index. Producer prices of non-food consumer goods increased slightly (0.6 per cent). Price pressures from abroad were positive, but to a lesser extent: the import deflator rose by 2.9 per cent, and import prices of intermediate inputs and of energy products increased by 1.6 and 20.4 per cent respectively.

Labour costs

After two years of considerable stagnancy, hourly nominal wages returned to growth in 2018, rising by 1.4 per cent for the economy as a whole. This was partly due to the unfreezing of salaries for public-sector employees which had remained unchanged since 2010 in almost every sector. Albeit to a lesser extent, salaries also began to rise in the non-agricultural private sector (1.0 per cent), largely on account of the acceleration in minimum hourly wages provided for in the collective bargaining agreements that were renewed at the end of 2017 and the start of 2018 (see Chapter 8, 'The labour market'). After having fallen for more than four years, the wage drift again started to make positive, though marginal, contributions to wage dynamics.

In the second half of 2018, the non-renewal of expired contracts, likely caused by the downward revision of inflation expectations and by weaker employment growth, resulted in a slowdown in wage dynamics, which continued in the first few months of 2019 (see the box 'Labour market mobility and wage pressures').

LABOUR MARKET MOBILITY AND WAGE PRESSURES

Changing jobs usually involves a wage renegotiation. Aggregate wage dynamics may be affected not only by fluctuations in the unemployment rate (which is the main determinant of wage dynamics according to the Phillips curve), but also by the number of workers that change jobs and by the wage increase that they negotiate with their new employer. There is also an indirect effect relating to wage increases offered by firms as an employee retention measure, done to avoid a costly search to replace a departing worker. Recent studies from the United States[1] have examined the macroeconomic implications of these factors, concluding that the aggregate growth in US wages is tied more to fluctuations in the average probability of job-to-job transitions than to cyclical changes in the unemployment rate.

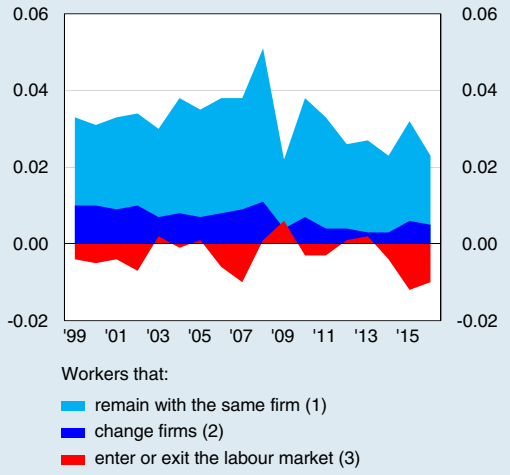
To assess the effect of transitioning from one job to another in Italy, using INPS data, private-sector wage growth can be sub-divided into three groups:

[1] For example, G. Moscarini and F. Postel-Vinay, 'Wage posting and business cycles', *American Economic Review: Papers & Proceedings*, 106, 5, 2016, 208-213 and F. Karahan, R. Michaels, B. Pugsley, A. Şahin and R. Schuh, 'Do job-to-job transitions drive wage fluctuations over the business cycle?', *American Economic Review: Papers & Proceedings*, 107, 5, 2017, 353-357.

workers that remain with the same employer from one year to the next, workers that transition to a different employer, and workers that enter or exit the labour market (Figure A).[2]

Figure A

Contribution to wage growth of different groups of workers
(per cent)



Source: Based on INPS data for non-agricultural private sector workers between the ages of 25 and 50.
(1) Calculated as the ratio of the average annual growth in daily wages of workers employed with the same firm over the course of the year to total employed persons. – (2) Calculated as the ratio between average annual growth in daily wages of workers who changed firms over the course of the year to total employed persons. – (3) Difference between (a) the average daily wage of new entrants to the labour market, compared with that of workers that remain employed, multiplied by the share of new entrants and (b) the average daily wage of workers exiting the labour market, compared with that of workers that remain employed, multiplied by the share of exiting workers.

The first group prevails in Italy, reflecting the large share of total employed persons that remain with the same employer from one year to the next (on average about 80 per cent). In contrast, the contribution to wage dynamics of those that change firms is smaller, especially because of the lower share of total employed persons belonging to this category (just over 10 per cent), notwithstanding the fact that the annual growth in wages for this type of worker is about 3 percentage points higher on average than that of workers that stay with the same firm (Figure B). The contribution of the last group, which depends on the difference between the average wage of exiting workers and that of new entrants, is generally anticyclical: during recessions the workers who exit the labour market tend to be less-qualified and earn lower wages.[3]

However, this decomposition does not identify the indirect effects on wage dynamics relating to wage increases offered by firms to retain workers who would otherwise transition to another employer. Using the same INPS data it was possible, based on socio-demographic characteristics (age, gender and educational level), the business sector and the region of residence, to estimate the probability that, over the course of each year, individuals in a given segment would either: (a) transition from one firm to another; (b) transition from non-employment to employment; or (c) become non-employed. The changes in overall wages were then examined in response to cyclical changes in these probabilities.

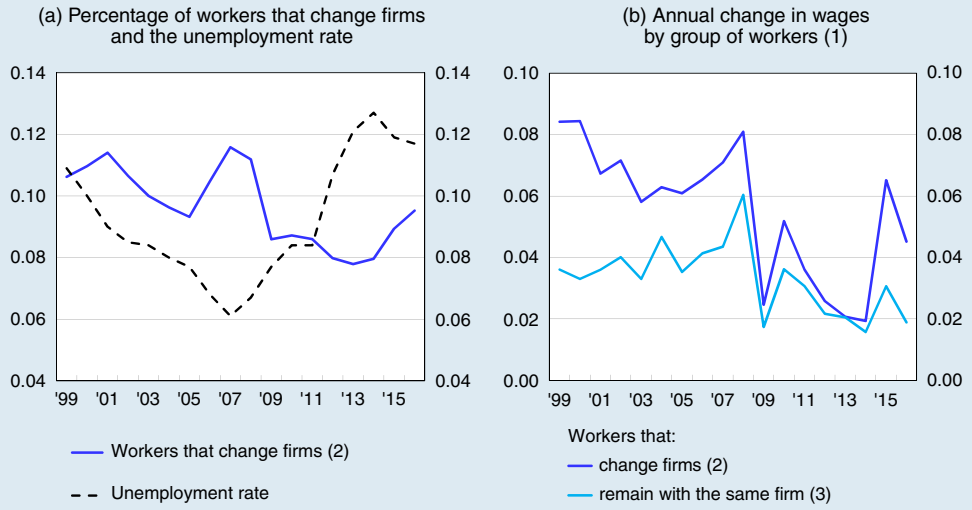
In the United States, wage dynamics are almost entirely explained by the changes in the average probability of a worker changing jobs; in Italy, a significant part of wage dynamics instead depends on the probability of entering or exiting the

[2] C. Berson, M. De Philippis and E. Viviano, 'Job-to-job flows and wage cyclicality in France and Italy', Banca d'Italia, Questioni di Economia e Finanza (Occastional Papers), forthcoming.

[3] E. Adamopoulou, E. Bobbio, M. De Philippis and F. Giorgi, 'Reallocation and the role of firm composition effects on aggregate wage dynamics', *IZA Journal of Labor Economics*, forthcoming.

Figure B

Share of workers and wage change by occupational status
(per cent)



Sources: Based on INPS data for non-agricultural private sector workers between the ages of 25 and 50, and Istat data from its labour force survey.
(1) The figure refers to the annual growth in average daily wages. – (2) Workers that change firms over the course of the year. – (3) Workers employed with the same firm over the course of the year.

labour force. In 2009, immediately after the start of the global financial crisis, the decline in job-to-job transitions helped to reduce wage growth by 0.19 percentage points; the negative contribution provided by the increase in workers exiting the labour market and the reduction in new entrants was substantially similar (0.18 percentage points lower).

Following the end of the social security contribution relief granted for new hires in 2015 and 2016 (Law 190/2014 and Law 208/2015), the social security contributions paid by firms helped to buoy the cost of labour, which grew by 1.4 per cent in the non-agricultural private sector (by 1.7 per cent for the whole economy), more than the increase in wages.

The increase in the cost of labour, together with the slight decline in productivity (-0.1 per cent in the non-agricultural private sector; see Chapter 6, 'Firms'), caused unit labour costs to rise by 1.5 per cent; the rise was more marked in private services (1.9 per cent) than in manufacturing (0.9 per cent).

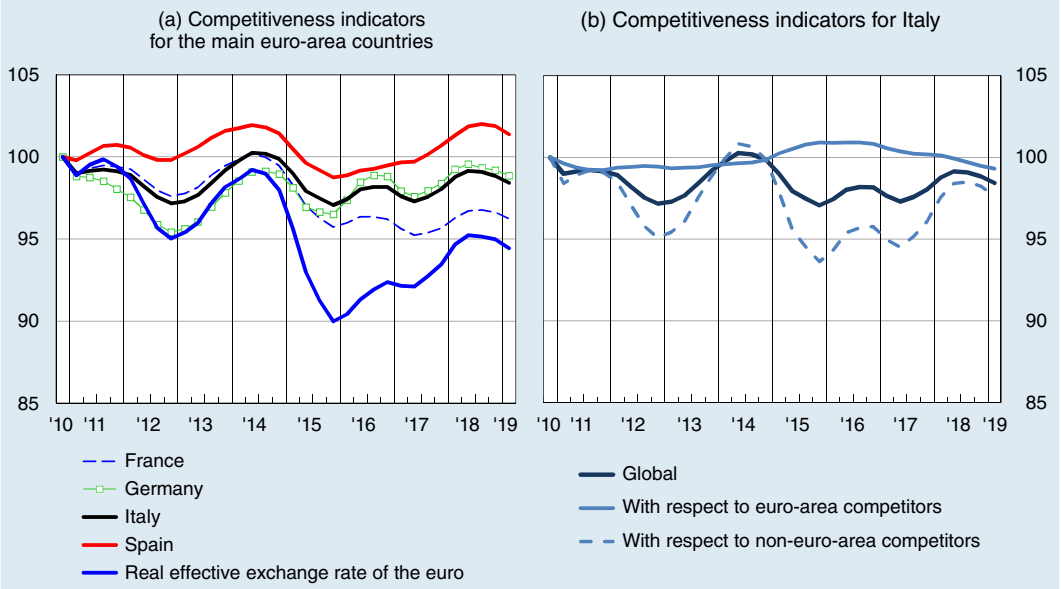
Price competitiveness

The appreciation of the nominal effective exchange rate of the euro negatively affected Italian firms' price competitiveness which, according to the indicator based on producer prices of manufactures, declined by 0.8 per cent on average in 2018, as in Germany and slightly less so than in France and Spain (Figure 9.2.a); the indicator has partially recovered since the autumn. Competitiveness declined by 2.2 per cent on average compared with non-euro-area competitors, but increased by 0.7 per cent with respect to member countries (Figure 9.2.b), thanks to the price trend in Italy's manufacturing

sector, which rose less than in partner countries. Overall, the price competitiveness of Italian firms has improved by about 3 percentage points over the past five years.

Figure 9.2

Price competitiveness indicators for the main euro-area countries and real effective exchange rate of the euro (1)
(indices: Q4 2010=100; 4-quarter moving average)



Sources: Bank of Italy and, for the real effective exchange rate of the euro, ECB.
(1) Based on producer prices of manufactures. An increase in the indicator signals a loss of competitiveness. The global competitiveness indicators are calculated for each economy with respect to 60 competitor countries (including the members of the euro area); the figure for the last quarter is partly estimated. The indicator for Italy in relation to its euro-area competitors is calculated with respect to 18 euro-area competitors; the indicator relating to the non-euro-area competitors is calculated with respect to the remaining 42 competitors. The real effective exchange rate of the euro is calculated by the ECB with respect to 19 competitor countries outside the euro area.

Similar signs for Italy emerged from the ECB's competitiveness indicator, which is based on unit labour costs for the whole economy instead of on producer prices of manufactures. In 2018, this indicator signalled a loss of 0.8 per cent with respect to Italy's main trade partners taken as a whole, focusing exclusively on those outside the euro area.

According to the average of five measures, deflated by various price and cost indices, Italy's price competitiveness indicator is substantially aligned with the level consistent with the trends of the main macroeconomic variables and with the degree of openness to foreign markets; at the end of the last decade, the level of the indicator instead corresponded to an overvaluation of more than 4 percentage points.[1]

[1] The estimation methodology is based on an update to the methodology described in C. Giordano, 'Price and cost competitiveness misalignments of the euro area and of its main economies according to a quarterly BEER model, 1999-2017', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 444, 2018.

10. FOREIGN DEMAND AND THE BALANCE OF PAYMENTS

Like in other euro-area countries, the slowdown in global trade and the appreciation of the nominal exchange rate restrained exports. However, after the weak performance recorded at the start of the year, their growth helped to maintain the ample current account surplus, together with the further increase in tourism revenue and the larger surplus on investment income, offsetting the decline in the energy balance.

Foreign portfolio investments by Italian residents remained positive but fell to half the average level recorded in the previous four years, during which time households diversified their portfolios in response to the low government bond yields and the limited supply of bank bonds. Foreign investors reduced their holdings of Italian securities, especially between May and August, largely coinciding with bouts of high tension on the Italian financial markets. The capital outflow was accompanied by a widening of the Bank of Italy's negative balance on the TARGET2 payment system, which then stabilized between the end of 2018 and the early months of 2019.

The current account surplus, which reflects the improvement, under way over the past several years, in the competitiveness of Italian exporters (see Chapter 15, 'Italian goods exports in the last twenty years: trends and determinants', *Annual Report for 2017*, 2018), has further reduced Italy's negative net international investment position: it stood at 3.9 per cent of GDP last year, after falling by about 19 percentage points over the last five years.

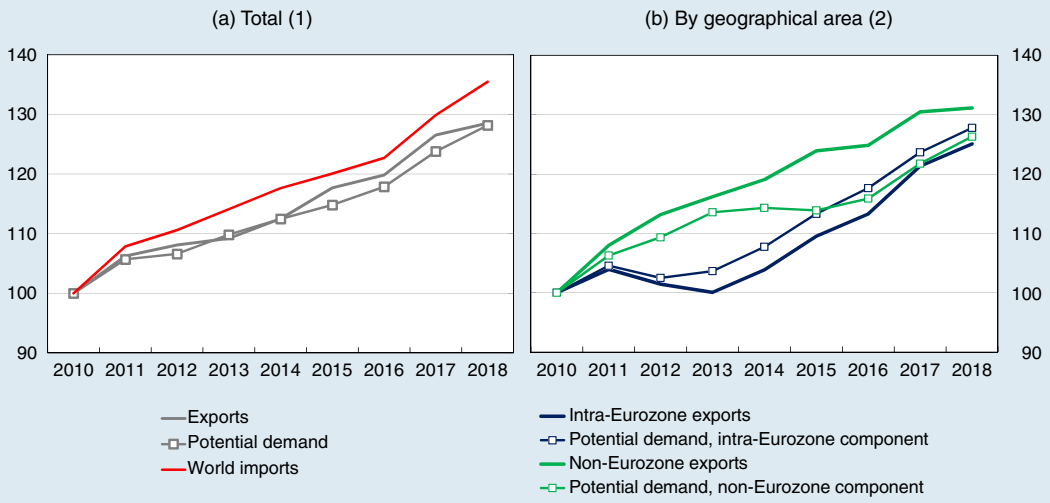
Exports and imports

Exports of goods and services increased by 1.9 per cent in volume in 2018, compared with 5.9 per cent in 2017. The slowdown, which also occurred in the other major euro-area countries, was largely driven by that in world trade.

Following the abrupt drop in the first quarter, exports of goods picked up pace again and grew by 1.6 per cent in the year as a whole, compared with 5.6 per cent in 2017 (Figure 10.1). The increase was smaller than that in the potential demand coming from Italy's export markets, almost exclusively owing to the modest expansion in sales outside the euro area (0.5 per cent), which were held back by the appreciation in the exchange rate (see Chapter 9, 'Prices, costs and competitiveness'). The strong growth in sales to the United States was offset by stagnation in those to the United Kingdom and a decline in those to non-EU markets, especially those to countries that were affected by financial tensions (e.g. Turkey), and in sales to some OPEC countries and, after the very favourable performance of 2017, Russia and China as well. In recent years,

Figure 10.1

Goods export volumes, potential foreign demand and world goods imports
(annual averages; indices: 2010=100)



Sources: Based on IMF and Istat data.
(1) Goods exports based on national accounts data. Potential demand is calculated as the weighted average of the goods import volumes of Italy's trading partners, using as weights their respective shares of Italian exports in value. – (2) The breakdown of goods exports into intra-Eurozone and non-Eurozone is estimated, beginning with the aggregate national accounts figure, on the basis of foreign trade data and the prices of industrial products sold abroad.

Italian firms had retained their market shares in non-Eurozone markets (see Chapter 15, 'Italian goods exports in the last twenty years: trends and determinants', *Annual Report for 2017*, 2018).

Exports of goods within the euro area instead rose by 3.1 per cent, in line with demand, thereby confirming the improvement, under way since the beginning of the decade, in Italian exporters' ability to compete in this market (see the box 'Euro-area trade and new competitors'). Sales rose with respect to all the major euro-area countries; in the second half of the year, however, they were restrained by the weakening of the German economy, owing not only to direct trade links but also to the integration of production into global value chains.

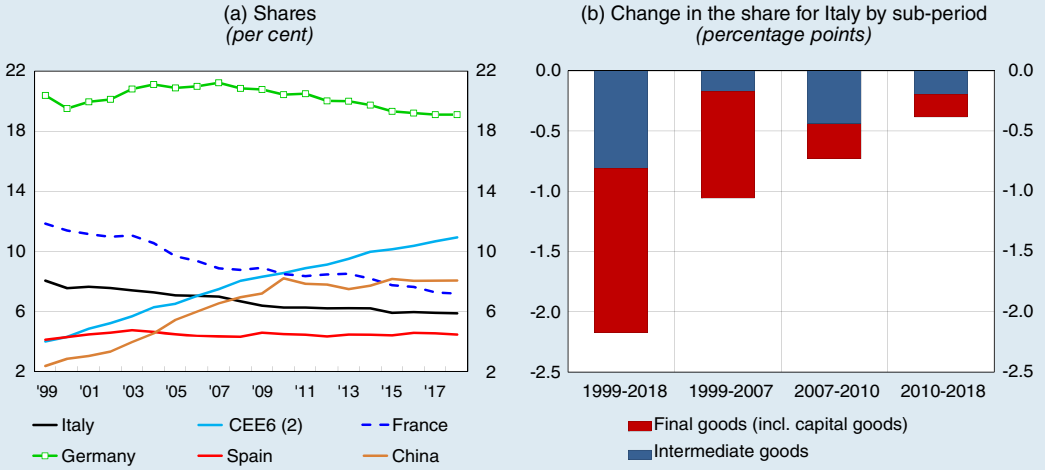
EURO-AREA TRADE AND NEW COMPETITORS

In the last twenty years, Italy's goods exports to the euro area, valued at current prices and net of the volatile energy products component, increased by 66 per cent, while the imports of the rest of the euro area grew almost twice as much, by 128 per cent. The decrease of about one quarter in Italian firms' market share in the euro area contributed by more than two thirds to the reduction in the share in world markets (see the box 'Business strategies and trends in Italian goods exports', Chapter 15, *Annual Report for 2017*, 2018). The market share in the euro area shrank considerably for France and very moderately for Germany; it held practically stable for Spain (see panel (a) of the figure).

Since the late 1990s, the share of goods from China in total euro-area imports has trebled; that of goods imported from Central and Eastern Europe (CEE6) has

more than doubled,[1] also thanks to these countries' entry into the single market and their integration into European value chains. Econometric estimates show that China's trade penetration has especially penalized Italy's exports to the rest of the euro area. The negative effects of the CEE6's integration have been even more intense, also owing to the greater geographical proximity; however, these effects have been comparable for France, Germany, Italy and Spain.[2] The increased vulnerability of Italian exports to Chinese competition arose from the greater similarity, up to the late 1990s, of their respective product specialization; conversely, the degree of similarity with the specialization of CEE6 countries, while greater, was at the time virtually the same as that of Germany and Spain.

Share of goods exports in the euro-area market (1)



Source: Based on Eurostat data, at current prices.
(1) Net of energy products. Intermediate goods are identified based on Eurostat's Broad Economic Categories (BEC) classification; final goods are defined residually. – (2) Bulgaria, the Czech Republic, Hungary, Poland, Romania and Slovakia.

Following the 2008-09 global financial crisis, these displacement effects have attenuated. In Italy, the gradual sectoral rebalancing towards products less exposed to Chinese competition has contributed, together with the recovery in price competitiveness, to the improvement in the relative performance of exports to the euro area, especially in the final goods components, the hardest hit in the pre-crisis period (see panel (b) of the figure).

Conversely, German sales abroad have benefited the most from the growing import demand from China and CEE6 countries.[3] The advantages for

[1] This share is approximated using data for the following six countries combined: Bulgaria, the Czech Republic, Hungary, Poland, Romania and Slovakia.

[2] S. Fabiani, A. Felettigh, C. Giordano and R. Torrini, 'Making room for new competitors. A comparative perspective on Italy's exports in the euro-area market', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), forthcoming.

[3] This finding is based on input-output analysis techniques and considers all German sales abroad that are activated by Chinese and CEE6 imports, i.e. both those occurring directly in those markets and those arising indirectly from trade in intermediate goods and services with third countries along global value chains.

Germany stemmed both from the higher elasticity, all other factors being equal, of its exports to the demand from those economies, as well as from the trade integration with them, which in the late 1990s was already far greater compared with the three other euro-area countries considered, especially with respect to CEE6 countries.

An analysis of input-output relations along global value chains shows that the sales activated by Chinese and CEE6 demand accounted for about one fifth of total German exports in 2014 (the last year for which the data are available). This is about twice the share recorded for Germany 15 years earlier as well as about twice the combined share of the other three major euro-area countries (see the table).

Exports activated by China and CEE6 countries
(per cent of a country's exports of goods and services)

	France		Germany		Italy		Spain		France, Italy and Spain (1)	
	2000	2014	2000	2014	2000	2014	2000	2014	2000	2014
China	2.2	6.5	2.3	9.6	1.6	5.5	1.0	4.1	1.8	5.6
CEE6	3.1	5.2	7.0	10.9	4.4	7.6	2.5	4.9	3.4	5.9

Sources: Based on World Input-Output Database (WIOD) data, at current prices.
(1) Weighted average for the three countries.

The slowdown in exports compared with last year took place across all the main manufacturing sectors. Sales in the electronics, pharmaceutical and fashion sectors recorded relatively stronger growth; following five years of vigorous expansion, car sales diminished on account of the decline in demand from some emerging countries and the entry into force of the new international emissions regulations (see Chapter 2, 'The economy and fiscal policies of the euro area'). The machinery sector was affected by the weakening in the global investment cycle, which was also due to uncertainty about the prospects for world growth and future developments in trade policies. So far, less than 0.2 per cent of the total value of Italy's exports of goods has been hit by the tariffs put in place by the United States on imports of steel and aluminium (see the box 'Recent trade tensions and their implications', Chapter 1). The possible extension of US tariffs to include cars would translate into an additional 1.0 per cent of Italian exports being affected; taking account of the international production links, this would impact 10 per cent of the value added of the automotive sector.[1] The risk of a progressive heightening of trade tensions constitutes one of the main factors of uncertainty for Italian firms, as indicated by their responses in our surveys (see the box 'Italian firms' investment according to the Survey on Inflation and Growth Expectations', *Economic Bulletin*, 2, 2019).

[1] R. Cappariello and M. Mancini, 'US trade policy in numbers: how exposed is the EU?', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), forthcoming.

Italy's market share in world imports of goods declined by less than 0.1 percentage points, to 2.9 per cent at constant prices (2.8 per cent at current prices), reaching levels close to those recorded at the beginning of the decade. Italy's increased ability to compete on foreign markets in recent years has benefited from the gradual rebalancing of exports towards sectors that are less exposed to the pressures of the emerging economies (e.g. pharmaceuticals, automotive and food) or with greater room for qualitative differentiation (e.g. fashion).

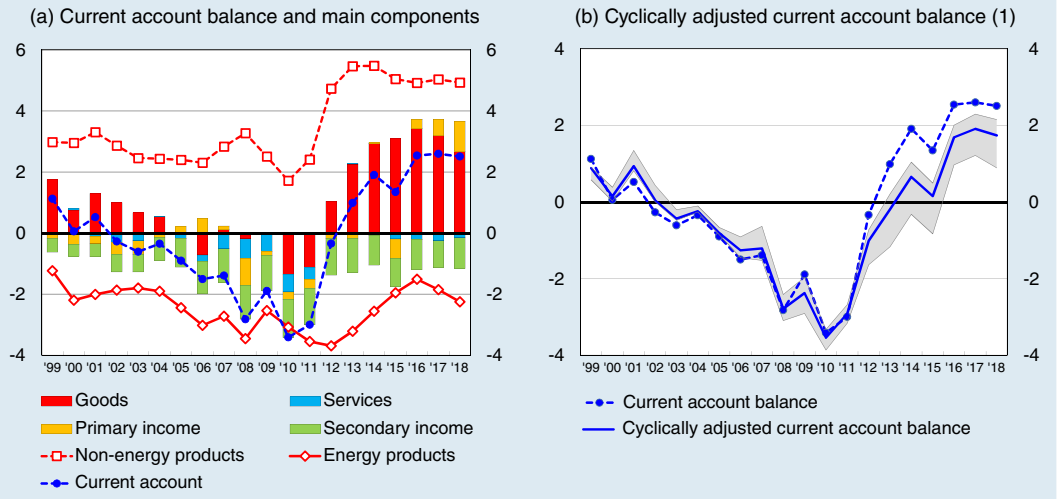
Imports of goods and services also slowed in 2018 (to 2.3 per cent in volume, down from 5.5 per cent). Their main drivers were investment in machinery and equipment, which especially benefited purchases of mechanical products, electric machinery and metal products. Imports of intermediate goods to be used in the production of goods to be exported (pharmaceuticals) and imports of consumption goods (clothing and leather manufactures) also increased. Purchases of imported cars were unchanged, reflecting the weakness of new car registrations.

The current account

In 2018 the current account surplus remained large at €44.0 billion, or 2.5 per cent of GDP (Figure 10.2.a and Table 10.1). Based on a model that takes account of the size of the output gap in Italy and its partners and of the elasticity of exports and imports to the various demand components, the surplus remains large even when cyclically adjusted, at around 1.7 per cent of GDP (Figure 10.2.b). Based on the assessments of the main international institutions, the cyclically adjusted surplus is largely consistent with Italy's structural macroeconomic conditions.

Figure 10.2

Current account balance
(per cent of GDP)



Sources: For GDP, Istat; for the breakdown between energy and non-energy products in panel (a), based on Istat foreign trade data; for panel (b), based on data from the Bank of Italy, the European Commission, the IMF, Istat and the OECD.
(1) For the methodological aspects, see S. Fabiani, S. Federico and A. Felettigh, 'Adjusting the external adjustment: cyclical factors and the Italian current account', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 346, 2016. The grey area indicates the range of values obtained with alternative estimation models.

Table 10.1

Balance of payments
(billions of euros unless otherwise indicated)

	2014	2015	2016	2017	2018
Current account	**31.0**	**22.2**	**42.9**	**44.9**	**44.0**
per cent of GDP	1.9	1.3	2.5	2.6	2.5
Goods	47.4	51.1	57.7	55.0	47.1
Non-energy products (1)	88.9	83.3	83.1	87.0	86.6
Energy products (1)	-41.4	-32.2	-25.5	-32.0	-39.5
Services	-1.1	-3.2	-3.4	-4.3	-2.7
of which: transport	-8.3	-8.4	-8.0	-9.2	-8.9
travel	12.5	13.5	13.8	14.6	16.2
Primary income	0.5	-10.4	5.4	9.3	17.3
Secondary income	-15.9	-15.3	-16.8	-15.1	-17.6
Capital account	**2.7**	**6.2**	**-3.1**	**0.6**	**-0.6**
Financial account (2)	**51.5**	**35.2**	**59.9**	**51.4**	**30.0**
Direct investment	2.3	2.4	-9.7	3.3	-3.1
Italian investment abroad	15.3	14.4	13.7	12.0	23.4
Foreign investment in Italy	12.9	12.0	23.3	8.7	26.5
Portfolio investment	4.1	97.5	159.5	87.5	121.7
Assets: equity and investment funds (3)	78.5	84.3	53.6	86.6	29.1
Assets: debt securities (3)	23.3	36.5	30.7	29.6	16.9
Liabilities: equity and investment funds (3)	19.3	11.6	-2.9	15.5	-7.9
Liabilities: debt securities (3)	78.4	11.8	-72.3	13.1	-67.8
Financial derivatives	-3.6	2.3	-3.0	-7.3	-2.8
Other investment	49.6	-67.6	-85.8	-34.7	-88.5
Change in official reserves	-1.0	0.5	-1.2	2.7	2.6
Errors and omissions	**17.9**	**6.8**	**20.0**	**5.9**	**-13.5**

Sources: For GDP, Istat.
(1) Based on Istat foreign trade data. – (2) The sign convention traditionally used for the financial account was discontinued after the adoption of the *Balance of Payments and International Investment Position Manual*, Sixth Edition (BPM6), 2009: as is the practice for liabilities, positive values for external assets now indicate an increase and negative values a reduction. – (3) Assets: a positive balance indicates net acquisitions by residents of securities issued by non-residents, a negative balance indicates net sales. Liabilities: a positive balance indicates net acquisitions by non-residents of securities issued by residents, a negative balance indicates net sales.

The current account benefited from the merchandise trade surplus, which remained at historically high levels (€47.1 billion) though lower than in 2017 on account of higher energy prices.

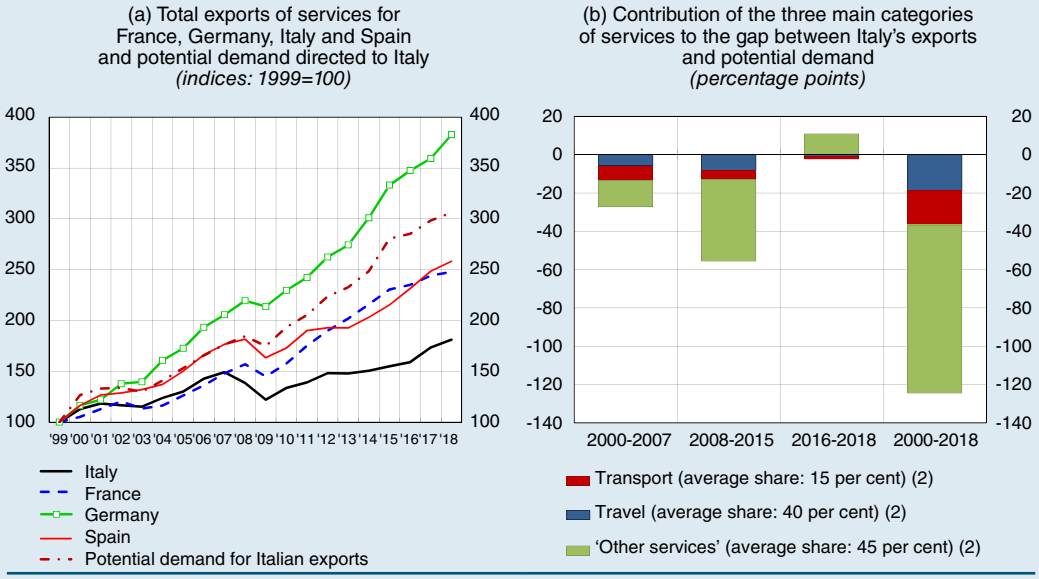
The deficit on services narrowed to €2.7 billion thanks to the improvement in the tourism balance, under way since the start of the decade (see Chapter 15, 'Tourism in Italy: figures and development potential'); foreign tourists' expenditure in Italy rose by 6.5 per cent at current prices, driven by tourism from Europe and the United States. The balances were practically unchanged for transport and 'other services', for which the recovery in exports under way since 2016 continues (see the box 'Italy's exports of services'): last year they were driven by processing services and charges for the use of intellectual property.

ITALY'S EXPORTS OF SERVICES

Against the backdrop of the ever more important role played by services in global trade, the performance of Italy's exports of services has been relatively modest over the last twenty years, both in comparison with the other major euro-area countries and with respect to foreign demand from other outlet markets.[1]

Between 1999 and 2018 Italy's exports of services, at current prices, grew one third less than Germany's (by 81 percentage points over the whole period, compared with 283 points; see panel (a) of the figure). Though to a lesser degree, the gap was wide also compared with France and Spain, for which exports increased by more than one and a half times. Owing to these dynamics, sales of services abroad represented almost 6 per cent of Italy's GDP last year (only 1 percentage point more than in 1999), while in the other three countries they accounted for a share of between 8 and 11 per cent, a marked increase compared with 1999.

Italy's exports of services and international comparison for the period 1999-2018 (1)



Sources: Based on Bank of Italy, Eurostat and IMF data.
(1) Annual balance of payments data (at current prices). Potential demand is calculated as the weighted average of the imports of Italy's trading partners, using as weights their respective shares of Italian exports. – (2) Average for the period 1999-2018.

Considering the three main categories of services, the negative growth gap accumulated by Italian exports compared with potential demand,[2] equal to about 124 percentage points over the whole period, is mainly ascribable to

[1] A. Moro and E. Tosti, 'Italy's international trade in services: a story of missed growth?', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), forthcoming.

[2] Potential demand is calculated as the weighted average of the imports of Italy's trading partners, using as weights their respective shares of Italian exports.

the 'other services' components (i.e. services other than travel and transport), a category comprising for example IT, telecommunication, financial, professional, and research and development services[3] (see panel (b) of the figure). In 2018 'other services' accounted for 47 per cent of Italy's exports of services and just under 9 per cent of its exports of goods and services combined; these figures were significantly higher for France and Germany.

Three distinct phases can be identified in the performance of Italy's exports of services. In the first, from 1999 to 2007, the weakness in potential demand mainly concerned transport and 'other services'. In the second one, up to 2015, the growth gap was much wider, almost twice what it had been in the previous stage, mainly owing to the very weak performance of the 'other services' component which, instead, drove the recovery recorded in the third stage, the three years 2016-18. This last stage was marked by a growth in exports that exceeded the growth in demand from outlet markets.

Econometric analyses using microdata on non-financial firms and insurance companies gathered by the Bank of Italy as part of the surveys conducted for the compilation of the balance of payments make it possible to identify, for the period between 2013 and 2018, some of the main determinants of Italian firms' exports of 'other services'. In line with the literature on international trade, the findings confirm the positive role of potential demand and show a direct relation between sales abroad and certain firm characteristics (size, productivity, and being part of a multinational group). Italy's weakness in this broad category of services is at least partly ascribable to the scarcity of medium-large firms, the low productivity of service firms, and limited internationalization in the service sector. In particular, an examination of the data for the last three years indicates that the recovery in exports was driven by large firms belonging to a group led by a foreign parent company.

[3] This is a multifaceted set of transactions that includes repairs, processing by third parties, construction, insurance services, financial services, charges for the use of intellectual property, IT and telecommunication services, personal and cultural services, general government services, and 'other business services' (including research and development services and architectural, engineering and scientific services).

The primary income surplus grew further, to €17.3 billion. As in recent years, the improvement is mainly ascribable to investment income, owing to the progressive reduction in Italy's net international debtor position and the favourable rebalancing by type of instrument of assets and liabilities, which widened the positive differential yield between them. The increase in yields at issue observed since May 2018 has not yet resulted in an increase in interest expense paid abroad, which for the resident sectors combined has reached the lowest level since the beginning of the past decade.

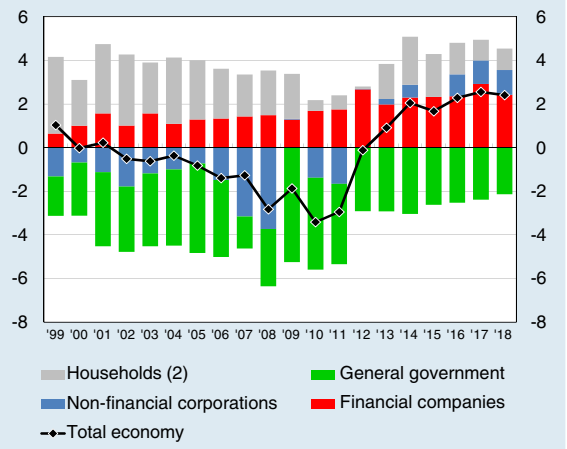
The deficit on secondary income rose to €17.6 billion owing both to the larger deficit vis-à-vis EU institutions and the increase in immigrant workers' remittances abroad, the latter in large part due to the statistical break stemming from the widening of the scope of the survey to include, starting last year, non-resident money transfer operators under the 'freedom to provide services' regime. Despite the strong growth in

emigration in recent years, the flows of inbound remittances remain low.

Since the beginning of the decade, the change in the current account balance has been considerable (5.9 percentage points of GDP, of which 4.0 points in the goods component). If one interprets such balance as a reflection of the saving and investment decisions made by the resident institutional sectors, the improvement compared with 2010 was mainly ascribable to the changes in the balance for the non-financial corporate sector (which in recent years has become a creditor) and for the general government sector (which has reduced its net indebtedness); the household sector's surplus grew slightly (Figure 10.3).

Figure 10.3

Net lending/borrowing of the resident institutional sectors (1)
(per cent of GDP)



Source: Istat.
(1) Net lending/borrowing for the economy as a whole corresponds to the sum of the current and capital accounts of the balance of payments. Following the revision of the estimates for 2017 and 2018, the series present a statistical break between 2016 and 2017 (see Istat, 'GDP and general government net borrowing: updating', Note, 9 April 2019). – (2) Includes non-profit institutions serving households.

The financial account

Foreign portfolio investments by Italian residents remained positive at €46.0 billion in 2018, though they are less than half the average for the previous four years, during which time households turned to asset management products – which feature a higher degree of international diversification – in response to both the low yields and more limited availability of government securities in connection with the Eurosystem's expanded asset purchase programme (APP) and the limited supply of bank bonds. Last year such portfolio rebalancing was restrained by the gradual winding down of the APP and by the slowdown in the net redemptions of retail bank bonds (due to the lower amount of securities reaching maturity). In the last part of the year, resident banks and investment funds also decreased the share of foreign assets in their portfolios, coinciding with the rise in Italian bond yields. Investment in foreign funds, which represents a significant share of households' portfolios (see the box 'An analysis of the portfolio of the foreign investment funds held by Italian households'), was equal to €22.2 billion, the lowest level since 2011. Purchases of foreign debt securities declined to €16.9 billion and favoured public sector securities issued by the United States and the main euro-area countries (excluding Germany); investment in shares remained at modest levels (€6.9 billion).

AN ANALYSIS OF THE PORTFOLIO OF THE FOREIGN INVESTMENT FUNDS HELD BY ITALIAN HOUSEHOLDS

The share of foreign investment funds in the portfolio of Italian households, which was negligible up to the mid-1990s, has risen significantly since 2012. At the

end of 2018 these funds amounted to €265 billion, equal to 6 per cent of households' total financial wealth and to 54 per cent of total investment fund holdings. Compared with the other major euro-area economies, however, Italian households had a higher share of financial wealth invested in foreign funds.

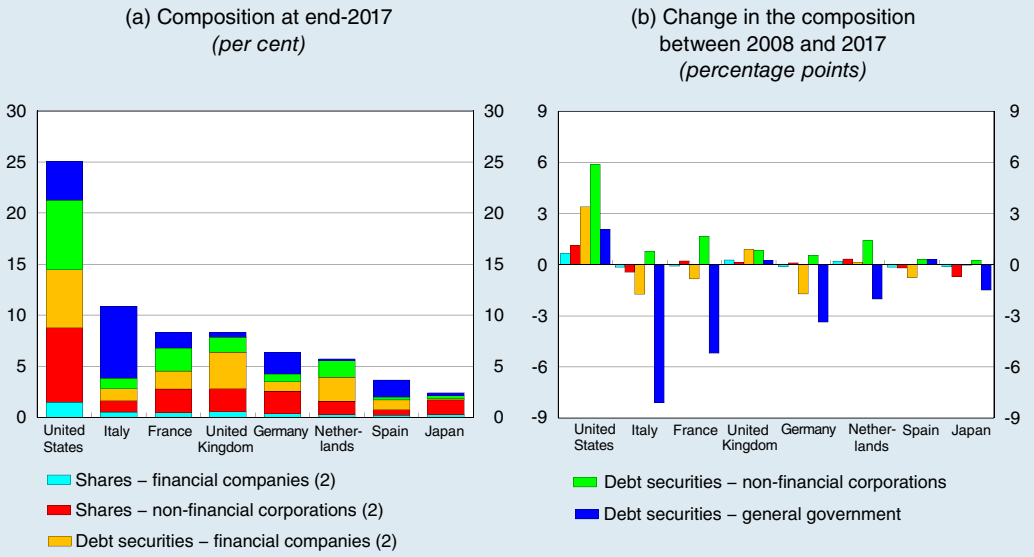
Through these foreign investment funds, households invest in the global financial markets, thereby increasing the degree of geographical diversification of their investments. Balance of payments statistics do not permit an analysis of the composition by instrument and by issuer country of the portfolio underlying the foreign investment funds held by Italian households. To get around this problem, the composition of the investments made by Italian households through foreign investment funds in the period 2008-17 was estimated using data at the individual fund level, which were taken from supervisory reports and the Morningstar Direct database.[1]

Through foreign investment funds, at the end of 2017 Italian households held investments vis-à-vis about 150 countries. However, ten countries accounted for almost 75 per cent of the underlying portfolio. The United States was the main destination country, accounting for 25 per cent of total investment (see panel (a) of the figure). A significant share of the investments in foreign funds was redirected towards financial assets issued by Italian residents (11 per cent), especially public sector securities. The other major destination countries included the main euro-area economies, Japan and the United Kingdom. More than two thirds of the portfolio was invested in debt securities, with those issued by the public sector (24 per cent of the total) and by financial companies (25 per cent) exceeding those issued by non-financial corporations (19 per cent). The remainder was mainly invested in shares issued by non-financial corporations.

Between 2008 and 2017 the composition of the foreign investment fund portfolio held by Italian households changed significantly (see panel (b) of the figure). The share held vis-à-vis the United States increased by 13 percentage points, leading to a reduction in those of the major euro-area countries, including Italy (for which it decreased by 10 percentage points). The share of debt securities was practically unchanged: the Eurosystem's asset purchase programme and the low interest rate environment contributed to a shift away from government securities (which declined from 41 to 24 per cent) towards those issued by non-financial corporations (which rose from 3 to 19 per cent). The composition of the equity portfolio by country and issuer sector, instead, remained virtually stable. Overall, these changes increased Italian households' exposure to exchange rate risks and to firms' performance.

[1] M. Coletta and R. Santioni, 'Households' investments in foreign mutual funds made transparent', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), forthcoming. The estimates are based on a highly representative sample of foreign investment funds actually held by Italian households. For an estimate based on aggregate data and considering all holder sectors, see V. Della Corte, S. Federico and A. Felettigh, 'Looking through cross-border positions in investment funds: evidence from Italy', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 439, 2018.

Final destination country of Italian households' investments in foreign funds (1)



Sources: Based on data from the Bank of Italy, the ECB (Centralised Securities Database) and Morningstar.
(1) End-of-period data. The figure shows the top eight countries in terms of final destination of the investments. In 2017 these countries accounted for more than 70 per cent of the foreign investment fund portfolio. – (2) Banks and other financial intermediaries, including insurance companies and pension funds.

Based on provisional data, foreign direct investment amounted to €23.4 billion, about twice as much as last year. The significant recovery in Italian firms' acquisitions of foreign businesses mainly concerned the infrastructure, energy and telecommunications sectors.

On the liability side, foreign investors made net purchases of Italian portfolio securities equal to €75.8 billion, of which €50.9 billion in public sector securities (see the box 'Foreign capital flows in Italy in 2018'). Foreign demand for Italian government securities, which was brisk in the early months of the year, came to a sharp fall between May and August; more limited disinvestments were observed in the following months. Foreign investors reduced their exposures, including those in private sector securities (€16.9 billion), especially bank bonds. Net sales of shares (totalling €7.9 billion) were in large part ascribable to the accounting effects of a non-recurring operation concerning an exchange offer of Luxottica shares as part of its merger with the French company Essilor.

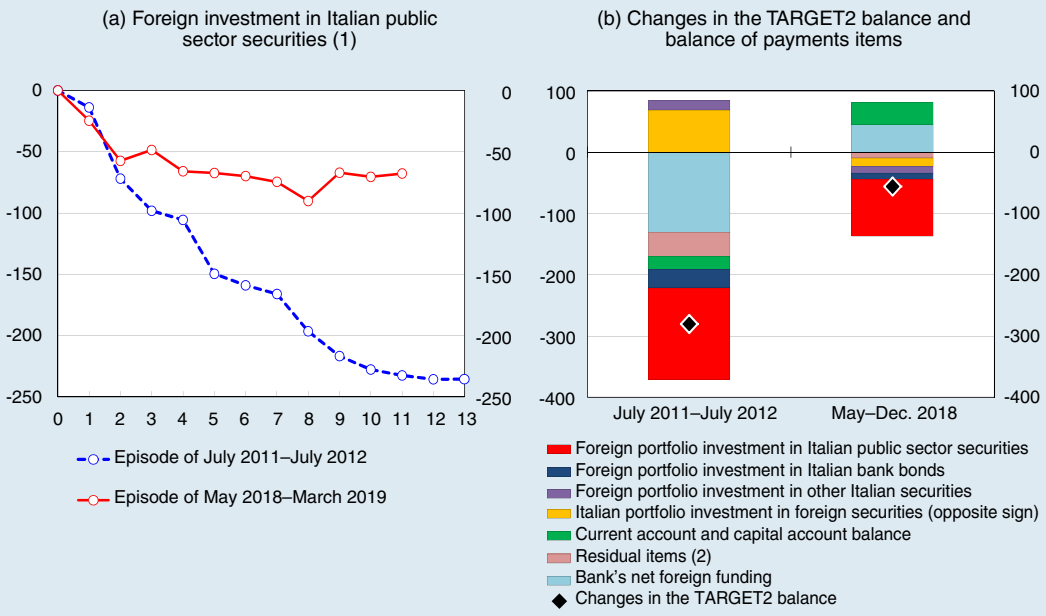
FOREIGN CAPITAL FLOWS IN ITALY IN 2018

There were significant foreign capital outflows from Italy between May and December of last year, especially in the government securities market, coinciding with the more widespread tensions on the Italian financial markets: non-residents (excluding the Eurosystem) disposed of €90 billion worth of government securities, or 12 per cent of their initial stock (see panel (a) of the figure). Investment funds residing in other euro-area countries and non-euro-area investors accounted for the largest reduction in their exposure to Italian

public sector securities. In contrast, Italian banks' funding on the international interbank market increased by €45 billion, driven by transactions on the MTS repo market. This was partly thanks to the very favourable financing conditions on this market and the high demand for Italian securities in the special repo segment which was met by Italian banks in exchange for liquidity. Reflecting these movements, between May and December 2018 the Bank of Italy's negative balance on TARGET2 widened by €56 billion; the increase was much smaller than the portfolio divestments, also thanks to the large surplus in the current and capital accounts (see panel (b) of the figure).

Foreign investment in Italian public sector securities and changes in the Bank of Italy's TARGET2 balance

(cumulative flows; billions of euros)



Sources: Based on Bank of Italy and ECB data.
(1) Excludes net purchases of public sector securities by the Eurosystem; purchases are estimated using public data on the securities markets programme (SMP) and on the public sector purchase programme (PSPP). – (2) Direct investment, derivatives, residual items in other investment, official reserves, errors and omissions.

The outflow of foreign capital from Italy which began in May 2018 exhibited characteristics that differed on the whole from the outflow recorded during the most acute phase of the sovereign debt crisis in 2011-12. Specifically, sales of public sector securities on the part of all the main categories of foreign investors were more limited; the outflows were limited to a few specific short-term bouts (especially between May and June and in August) and then came to a stop; and inflows were registered through the bank funding channel, partly on account of the lower dependence of Italian banks on the international markets for their financing (in 2018 their net position on the international interbank market was negative by 7 per cent of GDP, compared with 21 per cent in mid-2011). Between July 2011 and July 2012, there was a significant and 'sudden stop' in foreign capital inflows according to the statistical methodology used to identify

these episodes:[1] every sector of foreign holders, including banks and insurance companies, sold its Italian public sector securities, disposing of a total of 32 per cent of their initial stock;[2] Italian banks' funding on the international interbank market fell by €130 billion; and the Bank of Italy's TARGET2 balance worsened by €286 billion.

Tensions eased in the first few months of this year, partly thanks to the agreement reached at the end of 2018 between the Italian government and the European Commission on the budget plan, and partly thanks to the easing of monetary conditions in the euro-area and to the improvement in conditions on the global financial markets. Between January and March, foreign investors resumed their purchases of public sector securities.

[1] V. Della Corte and S. Federico, 'Two tales of foreign investor outflows: Italy in 2011-12 and 2018', Banca d'Italia, Questioni di Economia e Finanza (Working Papers), forthcoming. The statistical identification of the 'sudden stop' episodes is based on the methodology proposed by K.J. Forbes and F.E. Warnock, 'Capital flow waves: surges, stops, flight, and retrenchment', *Journal of International Economics*, 88, 2, 2012, 235-251.

[2] This figure excludes purchases made by the ECB and by national central banks of other euro-area countries within the context of the SMP. Looking at only the first eight months of the most acute phase of the sovereign debt crisis (to ensure full comparability with the 2018 episode in terms of duration), foreign investors sold 26 per cent of their initial stock of Italian public sector securities.

According to provisional data, foreign direct investment in Italy was equal to €26.5 billion. In addition to the merger between Luxottica and Essilor (accounting for about €7 billion), the main contribution came from capital increases by foreign-controlled Italian firms and from intra-company loans; capital inflows connected with acquisitions of Italian firms were instead modest, likely on account of the uncertainty present in the Italian financial markets.

Table 10.2

Changes in the TARGET2 balance and relation with the other balance of payments items (1)
(billions of euros)

	TARGET2 balance (end of month)	Change in TARGET2 balance	Foreign portfolio investment in Italian public sector securities	Foreign portfolio investment in Italian private sector securities (excl. bank bonds)	Foreign portfolio investment in Italian bank bonds	Net foreign funding of resident monetary financial institutions (excluding central bank) in loans and deposits		Current account and capital account balance	Other items (2)	Italian portfolio investment in foreign securities
		(A) + (B) + (C) + (D) + (E) + (F) - (G)	(A)	(B)	(C)	(D)	*of which:* cleared by resident central counterparties	(E)	(F)	(G)
2018	-482	-43	-51	-13	-12	53	43	43	-17	46
2018 Q1	-442	-3	32	-2	-2	-1	2	4	-4	30
Q2	-481	-38	-48	-8	-11	31	33	10	-11	2
Q3	-489	-8	-11	5	-2	16	-4	16	-4	29
Q4	-482	7	-24	-8	3	7	12	13	2	-15
2019 Q1	-475	7	18	0	2	-8	-18	7	-11	1

(1) A negative change in the TARGET2 balance indicates an increase in the Bank of Italy's liabilities in TARGET2. For additional information, see 'Balance of Payments and International Investment Position', Banca d'Italia, Statistics Series, 19 February 2019. For Q1 2019, provisional data. – (2) Direct investment, derivatives, residual items in other investment, official reserves, errors and omissions.

Italian banks' net funding on the international market in the form of loans and deposits grew by €52.6 billion, interrupting the decline under way since 2016. The most significant growth was in the funding obtained in the MTS Repo market cleared by the Italian central counterparty Cassa di Compensazione e Garanzia SpA (CC&G). Because CC&G is classified as a non-bank financial intermediary, these transactions are entered in the balance of payments under the non-bank private sector (under 'Other investment' in the section 'Other sectors'), but from an economic point of view they are attributable to the resident banking sector (see the box 'Recent trends in the TARGET2 balance and its determinants', *Economic Bulletin*, 2, 2019).

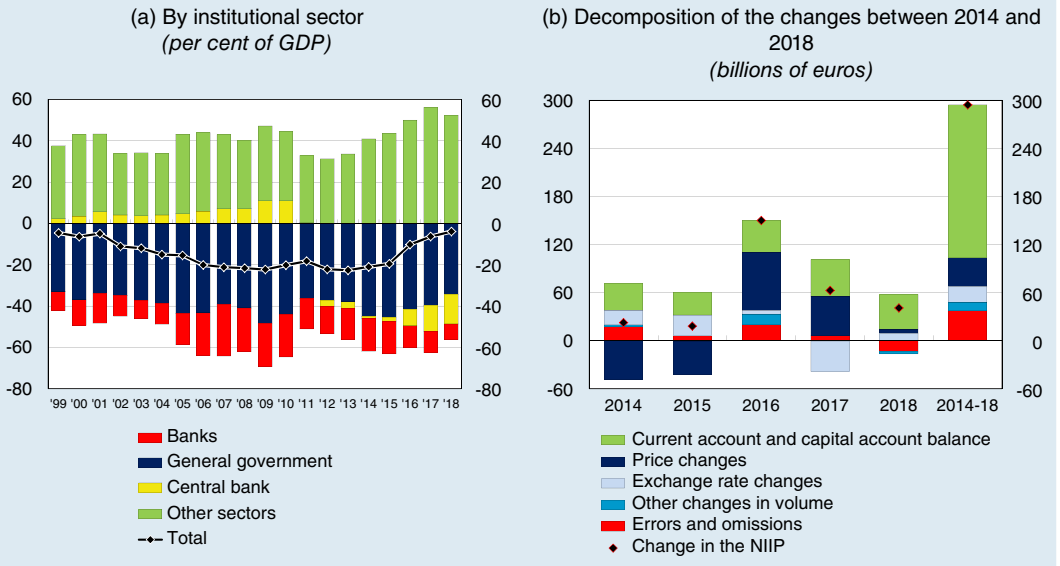
The Bank of Italy's debtor position in the European payment system TARGET2 widened by €43.0 billion in 2018 as a whole (Table 10.2). The increase was concentrated in the period between May and August, in relation to the sales of Italian securities on the part of non-resident investors; in the following months the negative balance narrowed slightly, reaching €482 billion at the end of December. It was unchanged in the first four months of 2019.

The net international investment position

Italy's net international investment position was negative by €69.0 billion at the end of 2018, equal to 3.9 per cent of GDP (Figure 10.4.a). The improvement of €40.9 billion compared with the previous year was entirely due to the current account surplus (Figure 10.4.b). The negative contribution of errors and omissions was offset by the positive one of valuation adjustments connected with the exchange rate, which benefited from the appreciation of the dollar, given Italian residents' net creditor position in that currency. The valuation adjustments connected with changes in market prices were sizeable but largely balanced between assets and liabilities, and therefore had a modest net effect.

Figure 10.4

Net international investment position (NIIP)



Sources: Based on Bank of Italy and, for GDP, Istat data.

In the last five years, the negative net international investment position narrowed by 18.7 percentage points of GDP, mostly thanks to the persistent current account surpluses. Based on the available forecasts of the current account balance and of nominal GDP, and assuming a zero contribution from valuation adjustments and errors and omissions, Italy's position is set to turn to net creditor over the course of 2020.

11. THE PUBLIC FINANCES

In 2018 the fiscal stance, as measured by the cyclically adjusted change in the primary surplus, remained basically neutral. Net borrowing continued to decline, falling to 2.1 per cent of GDP, while the debt-to-GDP ratio returned to growth, reaching 132.2 per cent.

Since the spring of 2018, uncertainty concerning the new government's plans has contributed to an increase in the yields at issue of Italian government bonds. Following an agreement reached with the European Commission on the 2019 budget objectives, financial market tensions partially abated in the last part of the year. The long average residual maturity of the public debt slows the transmission of the higher yields at issue to the average cost of the debt, but it is estimated that a permanent rise of 1 percentage point in rates would result in an increase of just under 0.5 points in the average cost of the debt after three years.

In 2019 the fiscal stance is expected to be slightly expansionary. According to the most recent official estimates, net borrowing will increase to 2.4 per cent of GDP. Instead, for the three years 2020-22, the Government plans to steadily reduce the deficit (to 1.5 per cent of GDP), incorporating in the estimates the indirect tax increases provided for by the safeguard clauses over the next two years and budget adjustments in 2022; excluding these measures, net borrowing is estimated at just under 3.5 per cent of GDP over the three years on average.

The latest Fiscal Sustainability Report of the European Commission signals an increase in risks to the sustainability of the public finances, largely on account of the deterioration recorded in recent years in the structural primary balance and, to a lesser extent, the expected increase in spending related to the ageing population.

Budget outturns for 2018

Net borrowing: objectives and outturns. – At the start of the budget session for 2018, the Draft Budgetary Plan (published in October 2017) had indicated a net borrowing objective of 1.6 per cent of GDP for last year (see the section 'The outlook', Chapter 11, *Annual Report for 2017*, 2018), Last autumn this forecast was revised upwards following weaker growth and higher than expected interest expense;[1] most recently, in the Update to the 2018 Macroeconomic Outlook and the Public

[1] 'Preliminary hearing on the Update to the 2018 Economic and Financial Document', testimony by L.F. Signorini, Deputy Governor of the Bank of Italy, before the Chamber of Deputies, Rome, 9 October 2018.

Finances published in December, the government estimated a deficit of 1.9 per cent of GDP for 2018 (Table 11.1).

Table 11.1

Public finance objectives and estimates for 2018
(per cent of GDP)

	General government				*Memorandum items:*			
	Net borrowing	Primary surplus	Change in the structural deficit	Change in the debt	Real GDP growth rate 2018	Privati-zation receipts 2018	Net borrowing 2017	Structural deficit 2017
Objectives								
October 2017 (1)	1.6	2.0	-0.3	-1.6	1.5	0.3	2.1	1.3
Estimates								
April 2018 (2)	1.6	1.9	-0.1	-1.0	1.5	0.3	2.3	1.1
September 2018 (3)	1.8	1.8	-0.2	-0.3	1.2	0.3	2.4	1.1
December 2018 (4)	1.9	1.8	-0.2	0.5	1.0	....	2.4	....
Outturns (5)	**2.1**	**1.6**	**0.1**	**0.8**	**0.9**	**0.0**	**2.4**	**2.1**

(1) Italy's 2018 Draft Budgetary Plan. – (2) 2018 Economic and Financial Document. – (3) Update to the 2018 Economic and Financial Document. – (4) Based on the Update to the 2018 Macroeconomic Outlook and the Public Finances, December 2018; for net borrowing and debt in 2017, Update to the 2018 Economic and Financial Document. – (5) For net borrowing, the primary surplus and GDP growth, based on Istat data (see Istat, 'GDP and general government net borrowing: updating', Note, 9 April 2019). For the change in the structural balance in 2018 and for the structural deficit in 2017, European Commission, *Spring 2019 Economic Forecast*, May 2019.

Final budgetary data show that the ratio of general government net borrowing to GDP came to 2.1 per cent, 0.3 percentage points lower than in 2017 (Figure 11.1).[2] The main contributory factor was the increase in the primary surplus, which owing to the performance of the economy rose to 1.6 per cent of GDP (from 1.4 per cent in 2017); interest expense fell marginally (by 0.1 percentage points of GDP). Revenue as a share of GDP declined slightly, as did primary expenditure (by around 0.1 and 0.2 points respectively, to 46.4 and 44.9 per cent).

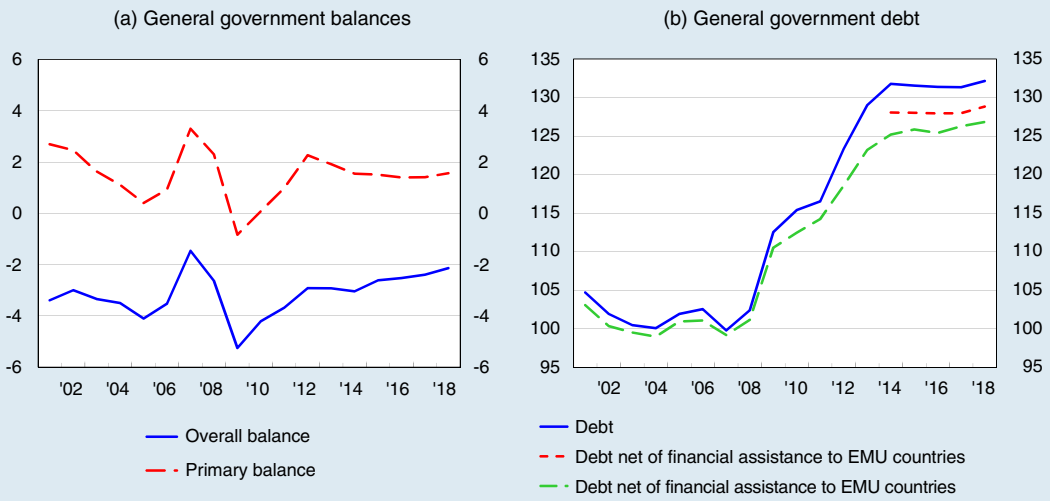
According to the European Commission estimates, the fiscal policy stance, as measured by the cyclically adjusted change in the primary surplus, was practically neutral in 2018 (it had been expansionary by around 0.7 percentage points on average in the four years 2014-17). The net structural deficit i.e. adjusted not only for the effects of the economic cycle but also for those of temporary measures, is estimated to have remained virtually unchanged (at around 2.2 per cent of GDP; in 2014 it was 0.9 per cent).

Revenue. – In 2018 revenue rose by 1.6 per cent (to €816.1 billion; Table 11.2), driven by the increase in social contributions and indirect taxes.

[2] On 9 April 2019, Istat revised its estimates for the general government accounts and GDP for the years 2017-18. The revisions take account of the extension of the perimeter of general government as defined in agreement with Eurostat based on criteria established by the ESA 2010 system of accounts. While they marginally affect net borrowing, the revisions significantly affect some items in the general government account, thereby creating a break in the data between 2016 and 2017 that will be remedied in the autumn with a revision of the estimates for the preceding years (see Istat, 'GDP and general government net borrowing: updating', Note, 9 April 2019).

Figure 11.1

Public finance indicators (1)
(per cent of GDP)



(1) Following the revision of the estimates of the public accounts and of GDP in connection with the changes in the perimeter of general government, the series present a statistical break between 2016 and 2017 (see Istat, 'GDP and general government net borrowing: updating', Note, 9 April 2019, and the Bank of Italy's press release of the same date, 'Revised estimates of general government debt for 2015-18').

Table 11.2

Consolidated accounts of general government (1)
(billions of euros and per cent of GDP)

	2013	2014	2015	2016	2017	2018
Current revenue	763.7	769.5	778.1	779.2	797.0	812.4
of which: social contributions	215.3	214.3	219.1	220.6	225.6	235.0
direct taxes	240.9	237.1	242.5	247.6	250.6	248.9
indirect taxes	239.8	248.8	247.3	242.0	248.4	253.6
Capital revenue	8.8	6.7	9.2	6.8	6.6	3.7
Total revenue	**772.5**	**776.2**	**787.3**	**786.0**	**803.6**	**816.1**
per cent of GDP	48.1	47.9	47.7	46.5	46.5	46.4
Current primary expenditure	683.7	691.0	694.0	705.0	712.1	730.3
Interest payments	77.6	74.4	68.1	66.3	65.6	65.0
Capital account expenditure	58.1	60.2	68.4	57.4	67.2	58.4
of which: gross fixed investment (2)	38.6	37.0	36.6	35.8	38.8	37.1
Total expenditure	**819.4**	**825.5**	**830.4**	**828.7**	**844.9**	**853.6**
per cent of GDP	51.1	50.9	50.3	49.0	48.9	48.6
Primary balance	**30.7**	**25.0**	**24.9**	**23.6**	**24.3**	**27.5**
per cent of GDP	1.9	1.5	1.5	1.4	1.4	1.6
Net borrowing	**46.9**	**49.3**	**43.1**	**42.7**	**41.3**	**37.5**
per cent of GDP	2.9	3.0	2.6	2.5	2.4	2.1

Source: Istat.
(1) Following the revision of the estimates for 2017 and 2018, linked to the revision of the perimeter of general government, the series present a statistical break between 2016 and 2017 (see Istat, 'GDP and general government net borrowing: updating', Note, 9 April 2019). Rounding of decimal points may cause discrepancies in totals. – (2) This item includes (with a negative sign) the proceeds deriving from property disposals.

Social security contributions, in particular, rose by 4.2 per cent (to €235.0 billion), owing to contract renewals in both the public and private sectors (see the section 'Collective bargaining and industrial relations', Chapter 8), and to the end of temporary relief on social security contributions for new permanent hires legislated by the 2015 and 2016 budgets.

Indirect taxes increased by 2.1 per cent, to €253.6 billion. VAT receipts rose by 1.2 per cent (to €109.2 billion), reflecting – in addition to the increase in consumption – the broader application of the split payment mechanism and higher oil prices. Receipts from the regional tax on productive activities (IRAP) continued to rise (by 6.4 per cent, to €23.7 billion).

Direct taxes instead declined by 0.7 per cent, to €248.9 billion. This was partly attributable to lower corporate tax receipts (IRES), which fell by 10.2 per cent to €31.0 billion, owing both to the lower rate envisaged in the 2016 Stability Law (see the section 'Revenue', Chapter 11, *Annual Report for 2017*, 2018) and to the tax breaks on investment in innovative and technology-intensive tangible capital goods (super-amortization and hyper-amortization). Personal income tax receipts (IRPEF) continued to rise (by 1.8 per cent, to €172.3 billion), especially from withholding taxes on payroll employment, which benefited from the growth in employment and gross wages (see Chapter 8, 'The labour market').

Capital tax revenue also declined (by over one third, to €1.5 billion), mainly as a result of the further drop (from €1.0 billion to €0.3 billion) in the proceeds from the voluntary disclosure of assets established or held abroad.

The tax burden remained stable overall, at 42.1 per cent, interrupting the fall under way since 2014. The gap with respect to the euro-area average (41.4 per cent) nevertheless declined (it had been 0.8 percentage points in 2017). In comparison with the main euro-area economies, the tax burden in Italy is still below that in France (48.5 per cent) but higher than in Germany (40.7 per cent) and Spain (35.3 per cent).

Based on the OECD estimates for 2018,[3] relative to a worker with wages in line with the national average and no dependents, the tax wedge on payroll earnings in Italy amounts to 47.9 per cent; it is about six percentage points higher than the average for the other euro-area countries and lower only to Belgium and Germany. For workers without dependents and with earnings equal to two thirds of the national average, who are beneficiaries of the tax credit introduced in 2014 (see the section 'Revenue', Chapter 11, *Annual Report for 2016*, 2017) the tax wedge falls to 40.9 per cent and the gap narrows to 3.6 percentage points.

Expenditure. – In 2018 general government expenditure increased by 1.0 per cent (reaching €853.6 billion; Table 11.2): the increase in current primary expenditure (to €730.3 billion or 41.6 per cent of GDP) was mitigated by the fall in capital expenditure (to €58.4 billion or 3.3 per cent of GDP) and by the slight decline in interest expense (to €65.0 billion or 3.7 per cent of GDP).

[3] OECD, *Taxing Wages 2019*. The OECD does not make any calculations for Cyprus and Malta.

Following public sector contract renewals and the cost-of-living revaluation of pension benefits, primary current expenditure rose more rapidly than it had in the previous eight years (by 2.6 per cent, against 1.1 per cent on average each year between 2010 and 2017).

In particular, compensation of payroll employees rose by 3.1 per cent (to €171.8 billion), reflecting the increase of 3.5 per cent in gross per capita earnings linked to contract renewals in virtually all sectors of public employment. These renewals had been approved in 2017 (with reference to the period 2016-18) after a freeze of around seven years (see the section 'Expenditure', Chapter 11, *Annual Report for 2017*, 2018). Meanwhile, employment levels in the public sector remained basically unchanged, halting the almost uninterrupted decline under way since 2003.

Social benefits in cash increased by 2.2 per cent (to €348.9 billion). Among these, pension expenditure rose by 1.9 per cent (to €292.3 billion), above all owing to the cost-of-living revaluation of pensions and, to a lesser extent, the increase in the number of pensioners.

Outlays on intermediate consumption and social benefits in kind were also up (by 1.2 and 2.2 per cent respectively, to €98.0 billion and €45.9 billion).

The other current expenditure items rose by 5.3 per cent (to €65.7 billion), driven by transfers to the European Union (26.2 per cent, to €15.3 billion), which after falling in 2017 turned upwards again.

Capital expenditure came down by 13.1 per cent, mostly because of fewer transfers to firms, which in 2017 had almost tripled owing to financial sector support measures (see the section 'Expenditure', Chapter 11, *Annual Report for 2017*, 2018). Investment continued to fall (4.3 per cent, to €37.1 billion), continuing the trend observed in recent years (see the section 'Public investment expenditure and infrastructure', Chapter 16).

Interest expense declined further, though only marginally (by 0.9 per cent; €0.6 billion): given the long average residual maturity of the public debt, the increase in the rates at issue observed during the year has not yet determined an increase in the average cost, though it did slow its fall. According to our estimates, a permanent rise of 1 percentage point in yields at issue would translate – if the composition of the stock of debt remains unchanged – into an increase in its average cost of around 0.1 percentage points after one year, 0.2 points after two years, and 0.4 points after three years (see *Financial Stability Report*, 1, 2019).

The public debt: objectives and outturns. – The 2018 Draft Budgetary Plan had envisaged a reduction of 1.6 percentage points in the debt-to-GDP ratio for last year; this reduction was then revised downwards by more than 1 percentage point in the autumn, mainly because of lower expected growth in nominal GDP.[4] In the estimates

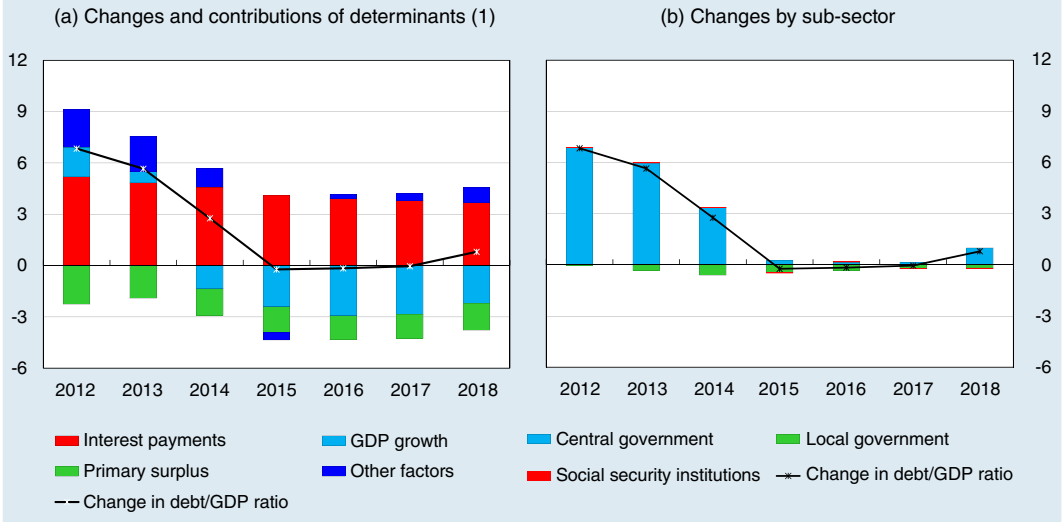
[4] 'Preliminary hearing on the Update to the 2018 Economic and Financial Document', testimony by L.F. Signorini, Deputy Governor of the Bank of Italy, before the Chamber of Deputies, Rome, 9 October 2018.

contained in the Update to the 2018 Macroeconomic Outlook and the Public Finances published in December, the debt-to-GDP ratio was instead estimated to rise by around half of a percentage point (see Table 11.1).

Based on final budgetary data, the ratio of general government borrowing to GDP rose by 0.8 percentage points, to 132.2 per cent (see Figure 11.1);[5] the larger increase than that estimated by the Government in December mostly reflects lower growth in nominal GDP. The primary surplus reduced the ratio by 1.6 percentage points, while the spread between the average cost of the debt and the nominal growth of GDP increased it by 1.5 points (see the box 'The spread between the average cost of the debt and nominal GDP growth: recent trends and outlook'). An increase of almost 1 percentage point derived from another set of factors, which affect debt but not net borrowing (Figure 11.2). Among these, the Treasury's higher liquid balance at the end of the year raised the debt by 0.3 percentage points of GDP. The flows generated by derivative financial instruments and the overall effect of the discounts and premiums at issue and at redemption, of the revaluation of inflation-indexed securities and of the change in exchange rates, raised it by an additional 0.3 and 0.4 points respectively. As in the previous two years, privatization receipts were basically nil relative to GDP, while they were estimated at 0.3 per cent in the draft budgetary plans published in the last two years.

Figure 11.2

General government debt (1)
(per cent of GDP)



(1) Following the revision of the estimates of the public accounts and of GDP in connection with the changes in the perimeter of general government, the series present a statistical break especially between 2016 and 2017 (see the Bank of Italy's press release of 9 April 2019, 'Revised estimates of general government debt for 2015-18').

[5] Istat's revision of the perimeter of general government and of GDP led to an increase of 0.1 percentage points in the debt-to-GDP ratio for 2017 and 2018; in the autumn the estimates for the preceding years will also be revised (see the Bank of Italy's press release of 9 April 2019, 'Revised estimates of general government debt for 2015-18'.)

THE SPREAD BETWEEN THE AVERAGE COST OF THE DEBT AND NOMINAL GDP GROWTH: RECENT TRENDS AND OUTLOOK

In addition to reflecting the size of the primary fiscal balance, the evolution of the debt-to-GDP ratio has an inertial component that depends on the spread between the average cost of the debt and the nominal GDP growth rate: on the one hand, the debt-to-GDP ratio increases as a result of interest paid on the stock of legacy debt; on the other, the faster the rate of nominal GDP growth, the more the ratio tends to come down.

A positive spread requires a primary surplus to stabilize the debt-to-GDP ratio; the higher the debt, the higher the surplus needed. When, instead, the spread is negative, the ratio can be stabilized even if there is a primary deficit.

After reaching almost 6 per cent in 2012, the spread between the average cost of the debt and nominal growth declined steadily, to just below 1 per cent in 2017. In 2018 the spread increased (to 1.2 per cent), reflecting the economic slowdown.

On average in the last five years, together with Greece,[1] Italy is the only euro-area country to have recorded a positive spread between the average cost of the debt and growth. In the other countries the spread has been negative on average, reflecting, in contrast to Italy, faster economic growth and a generally lower cost of the debt (see the table). The average cost that Italy must shoulder to finance itself depends not only on the high level of the debt but also on the country's relatively low growth potential.

The spread between the average cost of the debt and nominal GDP growth
(per cent)

	Average 2015-18			Average 2019-20			
	Average cost (r)	Nominal growth (g)	(r-g)	Average cost (r)	Nominal growth (g)	(r-g)	Primary balance required to stabilize the debt
Italy	**3.0**	**2.0**	**1.0**	**2.8**	**1.3**	**1.5**	**2.0**
Belgium	2.6	3.0	-0.4	2.1	2.8	-0.7	-0.7
France	1.9	2.2	-0.3	1.7	2.7	-1.0	-1.0
Germany	1.7	3.6	-1.9	1.5	3.2	-1.7	-1.0
Greece	1.9	0.8	1.0	2.1	3.4	-1.3	-2.3
Portugal	3.2	3.9	-0.7	2.7	3.2	-0.5	-0.6
Spain	2.9	3.9	-1.0	2.4	3.6	-1.3	-1.2
United Kingdom	2.9	3.5	-0.6	2.8	3.3	-0.4	-0.4
USA	3.8	4.0	-0.2	3.9	4.1	-0.2	-0.2
Japan	0.8	1.7	-0.9	0.7	1.1	-0.4	-0.9

Source: European Commission, *Spring 2019 Economic Forecast*, May 2019.

[1] It should be remembered that Greece's average cost of the debt is around 1 percentage point below Italy's and benefits from the particularly favourable terms of loans granted under the financial assistance programmes.

Based on the latest forecasts, in the two years 2019-20 the spread will remain positive for Italy (averaging 1.5 per cent according to the European Commission's assessments),[2] while it is expected to be negative for all the other countries. In the same two years, the average cost of the debt is expected to remain basically unchanged at last year's level and, if financial market conditions stay the same, it will increase in the medium term. The trend in Italy's average cost of the debt appears less favourable than that expected last year.

Based on the European Commission's forecasts, a reduction in the share of debt to GDP in Italy in the two years 2019-20 would require a primary surplus of more than 2 per cent of GDP on average per year.[3]

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[2] In the Government's estimates contained in the 2019 Economic and Financial Document, the spread would amount to 1.5 per cent this year and would be nil in 2020.

[3] Assuming that the factors affecting the debt, but not the deficit, have no impact.

Notwithstanding the increase in the rates at issue observed since May 2018 (see the box 'The trend in Italian government bond spreads', Chapter 14), the average cost of the debt fell for the sixth consecutive year (to 2.9 per cent, from 4.4 per cent in 2012), benefiting from both maturing high-yield bonds and the long average residual life of the stock of debt (7.3 years; 7.4 years at the end of 2017).

The share of the debt held by the Bank of Italy continued to expand (to 17.3 per cent, from 16.2 per cent in 2017), owing to net purchases of securities under the expanded asset purchase programme (see the section 'The market in public sector securities', Chapter 14). The share of the debt held by other residents rose to 53.3 per cent (from 51.5 per cent in 2017), while that held by non-residents fell further (from 32.3 to 29.4 per cent; in 2010 it had been 39.1 per cent).

Calculated according to the European rules, the public debt does not include some types of general government liability: the most significant of these for Italy are commercial liabilities and liabilities in derivatives (see the box 'Looking beyond the public debt: commercial liabilities and liabilities in derivatives') and guarantees issued in favour of other entities.[6] In 2018 the latter increased a little, from 3.9 to 4.2 per cent of GDP: the fall in guarantees issued in favour of the financial sector (which in 2017 had recorded significant growth, above all owing to the interventions to help ailing banks) was more than offset by the increase in those issued in favour of non-financial corporations and households.

LOOKING BEYOND THE PUBLIC DEBT: COMMERCIAL LIABILITIES AND LIABILITIES IN DERIVATIVES

In 2018 commercial debts and liabilities in derivatives continued to decline, though as a share of GDP they remain at high levels by international standards. It is estimated that at the end of 2018 the overall amount of these liabilities, net of those

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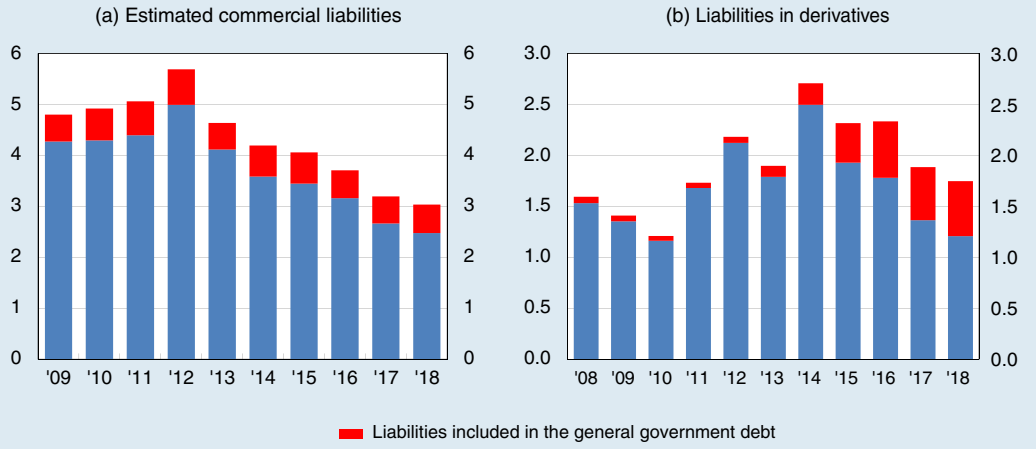
[6] As a rule, given that they are only contingent liabilities, these guarantees are not included in net borrowing or in the public debt unless and until they are actually called.

already counted in the general government debt, came to 3.7 per cent of GDP (4.0 per cent in 2017).

Commercial liabilities – General government commercial liabilities – estimated by the Bank of Italy based on its statistical surveys of firms and supervisory reports[1] – fell from 3.2 per cent of GDP in 2017, to 3.0 per cent in 2018 (see panel (a) of the figure), amounting to around €53 billion. In accordance with the European statistical rules, a portion of the liabilities (around €10 billion at the end of 2018, equal to 0.6 per cent of GDP) is already included in the general government debt.[2] Though it has halved compared with the peak of 2012, according to Eurostat estimates the stock of commercial debts as a share of GDP remains the highest in Europe.[3]

General government commercial liabilities and liabilities in derivatives
(per cent of GDP)



Source: For GDP, Istat.

It is estimated that again in 2018 around half of the total commercial liabilities were attributable to delays in payments made by general government entities with respect to contractual deadlines. Last year actual average payment times continued to come down, to around 85 days. Based on the results of Intrum's *European Payment Report 2019*, payment times in Italy are almost one month longer than the average for the countries considered.

[1] L. D'Aurizio, D. Depalo, S. Momigliano and E. Vadalà, 'I debiti commerciali delle amministrazioni pubbliche italiane: un problema ancora irrisolto', *Politica economica*, 31, 3, 2015, 421-458. Looking ahead, the new general government transactions information system, Siope+, launched during 2018, is expected to provide more precise estimates of the total stock of commercial liabilities. The 2019 Budget Law also made it obligatory for general government entities to notify in April of each year the amount of commercial liabilities due and unpaid at the end of the previous year. Starting in the year 2020, if the debt thus calculated has not fallen by at least 10 per cent, or in the event of delays in payments, the government will have to make provisions to the commercial liability guarantee fund.

[2] These are the commercial liabilities transferred without recourse by creditors to financial intermediaries.

[3] See on Eurostat's website: 'Note on stock of liabilities of trade credits and advances (April 2019)'.

Financial derivatives. – Most of the derivatives contracts of Italy's general government entities are held by the Ministry of Economy and Finance (MEF), whose portfolio in derivatives at the end of 2018 had a notional value of around €111 billion (more than 90 per cent consisted in interest rate swaps, almost 5 per cent in cross currency swaps and a little more than 2 per cent in swaptions).[4]

In the last decade the MEF's strategy has been primarily geared towards managing the outstanding contracts, whereby it usually pays a fixed rate of interest and receives a variable rate (normally linked to Euribor).[5] The decline in rates following the financial crisis led to a sharp increase in the market value of these instruments (negative overall for the MEF), which was only partly recouped in recent years, also owing to the effect of the expiry of some contracts.[6]

In 2018 general government liabilities in derivatives fell from 1.9 to 1.7 per cent of GDP (€30.7 billion; see panel (b) of the figure). As in the case of commercial debts, some of these liabilities (€9.5 billion at the end of 2018, equal to 0.5 per cent of GDP) are already included in the general government debt.[7] While there has been a reduction in recent years, the share of liabilities in derivatives relative to GDP in Italy is still equal to more than half the average in the euro area.

[4] Since June 2008, there has been a ban on the stipulation of new derivatives contracts by local government entities.

[5] M. Bucci, I. De Angelis and E. Vadalà, '(Don't) look back in anger. L'utilizzo dei derivati nella gestione del debito pubblico italiano', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), forthcoming.

[6] Ministry of Economy and Finance, *Rapporto sul debito pubblico 2017*, 2018.

[7] In particular, the reclassification concerns swaps that from the outset or following a restructuring or the exercise of a swaption show a negative value for the government counterpart.

The outlook

Budgetary policy for 2019 and for 2020-21. – The budgetary policy for 2019 and for the subsequent years was defined for the first time in the Update to the 2018 Economic and Financial Document published in September. This indicated a net borrowing objective of 2.4 per cent of GDP for 2019 (0.6 percentage points more than estimated for 2018); for 2020-21, it indicated a gradual reduction in the deficit (to 2.1 and 1.8 per cent; Table 11.3), assuming the partial activation of the safeguard clauses at that time incorporated in the legislation in force. In the official assessments, the budget would have increased net borrowing by more than 1 percentage point of GDP per year compared with the current-legislation projections. Structural budget balance – i.e. Italy's medium-term objective in the context of the European rules (see the box 'The budget cycle within the context of the European Semester') – would not have been achieved over the planning horizon; excluding cyclical effects and temporary measures the deficit would have first increased by 0.8 percentage points in 2019 (to 1.7 per cent of GDP), and then remained unchanged in the two subsequent years. The debt was indicated as being in constant decline in the three years (by 4.2 percentage points of GDP, with respect to a starting level of 130.9 per cent of GDP then estimated for 2018).

Table 11.3

Budgetary policy for 2019 and for 2020-21
(per cent of GDP)

	September 2018 (1)				December 2018 (2)				April 2019 (3)				
	2018	2019	2020	2021	2018	2019	2020	2021	2018	2019	2020	2021	2022
Net borrowing	1.8	2.4	2.1	1.8	1.9	2.0	1.8	1.5	2.1	2.4	2.1	1.8	1.5
Net structural borrowing	0.9	1.7	1.7	1.7	1.1	1.3	1.2	1.0	1.4	1.5	1.4	1.1	0.8
Primary surplus	1.8	1.3	1.7	2.1	1.8	1.7	2.0	2.5	1.6	1.2	1.5	1.9	2.3
Debt	130.9	130.0	128.1	126.7	131.7	130.7	129.2	128.2	132.2	132.6	131.3	130.2	128.9
Memorandum items:													
Net borrowing with no VAT clauses (4)	1.8	2.4	2.8	2.6	1.9	2.0	3.1	3.0	2.1	2.4	3.4	3.3	3.0
Asset disposals	0.3	0.3	0.3	0.0	....	1.0	0.3	0.0	0.0	1.0	0.3	0.0	0.0
Real GDP growth rate	1.2	1.5	1.6	1.4	1.0	1.0	1.1	1.0	0.9	0.2	0.8	0.8	0.8

(1) Update to the 2018 Economic and Financial Document. – (2) Based on the Update to the 2018 Macroeconomic Outlook and the Public Finances, December 2018. – (3) 2019 Economic and Financial Document. – (4) Based on official documents. Excluding the effect of the measures to adjust net borrowing, in 2022 net borrowing amounts to 3.5 per cent of GDP.

THE BUDGET CYCLE WITHIN THE CONTEXT OF THE EUROPEAN SEMESTER

The definition of national budgetary policies is part of the European Semester framework, which establishes a common timeline for all the EU countries to plan their budgets and for the European Commission to monitor their public accounts and macroeconomic imbalances. The key steps in this process take place in the spring, with the transmission of the medium-term Stability/Convergence Programmes and National Reform Programmes, and in the autumn, when each euro-area country presents its Draft Budgetary Plan (DBP). During the European semester, the Commission assesses the consistency, both *ex ante* and *ex post*, of the national budgetary documents with the European rules and of the national reform plans with the priorities identified by the EU.[1]

The fiscal rules are defined within the Stability and Growth Pact's preventive arm, which is centred on medium-term objectives with structural balance as the reference, and a corrective arm, centred on compliance with specific thresholds for the deficit-to-GDP and debt-to-GDP ratios. Failure to comply with one or other arm can result in the activation of a Significant Deviation Procedure (under the preventive arm) or Excessive Deficit Procedure (under the corrective arm).[2]

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[1] The European Semester begins around November with the publication of the Annual Growth Survey, in which the European Commission assesses the EU's economic situation and identifies the strategic guidelines for budgetary policies and national structural reforms. The Semester ends with the adoption of country-specific recommendations by the Council of the EU, generally by the end of July. For more details on the various stages of the process and on the deadlines of the European Semester, see Regulation (EU) No 473/2013.

[2] For a more detailed description of how the Pact works, see the box 'European budget rules and the objectives for Italy's public finances', *Economic Bulletin*, 1, 2015 and European Commission, 'Vade Mecum on the Stability & Growth Pact', Institutional Paper 101, 2019.

In accordance with the established timeline, in April 2018 Italy transmitted its Stability Programme to the European Commission. Drawn up at the beginning of a new legislature by the outgoing caretaker government, the Programme did not indicate any policy scenario and simply updated the public accounts forecasts on a current legislation basis.

The public finance objectives for the three years 2019-21 were defined in the autumn. In particular, for this year the 2019 DBP envisaged an increase in the structural deficit of 0.8 percentage points of GDP (1.2 points in the Commission's estimates), compared with the reduction of 0.6 points needed to comply with the Pact's preventive arm.[3] In its assessment, the Commission identified a particularly serious non-compliance with the European rules and called on the Government to revise the DBP.[4] Moreover, given that the breach of the preventive arm represented a material change in the relevant factors that ensure compliance with the debt rule, the Commission announced that it wanted to review Italy's position in this regard and requested that it present all the elements it deemed relevant for this purpose.[5]

In November the Government presented a revised version of the DBP, in which it confirmed the objectives set out in October for the fiscal balances and the resulting increase in the structural deficit in 2019, requesting flexibility on exceptional expenditure amounting to about 0.2 per cent of GDP in relation to extraordinary road maintenance and a preventive plan to limit hydrogeological risks. At the same time, it submitted the documentation on relevant factors for the debt rule. The Commission confirmed its assessment of Italy's failure to comply with the preventive arm of the Pact and deemed that the programmes announced could justify the launch of an Excessive Deficit Procedure.[6]

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[3] This adjustment was indicated in the country-specific recommendations addressed to Italy, approved unanimously by the European Council on 28 June and adopted by the Council of the EU on 13 July.

[4] In addition to the breach of the recommendation on the structural deficit adjustment, the Commission Opinion on the DBP cited the failure of Italy's Parliamentary Budget Office to endorse the macroeconomic forecast underlying the 2019 DBP and underscored the risk of Italy backtracking on reforms (especially as regards the measures relative to the tax amnesty and change in pension requirements). The dialogue with the European Commission had already begun in early October, in concomitance with the presentation to Parliament of the Update to the 2018 Economic and Financial Document, in an exchange of letters in which the Government notified the Commission of its intention to deviate from the path of convergence towards structural budgetary balance and the latter recalled the importance of defining objectives consistent with the European rules. In a further exchange of letters, following the presentation of the DBP, the Commission called on the Government to explain its failure to comply with the European rules and the Government responded by underlining the need to support the economy, while pledging to adopt all the measures necessary to not breach the net borrowing limits.

[5] Assessing compliance with the debt criterion begins with the publication of a report pursuant to Article 126(3) of the Treaty on the Functioning of the EU, which is the first step to opening an Excessive Deficit Procedure. In the spring of 2018, the European Commission had already prepared a report on Italy's prima facie non-compliance with the debt reduction benchmark in 2017, in which it nonetheless pointed out that the rule could have been considered as complied with in relation to the relevant factors, including, in particular, the preventive arm of the Pact.

[6] The Commission's Opinion was endorsed by the Economic and Financial Committee of the European Union on 29 November 2018.

In December the Government revised its growth estimates[7] downwards and reformulated its budgetary objectives, also following talks with the Commission; in the new policy scenario, net structural borrowing grew by 0.2 percentage points in 2019. Parliament subsequently approved a budget which, in official assessments, was consistent with the new objectives (in particular with a nominal deficit for 2019 equal to 2.0 per cent of GDP, against 2.4 per cent envisaged in the DBP). The European Commission accordingly decided not to launch an Excessive Deficit Procedure for Italy at that time.

Finally, the Government updated its public finance estimates and objectives last April with the publication of the 2019 Economic and Financial Document. Net borrowing for 2019 was revised upwards (to 2.4 per cent of GDP), reflecting a less favourable economic trend than was expected in December; the structural deficit was estimated to rise by 0.1 per cent (against 0.2 per cent forecast in December). In May the European Commission updated its own projections, indicating for Italy an increase of 0.2 percentage points of GDP in the structural deficit in 2019; partly in light of these estimates, in the next few weeks it will assess developments in Italy's public accounts.

[7] The Parliamentary Budget Office stated that the new macroeconomic outlook was plausible.

Notwithstanding the renewed tensions in the sovereign debt market, the net borrowing objectives were confirmed in the 2019 Draft Budgetary Plan presented in October. Following talks with the European Commission, in November the volume of privatizations planned for 2019 was increased relative to September's Update (from 0.3 to 1.0 per cent of GDP), leading to a slightly more marked reduction in the debt (falling by almost five percentage points of GDP in total between 2019 and 2021).

The policy scenario was heavily revised in December, following dialogue with the European Commission and given the worsening prospects for economic growth. Net borrowing objectives were lowered with respect to the autumn, to 2.0 per cent of GDP in 2019, 1.8 per cent in 2020 and 1.5 per cent in 2021. The structural deficit was estimated to increase by 0.2 percentage points of GDP in 2019 (against the 0.8 points planned in September); the path of convergence towards budgetary balance was expected to be resumed the following year, with an adjustment of 0.1 points of GDP in 2020 and of 0.2 points in 2021. Despite the lower deficit, the reduction in the debt over the three years was expected to be less pronounced than that envisaged in the previous budgetary documents (3.5 percentage points of GDP), owing to the less favourable trend in nominal GDP. In part following the agreement reached with the European Commission on the revision of the budget objectives, financial market tensions abated in the last part of the year.

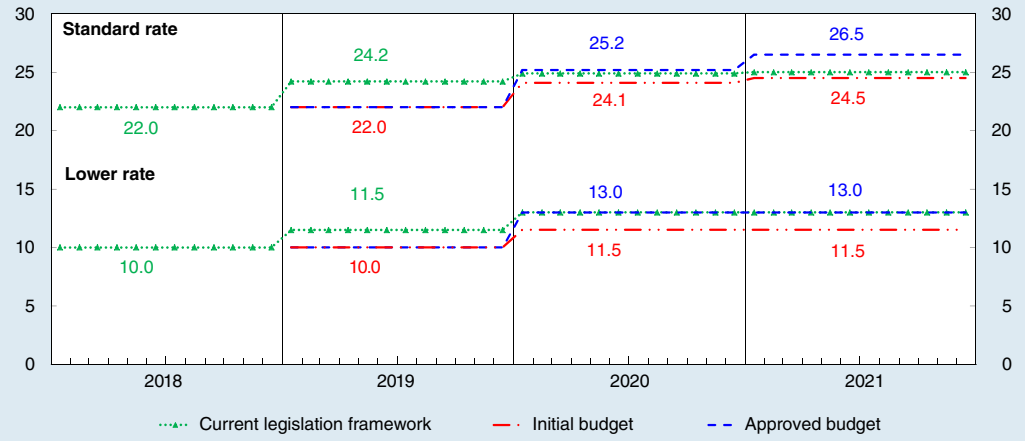
At the end of December, Parliament approved a budget that was consistent with the new policy objectives. According to the official estimates, this increases the deficit with respect to the legislation in force by a little more than half of a percentage point of GDP on average per year (less than half of that planned in September).[7]

[7] The deterioration in the growth outlook led to an upwards revision of the estimate for net borrowing on a current legislation basis compared to the Draft Budgetary Plan (to 1.4 per cent of GDP for 2019, against the 1.2 per cent estimated previously).

Based on official assessments, the expansionary measures contained in the budget amount to 1.7 per cent of GDP this year and to 1.6 and 1.3 per cent of GDP in 2020 and 2021 respectively. The main measure, as in the previous three years, consisted in deferring by one year the activation of the safeguard clauses. The higher indirect taxes envisaged by these clauses were actually cancelled for 2019, but were increased for the subsequent two years (Figure 11.3; see the box 'An analysis of the macroeconomic and redistributive effects of the safeguard clauses on VAT'). Compared with current legislation, these changes signify lower revenue equal to €12.5 billion this year, while they entail additional proceeds of €3.9 billion and €9.2 billion in 2020-21; overall, the activation of the safeguard clauses would generate proceeds officially estimated at €23.1 billion in 2020 and at €28.8 billion in 2021.[8]

Figure 11.3

Planned profile of VAT rates
(per cent)



AN ANALYSIS OF THE MACROECONOMIC AND REDISTRIBUTIVE EFFECTS OF THE SAFEGUARD CLAUSES ON VAT

The 2019 Budget Law modified the VAT increases envisaged under the safeguard clauses. Were they to be activated, in 2020 the ordinary rate would rise from 22 to 25.2 per cent, and the lower rate from 10 to 13 per cent; the 4 per cent rate applied to the goods and services accounting for the largest share in the consumption basket of poorest households would remain unchanged. Official assessments suggest that this increase would generate €22.7 billion in additional revenue next year.

The potential impact on demand and economic activity, as well as the redistributive effects of an eventual increase in VAT envisaged under the clauses

[8] Most of this higher revenue (€22.7 billion in 2020 and €28.4 billion in 2021) should come from the expected increases in the VAT rates; the remainder (€0.4 billion per year in the next two years) is attributable to the rise in excise duties.

for 2020, are examined using the quarterly econometric model[1] and the Bank of Italy microsimulation model (BIMic)[2] for taxes and social benefits. The extent of these effects depends on the pass-through to sales prices of the increase in the rates. In particular, they could be limited if the pass-through were also limited, as was the case when the ordinary rate was last raised in 2013, when there was a strong contraction in demand. The redistributive effects are also analysed in connection with those determined by the recent introduction of the new minimum income scheme (*Reddito di cittadinanza* or RdC).

Macroeconomic effects – The average multipliers of the econometric model estimated based on the historical data (ordinary pass-through) entail a pass-through of the increase in the VAT rates of around 80 per cent over two years. Nevertheless, if demand conditions are especially weak, firms could absorb this increase for a longer period of time, leading to a more lasting reduction in their profit margins.

In the case of an ordinary pass-through, consumer inflation would be around 1 percentage point higher in 2020 and 0.5 points higher in 2021 compared with the baseline scenario (see the table). GDP growth would be 0.3 points lower in both years. The effects appear mostly attributable to the fall in real disposable income and consumption of households, which after two years would be lower by 1.2 percentage points overall compared with the baseline scenario.

The macroeconomic effects of the VAT increase
(rates of change; deviations from the baseline scenario)

	Ordinary pass-through		Lower pass-through	
	2020	2021	2020	2021
Harmonized index of consumer prices (HICP)	1.1	0.4	0.6	0.2
Gross domestic product	-0.3	-0.3	-0.1	-0.2
Household consumption	-0.6	-0.6	-0.3	-0.3

The impact would be roughly halved if the pass-through were more gradual, like the effect of the 1 point increase in the ordinary VAT rate on 1 October 2013. Based on our assessments back then, the effect on the HICP was around 0.1 percentage points after six months, compared with the 0.5 points expected under the hypothesis of a total pass-through (Chapter 8, 'Demand, Supply and Prices', *Annual Report for 2013,* 2014). Indications of a limited impact on prices had also emerged from

[1] For a description of the general characteristics and main equations of the quarterly model of the Italian economy, see. G. Bulligan, F. Busetti, M. Caivano, P. Cova, D. Fantino, A. Locarno and L. Rodano, 'The Bank of Italy econometric model: an update of the main equations and model elasticities', Banca d'Italia, Temi di Discussione (Working Papers), 1130, 2017.

[2] For a description of the model, see N. Curci, M. Savegnago and M. Cioffi, 'BIMic: the Bank of Italy microsimulation model for the Italian tax and benefit system', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 394, 2017.

the quarterly survey on inflation and growth expectations conducted by the Bank of Italy and *Il Sole 24 Ore* in December of the same year: 61 per cent of the firms interviewed declared they had not transferred, even in part, the increase in the rate to their sales prices. In all scenarios the simulations do not take account of eventual changes in consumer confidence, which are difficult to quantify.

Redistributive effects – The redistributive analysis hypothesizes the full pass-through of the VAT increase to the prices of goods and no change in consumer choices; it takes account of only the direct effects of the change in rates, while it does not consider the indirect effects, including those stemming from the reaction of wages, income and employment to the higher taxes.

Under these hypotheses the increase in VAT would lead in the short term to greater inequality in the distribution of net equivalent household incomes:[3] the Gini index would rise to 32.4 per cent, with an increase of 0.2 percentage points compared with the baseline scenario. In particular, for the households belonging to the bottom decile of the distribution, net income would fall by around 1.5 per cent, while for those belonging to the top decile, the decline would amount to 0.7 per cent.

It is worth recalling, however, that compared to what occurred with past VAT increases, in 2020 the lowest-income households can benefit from the new minimum income scheme (RdC) introduced last April (see the box: 'An analysis of the redistributive effects of recent anti-poverty measures', Chapter 5). According to our estimates[4] this measure would lead to a relatively large maximum potential reduction in the Gini index of 1.1 percentage points. In fact, the benefits of the new minimum income scheme are concentrated in the most vulnerable segment of the population, while the VAT increase affects all taxpayers.

The combined effect of an increase in VAT and the new minimum income scheme (RdC) would lead on average to a significant increase in net income for the first decile of the distribution of gross income[5] (see panel (a) of the figure); this effect would disappear for the second decile and would turn negative thereafter. There are, moreover, households in the bottom decile of the income distribution which, since they would not be eligible for the new minimum income scheme, would be disadvantaged by the increase in VAT (see panel (b) of the figure).

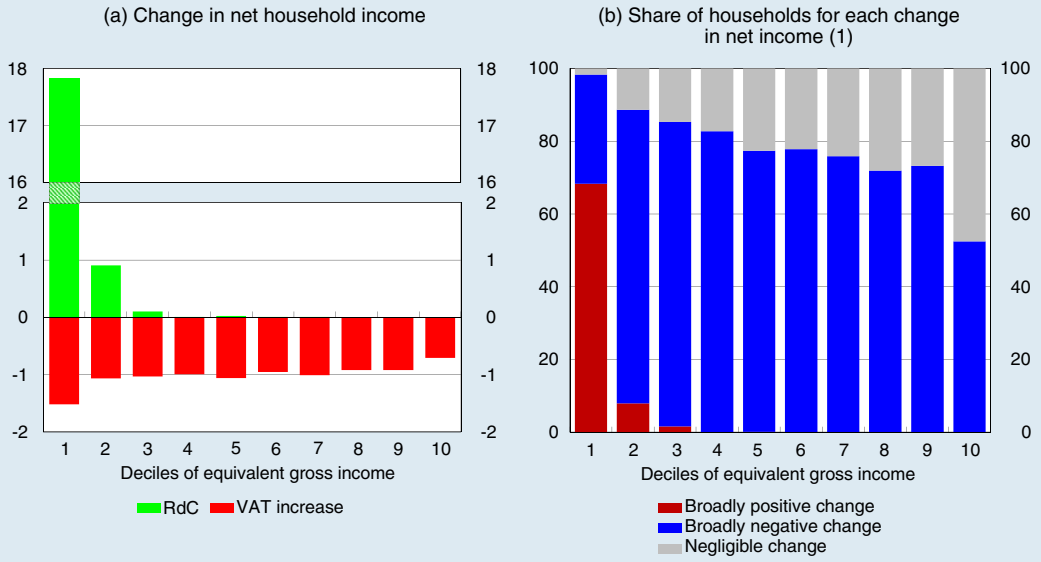
[3] Net income in the BIMic model is calculated based on personal income from work and capital, to which social security benefits and other monetary transfers are added, and the main taxes (IRPEF, tax on financial assets, property taxes, and VAT) are subtracted. To take account of the different composition of households, the net household income is given by the sum of net incomes of the various members and equivalized using the modified OECD scale of equivalence.

[4] These assume that all those eligible adhere to the scheme.

[5] Gross income is calculated as the sum of income from work and capital, social security benefits and other monetary transfers (including payments received under the old minimum income scheme (*Reddito di inclusione* or ReI) but not the new scheme (RdC). To take account of the different composition of the households the equivalence is obtained by applying the modified OECD scale of equivalence.

Combined short-term effect of the increase in VAT and the new minimum income scheme (RdC)

(per cent)



Source: Based on the BIMic microsimulation model.
(1) A broadly positive (negative) change in net income corresponds to an increase (reduction) of more than 1.0 per cent. The change is considered negligible if in absolute value terms it is below 1.0 per cent.

The other main expansionary measures concern the allocation of resources for public investment, changes to the pension system (especially the introduction of the *quota 100* early retirement arrangements) and the new minimum income (*Reddito di cittadinanza* or RdC) scheme. These last two measures were enacted in a Decree Law approved at the end of January (which, based on official assessments, would cost a total of €11.0 billion in 2019 and €16.4 billion on average per year in the following two years; for the RdC, see the box 'An analysis of the redistributive effects of recent anti-poverty measures', Chapter 5).

Coverage amounts to 0.9 per cent of GDP on average per year. For 2019, a large share of the resources is obtained through the temporary increase in financial sector taxation and the rescheduling of some capital expenditure items. For 2020-21, coverage mainly derives from the abolition of the allowance for corporate equity (ACE), the cancellation of the optional tax regime for corporate income (which was due to enter into force starting this year), measures to combat tax evasion and to recoup revenue, and a reduction in current expenditure.

The policy scenario for the public accounts was last updated in April's 2019 Economic and Financial Document. Compared with December's estimates, the net borrowing objectives were revised upwards by around 0.3 percentage points on average per year in the three years 2019-21, taking account of the lower GDP growth.[9] This

[9] 'Preliminary hearing on the 2019 Economic and Financial Document', testimony by E. Gaiotti, Director General for Economics, Statistics and Research, before the Senate of the Republic, Rome, 16 April 2019 (only in Italian).

year, net borrowing is expected to rise to 2.4 per cent of GDP. For the next three years, instead, the Government plans to steadily reduce the deficit (to 1.5 per cent of GDP); the plans incorporate the activation of the safeguard clauses in 2020 and 2021 (amounting to 1.3 percentage points of GDP in the first year and to 1.5 per cent starting from the second) as well as budget adjustments in 2022 (amounting to around half of a percentage point of GDP). Excluding these measures, net borrowing is estimated at just under 3.5 per cent of GDP over the three years on average. (Table 11.3). The path of convergence to the medium-term objective would only begin next year and would not be achieved within the planning horizon.[10]

With reference to the debt, in 2019 the government plans an increase of almost 0.5 percentage points of GDP, even though the scenario incorporates estimated proceeds from privatizations of around 1 percentage point of GDP (a level not reached for more than fifteen years). Starting in 2020 the debt-to-GDP ratio is expected to start to fall again (by around 1.2 percentage points on average per year), reaching 128.9 per cent in 2022; the reduction may be ascribable to the decline in borrowing requirements (owing to the activation of the safeguard clauses) and to the more favourable outlook for the economy.

The public finance sustainability indicators. – According to the European Commission's *Fiscal Sustainability Report 2018*,[11] the sustainability indicators for Italy signal low risks for the public finances in the short term,[12] but the medium-term risks, which in the previous report published in 2016 were already at high levels, are reported to be increasing.[13] The budgetary adjustment needed to reach a debt-to-GDP ratio of 60 per cent in the next fifteen years is currently more than double what it was estimated to be three years ago. The deterioration is mostly ascribable to the reduction recorded in the structural primary balance[14] and, to a lesser extent, the deterioration in the spending projections linked to population ageing. In particular, in the European Commission's estimates released in May 2018,[15] pension expenditure up to 2040 would increase by around three percentage points of GDP more than previously estimated owing to the

[10] It is worth noting, moreover, that in light of the latest demographic and growth forecasts, the European Commission made the customary periodic adjustment of the minimum medium-term objective for each member state. This will be applied starting in 2020; for Italy this objective has become more binding, going from net borrowing of half of a percentage point of GDP to a surplus of 0.5 points in structural terms (even though in the past Italy had chosen structural balance as its objective).

[11] European Commission, 'Fiscal Sustainability Report 2018', Institutional Paper, 94, 2019.

[12] The level of risk in the short term is measured by the S0 indicator, defined as the probability of serious tensions arising in the sovereign debt market in the next 12 months. This indicator is based on 25 variables that reflect the state of the public accounts, the macroeconomic outlook, and conditions in the financial markets.

[13] To assess the sustainability of the public finances in the medium term, the S1 indicator is accompanied by a debt sustainability analysis (DSA). The S1 indicator measures the improvement needed in the structural primary balance between 2021 and 2025 in order to reach in 2033 a debt-to-GDP ratio of 60 per cent. The DSA analyses the temporal profile of the debt-to-GDP ratio until 2029 in a baseline scenario in which budgetary policies remain unchanged and in other alternative scenarios.

[14] The estimates contained in the report are consistent with the forecasts of the European Commission made in Autumn 2018; they accordingly include the effects of the budgetary measures set out by Italy in the 2019 Draft Budgetary Plan published last October.

[15] European Commission, 'The 2018 Ageing Report: Economic & Budgetary Projections for the EU Member States (2016-2070)', Institutional Paper, 79, 2018.

less favourable macroeconomic and demographic outlook.[16] These estimates do not take account of the new pension laws introduced last January (including the *quota 100* early retirement scheme). The measures introduce greater flexibility on retirement but derogate, in part, from the principle of actuarial equity of contributions and entail an increase in pension spending in the short and medium term compared with the previous legislation.[17]

The reduction recorded in the structural primary surplus and the expected increase in spending linked to population ageing in the medium term as a proportion of GDP have also determined a deterioration in the assessment of long-term risks.[18] According to the European Commission's estimates, to comply with the intertemporal budget constraint, Italy would have to make a structural adjustment of its accounts of around three percentage points of GDP, while in 2016 this condition was met even with a deterioration in the structural primary balance of almost 1 percentage point of GDP.

[16] For the euro area, the expected increase in pension spending in the medium term has been revised upwards by around half of a percentage point of GDP compared with the 2015 estimates.

[17] These measures envisage no change to the requirements for accessing old-age pensions established by the Fornero reform.

[18] Unlike in previous reports, to assess the long-term risks the S2 indicator, which measures the improvement in the structural primary balance needed to comply with the intertemporal budget constraint over an infinite time horizon, is considered jointly with the results of the DSA. In particular, if the latter indicates a risk class that is higher than that in the S2 indicator, the overall long-term sustainability risk is raised by one level; if, instead, the results of the DSA fall within a lower risk class than that of the S2 indicator, the latter prevails. Compared to the 2016 report, the level of risk signalled by the S2 indicator for Italy rose from low to medium, while the results of the DSA determined a transition to the high-risk class.

12. BUSINESS ACTIVITY REGULATION AND THE INSTITUTIONAL ENVIRONMENT

The recent market regulation measures, albeit with differences between sectors, outline a stance that, as a whole, does not encourage competition.

The Crisis and Insolvency Code (Legislative Decree 14/2019) was enacted at the start of 2019 with the goal of improving the efficacy of the insolvency laws and making them more uniform and comprehensive. The main features concern the introduction of early warning and composition procedures, which may encourage the early detection and management of crisis situations; the manner in which these features are implemented will have to be calibrated in order to avoid the risk of premature liquidations.

In the civil justice sector, the number of pending cases continued to decline – especially those pending for more than three years – albeit to a lesser extent than in the previous four-year period. The average duration of proceedings remained high, though it decreased slightly.

To increase the efficacy of the fight against corruption, measures have been adopted to strengthen detection and prosecution tools. The reform of the statute of limitations, while containing the risk that a case gets dismissed for having exceeded the time limit, introduces uncertainty concerning the duration of criminal proceedings.

Competition and market regulation

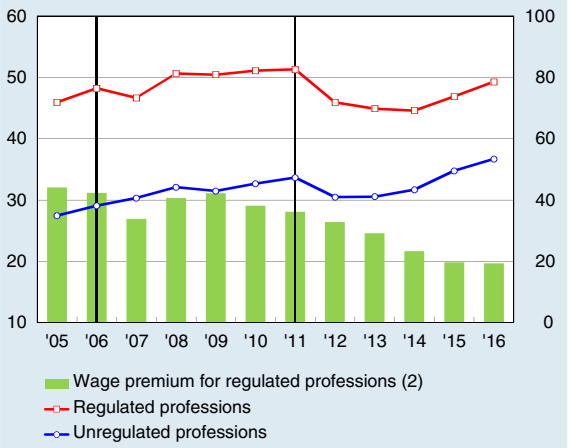
Competition in the service sector. – In recent years in Italy, as well as in all the main advanced economies, there has been a slight increase in the profit share of value added in the service sector (from 17 to 21 per cent between 2008 and 2016). In Italy, this is primarily the result of a consolidation in the market structure, leading to a larger average firm size (see Chapter 6, 'Firms'). There are, however, significant differences between sectors: the profit share fell in telecommunications and professional services, but rose in transport and trade.

In the professional services segment – which accounts for about 6.3 per cent of the national value added and 6.6 per cent of persons in employment, more than half of whom are in regulated professions – the profit share declined in part owing to the deregulation under way since 2006. Measures enacted in the two years 2011-12, which reduced barriers to entry and lifted restrictions on the freedom to set fees for some regulated professions, led to an increase in the rate of entry and a

decrease of about one third in the wage premium linked to regulation (Figure 12.1).[1] The recent fair compensation legislation (Decree Law 148/2017), though applicable to a limited number of professional relationships, could have the opposite effect.

Figure 12.1

Earnings trends for self-employed professionals (1)
(thousands of euros and percentage points)



Source: Based on Ministry of Economy and Finance data.
(1) Annual earnings of self-employed professionals as reported in sector studies. The graph compares the earnings of professionals who work in regulated professions with that of professionals who perform non-manual and non-routine jobs in unregulated professions. The green bars represent the wage premium associated with regulation, estimated by performing a linear regression of the annual earnings of self-employed professionals using a regulation indicator. The vertical lines indicate the main deregulatory measures enacted during the period (Decree Laws 223/2006, 138/2011 and 1/2012). – (2) Right-hand scale.

Large retailers gradually increased their presence in the retail trade market, which makes up 5.5 per cent of national value added: the share of persons employed by firms with at least 20 workers increased from 13.6 per cent in 2007 to 32.8 per cent in 2016, reinforcing a trend that had already been under way in the preceding ten years. Contributing to this growth were the deregulation measures enacted in the late 1990s (Legislative Decree 114/1998), which removed some of the barriers to market entry for large firms, and those approved in 2011 (Decree Law 201/2011), which allowed shops located throughout the country to freely set their own opening hours (see the box 'The effects of the deregulation of shop opening hours').

THE EFFECTS OF THE DEREGULATION OF SHOP OPENING HOURS

Up until 2011 only shops located in municipalities considered tourism destinations were free to set their own opening hours and days. By exploiting the discontinuity that the 2011 reform brought about by allowing shops located in non-tourism destinations to also choose their own opening hours, a recent paper analysed the effects of this flexibility on the level and composition of retail-sector employment.[1]

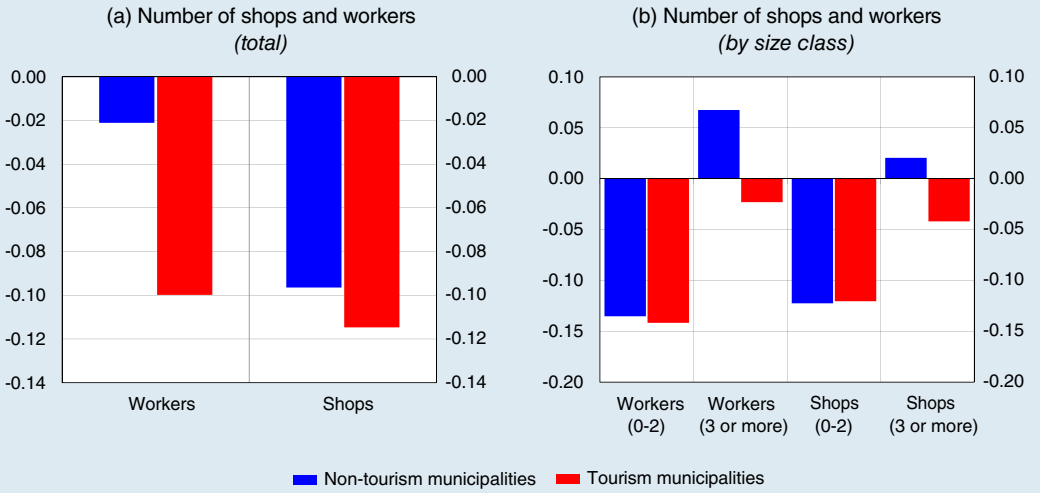
Data from the statistical business register of enterprises (ASIA) show that between 2007 and 2016, within the context of a gradual contraction of the retail sector, the reduction in the number of workers was less marked in deregulated municipalities than in the others (see panel (a) of the figure). This difference can

[1] L. Rizzica, G. Roma and G. Rovigatti, 'The effects of shop opening hours deregulation: evidence from Italy', Banca d'Italia, Temi di Discussione (Working Papers), forthcoming.

[1] S. Mocetti, L. Rizzica and G. Roma, 'Regulated occupations in Italy: extent and labor market effects', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 495, 2019.

mostly be attributed to the increase in the number of larger shops (with at least three workers; see panel (b) of the figure).

Retail-sector development in tourism and non-tourism municipalities (1)
(percentage changes, 2007-2016)



Source: Based on ASIA data.
(1) Shops are divided into size classes based on whether they have fewer than or at least three workers.

Econometric estimates that take account of the different structural characteristics of the municipalities show that in those that were deregulated, employment in the retail sector was about 2 per cent higher than what it likely would have been without such measures. The effect is mainly attributable to a shift towards larger shops. A similar difference can also be observed in the estimates that take into consideration the reallocation of shops within the same local labour market across municipalities subject to different deregulation regimes.

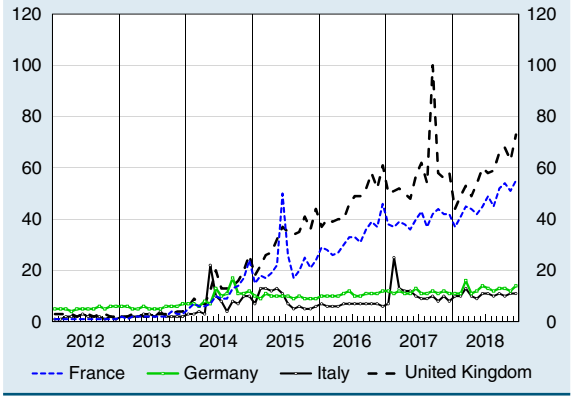
Regulation. – The regulatory process for opening markets up to competition, which had already slowed in recent years, did not register significant progress in 2018. Recent measures renewed several directly awarded public goods contracts (hydroelectric concessions and state maritime property) and once again deferred a number of competition-promoting measures (in the energy sector and in local public transportation).

There has not been an adequate regulatory response in the face of the new challenges and opportunities offered by technological innovation, in particular by the development of digital platforms for providing services. In Italy, unlike in other countries, regulatory barriers – specifically the existence of a reserve of activities – have limited the spread of passenger transport services (Figure 12.2). Instead, the lack of regulation has enabled employment in the on-demand economy to expand rapidly in an environment that is rather diverse in terms of contractual conditions and, therefore, in terms of worker protection. A study of the food delivery sector shows that, in 2017, around 23 per cent of workers had collaboration contracts

and the remaining 77 per cent were self-employed with or without a VAT number. Among these workers, usually young and highly educated, only a small share engaged in this work as their principal job; almost 50 per cent worked as delivery persons while attending school and 20 per cent had another job, usually with a permanent contract. This heterogeneity highlights the need, in developing applicable regulations, to strike a balance between protecting workers and allowing for the organizational flexibility inherent in this type of work.[2]

Figure 12.2

Popularity of intermediation platforms for passenger transport services (1)
(relative frequencies)



Source: Based on Google Trends data.
(1) Frequency of searches for the term 'uber' using Google's search engine; monthly data. The numbers represent the search trend with respect to the highest point of the graph in relation to geographical area and period considered.

The regulation of business activity

Crisis and insolvency regulation. – Proceedings for liquidating insolvent firms take a long time and have low recovery rates; restructuring proceedings rarely lead to business recovery.[3] The Crisis and Insolvency Code was enacted to improve the efficacy of the insolvency laws and to make them more uniform and comprehensive following the various changes made to them in the last 15 years.[4] The measures will enter into force in August 2020.

The Code focuses on three main areas: (a) it introduces early warning procedures, designed to encourage the timely detection of a crisis and the negotiation of a settlement with creditors; (b) it reforms judicial composition with creditors proceedings (*concordato preventivo*) by strengthening judicial control, further limiting its use for liquidation purposes and restricting the use of business continuity plans; (c) it overhauls liquidation proceedings so as to shorten their duration (for example, making the mechanisms for setting the prices for the sale of assets more flexible), although by lengthening the time period allowed for the disposal of assets from two to five years, the opposite effect may be had. The objective set out in Enabling Act 155/2017 to make courts more specialized was only partly achieved however.

[2] C. Giorgiantonio and L. Rizzica, 'Working in the gig economy. Evidence from the Italian food delivery industry', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 472, 2018.

[3] A. Danovi, S. Giacomelli, P. Riva and G. Rodano, 'Bargaining tools for the resolution of distressed firms: judicial composition with creditors', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 430, 2018.

[4] Banca d'Italia, 'Schema di decreto legislativo recante Codice della crisi di impresa e dell'insolvenza in attuazione della legge 19 ottobre 2017, n. 155', report for the Judiciary Committee of the Senate of the Republic, Rome, 26 November 2018.

With regard to the early warning procedures, the settlement phase must be initiated when, among other things, there are certain signs of financial and business distress; such a system is new in the comparative legal landscape. Identifying the appropriate indicators and the relative thresholds is rather complicated and carries the risk of triggering premature liquidations.[5] A study performed on limited companies shows how the range of firms affected by the regulations changes considerably based on the indicator used. For example, in 2016 around 12 per cent of the companies reported an interest coverage ratio of less than one. Limiting the focus to those whose short-term assets are less than their short-term liabilities, the figure dropped to 5 per cent. In 2013, during a negative phase of the business cycle, the corresponding values were higher. After three years, around 40 per cent of the firms that had been defined as being at risk on the basis of both the indicators had, however, returned to a state of good financial and business health (Table 12.1).

Table 12.1

Risk indicators and business and financial condition after 3 years (1)
(per cent)

	Coverage ratio < 1	Coverage ratio < 1 and short-term assets < short-term liabilities
Companies at risk in 2013	17	8
after 3 years: healthy	40	41
at risk	27	17
inactive	33	42

Sources: Based on Cerved and INPS data.
(1) The reference population consists of limited companies that are potentially subject to early warning procedures that can be initiated by the control body based on the criteria set out in Legislative Decree 14/2019 (191,165 companies). It includes companies: (a) that were profitable in 2013; (b) whose balance sheets for the years 2012 and 2013 are registered in the Cerved database; (c) that, based on their 2012 and 2013 balance sheets, are required to establish a control body (the new parameters set by Legislative Decree 14/2019 were used for Srl, but the criteria of Article 2477(3)(a) and (b) of the Civil Code were not considered given the available data); (d) that, based on the their 2012 and 2013 balance sheets, do not meet the standards to be classified as 'large firms'. The coverage ratio is the ratio of gross operating profit to net interest expense; short-term assets are equal to the value of current assets; short-term liabilities include all liabilities maturing before the next financial year.

Limited companies. – According to Istat data, in 2016 limited companies made up 20 per cent of total firms (including self-employed professionals and other self-employed workers) and employed 53 per cent of all persons in employment. Between 2012 and 2016, despite a slight contraction in the total number of firms, the number of limited companies increased by almost 11 per cent, entirely in the category of limited liability companies (società a responsabilità limitata – Srl). Measures that reduced the costs of both setting up and managing limited liability companies provided strong encouragement for the use of this form of company. As to the first factor, the minimum capital requirement was reduced,[6] leading to, among other things, an increased use of the simplified form of Srl, which in 2016 represented about 46 per cent of new Srl (Figure 12.3.a). With regard to the second, the requirement that companies with at least €120,000 in capital must appoint a control body was

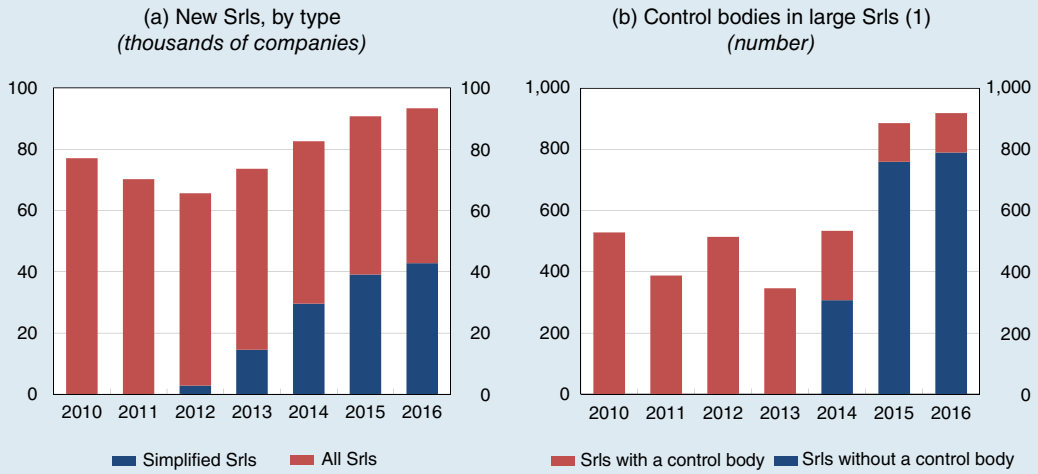
[5] E. Brodi, 'Dealing with corporate crises in a timely way. Notes on the optimal design of an "Early warning and composition system"', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 440, 2018.

[6] Decree Laws 1/2012 and 76/2013.

eliminated;[7] in the most recently observed year, almost 90 per cent of new Srl had not appointed statutory or independent auditors (Figure 12.3.b).[8]

Figure 12.3

Demographic trend and number of control bodies in Srls



Source: Based on Infocamere data.
(1) The data refer to new Srl with share capital of at least €120,000.

The costs associated with establishing a control body are bound to increase as a result of the measures introduced by Legislative Decree 14/2019 which, in order to strengthen firms' organizational structure, has considerably expanded the number of cases in which statutory or independent auditors must be appointed. Based on the new criteria, it is estimated that the percentage of Srl required to appoint these auditors will increase from 3 to 28.5 per cent.[9]

There are no signs in the ownership and governance structures of limited companies that there has been a reduction in the high concentration of ownership and in the significant overlap between ownership and management. In 2016, for these companies, the average holding of the top shareholder was about two thirds of the share capital, while the directors held on average almost half of the capital. These characteristics are more evident for family firms, which as a percentage of total firms rose over the last decade, driven by the popularity of the simplified Srl (see the box 'Family firms: numbers, operating environment and performance').

[7] Decree Law 91/2014.

[8] A. Baltrunaite, E. Brodi and S. Mocetti, *'Assetti proprietari e di governance delle imprese italiane: nuove evidenze e effetti sulla performance delle imprese',* Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), forthcoming.

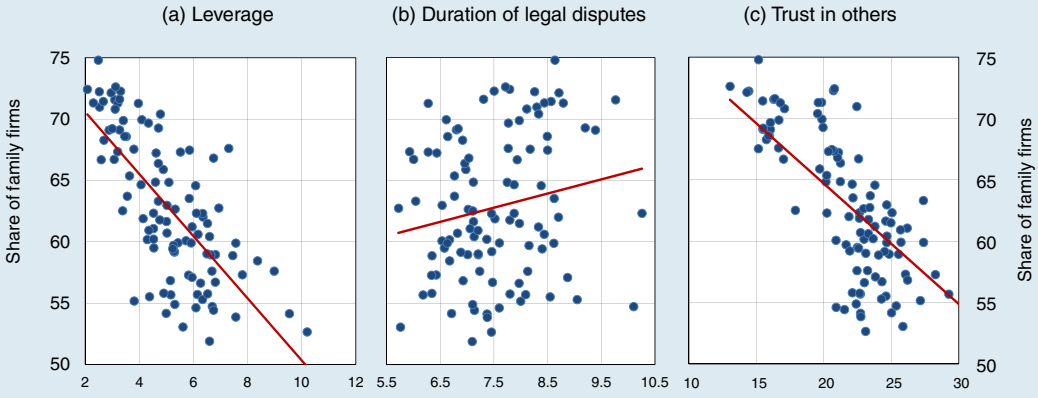
[9] E. Brodi and T. Orlando, 'Nomina dell'organo di controllo nelle s.r.l.: un esercizio di quantificazione alla luce dei nuovi parametri dimensionali', *Crisi d'impresa e insolvenza,* 2, 2019, 1-5.

FAMILY FIRMS: NUMBERS, OPERATING ENVIRONMENT AND PERFORMANCE

Family firms are widespread throughout the Italian production system, as they are in the other main European economies.[1] Even among limited liability companies, family firms – defined as those in which the majority of the capital is held by persons sharing the same surname – represented about two thirds of the total in 2016.[2] This share reached 74 per cent in the South, compared with just over 60 per cent in the Centre and North.

Various structural features of the operating environment are correlated with family ownership,[3] which is especially common in provinces that have lower indebtedness, a less efficient judicial system and a lower degree of general trust (see the figure). Greater difficulty in finding external sources of financing may be associated with more frequent recourse to intrafamily lending; at the same time, weak protection of contractual obligations or less trust in others can discourage negotiated transactions and business initiatives with persons outside the family.

Correlation between the number of family firms and other operating environments (1)
(provincial data; per cent)



Source: Based on data from Infocamere, Cerved, the Ministry of Justice and Istat.
(1) The vertical axis of each panel shows the share of family firms as a percentage. Access to credit is measured using an indicator of leverage, given by the ratio between debt and turnover for limited liability companies (panel a); the efficiency of the judicial system is measured using the logarithm of the number of days needed to resolve a commercial dispute (panel b); trust in others is measured as the percentage of persons who believe that they can trust others, calculated using data from the Istat multipurpose survey (panel c). The linear interpolation is estimated by a simple linear regression.

[1] Unlike other countries, Italy is also known for the high degree to which family members are directly involved in running the firm; see M. Bugamelli and F. Lotti (eds.), '*Productivity growth in Italy: a tale of a slow-motion change*', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 422, 2018.

[2] A. Baltrunaite, E. Brodi and S. Mocetti, 'Assetti proprietari e di governance delle imprese italiane: nuove evidenze e effetti sulla performance delle imprese', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), forthcoming.

[3] M. Bianchi, M. Bianco, S. Giacomelli, A.M. Pacces and S. Trento, *Proprietà e controllo delle imprese in Italia*, Bologna, Il Mulino, 2005.

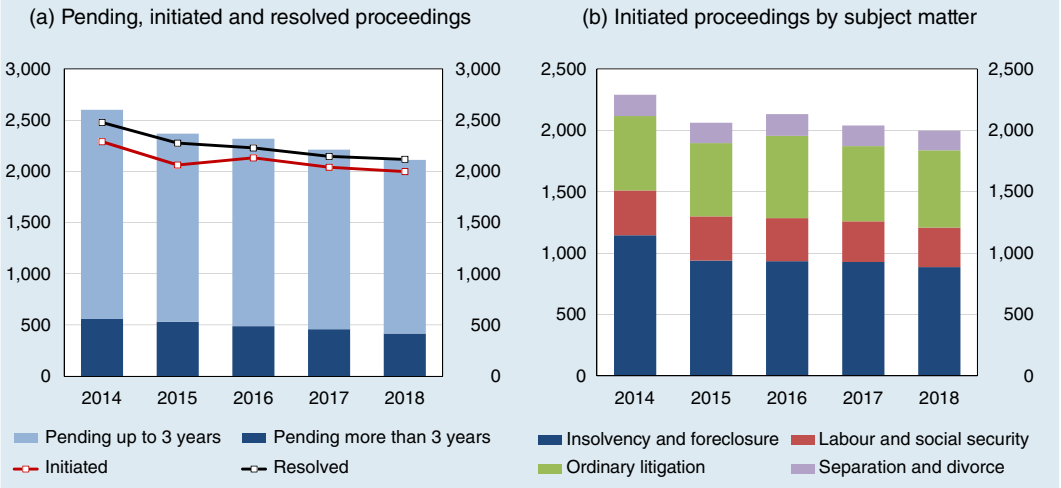
While family ownership is associated with a higher firm survival rate, likely owing in part to the importance placed by owners on handing the firm over to future generations, it is also linked to lower productivity, lower investment and smaller growth rates. Analyses based on data from the Survey of Industrial and Service Firms demonstrate that these firms use advanced technologies, such as robotics and artificial intelligence, less frequently. This subdued performance may result from their resistance to hiring external managers or from more conservative firm management. The difference in the performance of family firms compared to that of others is more marked for larger and more mature firms, for which the disadvantages of keeping management within the family, especially as regards expertise, probably tend to outweigh the advantages.

The institutional environment

Civil justice. – During the previous four-year period, the number of pending cases continued to decline, falling by about one fifth between 2014 and 2018. The decrease is mainly due to a further contraction, albeit to a lesser extent than in the past, in new cases (down by around 13 per cent between 2014 and 2018; Figure 12.4.a). This is primarily attributable to the drop in insolvency and foreclosure proceedings, which reflected the improvement in the economy, and in labour and social security disputes, which may reflect the simplification of the regulations carried out between 2012 and 2015 on fixed-term employment contracts and on dismissals (Figure 12.4.b).[10] The 'Dignity Decree' (Decree Law 87/2018), which

Figure 12.4

Supply and demand of justice (1)
(thousands of proceedings)



Sources: Based on Ministry of Justice data.
(1) The data refer to total proceedings pending before the trial courts, excluding preliminary technical assessments concerning social security disputes.

[10] Law 92/2012, Law 183/2014, Legislative Decree 23/2015; see also F. D'Amuri and R. Nizzi, 'Tendenze recenti nel contenzioso in materia di lavoro privato', *Diritto delle relazioni industriali,* 3, 28, 2018, 947-952.

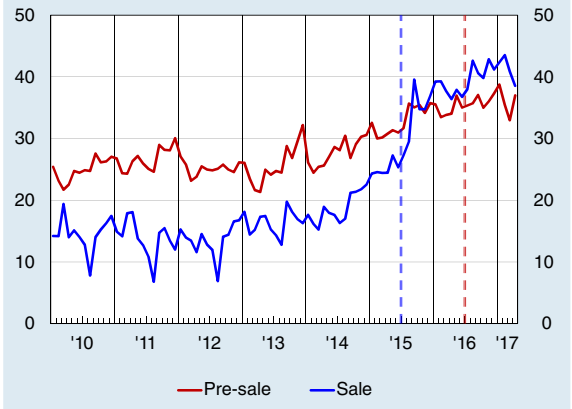
reimposes greater restrictions on the use of temporary labour, and the recent decision by the Constitutional Court regarding dismissals (Judgment no. 194/2018) could have the opposite effect (see Chapter 8, 'The labour market').

The average duration of proceedings remained high, though it declined slightly: in 2018 it was equal to two years and four months for ordinary civil disputes, just three months shorter than in 2014. During the same period, the share of cases pending for more than three years fell by around 2 percentage points (Figure 12.4.a).

The length of foreclosure proceedings continued to decrease following the measures adopted during the two-year period 2015-16 (see *Annual Report for 2017,* 2018). The share of proceedings for which the pre-sale phase was concluded within 18 months rose from 25 per cent in 2013 to 36 per cent in 2017; that of proceedings in which the sale was completed within 18 months went from 17 to 41 per cent (Figure 12.5).

Figure 12.5

Time needed to conclude the pre-sale and sale phases (1)
(share of total; per cent)



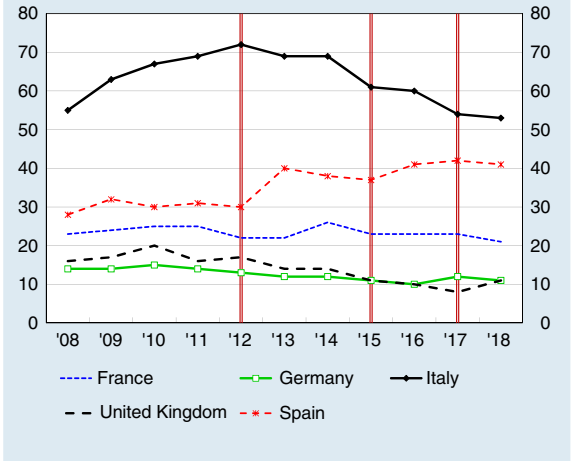
Source: Based on data from the Roundtable on Italian Foreclosure (Tavolo di Studio sulle Esecuzioni Italiane, T6) and Datasinc Srl.
(1) The figure shows, by starting month, the percentage of proceedings in which the pre-sale phase was completed within 18 months, compared with the total number of new proceedings, excluding those that were interrupted during that time frame before having completed the pre-sale or sale phase. The blue and red dotted lines indicate the months, respectively, that Decree Laws 83/2015 and 59/2016 entered into force.

Corruption. – A variety of measures have been adopted since 2012 to buttress the fight against corruption in terms of prevention, administrative action, and prosecution. As a result, Italy's rankings in the international corruption perception indices have improved (Figure 12.6).

Law 3/2019 further strengthened prosecution efforts. Specifically: (a) it introduced new tools for detecting crime, with leniency programmes for those who promptly report an offence against the public administration; (b) it toughened penalties, heightening the punishment for some crimes; and (c) it radically reformed the statute of limitations by tolling

Figure 12.6

Corruption Perception Index rankings of the main European countries (1)

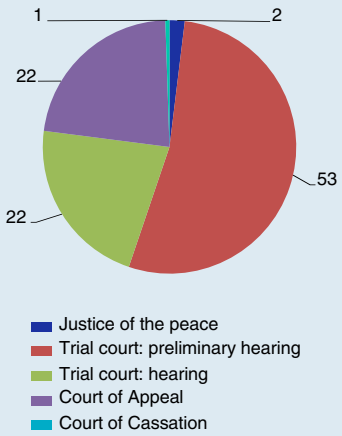


Source: Based on data from Transparency International.
(1) The figure shows the rankings by year of the different countries in Transparency International's Corruption Perceptions Index (CPI). The vertical lines indicate the main anti-corruption legislation enacted during the reference period (Laws 190/2012, 69/2015 and 103/2017).

it, for all offences, once a ruling is issued in the first instance of the trial. As things stand now, the new measures are expected to reduce by almost one quarter the number of proceedings dismissed as time barred (Figure 12.7). However, while containing the risk that a case gets dismissed, it introduces uncertainty concerning the duration of criminal proceedings.

Figure 12.7

Share of time-barred criminal proceedings (1)
(per cent)



Sources: Based on Ministry of Justice data (2017).
(1) Criminal proceedings dismissed as time barred, in relation to total proceedings for which the statute of limitations has run.

13. BANKS AND INSTITUTIONAL INVESTORS

Loans grew at the highest rate recorded since the start of the sovereign debt crisis, albeit at a rate that remains moderate. From the second half of the year, the decline in the macroeconomic and financial situation was rapidly reflected in business credit dynamics, which began to contract again in early 2019.

The stock of non-performing loans (NPLs) declined considerably, both in absolute terms and in proportion to total loans, following large sale transactions. The NPL rate fell below the levels recorded in the two years 2006-07.

The reduction in loan loss provisions and, to a lesser extent, the containment of operating costs, have helped to increase profitability, which for the main Italian banks was just under that of the main European banks.

Banks continued to downsize their branch networks: the number of employees and branches declined, helping to contain operating costs. The process mainly involved the five largest banking groups. In 2019, the structure of the banking sector was altered significantly following the reform of the cooperative credit banks: the number of banks not belonging to a group fell by more than two thirds.

Banks increased their investments in Italian government securities in the first half of the year, in concomitance with the renewed tensions on the sovereign debt market. The decline in the price of government securities lowered the fair value of their portfolios; the effect on capital was offset by the reallocation of a large share of securities in the portfolio valued at amortized cost.

Institutional investors' funding was lower than that of the previous year, mainly due to the reduction in investment fund subscriptions; the decline also extended to the individual savings plan segment (*piani individuali di risparmio* or PIRs).

BANKS

The structure of the Italian banking industry

At the end of 2018, Italy's banking industry consisted of 100 active banks belonging to 58 banking groups, 327 active stand-alone banks and 78 active branches of foreign banks. The banking groups classified as significant for the purposes of the Single Supervisory Mechanism (SSM) numbered 11, as they did in 2017; these groups accounted for 74 per cent of the total assets of Italian banks.

In the first quarter of 2019, the process of reforming the cooperative banking sector was concluded. ICCREA and Cassa Centrale Banca became the parent companies of two banking groups, to which 143 and 84 cooperative credit banks (*banche di credito cooperativo*, BCC) respectively belong (see the box 'The reform of cooperative banks', Chapter 13, *Annual Report for 2017*, 2018). The 39 banks of the Cassa Centrale Raiffeisen of the Trentino-Alto Adige region that did not join one of the two banking groups instead opted for the establishment of an institutional protection scheme (IPS).[1]

The reform significantly altered the structure of the banking system, which in May 2019 consisted of 52 banking groups and 104 stand-alone banks.[2] The banking groups classified as significant, which now include the Cassa Centrale Banca group,[3] account for 81 per cent of the total assets of Italian banks.

Banks have been downsizing their geographical presence since the second half of the last decade, reducing the number of branches and employees. Between 2008 and 2018 the number of branches decreased by one quarter (to 25,400) and the number of employees by just under one fifth (to 280,000). The downsizing of the branch network almost exclusively involved the five largest banking groups; these groups also accounted for 90 per cent of the reduction in the number of employees. Other banks started to reduce their branches and employees in 2014, albeit at a slower pace than the five largest groups.

Following the streamlining of the branch network, the average number of inhabitants per branch grew by 30 per cent compared with 2008 and currently stands at more than 2,200, higher than in France and Spain (about 1,700 in both countries), but less than in Germany (nearly 2,800). The corporate restructuring measures have led to higher average labour productivity, which had fallen considerably between 2008 and 2016 following the decline in revenue caused by the crisis. In 2018, value added per employee grew by 16 per cent compared with the level recorded in the two years 2006-07.[4]

Efficiency gains were also possible through the adoption of technologies that offer new ways of interacting with clients. Between 2012 and 2018, the share of clients that could access banking services by means of digital channels rose from 48.4 to 74.6 per cent, of which 90 per cent with transactional internet banking services, partly thanks to the greater availability of broadband internet (see the box 'The impact of broadband internet on Italian firms', Chapter 8). The supply of banking

[1] In 2018 an amendment was introduced to the original reform plan that allowed the 39 Raiffeisen banks to establish an IPS instead of joining a cooperative banking group. The establishment of an IPS does not entail the creation of a group, but provides capital and liquidity support to the participating banks and affords the recognition of certain regulatory benefits.

[2] The reduction in the number of banking groups in the first quarter of 2019 is a direct consequence of the completion of the reform of the cooperative banking sector, since seven cooperative banking groups joined one of the two newly formed groups.

[3] The ICCREA banking group was already classified as significant prior to the reform.

[4] Value added is defined as the difference between gross income and operating costs other than those for active employees. It therefore excludes costs relating to voluntary leave, the early retirement of some personnel and executive compensation.

services through these channels was more widespread in the context of payment services, asset management and, to a lesser extent, lending to households.

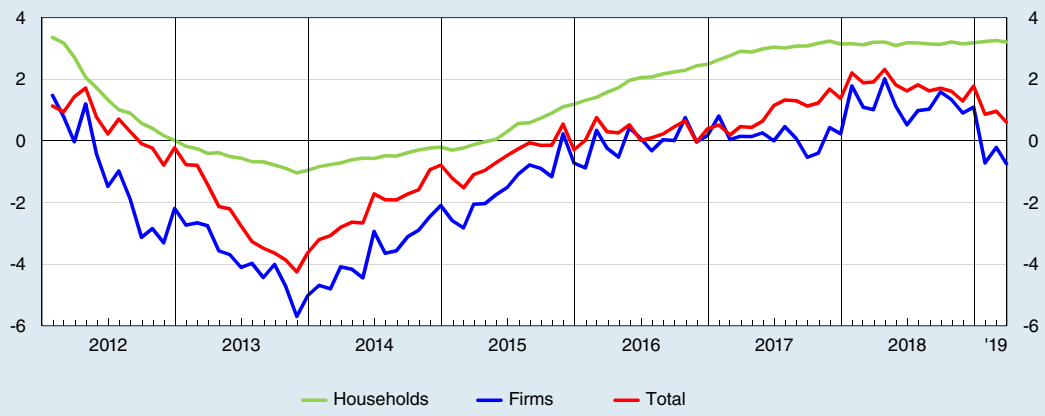
According to a regional survey carried out by the Bank of Italy's branches, about half of Italian banks are planning FinTech initiatives, especially as regards payments services and asset management. The initiatives currently under way mainly involve larger banks.

Assets

Lending. – In 2018 lending by Italian banks increased by 1.8 per cent (1.4 per cent in 2017), the highest level recorded since the start of the sovereign debt crisis (Figure 13.1). The growth was stronger in the first part of the year; in subsequent months, it was affected by slightly tighter credit access conditions and weaker demand for business loans (see *Economic Bulletin*, 2, 2019).

Figure 13.1

Bank lending to customers (1)
(monthly data; 12-month percentage changes)



Source: Supervisory reports.
(1) Data for March 2019 are provisional. Loans include repos and bad debts. Percentage changes are adjusted to take account of the effects of securitizations, reclassifications, write-downs, exchange rate adjustments and other changes not due to transactions.

The growth in lending to households (3.2 per cent) was bolstered by low interest rates and the positive trend in real estate transactions (see *Financial Stability Report*, 1, 2019). According to the banks, credit supply conditions remained generally accommodative, apart from a slight tightening in the last quarter.

At the end of 2018, lending to households accounted for 39.4 per cent of total bank loans to the non-financial private sector. This proportion has progressively increased since 2008: over the past ten years, it grew by 7.6 percentage points on account of both the gradual increase in the share of residential mortgages (from 21.7 to 25.1 per cent) and the significant expansion in consumer credit since the second half of 2015 (from 4 to 7.2 per cent). However, the share remains about 20 percentage points lower than for German and Spanish banks, and 13 percentage

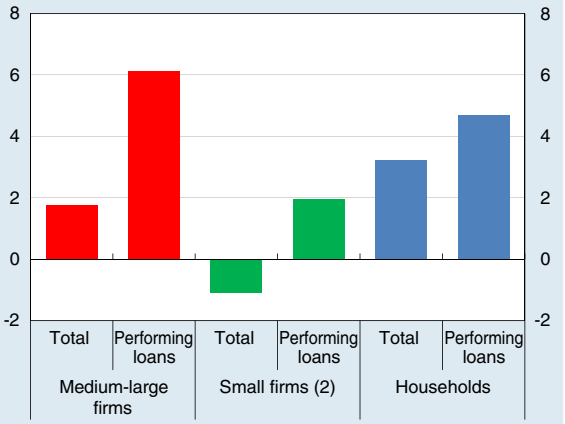
points lower than for French banks. The gap is almost entirely due to residential mortgages.

In 2018, business lending accelerated by 1.1 per cent (0.2 per cent in 2017): the growth rate reached 2 per cent mid-year, then fell following the cyclical inversion. The increase in lending was exclusively in relation to loans to firms with more than 20 employees, which rose by 1.6 per cent, while loans to smaller firms fell by 1.1 per cent. Excluding insolvent debtors, to whom credit naturally declines, lending increased for firms of every size, but the gap between the growth rate for medium- and large-sized firms and that for small firms widened to 4.2 percentage points (Figure 13.2).

Figure 13.2

Growth rate of total bank loans and performing loans at December 2018 (1)

(12-month percentage changes)



Sources: Supervisory reports and Central Credit Register.
(1) Performing exposures at December 2018 that showed no signs of impairment in the 12 months considered. Percentage changes are adjusted to take account of the effects of securitizations, reclassifications, write-downs and other changes not due to transactions. The sectors are classified according to Ateco 2007. – (2) Limited partnerships, general partnerships, simple partnerships, de facto companies and sole proprietorships with fewer than 20 workers.

The interest rates applied to business loans remained at historically low levels: there was still a significant difference in the cost of funding for small firms compared with that for larger firms, even within the same risk class (see Chapter 7, 'The financial situation of households and firms'). Supply conditions were favourable: only in the last quarter of the year did banks slightly tighten their credit access conditions, though with limited effects on the cost of funding of firms thanks to the high level of competitiveness between banks.

Business lending declined in the first quarter of 2019 (see *Financial Stability Report*, 1, 2019). Bank surveys indicate a slight tightening in credit access conditions, in terms of margins and collateral, and a decline in the demand for bank loans. The repeal, starting in 2019, of the allowance for corporate equity (*aiuto alla crescita economica* or ACE), from which many banks benefited, could increase the cost of bank lending (see the box 'The effect of taxation on the total cost of credit over the period 1998-2017').

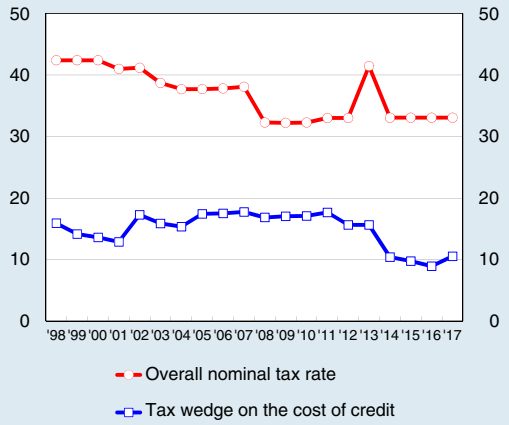
Holdings of securities. – At the end of 2018, banks' holdings of non-bank securities stood at just under €600 billion; Italian public sector securities accounted for 63.1 per cent of the total, while the rest mainly consisted of securitized assets still on banks' balance sheets (17 per cent), public sector securities of euro-area countries (7.5 per cent), and securities issued by non-financial corporations (1.5 per cent).

THE EFFECT OF TAXATION ON THE TOTAL COST OF CREDIT OVER THE PERIOD 1998-2017

An important component of the cost of credit consists in the taxes paid by banks, referred to in the economic literature as the tax wedge. This largely depends on the rates and bases of taxes on bank profits.

The tax wedge on loans by Italian banks was estimated for the period 1998-2017 using a structural model that describes the banking sector's lending behaviour. Assuming a constant cost of financial resources (debt and equity), the model identifies the effects of changes in the tax laws on the cost of credit.[1]

Tax wedge on the cost of credit and the overall nominal rate on bank profits in the period 1998-2017



The figure shows changes in the ratio of the tax wedge to the interest rate paid by borrowers in the period 1998-2017;[2] this indicator allows a direct comparison with the nominal tax rate on profits (Ires and IRAP). In the period considered, the average tax wedge amounted to 70 basis points; the ratio of the tax wedge to the interest rate paid by borrowers was 15 per cent.[3] The dynamics of the tax wedge as a percentage of the cost of credit differed significantly from the dynamics of the overall nominal tax rate on bank profits due to changes to the laws on the tax base. From 2002 to 2011, notwithstanding a decline of 8 percentage points in the nominal rate, the tax wedge remained substantially unchanged as a percentage of the cost of credit, largely on account of stricter limits on the deductibility of loan loss provisions. Starting from 2012, while nominal rates remained virtually unchanged

[1] E. Zangari and E. Pisano, 'Forward-looking effective tax rates in the banking sector', Banca d'Italia, Temi di Discussione (Working Papers), forthcoming. The paper examines the dynamics and composition of the tax wedge in the period 1994-2017 with a model of loan pricing similar to that used by, among others, D. Elliot, S. Salloy and A. O. Santos, 'Assessing the cost of financial regulation', IMF Working Paper, 12/233, 2012. The results reported in the box relate to the period following the introduction of the regional tax on productive activities (IRAP) in 1998. For the purposes of identifying only the effects of changes to the tax laws on the cost of credit, the economic parameters of the model (the cost of the debt, the cost of equity, the equity-to-loan ratio, and the loan loss provisioning rate) are assumed to be constant and equal to the average of annual values. Sensitivity analyses show that changes to the tax wedge have a low sensitivity to assumptions regarding the financial cost of loans.

[2] This ratio corresponds to the marginal effective tax rate, used in the literature to measure the taxation on marginal loans, that is, loans that guarantee yields that exactly match the cost of the financial resources and of taxation (see M. P. Devereux, 'Measuring taxes on income from capital', CESifo Working Paper Series, 962, 2003).

[3] In other words, the average interest rate paid by borrowers in the reference period is equal to 4.6 per cent, of which about 0.7 percentage points (15 per cent) are ascribable to the tax wedge.

(with the exception of the corporate surtax in 2013), there was a significant reduction in the tax wedge, largely due to the easing of limits on the deductibility of loan loss provisions and the changes to the tax treatment of equity under the allowance for corporate equity (ACE).

The limits on the deductibility of loan loss provisions, in effect until 2015, were a major component of the tax wedge: due to this component, in the period 1998-2012 the ratio of the tax wedge to the cost of credit was on average larger by about 3 percentage points. Starting in 2013, the contribution to the tax wedge provided by this component gradually declined to nil. This led to a reduction of about 15 basis points in the overall interest rate paid by bank debtors and the elimination of an anomaly in the Italian tax system.

Another important component of the tax wedge is due to the unfavourable tax treatment of equity financing owing to the deductibility of interest on the debt only. From the end of 2011, the ACE reduced this asymmetry by allowing a return on equity established by the law to be deducted from the Ires tax base. In the period 2012-17, this measure reduced the ratio of the tax wedge on the average cost of credit by about 3 percentage points, helping to lower the interest rates paid by debtors by about 12 basis points. The effect changed over time on account of the adjustments made to the rate of return on equity, which was first increased between 2014 and 2016 and significantly reduced thereafter. The ACE was repealed in 2019.

Given the full deductibility of loan loss provisions, the tax wedge is now almost wholly attributable to the un-deductibility of the cost of equity.

In 2018, the stock of securities grew by 13.7 per cent, largely on account of the increase in net purchases of government securities (more than €50 billion) following the sharp rise in yields in May. In 2012, during the most acute phase of the sovereign debt crisis, net purchases amounted to €100 billion. The average residual maturity of government securities on banks' balance sheets declined slightly over the course of the year, falling to 4.9 years at the end of 2018.

To reduce the impact on the economic and capital accounts of the changes in the value of public sector securities, bank have been allocating a growing share of these securities to the portfolio of assets valued at amortized cost. Indeed, the share of public sector securities in this portfolio increased from 27.2 to 55.6 per cent; this increase was greater for less significant banks (from 30.7 to 74.1 per cent). However, it will be more difficult to sell these securities on the secondary market.

The share of public sector securities in total assets grew by 1.3 percentage points compared with the end of 2017, rising to 11.5 per cent, close to the peak level recorded in mid-2016 and significantly higher than the average for euro-area banks (4.7 per cent). For significant banks, public sector securities accounted for 8.5 per cent of total assets, 80 per cent of which in Italian securities. For less significant banks – which structurally have a surplus of deposits with respect to loans – the share of public sector securities was higher (21 per cent) and almost exclusively consisted of Italian government securities.

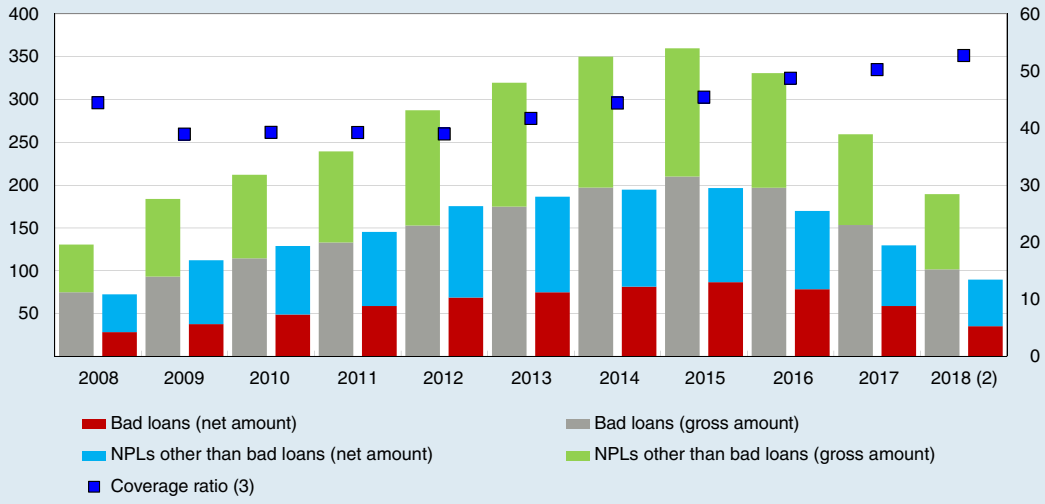
Non-performing loans

In 2018, the flow of new non-performing loans in proportion to total loans fell by 0.5 percentage points to 1.6 per cent, lower than the levels recorded before the 2008 financial crisis; it continued to decline in the first quarter of 2019, falling to 1.3 per cent. In recent years this decline reflected both the improvement in the economic situation and banks' greater propensity to lend to less risky firms. Accordingly, the weakening of the economic cycle may have a more moderate effect on the quality of credit than in the past.

Over the course of the year, NPLs declined markedly, both gross and net of loan loss provisions. At the end of 2018 net stocks stood at €90 billion, about €40 billion less than the previous year; the ratio of NPLs to total loans fell from 6.1 to 4.3 per cent.[5] Net bad loans amounted to €35 billion and accounted for 1.7 per cent of total bank loans (Figure 13.3).

Figure 13.3

Credit quality of Italian banks and banking groups: amounts and coverage ratios of non-performing loans (1)
(billions of euros and per cent)



Sources: Consolidated supervisory reports for banking groups and individual supervisory reports for stand-alone banks.
(1) Includes loans to customers, credit intermediaries and central banks. Includes banking groups and subsidiaries of foreign banks; excludes branches of foreign banks. The coverage ratio is measured as the ratio of loan loss provisions to the corresponding gross exposure. – (2) Provisional data. – (3) Right-hand scale.

Sale transactions amounted to about €55 billion gross of loan loss provisions, marking an increase of €13 billion on 2017, and significantly contributed to the reduction in NPLs. Recovery times for bad loans have also gradually started to decline (see the box 'Closure times for bad business loans').

[5] In the same period, gross NPLs fell from €259 billion to €190 billion.

CLOSURE TIMES FOR BAD BUSINESS LOANS

The recovery times for bad business loans vary significantly, according to the main loan and debtor characteristics and to the efficiency of both the institutional context and banks' NPL management policies.

A study carried out using Central Credit Register (CR) data on business loans first classified as bad between 2005 and 2016 measured the amount of time that elapsed between a loan's classification as a bad loan and it no longer being reported as such by the creditor bank (closure time).[1] The study was limited to unsold bad loans, which account for about three quarters of loans first classified as bad during the reference period, and takes into account certain characteristics, including: the loan's size and whether it is secured by collateral; the debtor firm's legal form, sector, the province where its head office is located and whether it borrows from more than one bank; and the size of the creditor bank.[2]

The results indicate that, on average, closure times are longer for larger loans, for loans to firms with relationships with more than one bank and for those to construction firms (by more than 10 per cent compared with manufacturing and service firms). Furthermore, closure times vary greatly in relation to the head office of the debtor firm: other characteristics being equal, the bad loans of firms headquartered in one of the five provinces with the shortest closure times, all in the North of Italy, are closed in about half the time it takes for firms headquartered in the five provinces with the longest closure times, all in the Centre and South (see panel (a) of the figure). These geographical differences are consistent with the data on the average length of bankruptcy and foreclosure proceedings.[3]

The study also shows that closure times varied significantly during the reference period: they increased with the rapid rise in corporate bankruptcies and in-court recovery proceedings, peaking in the two years 2011-12; they then began to fall, returning close to their initial levels in 2016 (see panel (b) of the figure). The estimated median closure times are 5.4 years for 2005, 11.9 in the two years 2011-12, and 5.7 years in 2016.[4] The reduction observed towards the end of the reference period may have been partly due to the more active NPL management

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1 E. Bonaccorsi di Patti, C. Demma, D. Dottori and G. Micucci, 'Bad loan closure times in Italy', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), forthcoming. A creditor bank stops reporting a bad loan to the CR when it records a write-off following the completion of a recovery procedure or sale; in a small number of cases, the bad loan is no longer reported without it being recorded as a loss or as having been sold.

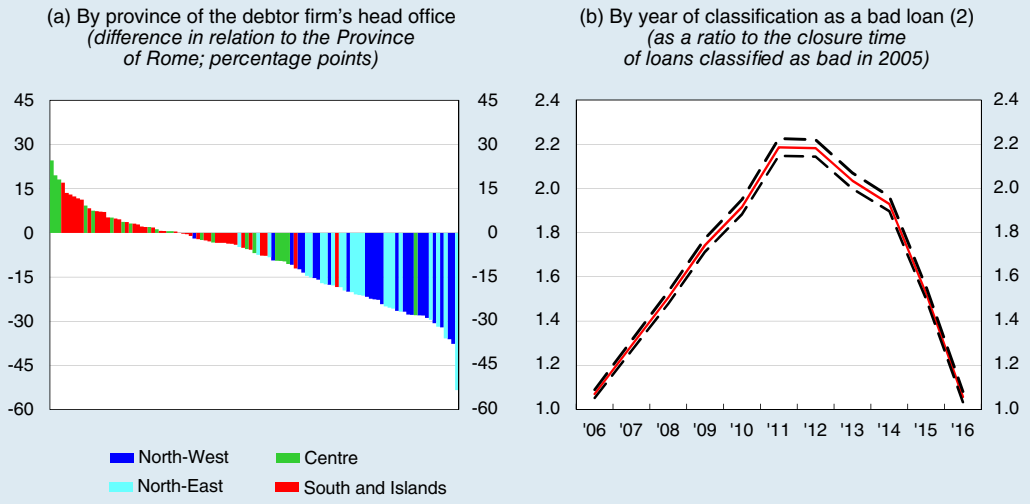
2 The estimates are based on a survival model in which, in the reference period, the observations move from the initial state, defined as the loan's first classification as a bad loan, to the final state, defined as the closure of the bad loan; for sold positions, the closure is deemed unobservable.

3 Cerved, 'La durata dei fallimenti chiusi e delle esecuzioni immobiliari in Italia nel 2016', 2018 (only in Italian).

4 The expected median length is the period of time that corresponds to a 50 per cent probability that a bad loan is closed before or after that length of time.

practices adopted by banks and the measures aimed at improving the efficiency of the judicial system.[5]

Closure times for bad business loans (1)



Source: Based on Central Credit Register data.
(1) Estimated by a log-normal parametric model of duration. – (2) The dotted lines represent the 95 per cent confidence intervals.

[5] S. Giacomelli, S. Mocetti, G. Palumbo and G. Roma, 'Civil justice in Italy: recent trends', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 401, 2017.

The ratio of non-performing loans to total loans for Italian less significant institutions (LSIs) stood at 6.4 per cent net of loan loss provisions, still higher than the level for the rest of the system. The LSIs with high shares of NPLs drew up three-year plans to reduce NPLs by 25 per cent and to lower the ratio of NPLs to total loans by more than two percentage points. NPL sales are expected to provide a significant contribution to the reduction: both loan recoveries and reclassifications to performing status are expected to largely offset the flow of new NPLs (see the box 'The NPL reduction plans of less significant banks', *Financial Stability Report*, 1, 2019).

The coverage ratio, calculated as the ratio of loan loss provisions to total gross non-performing loans, rose by about 2.5 percentage points to 52.7 per cent;[6] the coverage ratio for bad loans only rose by almost 3 percentage points to 65.4 per cent. The increase was partly due to the entry into effect of the IFRS 9 accounting standard (see the box 'The impact of the new IFRS 9 accounting standard', *Financial Stability Report*, 2, 2017), which, among other things, requires that estimated expected losses be incorporated in the calculation model for write-downs. At the end of the year, the ratio of net NPLs to common equity tier 1 fell by almost a third compared with December 2017, to 50 per cent.

Over the course of 2018 and in the first few months of 2019, various regulatory and supervisory initiatives were taken concerning the management of NPLs by European

[6] The coverage ratio, which rose to 54.5 per cent at the end of June, fell in the second half of the year due to large sales of bad loans with high coverage ratios (see *Financial Stability Report*, 1, 2019).

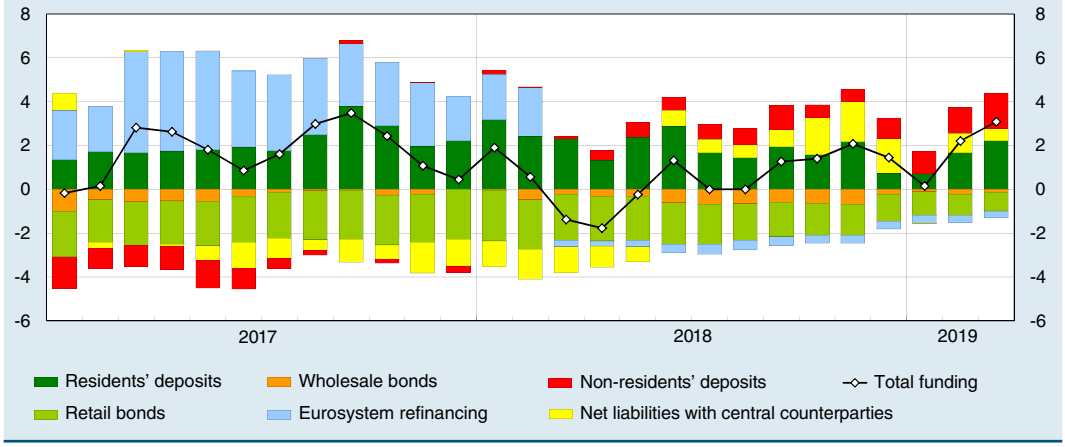
banks. In July, the ECB published the criteria it will use to assess the adequacy of significant banks' provisioning of the stock of NPLs, with the goal of aligning in the medium term the coverage levels to those already established for loans classified as non-performing after 1 April 2018 (a Pillar 2 measure). The amendment to the Capital Requirements Regulation contains a provision (a Pillar 1 measure) that requires all EU banks, for prudential purposes, to wholly write-off new unsecured NPLs, NPLs secured by moveable assets and those secured by immoveable property in three, seven and nine years respectively; this applies to loans issued after the effective date of the regulation (April 2019) once they are classified as non-performing. Presumably, these measures will have a greater impact on banks in countries with longer average recovery times, like Italy. However, their duration is decreasing thanks to specific legislative provisions adopted in Italy in the two years 2015-16; additional benefits may derive from the entry into effect of the Crisis and Insolvency Code (Legislative Decree 14/2019; see Chapter 12, 'Business activity regulation and the institutional environment').

Funding

In 2018 total bank funding grew by 1.4 per cent (Figure 13.4). Wholesale funding, which accounted for almost a quarter of total funding at the end of 2018, increased by 10.6 per cent; approximately two thirds of this increase was due to the rise in net liabilities with central counterparties – to finance, at low interest rates, purchases of government securities (see *Financial Stability Report*, 2, 2018) – while the remaining third was due to the growth in deposits of foreign banks.

Figure 13.4

The growth in funding in Italy: contributions of the main components (1)
(percentage points; 12-month changes)



Source: Supervisory reports.
(1) The sum of the contributions is equal to the 12-month percentage change in total funding. The percentage changes in the individual components are calculated net of the effects of reclassifications, changes in exchange rates, write-downs, and other changes not due to transactions. Does not include liabilities with resident Monetary Financial Institutions. Net liabilities with central counterparties represent repo funding with non-residents carried out through central counterparties.

In contrast, wholesale bond funding fell by 3.2 per cent: tensions on the government securities market limited bond issues on the international markets, especially issues of subordinated securities that are eligible for the minimum requirement for own funds and eligible liabilities (MREL).

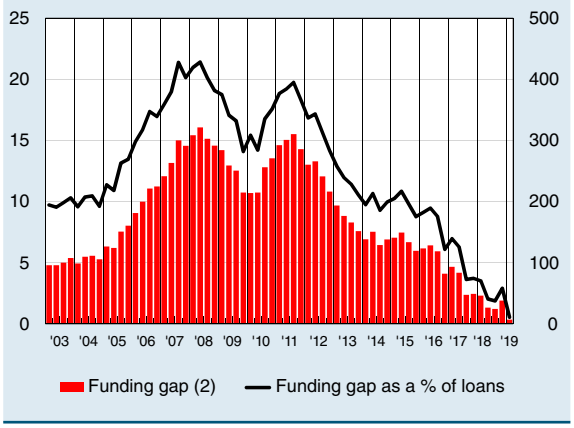
Liabilities with the Eurosystem fell by 3.0 per cent; in December they accounted for about 10 per cent of total funding.

Retail funding declined slightly (-0.8 per cent); at the end of the year it accounted for about two thirds of total funding. The substitution of bonds with current account deposits continued. Since 2011, the increase in deposits has substantially offset the reduction in bank bonds held by households (see *Financial Stability Report*, 1, 2019).

The funding gap, i.e. the share of loans not covered by retail funding, fell by 0.8 percentage points compared with 2017, to 2.9 per cent (Figure 13.5), and by more than 15.4 points from the peak recorded in 2011. The contraction was largely due to the weak growth in loans on banks' balance sheets, lowering their need for funding. The funding gap remained unchanged at 11.4 per cent for significant banks, for which the decline in lending was offset by the decrease in retail funding; for less significant banks, the funding gap remained in deeply negative territory, at -29.8 per cent.

Figure 13.5

Italian banks' funding gap (1)
(billions of euros and per cent)



Source: Supervisory reports. Excludes Cassa Depositi e Prestiti SpA and branches of foreign banks in Italy.
(1) Loans to residents minus retail funding (residents' deposits plus bonds placed with households). The latest data refer to the end of February 2019. – (2) Right-hand scale.

In 2018 the average cost of funding fell by 10 basis points to 0.19 per cent, the lowest level recorded. The reduction is attributable in equal measure to the shifting of funding towards less costly sources, like customer deposits and interbank financing, and to the lower costs of the various components of bank funding. In particular, the average rate of interest on deposits fell from 0.19 to 0.13 per cent, while that on bonds dropped from 2.6 to 2.4 per cent. However, in the second half of the year the cost of new bond issues, which were limited in amount, was affected by the tensions on the Italian government securities market (see *Financial Stability Report*, 1, 2019).

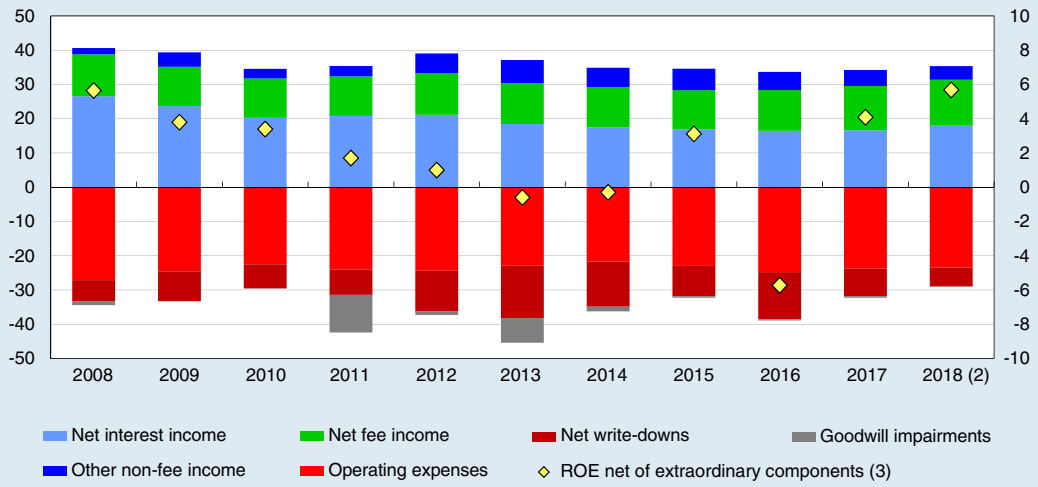
Capital and profitability

Profitability. – In 2018 the return on equity (ROE) of Italian banks and banking groups rose to 5.7 per cent net of extraordinary components, from 4.1 per cent in 2017 (Figure 13.6). The ROE of the main banks was just under that of the main European banks.

The improvement in profitability was mostly due to the decline in loan loss provisions, which brought the average cost of risk – measured as the ratio between loan loss provisions and the average stock of loans – to a ten-year low of 0.7 per cent.

Figure 13.6

Main profit and loss items of Italian banks and banking groups (1)
(per cent)



Sources: Consolidated supervisory reports for banking groups and individual supervisory reports for stand-alone banks.
(1) As a ratio to average equity in the year. – (2) Provisional data. – (3) Right-hand scale.

ROE also improved thanks to the reduction in operating costs, which fell by 3.9 per cent on account of the sharp decrease in staff costs (7.6 per cent). Excluding the one-off expenses recorded in 2017 relating to voluntary redundancy and early retirement measures,[7] total staff costs and expenses declined by 2.1 and 3.3 per cent respectively. At the end of 2018, the cost/income ratio fell by 3 percentage points compared with 2017, to 66.2 per cent for the banking system as a whole. For significant banks, it fell to 64.3 per cent, in line with the average ratio for a sample of large European banks.[8]

Gross income remained substantially unchanged from 2017 (0.6 per cent). Net interest income and net fee income increased (5.5 and 1.5 per cent respectively), while income from trading and from the sale of financial assets declined (-4.1 per cent). Net interest income remained 13.1 per cent lower than in 2011, despite having recorded the first increase in six years: the fall in interest income, which decreased by more than 40 per cent, was only partly offset by the decline in interest expenses. Around three quarters of the decline in the latter was due to the fall in funding costs while one fourth was on account of the shift in funding sources, especially between bonds and deposits.

In 2018 nearly half of the significant banks' fee income came from asset management activities, especially the placement and distribution of investment fund units and insurance policies of group entities or third parties. Services relating to the placement of corporate securities continued to make a limited contribution to revenue (see the box 'Banks and the placement of corporate securities').

[7] These expenses were incurred within the context of a corporate downsizing process following mergers and acquisitions.

[8] EBA, *Risk Dashboard. Data as of Q4 2018*, March 2019.

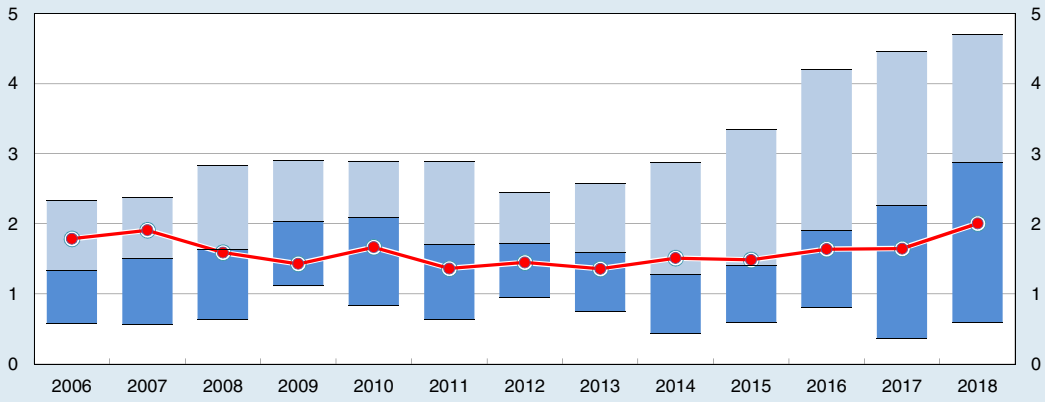
BANKS AND THE PLACEMENT OF CORPORATE SECURITIES

Italian firms' recourse to the capital markets has grown significantly over the past ten years: between the end of 2007 and 2018, they issued an average of €30 billion per year in equity instruments and bonds,[1] an increase of €6 billion on the period 2000-07.[2]

The growth in firms' equity and bond issues was not met with an increase in the share and number of Italian banks active in the placement services market. Between the end of 2007 and 2018, Italian banking groups managed the issuance and placement of about one third of the securities issued, the same share as in the period 2000-07; nearly the entire share was accounted for by the three main intermediaries operating in this market (29 per cent of total issuances and placements). The number and market share of the other intermediaries also remained substantially unchanged in the period 2012-18, coinciding with an increase in the number of firms issuing securities and a decrease in firm size. The market share held by Italian intermediaries in the capital instruments segment (37 per cent) was higher than that of the debt instruments segment (27 per cent).[3]

Italian banks' placement fees have increased in recent years: in 2018 they were estimated at 2 per cent of the value of the issues, 0.6 percentage points higher than the minimum recorded in 2011 (see the figure). This increase was partly on account of the higher share of issues with a lower nominal value because these

Italian banks' placement fees (1)
(per cent)



Source: Based on supervisory reports.
(1) Distribution of the percentage fees from the placement of securities, calculated as the ratio between the amount of placement fees and the total value of the issues placed by banks during the reference year. The three horizontal lines in each box represent, from bottom to top, the 25th, 50th and 75th percentiles; the red line represents the weighted average.

[1] Dealogic data relating to issues by non-financial corporations resident in Italy or companies belonging to a group whose parent company is a non-financial corporation resident in Italy.

[2] For an analysis of Italian firms' growing recourse to the bond market, see M. Accornero, P. Finaldi Russo, G. Guazzarotti and V. Nigro, 'Missing investors in the Italian corporate bond market', Questioni di Economia e Finanza (Occasional Papers), 450, 2018.

[3] G. Albareto and G. Marinelli, 'Italian banks and market-based corporate financing', Questioni di Economia e Finanza (Occasional Papers), 432, 2018.

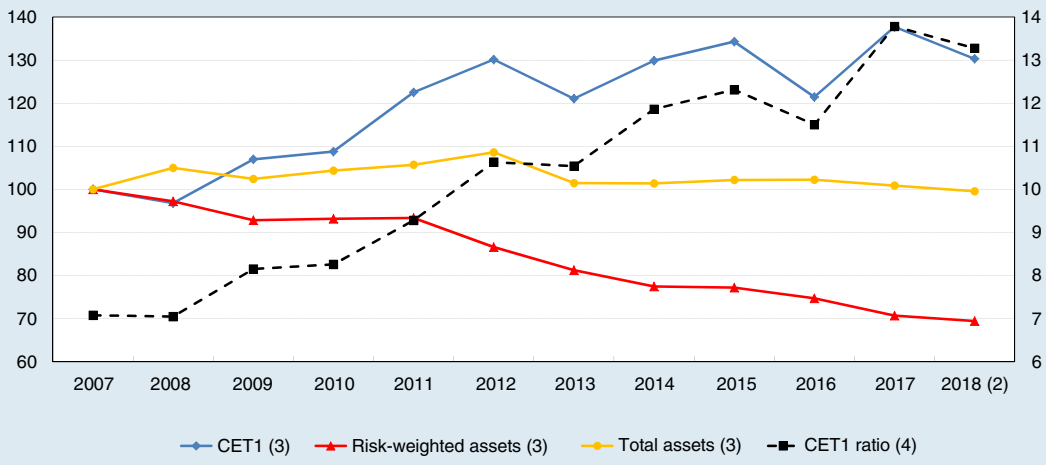
issues are associated with higher unit fees owing to the fixed costs of placement transactions. Between the end of 2007 and 2018, banks received higher fees on average for the placement of equity securities (2.1 per cent of the value of the issue) than for the placement of bonds (0.6 per cent); these values are substantially in line with those observed in the other main European countries.

Activity in the placement services market is concentrated among a limited number of intermediaries, possibly on account of barriers to entry resulting from the large investment needed to adequately develop specialized skills and to implement organizational safeguards designed to prevent conflicts of interest.

Capital. – At the end of December, common equity tier 1 (CET1) averaged 13.3 per cent of total risk-weighted assets (RWA), a decline of about 50 basis points against the end of 2017 (Figure 13.7). The gap between the average CET1 ratio[9] of the main European banks and that of Italy's significant banks widened from 1.6 to 2.0 percentage points.

Figure 13.7

Trend of CET1 and risk-weighted assets of Italian banks and banking groups (1)
(per cent)



Sources: Consolidated supervisory reports for banking groups and individual supervisory reports for stand-alone banks.
(1) Up to December 2013, it shows the performance of 'core tier 1'; from March 2014, that of 'common equity tier 1.' – (2) Provisional data. – (3) Index: 2007=100. – (4) Right-hand scale.

The fall in the prices of government securities measured at fair value in banks' portfolios, which was especially significant in the second quarter of the year, accounted for two thirds of the decline in the CET1 ratio of Italian banks. The decrease in capital was not offset by that in RWA, which fell by about 2 percentage points.

At the end of 2018, the CET1 ratio of Italian banks exceeded the minimum level set following the Supervisory Review and Evaluation Process (SREP) by an average of

[9] Ratio of CET1 to RWA.

4 percentage points.[10] This excess fell by about 1 percentage point compared with the end of 2017 owing to the fall in the system-wide CET1 ratio and the higher minimum capital conservation buffer.[11]

Following the entry into effect of the IFRS 9 accounting standard, a transitional prudential regime was introduced that provides for the deduction from CET1 of only a portion, that grows over time, of the accounting effects of its initial application. Without the benefits of this transitional regime, the average system-wide CET1 ratio would fall by 80 basis points to 12.5 per cent.

NON-BANK FINANCIAL INTERMEDIARIES AND LOAN GUARANTEE CONSORTIUMS

The growth in lending by non-bank financial intermediaries continued.[12] Lending increased by 5 per cent overall to stand at €123 billion, or about 8.5 per cent of bank loans to households and non-financial firms. This growth was accompanied by an improvement in credit quality: at the end of 2018, the share of NPLs in total loans was 10.3 per cent, a decline of 2.4 percentage points on 2017. The total capital ratio, calculated as the ratio of supervisory capital to total risk-weighted assets, stood at 11.3 per cent, in line with the level recorded last year. The growth in lending helped to improve profitability: operating profits rose by 5.4 per cent.

At the end of 2018, the guarantees extended by mutual loan guarantee consortiums supervised by the Bank of Italy[13] amounted to €7.4 billion, a reduction of 2 per cent on 2017. The sector's loan quality and solvency improved: the share of NPLs in total assets fell by 1.5 percentage points to 33 per cent and the total capital ratio grew by almost 1 percentage point to 25 per cent. The profitability of the sector remained negative; total losses for the year stood at about €4 billion, compared with €12 billion in 2017.

INSTITUTIONAL INVESTORS

Funding. – In 2018, net funding fell significantly in the asset management industry compared with the previous year. Italian investment funds, insurance companies, pension funds and asset management companies raised about €16 billion in funds overall, against €48 billion in 2017 (Table 13.1 and Figure 13.8). The decline

[10] The SREP capital decision is given as the sum of the Pillar 1 and Pillar 2 requirements for the capital conservation buffer and the systemic buffers.

[11] Following the application of the transitional regime, the capital conservation buffer increased by 0.625 percentage points, reaching the maximum level of 2.5 per cent.

[12] The analysis is in respect to intermediaries operating mainly in the leasing, factoring and consumer credit segments that are listed in the register provided for by Article 106 of the Consolidated Law on Banking (TUB); loan guarantee consortiums are not included and are treated separately.

[13] Larger consortiums exceeding the operational thresholds set by the Ministry of Economy and Finance and entered in the register provided for in Article 106 of the Consolidated Law on Banking.

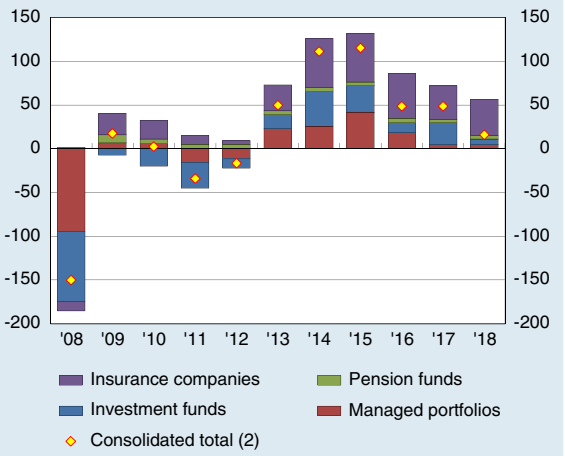
was largely on account of financial market tensions that emerged in the second half of the year.

Net flows varied according to the type of investor: they fell sharply for investment funds, increased for insurance companies and remained substantially unchanged for asset management and pension funds.

Among Italian investment funds, open-end funds, which account for 77 per cent of total capital, recorded negative net funding (€2.5 billion), wholly on account of the disinvestments made by households. Flows gradually declined in the first part of the year then turned negative in subsequent

Figure 13.8

Net flows of institutional investors (1)
(billions of euros)



Sources: Bank of Italy, IVASS and Covip.
(1) The flows are gross of funds raised from other institutional investors; it includes only Italian funds. For 2018, provisional data. – (2) See the note to Table 13.1.

Table 13.1

Institutional investors: net flows and assets under management
(millions of euros and per cent)

	Net flows		Assets under management			
	2017	2018 (1)	2017	2018 (1)	Percentage composition	
					2017	2018 (1)
Investment funds (2)	25,090	6,396	327,764	320,114	15.9	15.5
Insurance companies (3)	38,200	41,000	715,841	736,300	34.7	35.7
Pension funds (4)	4,100	4,400	162,299	167,107	7.9	8.1
Individually managed portfolios	4,497	4,538	858,537	839,778	41.6	40.7
Total	**71,887**	**56,334**	**2,064,441**	**2,063,299**	**100.0**	**100.0**
Consolidated total (5)	**48,441**	**15,903**	**1,512,844**	**1,498,234**	**–**	**–**
(per cent of GDP)	2.8	0.9	87.6	85.3	–	–
Memorandum item: Foreign investment funds (6)	56,772	-4,317	775,778	734,237	–	–
of which: operated by Italian intermediaries (7)	25,478	10,123	165,855	163,870	–	–

Sources: Based on data from the Bank of Italy, IVASS, Covip and Assogestioni.
(1) Provisional data. – (2) Italian investment funds. – (3) For assets under management, technical provisions net of reinsurance reserves. It does not include Italian branches of EU insurance companies and includes Italian branches of non-EU insurance companies. – (4) For assets under management, balance sheet assets. – (5) Net of investments in Italian collective investment undertakings by the various categories of financial intermediaries, investments of insurance companies and pension funds in portfolios managed on an individual basis by asset management companies, and the technical reserves of insurance companies associated with the management of open-end pension funds. – (6) Foreign open-end investment funds. Assets under management and net flows are based on the value of the units held and subscribed by Italian investors respectively. – (7) Investment funds of management companies headquartered in Luxembourg or Ireland.

months. In the first quarter of 2018, investors redeemed their bond funds and invested in riskier sectors characterized by higher expected yields; after the turbulence on the financial markets, redemptions were made in all the main categories of funds.

Italian PIRs, which accounted for 55 per cent of total funding for Italian open-end funds, recorded a sharp decline in net subscriptions, falling from €9.4 billion in 2017 to €4 billion in 2018. However, redemptions of PIR funds were more contained with respect to other funds due to tax rules that incentivize investors to hold their shares for a minimum of five years. Since January 2019, pending the implementation of the regulatory changes introduced by the most recent budget law, funding has substantially stalled and has been limited to PIR funds created before the introduction of the new rules (see the box 'The impact of recent changes in the rules on PIR funds').

Net funding in the insurance sector increased to €29 billion in the life segment and to €12 billion in the non-life segment. Unlike in the asset management sector, net purchases of insurance policies by households remained high; in the life segment more than 55 per cent of purchases regarded traditional products, many of which offer guaranteed minimum returns.

The flow of resources towards asset management companies equalled €4.5 billion, largely due to mandates of insurance companies. Investments by households declined.

Asset management. – The assets managed by institutional investors declined slightly with respect to 2017, notwithstanding the fact that funding was generally positive thanks to the fall in the asset prices on the main financial markets; as a ratio to GDP, capital fell by 2.3 percentage points to 85 per cent.

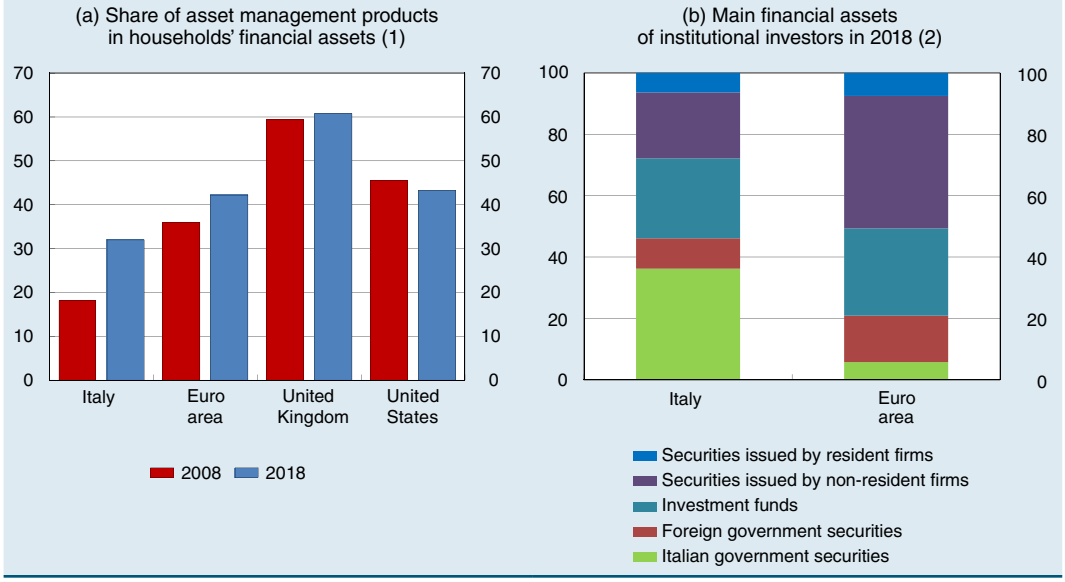
The share of Italian households' financial assets that are managed by institutional investors increased slightly compared with 2017, though it remained below the euro-area average and below the levels recorded in the United Kingdom and in the United States; this gap is mostly due to the lower share of financial assets managed by pension funds (Figure 13.9.a).

While net purchases of Italian government securities remained high, their share in the portfolio of institutional investors fell compared with 2017, especially following the decline in prices. However, it remained high in comparison with the euro-area average (Figure 13.9.b). The weight of investments in equity and bonds issued by Italian firms also decreased: it amounted to 6.3 per cent at the end of 2018, lower than the euro-area average of 7.5 per cent.

Real estate funds, especially those reserved to professional investors, continued to grow at a rapid pace: their capital increased by 10 per cent to €80 billion and accounted for one tenth of the euro-area total for these funds. The capital of closed-end securities funds also grew: in this segment, the portfolios of equity funds – which include private equity and venture capital funds – and of bond funds stood at €13 billion and €4 billion respectively, low levels by international comparison.

Figure 13.9

Asset management
(per cent)



Sources: for panel (a), Bank of Italy, ECB, OECD, BEA and Federal Reserve; for panel (b), ECB.
(1) The euro-area aggregate is based on a 19-country composition. For the United States, the pension fund data relates to private pension funds and to state and local pension funds; excludes federal pension funds. Includes foreign funds held by residents. – (2) It does not include individually managed portfolios; data for the euro area do not include Italy.

Profitability. – The sharp decline in funding with respect to 2017 negatively affected the profitability of open-end investment funds, whose net profits fell by more than 40 per cent. The profitability of fund managers active in the real estate and private equity segments increased slightly owing to the growth in assets under management. The ratio of supervisory capital to the overall capital requirement increased further, rising from 6.3 to 7.8.

The profitability of Italian insurance companies fell significantly; the decline was more pronounced in the life segment, which felt the effects of the loss in value of Italian government bonds (see *Financial Stability Report*, 1, 2019).

14. THE MONEY AND FINANCIAL MARKETS

Since the spring of 2018, conditions on the Italian financial markets have reflected the heightened uncertainty surrounding economic and fiscal policies; in the last part of the year, they were also affected by the lower growth outlook at global level.

The sovereign risk premium, measured by the yield spread between Italian and German ten-year bonds, rose markedly; this increase was transmitted to the cost of bond funding for Italian firms and banks, which grew significantly. Tensions on the government securities market eased in the last quarter of 2018, after the Italian government reached a budget agreement with the European Commission. Share prices fell considerably during the year, especially those of banks, consistent with their evolution in the euro-area.

After a period of high volatility in the final months of 2018, in the first four months of this year conditions improved on the Italian financial markets, as they did in the other main advanced countries, benefiting from the Federal Reserve's less restrictive stance and the ECB's intention to maintain highly expansionary monetary conditions for longer. However, share and bond prices started to decline significantly in May, affected by the increase in investors' risk aversion.

As a result of the uncertainty surrounding the macroeconomic outlook and future economic policies, in the first few months of 2019 the sovereign risk premium remained above the level recorded at the start of 2018; volatility stayed high on the government securities market.

The money market

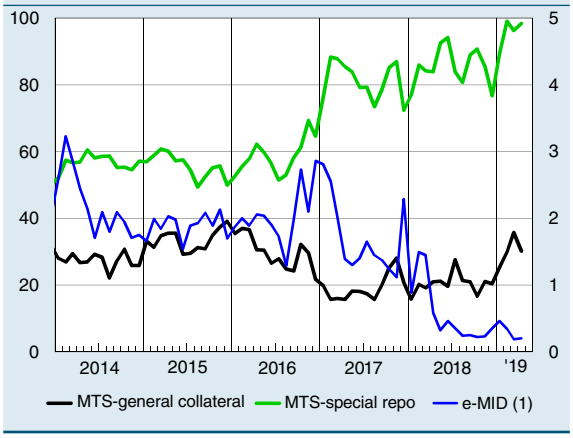
In 2018, the ECB's expansionary monetary policy contributed to keeping money market conditions relaxed; the average volume of trades increased compared with 2017. In the first quarter of this year, after the Eurosystem stopped making net purchases of financial assets in December 2018 (see Chapter 3, 'Monetary policy in the euro area'), there was a further increase in trading (Figure 14.1).

Most trading continued to be conducted on the repo market operated by MTS. The amount of

Figure 14.1

Money market trades

(monthly averages of daily data; billions of euros)



Sources: Based on e-MID SIM SpA and MTS SpA data.
(1) Right-hand scale.

trading in the general collateral segment grew compared with the previous year, while the volume of trading in the special repo segment continued to rise, partly buoyed by demand for borrowed securities from foreign investors.

The interest rates of very short-term repos on Italian sovereign bonds remained stable and aligned with the Eurosystem's deposit facility rate, which has been negative for some time.

Public sector securities

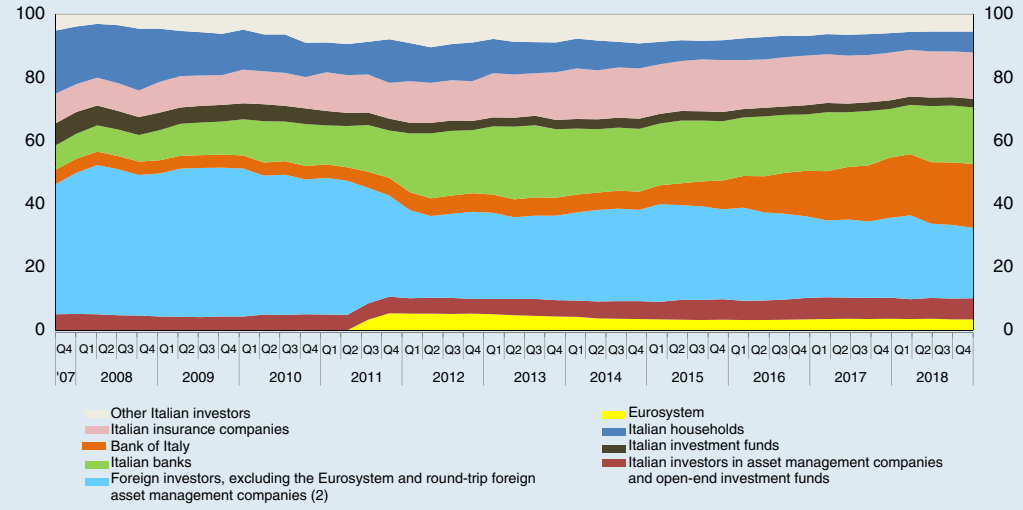
Supply and demand. – In 2018 net issues of Italian public sector securities rose compared with 2017 (from €43 billion to €46 billion), in concomitance with the increase in the Treasury's liquid balance at the end of the year ahead of upcoming redemptions (see Chapter 11, 'The public finances'). The average residual maturity of Italian public sector securities declined slightly due to the shorter maturity of new securities issued, although it was still 6.7 years (compared with 6.8 years in 2017).

Public sector securities maturing in 2019 amount to €339 billion (slightly less than the €349 billion recorded in 2018), of which about €100 billion with a maturity at issue of more than six years (compared with €70 billion in 2018).

Last year, the share of Italian government securities held by the Bank of Italy rose to 20.3 per cent (about €422 billion, from 19.1 per cent in 2017; Figure 14.2); net purchases made by the Bank under the Eurosystem's expanded asset purchase programme (APP), which ended in December 2018, equalled €35 billion (see Chapter 3, 'Monetary policy in the euro area').

Figure 14.2

Italian public sector securities: by category of holder (1)
(quarterly data; per cent)



Sources: Bank of Italy and estimates based on Assogestioni and ECB data.
(1) Shares calculated based on values at market prices and excluding securities held by general government in Italy. The data refer to a subset of holders. – (2) Securities held by foreign investors excluding those held by the Eurosystem (not including the Bank of Italy) and by Italian investors in foreign asset management and investment funds.

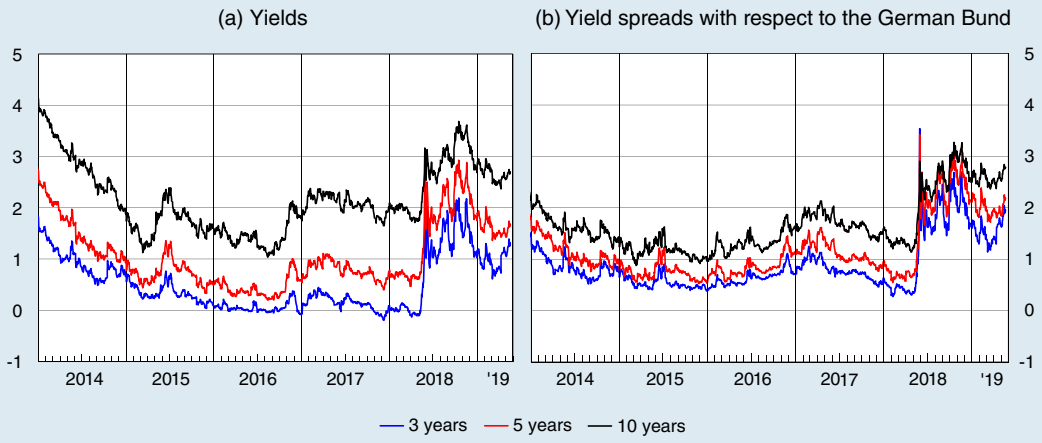
The share of these securities held by Italian banks and households also increased by 2.4 and 0.5 percentage points respectively (to 17.8 and 6.6 per cent), while those held by insurance companies and Italian investment funds declined slightly.

The share held by foreign investors– which is valued based on our estimates net of the securities held by the Eurosystem (excluding the Bank of Italy) and of foreign individually managed portfolios and investment funds attributable to Italian investors – was 22.3 per cent, about 3 percentage points lower than in the previous year. There were some bouts of tension on the Italian government securities market starting in the spring, coinciding with massive sell-offs by non-residents, which nonetheless declined in subsequent quarters (see *Financial Stability Report,* 2, 2018 and Chapter 10, 'Foreign demand and the balance of payments').

Yields. – In 2018, the yield on Italian ten-year government bonds rose by about 73 basis points to 2.74 per cent (Figure 14.3.a); the most pronounced increase was seen in medium-term securities (105 and 97 basis points for 5- and 3-year bonds respectively). The yields mainly reflected the increase in the risk premium demanded by investors to hold Italian government bonds.

Figure 14.3

Yields and yield spreads on BTPs at different maturities
(daily data; percentage points)



Source: Based on Bloomberg data.

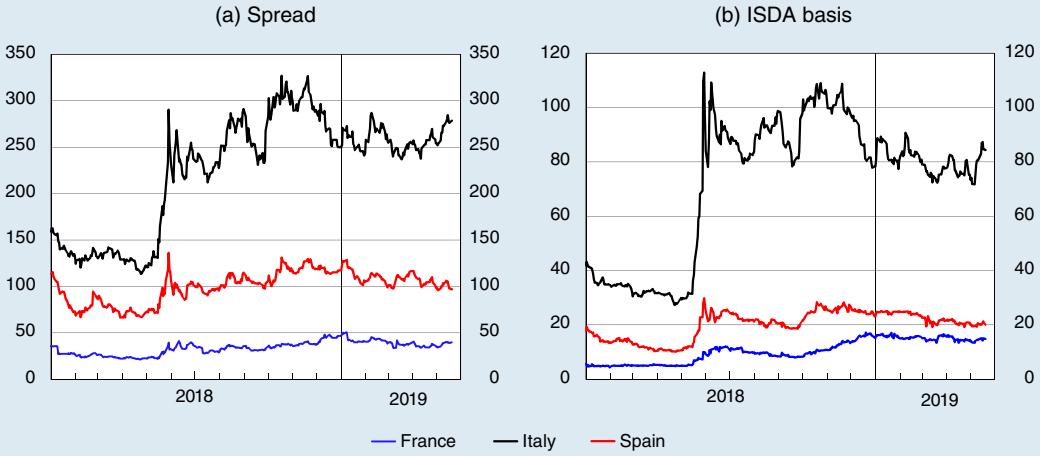
After falling slightly in the early months of 2018, the yield spreads between Italian bonds and the corresponding German government bonds began to widen starting in May, reflecting investors' uncertainty during the formation of the Government and regarding its economic and fiscal policy (Figure 14.3.b). The increase is also attributable, particularly during the initial phase, to the growing perception by investors of redenomination risk, i.e. the likelihood that government debt could be converted into a currency other than the euro (see the box 'The trend in Italian government bond spreads').

THE TREND IN ITALIAN GOVERNMENT BOND SPREADS

Since spring of last year the spread between Italian and German ten-year bond yields has been affected, especially in certain phases, by the uncertainty observed by analysts concerning Italy's fiscal stance (see Chapter 11, 'The public finances'). The spread widened in the second half of May 2018, reaching 290 basis points on 29 May (with an intraday peak of 324 basis points), which corresponded to difficulties that arose in relation to the formation of the new Government. The spread then narrowed, but only partially (see panel (a) of Figure A). Tensions rose once again in the autumn, in conjunction with the discussions between the Government and the European Commission, prior to approval of the 2019 Budget Law; on 20 November the spread widened to 327 basis points, its highest level since 2011 during the sovereign debt crisis, although it remained at levels well below those reached at that time. The spread then fell to around 250 basis points at the end of the year, reaping the benefits of the improved outlook after the Italian Government reached an agreement with the European Commission regarding Italy's draft budgetary plan. This year the trend in the spread has reflected the release of negative macroeconomic data in February and uncertainty regarding Italy's fiscal policy in May.

Figure A

Trend in the spread and in redenomination risk (1)
(basis points)



Sources: Based on data from Bloomberg and Refinitiv.
(1) The spread is defined as the difference between the yields on the 10-year government bonds of the countries indicated and that of the corresponding German Bund. The ISDA basis is defined as the difference between the 5-year CDS spread on a country's debt under ISDA 2014 and under ISDA 2003.

Italy's sovereign credit risk was affected, particularly at first, by the markets' assessment of the likelihood that Italy would redenominate its debt in a new currency. This credit risk component can be approximated by the difference (called the ISDA - International Securities Derivatives Association basis) between the credit default swap (CDS) spread regulated by ISDA rules introduced in 2014 – in which debt redenomination is explicitly covered – and the CDS spread under the 2003 rules, which instead did not consider this possibility. Unlike for other government securities, such as French and Spanish bonds, the trend in the ISDA basis for Italian bonds was

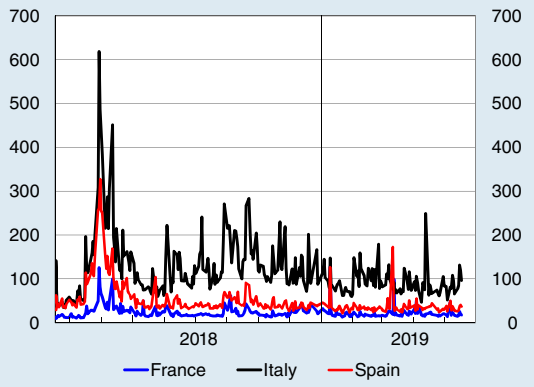
strictly correlated with that of the spread (see panel (b) of Figure A). This could mean that the size of the change in the spread was influenced by the markets' perception of the risk of Italy's possible exit from the Single Currency.

The increase in the ISDA basis was largely limited to Italy, with much smaller repercussions on the other euro-area countries perceived as vulnerable by analysts. It was only at the end of May of last year that the increased volatility of Italian bond prices was transmitted to Spanish bonds to any significant extent (Figure B).

Figure B

Trend in the volatility of the spreads of some euro-area countries (1)

(basis points)



Sources: Based on data from Bloomberg and Refinitiv.
(1) Both measurements refer to daily intervals and are calculated based on intraday prices. Volatilities are annualized.

The yields on Italian government bonds and their spread with respect to the corresponding German Bund have narrowed since the end of 2018, especially after the Italian Government reached an agreement with the European Commission on Italy's budget plans; monetary policy recalibration in the United States and in the euro area were also contributory factors. The ten-year yield spread began to rise again at the start of May 2019, affected by new uncertainties surrounding fiscal policies; the spread was about 280 basis points in the second half of May, more than 100 points higher than it was in the corresponding period of 2018.

Trading in the secondary market. – Since mid-May 2018 the liquidity in the secondary market in Italian government bonds (MTS Cash) decreased, as indicated by the widening in the bid-ask spread and by the contraction in average daily trading (Figure 14.4).

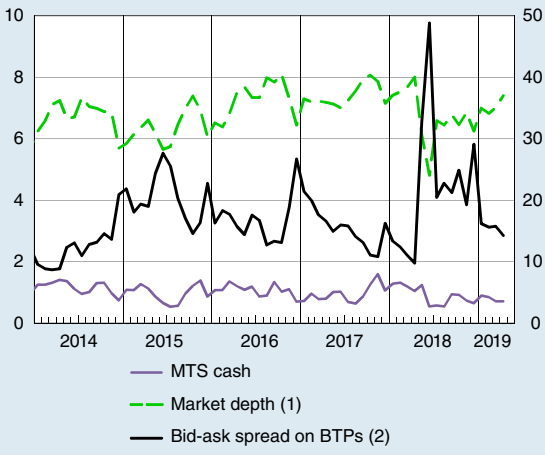
In the first quarter of 2019, there was nonetheless a slight improvement: trading picked up on both the regulated and over-the-counter markets, although it was still far below the levels of the first quarter of last year; liquidity conditions also improved.

The volume of trading on the BTP futures market continued to grow, with peaks of activity

Figure 14.4

Government securities trading in the secondary market

(monthly averages of daily data; billions of euros and basis points)



Source: Based on MTS SpA data.
(1) Calculated as the daily average of the semi-sum of pending orders on the buy and sell side proposed by market makers in the first 5 best quotes. – (2) Right-hand scale.

corresponding to the most volatile periods for Italian government bonds. Some tension surrounded the cheapest-to-deliver bonds for futures contracts; however, this did not have repercussions on the average cost of special repo trading on the MTS Repo market, measured by the difference between the rates on general collateral repos and special repos, referred to as specialness. In the first quarter of 2019, specialness declined further owing to smaller demand by foreign investors for securities to hedge short positions in Italian government bonds and to the greater availability of securities on the market following the end of the APP.

Corporate bonds and bank bonds

Issuance. – In 2018 Italian non-financial corporations limited their recourse to the bond market owing to higher funding costs: gross placements fell (to €15 billion, from €36 billion in 2017), leading to a negative balance between issues and redemptions (-€5 billion, from €22 billion in 2017; Table 14.1). The reduction was concentrated in the industrial and communications sectors and mostly concerned the unsecured bonds segment. As a share of GDP, bonds issued by firms amounted to 8 per cent at the end of the year (compared with an average of 11 per cent for the euro area).

Table 14.1

Medium- and long-term bonds of Italian banks and firms (1)
(nominal values; millions of euros)

	Net issues (2)			Stocks			% of GDP
	2016	2017	2018	2016	2017	2018	2018
Banks	-66,899	-64,911	-29,516	554,183	481,873	450,984	26
Other financial institutions	1,671	15,585	10,714	183,800	200,652	212,420	12
Non-financial corporations	-1,892	21,553	-4,625	124,139	144,794	141,021	8
Total	**-67,119**	**-27,774**	**-23,427**	**862,122**	**827,319**	**804,425**	**46**

(1) The nationality and sector refer to the issuer and not to its parent company. Refers only to securities with a maturity at issue of more than one year. – (2) Difference between the nominal values of issues and redemptions.

Italian banks continued to make net redemptions of bonds, but to a lesser extent than in 2017 (€30 billion, from €65 billion in 2017; Table 14.1), owing in particular to a sharp drop in bond redemptions (from €147 billion in 2017 to €119 billion). Gross placements essentially held steady, thanks to the replacement of unsecured bank bonds with covered bonds, which were less affected by the increase in funding costs. At the end of the year, bonds issued by banks amounted to 26 per cent of GDP, lower than the euro-area average of 32 per cent.

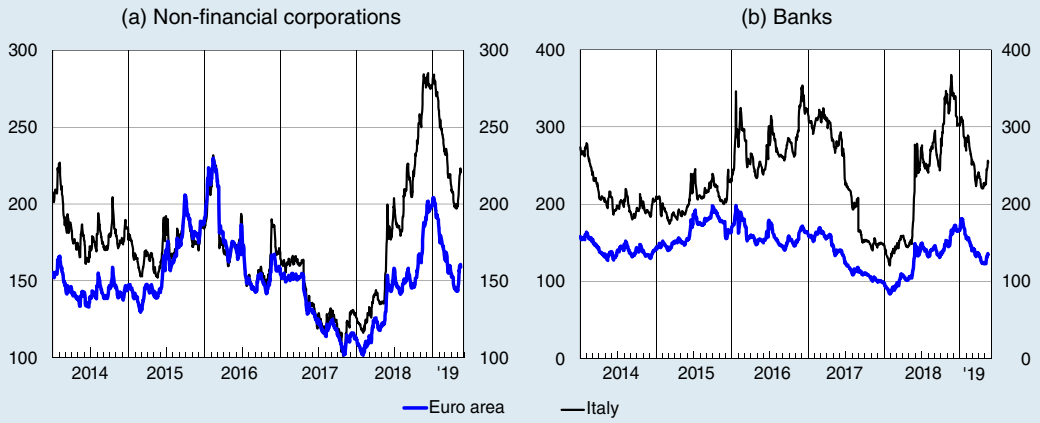
In the first quarter of 2019, gross bond issues by banks rose; net of redemptions, however, bond placements remained negative. Gross issues by companies declined further.

Yield spreads. – Funding conditions offered to Italian firms on bond markets became less favourable in the course of 2018. Bond spreads relative to the yields of public sector securities of the countries deemed less risky widened markedly in the spring, in conjunction with the increase in the sovereign risk premiums demanded by investors to hold Italian

government securities; subsequently, the spreads remained at levels significantly above the euro-area averages (Figure 14.5.a). Over the year as a whole, yield spreads rose by 150 basis points for Italian firms, compared with an average increase of 85 basis points for those in the euro area. The different evolution for Italian firms reflected uncertainty about domestic economic policies and the less favourable macroeconomic outlook.

Figure 14.5

Yield spreads on corporate bonds (1)
(daily data; basis points)



Source: Based on ICE BofAML data.
(1) Option-adjusted spreads weighted by the market capitalization of the companies' individual securities.

The increase in the credit risk premium for banks, measured by both bond spreads and the premiums on credit default swaps (CDS), was on average higher than that for firms. The spreads on Italian bank bonds, which in early 2018 followed the evolution in the average spreads on bonds issued by euro-area banks, rose sharply in mid-May (Figure 14.5.b). The higher risk premium for Italian banks compared with their European counterparts, which affects the cost of bond funding, was partly ascribable to the downward revisions of expected earnings.

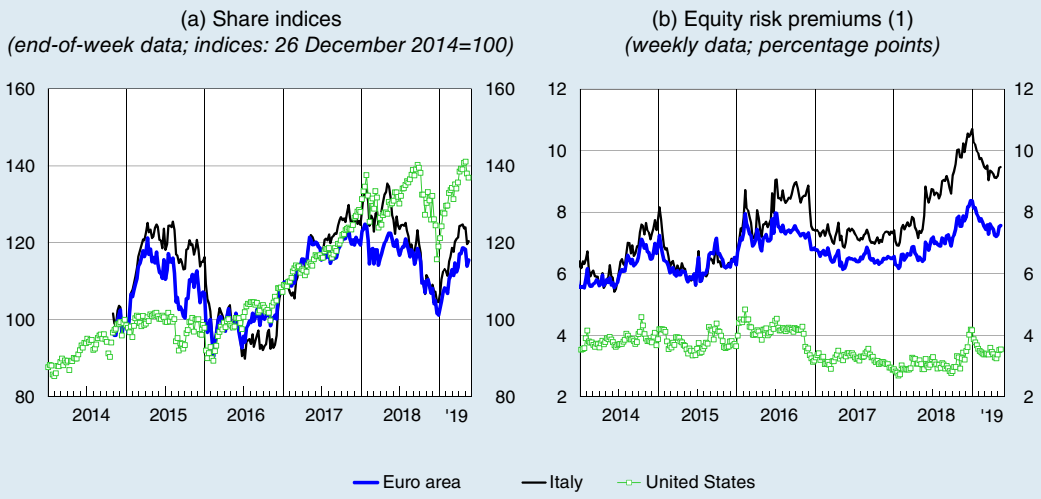
In the first four months of 2019 Italian corporate bond spreads and CDS premiums for banks initially declined but then began to rise again starting in May, in line with the change in the risk appetite of investors. Overall in Italy, funding conditions for firms and banks remain considerably less favourable than in the rest of the euro area.

The equity market

Share prices. – In 2018 the Italian stock exchange index fell by 16 per cent (compared with a decrease of 15 per cent for the index that includes major euro-area companies; Figure 14.6.a). Stock prices were penalized by the significant increase in risk premiums, the effect of which was partly offset by an increase in expected earnings (Figure 14.6.b). During the year, the Italian stock market was affected by tensions in the government securities market and by global factors, which, as in other countries, led to bouts of high volatility; more specifically, there were trade tensions between the United States and China and, at times, growing concerns that the US would adopt a more restrictive monetary policy stance.

Figure 14.6

Equity markets



Sources: Based on data from Bloomberg, Refinitiv and I/B/E/S data.
(1) For the stock indices considered, the ratio of the expected earnings per share over the next 12 months to the value of the stock index is calculated. From the resulting ratio, which is an estimate of the expected return on the shares, the return on risk-free 10-year government bonds is deducted to obtain an estimate of the equity risk premium.

After recording stronger growth than in the rest of the euro area in the first quarter of 2018, the share prices of credit institutions fell significantly, ending the year down 30 per cent. This decline is attributable to the outbreak of tensions in the government securities market, which more than offset the considerable improvement in banks' revenue and capital positions. In terms of capitalization, the financial sector represents a significant share of the Italian stock exchange index and heavily influences its performance (see the box 'The Italian stock market's performance in recent years'). The drops in the industrial and telecommunications sector indices also exceeded that of the general index; the overall return was instead supported by the consumption goods, public utilities and, especially the energy sector, with the latter benefiting from a sharp improvement in expected profitability during the year.

THE ITALIAN STOCK MARKET'S PERFORMANCE IN RECENT YEARS

During the global financial crisis the equity indices of the main European stock exchanges fell by more than 50 per cent, reaching a low in March 2009. The stock markets recovered over the next decade: the share prices of Italian companies rose by an average of 2.5 per cent each year; in Germany and France the average increase was 8.0 per cent (see the table). Italy has recorded a persistently negative gap in terms of total returns (6.4 per cent per year, compared with more than 11 per cent in Germany and in France), despite the higher dividend yield ratio observed on the Italian stock market over the course of the decade (4.0 per cent on average per year, compared with 3.6 and 3.1 per cent in France and Germany respectively).

The moderate growth of Italian equities in the decade from March 2009 to March 2019 is attributable to a variety of factors. Since the sovereign debt crisis,

Equity indices between March 2009 and March 2019

	Average total return (1)			Average change in prices (2)			Market capitalization (3)		
	Italy	France	Germany	Italy	France	Germany	Italy	France	Germany
General index	6.4	11.9	11.4	2.5	8.0	8.0	100.0	100.0	100.0
Finance	0.8	10.2	10.0	-2.0	5.9	6.1	37.0	16.1	17.2
Industry	6.8	15.1	13.7	3.6	11.8	10.5	8.9	18.4	16.0
Consumption goods	24.2	18.3	13.2	22.5	15.8	10.4	9.5	18.9	20.3
Consumer services	2.3	10.3	7.9	-0.4	6.3	4.7	1.5	10.1	2.5
Energy	6.1	8.2	–	0.3	2.5	–	19.7	10.9	–
Tecommunications	-1.6	5.6	10.5	-5.1	-1.5	3.9	5.8	2.7	4.7
Public utilities	11.7	1.6	-1.2	5.7	-4.3	-6.0	17.6	5.1	6.0
Basic materials	–	12.5	13.5	–	9.7	10.2	–	4.0	19.7
Healthcare	–	11.6	10.5	–	7.8	9.1	–	10.3	5.6
Technology	–	16.5	17.7	–	14.9	15.9	–	3.5	8.0

Sources: Based on Refinitiv data for the FTSE Italy, FTSE France and FTSE Germany indices.
(1) The average annualized percentage change in the total return index, which takes into account the reinvestment of dividends distributed. – (2) The average annualized percentage change in the price indices. – (3) Annual average share of market capitalization.

the share prices of Italian banks and insurance companies have been strongly affected by tensions on the government securities market and by fears about the growing stock of NPLs in banks' balance sheets caused by the recession; the effects on the general stock index have been accentuated by the relative size of the financial sector, which is greater than the European average. The capitalization of Italian firms in the technology sector, whose share prices have risen significantly at the global level, is also modest. These results were only partly offset by the favourable performance of the public utilities and consumption goods sectors, whose share prices increased more in Italy than in France and in Germany.

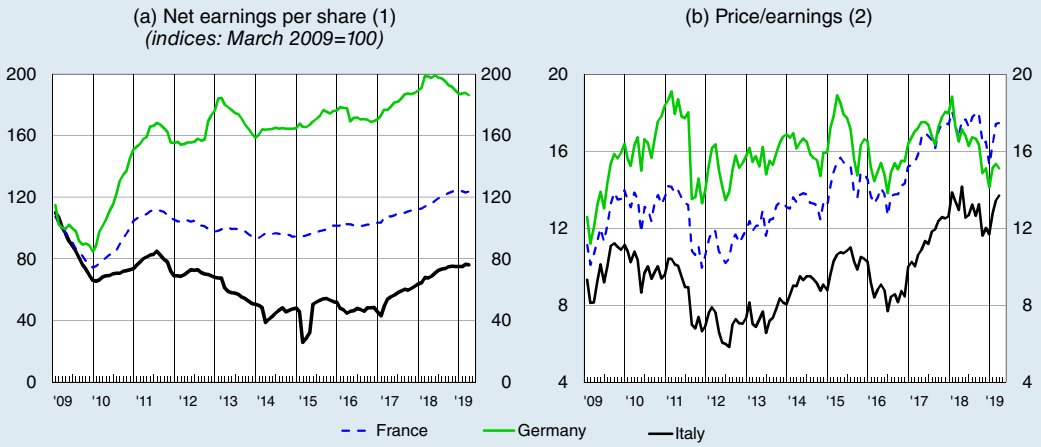
To assess the role played by sectoral composition, a counterfactual performance of the Italian stock market was calculated assuming that its sectoral composition was on average the same as in France and Germany.[1] The simulation results indicate that, in the entire period, the average annual return on Italian shares would have been about 3.5 percentage points higher than the actual return, offsetting most of the observed gap with France and Germany.

The trend in the Italian stock market also reflects the deep and protracted recession that followed the financial crisis, which, along with other factors, squeezed listed companies' profits. Italian companies' earnings per share registered

[1] The simulation considered only the seven sectors (finance, industry, consumption goods, consumer services, energy, telecommunications, public utilities) for which the total return indices of the Italian stock market are available for the entire period. The remaining sectors (basic materials, healthcare, technology) are not represented in the exercise.

a protracted decline between 2008 and 2014; subsequently, with the country's strengthening economic recovery, earnings per share initially stabilized and, since the start of 2017, have made significant gains (see panel (a) of the figure). By contrast, French and German companies' profits have recouped the losses recorded during the global financial crisis more quickly and to a greater extent. Overall, the share prices of Italian companies are gradually realigning with those of the other countries considered: the cyclically-adjusted price-earnings ratio,[2] which sank to very low levels in the years following the global financial crisis, is approaching those of France and Germany (see panel (b) of the figure).

Market fundamentals
(monthly data)



Sources: Based on Refinitiv and I/B/E/S data.
(1) Net earnings per share for the last 12 months. – (2) Ratio of the monthly level of stock prices to the 10-year moving average of earnings per share in real terms.

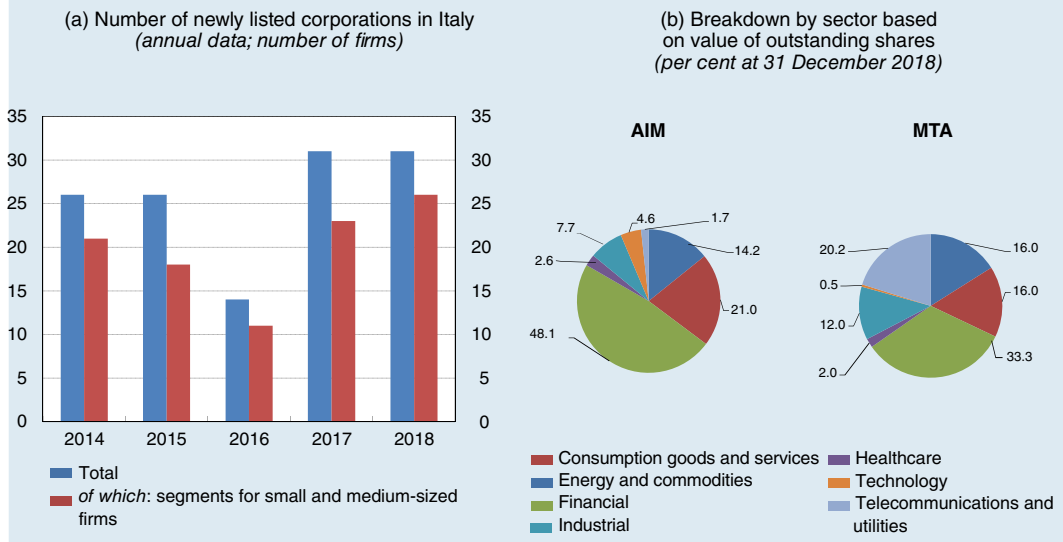
[2] The price-earnings ratio indicates the price that investors are willing to pay for each unit of earnings per share generated. The ten-year moving average of real earnings per share is used in the denominator in place of the current earnings per share (whose annual volatility is not suitable for representing equity fundamentals over longer time horizons), in order to adjust firms' profitability for the business cycle dynamics.

At the start of 2019, a more accommodative monetary policy stance in the euro area and in the United States fostered a marked recovery in Italian and European stock prices, against a background of lower volatility on international financial markets. In the first four months, the Italian stock exchange index gained 19 per cent (17 per cent in the euro area); the rise in stock prices was buoyed by the decline in long-term interest rates and risk premiums, which more than offset the slight deterioration in expected profitability. During the same period, the Italian banking share index recorded a considerable increase (equal to 21 per cent), above that of the corresponding euro-area index (16 per cent), benefiting in part from a further improvement in the expected profitability of Italian banks, compared with a slight contraction in those of the euro area. Starting in May, heightened trade tensions between the United States and China led to a sharp drop in Italian share prices and a rise in implied volatility, as happened in the other euro-area countries.

Supply of shares. – In 2018 the number of initial public offerings on the Italian stock market stabilized at 31 (Figure 14.7.a), while the total value of the shares placed in these IPOs fell sharply (€2 billion, compared with €5.4 billion in 2017). The share of IPOs in the AIM Italia segment for small and medium-sized firms increased.

Figure 14.7

IPOs and their breakdown by sector



Source: Based on Borsa Italiana SpA data.

In December 2018, the 111 firms in the AIM Italia segment represented about one third of the total number of companies listed in Italy. These firms recorded a greater increase in turnover and a different breakdown by sector compared with the MTA electronic share market, which hosts more traditional, large-cap companies (Figure 14.7.b). The AIM Italia segment has a higher percentage of shares from the consumption goods and service sectors (in particular, IT and communications services), from the technology sector and for special purpose acquisition companies, which together represent almost all the stock of financial companies listed in the AIM Italia. The market capitalization of the AIM Italia segment is extremely small (equal to 1 per cent of Borsa Italiana's total). In 2018 the turnover velocity (i.e. the ratio of the volume traded to the number of outstanding shares) weighted by free float was equal to 107 per cent in the MTA segment, compared with 34 per cent in the AIM Italia segment, reflecting a significant gap between the degree of liquidity of the two markets.

Overall, the Italian stock market continues to be smaller than those of the other major European countries, not only in terms of capitalization, but also as to the number of firms listed (see the box 'The listing of non-financial corporations: a comparison between the main European countries', Chapter 7).

Last year, total funding through the issue of shares by Italian firms declined considerably (to around €2.5 billion, from €14 billion in 2017); the decrease in issues by the financial sector was a contributory factor. The total value of gross share issues by non-financial corporations was essentially unchanged in Italy, but fell significantly in France and Spain, while it rose in Germany (Figure 14.8).

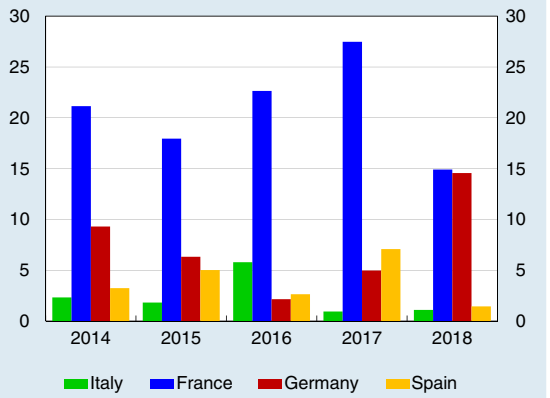
A number of legislative measures were introduced to encourage Italian firms to enter the stock market, in particular the tax credit for SMEs contained in the 2018 Budget Law (Law 205/2017), which amounts to 50 per cent of the consultancy costs paid for a stock exchange listing.

In addition to encouraging Italian SMEs to seek a listing, the tax credit is consistent with other initiatives undertaken in recent years. These include the long-term individual savings plans (*piani individuali di risparmio* or PIRs; see the box 'Individual savings plans', *Financial Stability Report*, 2, 2017) and venture capital and start-up incentives, which promote the development and diversification of financing sources for SMEs (see the box 'The venture capital market in Italy').

Figure 14.8

Gross share issues of non-financial corporations (1)

(annual data; billions of euros)



Source: Based on ECB data.
(1) Includes both new capital raised through IPOs and capital increases by listed companies.

THE VENTURE CAPITAL MARKET IN ITALY

Recent studies show that a high percentage of listed companies have received financing from venture capital funds, namely funds specializing in subscribing the share capital of firms before they are initially listed.[1] Such financing fosters the development of firms with high potential for growth, especially in high-tech and innovative sectors, and thereby also supports a country's economic activity.

Although it has expanded significantly in recent years, Italy's venture capital market is small by international standards. According to data from Crunchbase, in 2018 the aggregate amount of financing provided by venture capital funds and other similarly specialized investors, including business angels, equalled €400 million in Italy, compared with €3.5 and €2.6 billion in Germany and France respectively (see panel (a) of the figure). This difference is attributable not just to the small number of financing transactions carried out in Italy (160 compared with 545 and 437 in Germany and France), but also to their average unit value which, while on the increase, is still low (€3.5 million, compared with €11 and €7 million; see panel (b) of the figure).

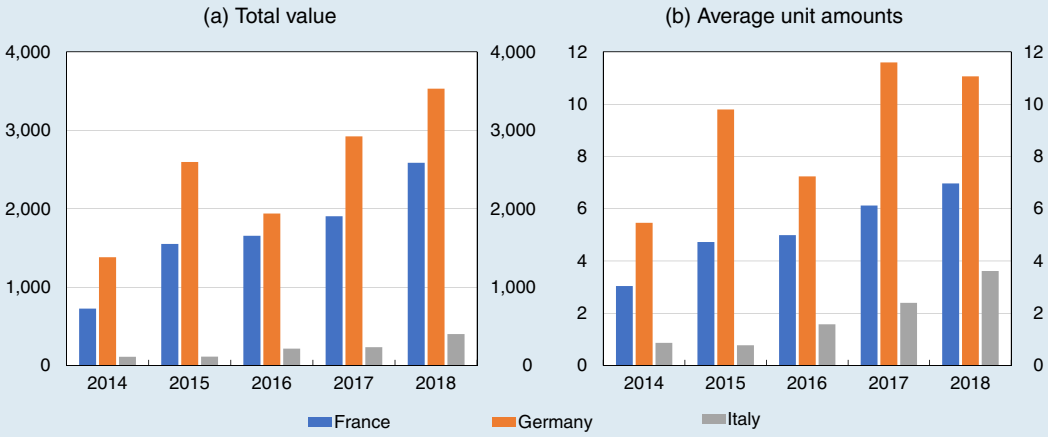
A recent study[2] on venture capital transactions that looked at data from more than 80 advanced and emerging economies between 2014 and 2017 shows that the heterogeneity across countries in the average amounts disbursed is mainly explained by the environments in which the firms operate, especially regarding the ease of starting up and conducting business. This aspect is measured using indicators drawn from

[1] J.R. Ritter, 'Initial public offerings: VC-backed IPO statistics through 2018', mimeo, April 2019.

[2] M. Taboga, 'Cross-country differences in the size of venture capital financing rounds. A machine learning approach', Banca d'Italia, Temi di Discussione (Working Papers), forthcoming.

the World Bank's *Doing Business* report,[3] according to which Italy is at a disadvantage compared with other advanced economies. Furthermore, the characteristics of the firms receiving financing are important, including their sectors of activity: biotechnology firms and companies that develop high-tech products, which are less common in Italy, receive very high average amounts of financing.

Venture capital funding rounds (1)
(milions of euros)



Source: Based on Crunchbase data.
(1) The data include financing provided by other investors that specialize in making capital investments in unlisted firms, such as business angels.

In recent years, to stimulate the development of the venture capital market in Italy, numerous public intervention efforts have been made to increase the public funding available (for example, through funds managed by the public agency, Invitalia, and through Cassa Depositi e Prestiti SpA's shareholding in Fondo italiano di investimento SGR) and to introduce tax incentives and simplified regulations to increase the number and support the growth of innovative start-ups and small and medium-sized enterprises. Further measures were included in the budget law approved last year. In addition to new public funding allocated to investment in venture capital funds, these include tax incentives designed to encourage the purchase or sale of interests in unlisted firms and the obligation imposed on individual savings plans (*piani individuali di risparmio* or PIRs; see *Financial Stability Report*, 2, 2017) requiring them to invest a minimum percentage of their capital in venture capital funds.[4]

Going forward, structural reforms designed to make doing business easier and stimulate the creation of high-tech companies could spur investment by venture capital funds in Italy.

[3] For example, these indicators measure the ease of starting a new business, obtaining construction permits, getting electricity, registering property, getting credit, resolving insolvency, enforcing contracts, protecting minority investors, as well as the simplicity of the tax system.

[4] For an analysis of the impact that this obligation could have on PIRs, see the box 'The impact of recent changes in the rules on PIR funds', *Financial Stability Report*, 1, 2019.

Market infrastructure

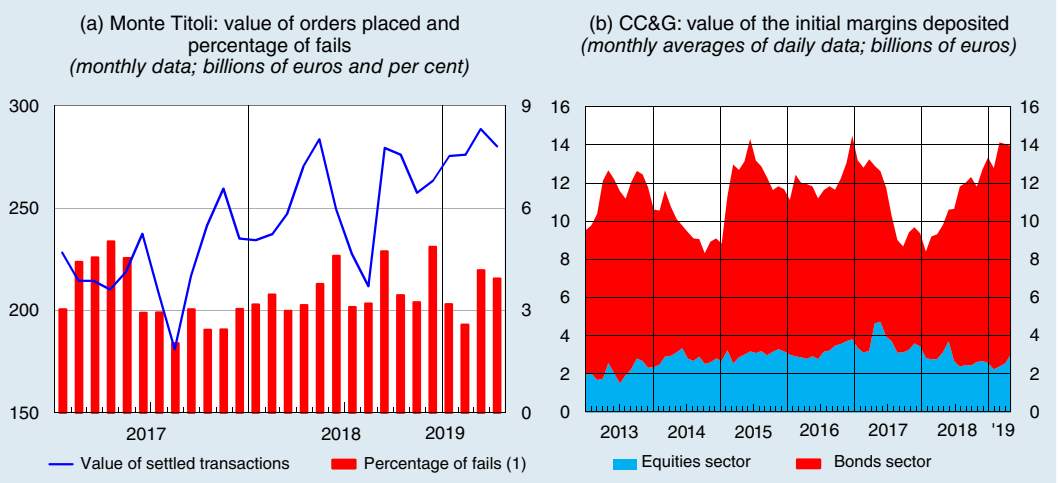
In the course of 2018 and in the first quarter of 2019, the activity carried out on the European securities transactions platform, TARGET2-Securities (T2S),[1] remained at the same levels reported the year before.[2]

The value of the transactions settled in T2S through Monte Titoli SpA, Italy's central securities depository, averaged €253 billion per day (up 14 per cent compared with 2017), or around one third of the total registered on the European platform. The increase can be attributed to the higher average daily volume of trades on the MTS Repo market. In the first quarter of 2019 the average values settled rose even higher. The share of transactions not settled owing to the non-delivery of securities or cash within the allotted time frame (*fails*) increased slightly on average compared with 2018, with average daily percentages just below 4 per cent (Figure 14.9.a).

After the decrease observed in the second half of 2017, the margins collected by Cassa di Compensazione e Garanzia SpA (CC&G) continued to grow in 2018, reflecting increased volatility in the first half of the year and the revision of margin parameters in the second half (Figure 14.9.b). The tensions recorded in the Italian financial markets between the end of May and the beginning of June did not require the adoption of extraordinary measures.

Figure 14.9

Market infrastructures



Sources: Based on CC&G SpA and Monte Titoli SpA data.
(1) Right-hand scale.

[1] For more details, see the Bank of Italy's website: 'TARGET2-Securities (T2S)'.

[2] Based on ECB data.

SPECIAL FEATURES

15. TOURISM IN ITALY: FIGURES AND DEVELOPMENT POTENTIAL[1]

The tourism sector contributes significantly to Italian GDP, more than in France and Germany and similarly to Spain. Compared with the first half of the 1990s, while the sector has been growing at global level, Italy has seen its market share decline more markedly compared with the other main international destinations. However, since 2010 there have been promising signs of a recovery in foreign inflows, which have further strengthened over the past two years.

Tourism expenditure is not evenly distributed across tourism resources: accordingly, some areas are under-visited while others risk over-crowding. The regions in the North-East and in the Centre receive most of the international inflows; the largest share of Italian tourists are concentrated in the regions in the North-East. The tourism sector is less developed in the South, where the number of tourists remains limited, especially foreign tourists.

Tourism demand is becoming increasingly complex and elaborate. However, the key drivers remain cultural in nature, strengthening Italy's competitive advantage by virtue of its rich artistic heritage and history. Whether the sector is able to grow further will largely depend on Italy's ability to capitalize on these resources.

The supply of tourist accommodation, which is more fragmented than in other countries, is starting to evolve, also thanks to the appearance of online reservation channels, which help to increase the number of non-hotel accommodations and accelerate the process of improving the quality of hotels.

To fully realize its tourism potential, Italy must overcome its development lags which, according to international indicators, are in relation to employee skills and transportation infrastructure; the low priority attributed to the sector by national policies must also be addressed.

The contribution of tourism to the Italian economy and medium-term trends

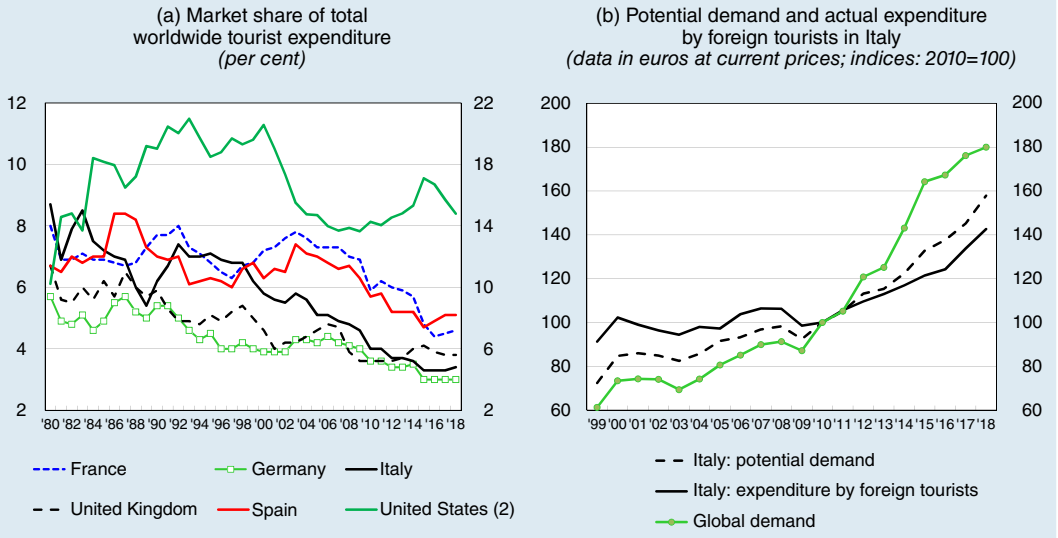
According to data from Istat's Tourism Satellite Account (*Conto satellite del turismo*, CST), tourism-related activities accounted for 5.9 per cent of total value added in 2015. Tourism receipts represented about 40 per cent of service exports, providing a structurally positive contribution to the trade balance.

[1] This chapter is based on the results of a research project carried out by the Bank of Italy, detailed in A. Petrella and R. Torrini (eds.), 'Il turismo in Italia: numeri e potenziale di sviluppo', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), forthcoming.

The data demonstrate Italy's intrinsic nature as a tourist destination thanks to its natural beauty and its historical and artistic heritage. While at the start of the 1980s Italy was second to only the United States in terms of its share of global tourism expenditure, Italy's market share has inevitably fallen due to the new travel destinations that have emerged thanks in part to the lower cost of transportation. This fall, from 7 per cent in the first half of the 1990s to 3.4 per cent in 2018, was greater than that recorded in the main competitor destinations (Figure 15.1.a). Moreover, spending by foreign tourists grew less also in relation to demand from countries that contribute the most to Italian tourism (potential demand; Figure 15.1.b).[2]

Figure 15.1

Market share, potential demand and expenditure by foreign tourists in Italy (1)



Sources: Based on data from World Trade Organization, Banque de France and Bank of Italy.
(1) Potential demand measures the amount of tourism revenue that would be made if the revenue from each partner country were to increase at the same pace as its total imports of tourism services. This is calculated as the weighted average of the changes with respect to the previous year in imports of tourism services (spending abroad by resident tourists) of the first 44 partner countries by share of Italian exports. In 2017 these countries accounted for 95 per cent of Italy's tourism revenue. For more information on the methodology used in estimating the potential demand for tourism services, see E. Breda, R. Cappariello and V. Romano, op. cit., 2018. – (2) Right-hand scale.

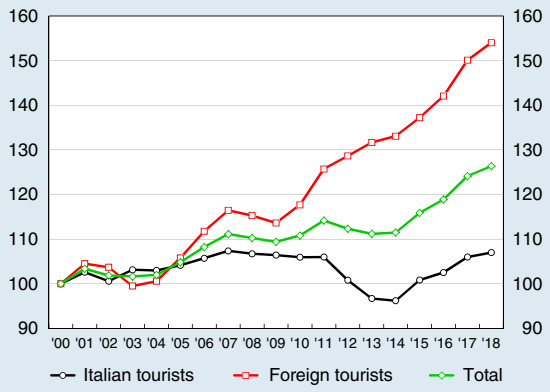
Based on CST data, almost three fifths of expenditure in Italy is on account of domestic tourism while the remaining share is on account of international tourism. However, over the current decade, international tourism has grown more than domestic tourism, which has suffered from the weak growth in disposable income. According to Istat, occupancy of tourist accommodations by Italian tourists fell by 10 per cent between 2007 and 2014, while occupancy by foreign tourists grew by about 14 per cent (Figure 15.2). In the five years 2014-18, there was a recovery among domestic tourists, who increased by an average of 2.7 per cent, though still 1 percentage point lower than international tourists.

[2] E. Breda, R. Cappariello and V. Romano, 'International tourism in Italy: recent trends, potential demand and a comparison with the main European competitors', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 475, 2018.

In regard to expenditure, international travel has also shown clear signs of a recovery, especially over the past two years. Since 2010, after the decline in 2008-09 caused by the global economic crisis, expenditure by foreign tourists has returned to high levels, narrowing the gap with respect to potential demand. The growth rate averaged 4.5 per cent between 2010 and 2018, compared with 0.8 per cent in the preceding 10 years; in 2017 and 2018, it reached 7.7 and 6.5 per cent respectively. Also on account of expenditure by Italian tourists abroad, which grew by less than half of that of foreign tourists in Italy, the tourism balance of payments widened from 0.6 per cent of GDP in 2010 to 0.9 per cent of GDP in 2018 (Figure 15.3).

Figure 15.2

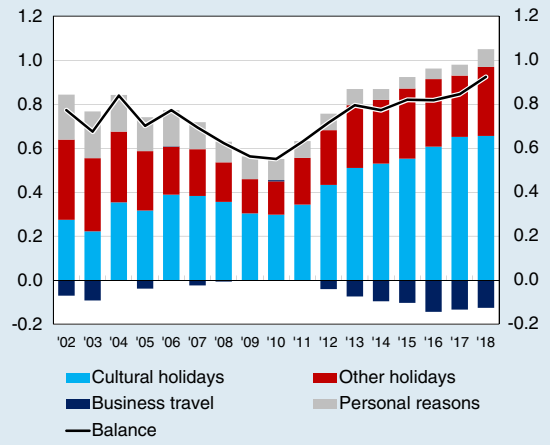
Overnight visitors
(indices: 2000=100)



Source: Based on Istat data.

Figure 15.3

The travel balance and its components
(per cent of GDP)



Sources: Based on Istat and Bank of Italy data.

The recovery was driven first of all by the increase in spending for cultural holidays and then by the increase in seaside holidays. Receipts from business travel have declined, affected by the weak economic cycle and by structural factors such as the greater use of new technology for communication.[3]

The recent expansion in tourism has mostly been driven by inflows from countries outside the European Union: their share of total expenditure grew from 37.6 per cent in 2010 to 41.3 per cent in 2018. With regard to European countries, there has been renewed growth since 2014 in the share of expenditure by tourists from France, the United Kingdom and, most of all, from Germany, countries which account for about a third of Italy's tourism receipts.

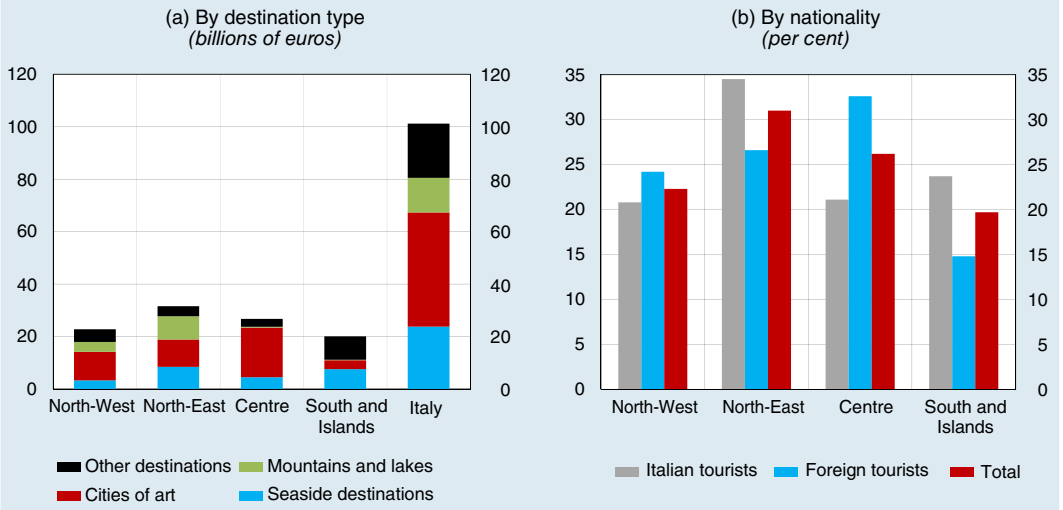
[3] F. Bripi, 'Business travels, multinational firms and international trade', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), forthcoming.

The distribution of tourism spending in Italy

According to the CST's estimated geographical breakdown of tourism spending,[4] most of the expenditure is concentrated in the North-East and in the Centre, while the North-West and especially the South receive a smaller share (Figure 15.4.a).

Figure 15.4

Tourism expenditure by macro-region (1)



Sources: Based on Istat and Bank of Italy data.
(1) Expenditure refers to overnight visitors. Other destinations include the countryside, natural springs, religious sites, regional capitals without specific tourist attractions and municipalities not classified elsewhere.

With 31 per cent of total spending, the North-East is the area with the most visited tourist destinations: it is very attractive to foreign and even more so to Italian tourists thanks to the area's many cultural attractions and mountain and seaside destinations (Figure 15.4.b). The Centre stands out with regard to foreign tourists, commanding more than a third of total spending in this segment, largely thanks to the draw of its cities of art; domestic tourism, however, is significant, but less pronounced. The North-West receives a large share of the expenditure by foreign tourists, partly driven in recent years by the big events held in cities like Turin and Milan; in relation to domestic tourism, this macro-region is above the average for tourism by its own residents.

Despite recent improvements in the South, there is still a clear gap between potential and actual tourism. The area is more exposed to competition from other Mediterranean destinations and has a more price-elastic demand compared with the rest of the country.[5] Although it possesses about three quarters of both the Italian

[4] For the methodology used in breaking down tourism expenditure in Italy according to the nationality of the tourist, see the box 'Ripartizione territoriale della spesa turistica domestica', in A. Petrella and R. Torrini (eds.), op. cit.

[5] E. Breda and G. Oddo, 'The determinants of foreign tourism demand: separating elasticities for the extensive and the intensive margin, Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 482, 2019.

coastline and of the land belonging to national parks, as well as a significant number of museums and archaeological sites, the South's share of total spending is less than 20 per cent; the number falls to 15 per cent for spending by foreign tourists. Domestic tourism has yielded better results thanks to the seaside segment, which is however highly seasonal in nature, while the area's artistic heritage is still underexploited. A large share of the Italian tourists to the South reside within the macro-region, more so than in the North-East and Centre.

Taking account of the development lags, the South is the area that could most benefit from growth in the tourism industry, given the high level of idle productive resources and the low average levels of tourism traffic.[6]

Travel content and cultural tourism

As reported in the Bank of Italy's Survey on International Tourism,[7] holidays in Italy by foreign tourists have increased (owing to the increase in holidays with multiple destinations) and have become hybrid in nature, combining elements of different types of holidays (seaside, mountain, cultural and rural), with a significant and growing number of tourists indicating secondary purposes. This change has been particularly significant for seaside and mountain holidays, which have become more varied with the addition of elements that are typical of rural and cultural holidays.

At the same time, the concentration of inflows towards the main tourist destinations has increased, upping the risk of overcrowding, partly on account of the shift towards taking cultural holidays in a more limited number of destinations. This trend poses a challenge for the more popular destinations, making it necessary to reconcile the needs of visitors with those of residents. A tool which makes it possible to partially offset tourism's negative externalities and redistribute its benefits is the tourist tax;[8] in 2017, this generated more than €470 million in revenue for local municipalities.

Italy's rich artistic heritage is widely dispersed throughout the country. The nearly 5,000 museums, archaeological sites and monuments are located in about a third of Italian municipalities. Nonetheless, the top four provinces (Rome, Venice, Florence and Milan) currently attract about 70 per cent of expenditure by foreign tourists on cultural holidays, compared with 60 per cent at the beginning of this century. The municipalities where the 54 UNESCO World Heritage Sites are located also attract a particularly large share of tourists, hosting almost half of the foreign tourists and about three quarters of those that come to Italy for this type of holiday.

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[6] R. Bronzini, E. Ciani and F. Montaruli, 'Tourism and local growth in Italy', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), forthcoming. The paper illustrates how higher tourism spending is associated with a growth in value added per capita that is higher in areas with lower initial development levels. The effects on GDP tend to gradually become less significant as the tourism industry grows, presumably on account of crowding problems.

[7] The results for 2017 are summarized in 'Survey on International Tourism', Banca d'Italia, Statistics Series, 11 June 2018. For the methodology, see Banca d'Italia, 'Turismo internazionale dell'Italia. La metodologia dell'indagine campionaria alle frontiere sul turismo internazionale dell'Italia'.

[8] L. Conti, E. Gennari, F. Quintiliani, R. Rassu and E. Sceresini, 'The tourist tax in Italian municipalities', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 453, 2018.

Cultural holidays are the main motivation for people travelling to Italy for the first time; three quarters of total travelers and more than 90 per cent of those from non-EU countries come to Italy to visit a city of art. The share of cultural holidays falls significantly among returning visitors, though the share remains very high for visitors from non-EU countries.[9] Therefore, artistic and cultural attractions serve as a major draw for international tourists, with potential benefits for other kinds of destinations during return trips.

Foreign visitors to cultural attractions are generally satisfied with their holidays,[10] but their assessments are less positive in relation to prices and tourist information services. For example, there are development lags in the use of digital communication and information tools; according to Istat data, less than a third of Italian museums have a website.

Italian museums are ever more capable of making their artistic and cultural assets publicly accessible. In state-owned museums alone, paying visitors increased by about 60 per cent between 2010 and 2018. However, the ability to capitalize on this heritage remains limited in some respects: for example, in 2017, less than half of museums had temporary exhibits, which serve as a potential attraction for visitors, especially for less well-known museums.

A sweeping reform of the museum industry has led to better museum management and has encouraged the creation of museum networks. In this regard, the national museum system was established, serving as an accreditation mechanism based on minimum quality standards for the services provided by all public and private cultural sites, and regional museum hubs were established, tasked with coordinating the museums under their jurisdiction. To better promote their artistic and cultural heritage, larger museums and archaeological sites were given organizational and managerial autonomy (see the box 'Innovations in state-owned museums: findings from a survey of the Bank of Italy').

INNOVATIONS IN STATE-OWNED MUSEUMS: FINDINGS FROM A SURVEY BY THE BANK OF ITALY

The conservation of and the accessibility to artistic heritage provides a service for the common good, improving social and human capital. The presence and exploitation of this heritage may also render a country more attractive to tourists, with positive repercussions on the local economy. The organizational structure and performance of museums are essential in carrying out these processes. In this regard, some recent studies have found that greater autonomy (accounting, organizational and operational) generally corresponds to better results, regardless of whether the museum is publicly- or privately-owned; this has been the case for Italian museums.[1]

[1] E. Beretta, G. Firpo, A. Migliardi and D. Scalise, 'La valorizzazione del patrimonio artistico e culturale in Italia: confronti internazionali, divari territoriali, problemi e prospettive', Banca d'Italia, Quaderni di Economia e Finanza (Occasional Papers), forthcoming; E. Bertacchini, C. Dalle Nogare and R. Scuderi, 'Ownership, organization, structure and performance in public service provision: the case of museums', *Journal of Cultural Economics*, 42, 4, 2018, 619-643.

[9] For more information, see A. Filippone, M. Gallo, P. Passiglia and V. Romano, 'Foreigners on holiday in Italy: tourism products, destinations and travelers' characteristics', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), forthcoming.

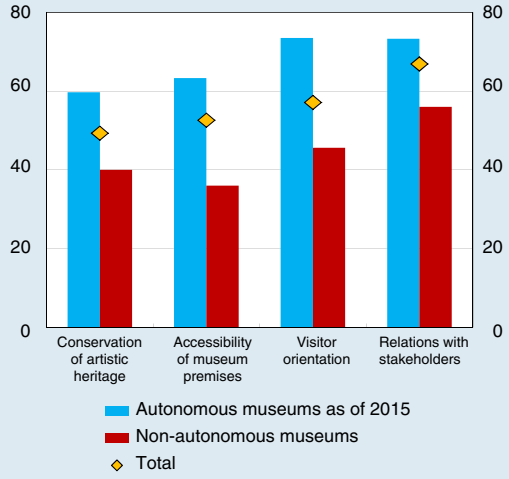
[10] For more information, see the box 'Il grado di soddisfazione dei turisti stranieri diretti verso mete culturali', in A. Petrella and R. Torrini (eds.), op. cit.

Some two thirds of Italian museums are public property; those belonging to the State, despite representing less than 10 per cent of the total, attract more than 40 per cent of visitors. Half of the latter are concentrated in 32 sites that since 2014 have been affected by sweeping reforms, through which wider margins of autonomy were recognized. Within this context, museum directors (selected by means of an international recruitment process) were given greater responsibilities: they are responsible for the museum's management, together with the board of directors.

A recent survey was carried out regarding the initiatives taken in the two years 2016-17 by 40 of the main state-owned museums and archaeological sites:[2] 20 were granted autonomy in 2015, another 10 in 2016, while 10 were not affected by the reform. To develop a performance indicator, the study used initiatives that address four areas of museum services: the conservation of artistic heritage, the accessibility of the museum's premises, visitor orientation, and relations with stakeholders.

In the reference period, the services offered by autonomous museums expanded more markedly in all the areas considered (see the figure). In particular, the differences between museums that first became autonomous and museums not affected by this reform were statistically significant in the area of accessibility, which broadly refers to the ability to make use of a museum's premises, and in the area of visitor orientation. With regard to accessibility, nearly all the museums offered extended opening hours, but autonomous museums adopted more initiatives geared at adjusting their hours of operation and the number of days they are open and at offering online ticket purchase. In order to increase the usability of museums and the interest of visitors, autonomous museums have taken more steps to expand their artwork and to rotate the art collections on exhibit, improve the information available during the visit (e.g. didactic panels, audio-visual media, guided tours) and enlarge the number of ancillary services (e.g. bookstores and dining services).

Performance of state-owned museums in some areas of museum services (2016-17) (1)
(per cent)



Source: L. Leva, V. Menicucci, G. Roma and D. Ruggeri, op. cit.
(1) The performance indicator is calculated as the share of new initiatives taken during the reference period out of all the possible initiatives in each area of museum services. For autonomous museums as of 2015, only the first 20 museums and archaeological sites affected by the reform were considered; for non-autonomous museums, 10 museums not affected by the reform were considered (control group).

[2] L. Leva, V. Menicucci, G. Roma and D. Ruggeri, 'Innovazioni nella governance dei musei statali e gestione del patrimonio culturale: alcune evidenze da un'indagine della Banca d'Italia', Banca d'Italia, Quaderni di Economia e Finanza (Occasional Papers), forthcoming.

The tourist accommodation industry

Italy is first in Europe in terms of the number of tourist accommodations and is second only to France in terms of the number of bed places offered by professionally-managed accommodations: however, the total number is higher when including accommodations in private residences, though the precise number has not been quantified.

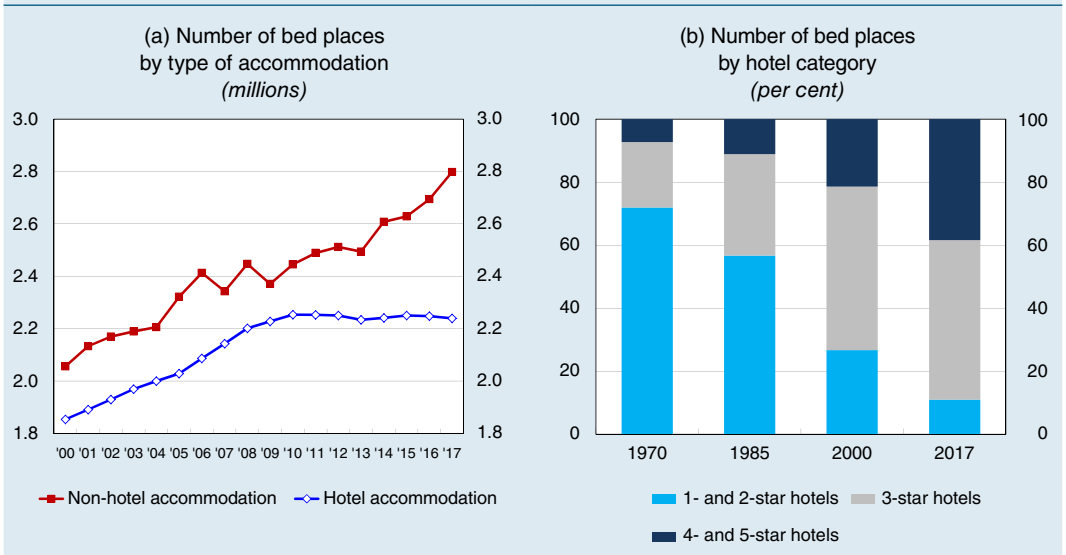
Firms offering accommodation share the same characteristics as the rest of the productive system. Small firms play a dominant role, and are often family-run. Moreover, a relatively low number of businesses have multiple locations (i.e. hotel chains and the like). There is a large share of self-employment and a very close connection between ownership and management of properties. The education level of employees, across a variety of positions, is lower than the European average, in line with the rest of the economic system.

Hotels are similar in size to those in other European countries but are more widely dispersed throughout the country and are managed by firms of a smaller size. Their occupancy, which is lower than the European average, is comparatively more seasonal in nature, partly on account of the high share of seaside holidays and the more modest share of business travel.

From the start of the 2000s, the number of non-hotel accommodations has risen significantly (Figure 15.5.a), mainly driven by the increase in rural hotels and bed and breakfasts, and then by the growth in the sharing economy[11] and in online booking platforms. Since 2010, the competitive pressures exerted by the latter[12] have helped

Figure 15.5

Growth of the tourist accommodation sector



Source: Based on Istat data.

[11] In the tourism sector, home-sharing in the form of home rentals or swaps (asset rentals) has become more widespread.

[12] For more information, see the box 'L'impatto economico di Airbnb: il caso italiano', in A. Petrella and R. Torrini (ed.), op. cit.

to gradually improve the quality of hotel accommodations, while their number has remained substantially stable. This has led to a reduction in the number of one- and two-star hotels and an increase in the number of four- and five-star hotels, while the number of three-star hotels has remained unchanged (Figure 15.5.b).

According to the Survey on International Tourism, more online reservations are being made for smaller, less-visited destinations. The greater use of online reservation channels, through which more than 60 per cent of reservations are made for holiday accommodations, could help to offset some of the weaknesses in tourism supply, making access to the accommodation market easier for businesses that would otherwise find it difficult to attract clientele. At the same time, the expansion in supply through these new channels makes it necessary to ensure a level playing field among competitors in relation to taxes and regulations, without impeding innovation.

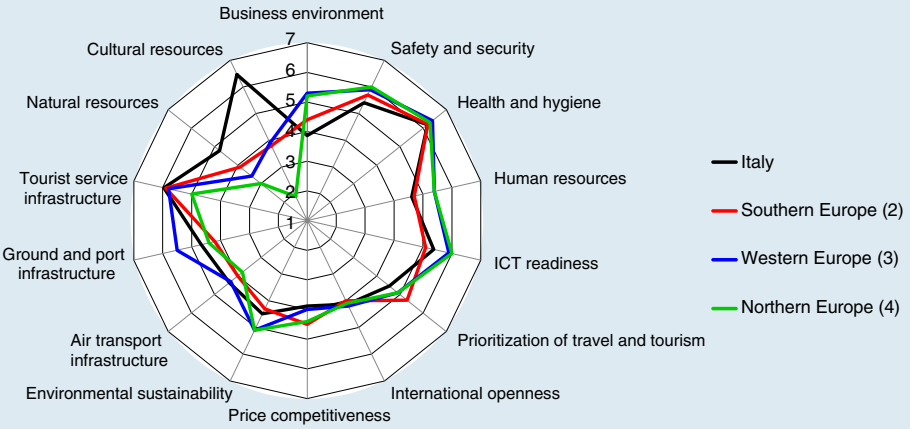
Italy's standing in the global tourism market

According to the indicators developed by the World Economic Forum (WEF), Italy ranks eighth out of 136 countries in terms of travel and tourism competitiveness.[13]

These indicators acknowledge Italy's dominance with regard to cultural and natural resources as compared with other European countries. Development lags are noted in relation to human resources (employee qualifications) and transportation infrastructure (especially ground and port), which both play a key role in the development of the tourism sector. According to these indicators, Italy's low level of competitiveness is also on account of the regulatory context; moreover, the tourism sector seems to be given a low priority in national policies (Figure 15.6).

Figure 15.6

Tourism competitiveness indices (1)
(normalized indices)



Source: Based on WEF data.
(1) Points given to the 14 pillars used in the assessment, graded on a scale of 1 to 7. – (2) Based on the WEF's classification, Southern Europe consists of Spain, Italy, Portugal, Greece, Croatia, Malta, Turkey and Cyprus. – (3) France, Germany, the United Kingdom, Switzerland, Austria, the Netherlands, Belgium, Ireland, Luxembourg and the Czech Republic. – (4) Norway, Sweden, Iceland, Denmark, Finland, Estonia, Latvia and Lithuania.

[13] World Economic Forum, *The Travel & Tourism Competitiveness Report 2017,* 2017.

The latter aspect is influenced by the institutional set-ups, which have undergone continuous changes, weakening the role of central government structures in strategic planning, promotion and coordination of the local entities.

16. PUBLIC INVESTMENT

According to the available estimates, an increase in public investment expenditure is capable of having a significant macroeconomic impact, the size of which depends on how efficiently the resources are used. The impact is greater in the presence of favourable monetary conditions and in the absence of negative repercussions on the sovereign risk premium.

In Italy, public investment expenditure has decreased markedly since the start of the crisis, falling below the levels recorded in the main European countries. This is due to the decline in resource allocation and to expenditure-related operational difficulties. The available indicators point to a lag in Italy's infrastructural endowment that is partly caused by poor spending decisions and inefficiencies in the realization of public works, especially in the South and Islands. This reflects the inadequate regulatory framework and weak technical skills on the part of public entities in planning and carrying out public projects.

In recent years, wide-ranging reforms have been passed to improve the efficiency of investment expenditure. However, many measures (such as those related to technical-financial planning and design quality) have not yet been implemented or become fully operational. Measures aimed at accelerating the completion of public works, if not accompanied by greater transparency in the administrative process and suitable levels of competence of contracting authorities, may increase the risk of corruption and inefficient allocation of resources.

Public investment expenditure and economic activity

Public investment expenditure has a direct impact on aggregate demand, which is generally greater than that associated with other budget items, such as current transfers. By raising the disposable income of the beneficiaries, a portion of current transfers is actually allocated to savings. Public investment expenditure also increases the potential productive capacity of the national economic system, in both the medium and long term.

Numerous factors determine the size of the so-called multiplier, i.e. the increase in GDP generated by an increase in expenditure. These include the degree of utilization of productive resources when the investment is made; the efficiency of the expenditure and the time it takes to implement the investment plans; funding modalities; the monetary policy stance and the potential repercussions on the sovereign risk premium.

Estimates of the impact on the Italian economy of an increase in public investment expenditure can be obtained from simulations of the Bank of Italy quarterly econometric

model (Table 16.1).[1] A deficit-financed increase in public investment would generally provide an expansionary impulse; it would push up employment, wages and inflation. When monetary conditions are accommodative and the use of resources adequately efficient, the economic expansion would help bring the ratio of public debt to GDP down (Scenario A). If, however, implementing the investment plan proved wasteful and inefficient, the multiplier would be significantly lower and, in the longer term, the debt-to-GDP ratio would rise, reflecting the more muted expansionary impact on productive capacity (Scenario B). Similar effects would obtain if the increase in expenditure were to stoke fears about the sustainability of the public debt to the point of raising borrowing costs for the public sector, and indirectly for the private one, squeezing the spending decisions of households and firms (Scenario C). In this case too, the smaller stimulus to economic activity and higher interest expense would lead to a higher debt-to-GDP ratio.[2]

Table 16.1

Estimated impact of an increase in public investment of 1 per cent of GDP using the Bank of Italy quarterly econometric model (1)

	Year				
	1	2	3	4	5
A. Baseline scenario					
Real GDP (2)	0.9	1.1	1.2	1.2	1.1
GDP deflator (2)	0.1	0.4	0.8	1.3	1.6
Borrowing/GDP (3)	0.7	0.5	0.5	0.5	0.6
Debt/GDP (3)	-0.5	-0.6	-0.7	-0.7	-0.4
B. Less efficient investment expenditure (4)					
Real GDP (2)	0.5	0.7	0.8	0.8	0.8
GDP deflator (2)	0.0	0.2	0.5	0.7	1.0
Borrowing/GDP (3)	0.8	0.6	0.6	0.6	0.6
Debt/GDP (3)	0.1	0.3	0.4	0.6	1.0
C. Higher funding costs (5)					
Real GDP (2)	0.9	0.9	0.8	0.8	0.7
GDP deflator (2)	0.1	0.3	0.7	1.0	1.2
Borrowing/GDP (3)	0.8	0.6	0.8	0.9	1.1
Debt/GDP (3)	-0.4	-0.1	0.3	0.9	2.0

Source: F. Busetti, C. Giorgiantonio, G. Ivaldi, S. Mocetti, A. Notarpietro and P. Tommasino, op. cit.
(1) The increase in public investment is deficit financed. – (2) Per cent differences with respect to a scenario in which there is no increase in public investment expenditure. – (3) Absolute differences with respect to a scenario in which there is no increase in public investment expenditure (percentage points of GDP). – (4) Only half of the amount allocated is assumed to lead to an increase in the stock of public capital while the remainder is assumed to lead to unproductive spending with a smaller impact on economic activity. – (5) A permanent increase of 10 basis points in short-term government bond yields and of 50 basis points in medium-term government bond yields.

The estimates made using the Bank of Italy quarterly econometric model do not take full account of the supply mechanisms and, in particular, the potential complementarities between public and private sector capital in the production function

[1] See F. Busetti, C. Giorgiantonio, G. Ivaldi, S. Mocetti, A. Notarpietro and P. Tommasino, 'Capitale e investimenti pubblici in Italia: effetti macroeconomici, misurazione e debolezze regolamentari', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), forthcoming.

[2] If the increase in the risk premium were to happen in the inefficient spending scenario, the multiplier would be equal to around 0.5 over the entire simulation horizon (combining the assumptions of Scenarios B and C; the results are not shown in the table).

of firms. If public investment increased the profitability of private capital, thereby encouraging more investment, the multiplier could be even higher. The importance of this transmission channel emerges from several studies conducted by the main international institutions using dynamic general equilibrium models (see the box 'The macroeconomic effects of public investment expenditure: a comparative analysis of the estimates').

THE MACROECONOMIC EFFECTS OF PUBLIC INVESTMENT EXPENDITURE: A COMPARATIVE ANALYSIS OF THE ESTIMATES

The main international institutions recently used different methodologies to estimate the macroeconomic effects of an increase in public investment. Some of the evaluations are based on empirical analyses that measure the overall impact of fiscal policy on GDP, using data for various countries and across different time horizons. This approach which, for example, can factor in cyclical economic conditions, nevertheless cannot pinpoint the exact mechanisms through which the policy measures are transmitted.

An alternative methodology relies on simulations of structural macroeconomic models (traditional econometric models and dynamic general equilibrium models), which can identify the various channels whereby an increase in public investment affects economic activity. The dynamic general equilibrium models can also account for complementarities between the public and private capital employed in production: if an increase in public investment improves the external context in which firms operate, this leads to an increase in productivity and in the profitability of private capital that drives investment, thereby facilitating the expansion of GDP in the medium and long term. The monetary policy response (be it restrictive or accommodative) helps to determine the overall impact on economic activity, as do the potential financial repercussions of an increase in public investment. Several of these models, moreover, include a number of different countries and accordingly enable us to assess the potential effects of expenditure coordinated at international level.

Estimates of the macroeconomic effects of an increase in public investment expenditure assuming full efficiency and accommodative monetary conditions (1)

Bank of Italy	
Quarterly econometric model	1.1
Multi-country model	1.5 (1.8)
OECD	1.0
European Commission	1.3
European Central Bank	1.8
International Monetary Fund	1.4

Source: F. Busetti, C. Giorgiantonio, G. Ivaldi, S. Mocetti, A. Notarpietro and P. Tommasino, 'Capitale e investimenti pubblici in Italia: effetti macroeconomici, misurazione e debolezze regolamentari', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), forthcoming.
(1) The increase in public investment expenditure amounts to 1 per cent of GDP, with no coverage measures defined for the increase in expenditure (therefore the public deficit increases). In the simulations of the structural models, the increase in expenditure lasts between 5 and 10 years. The medium term over which the fiscal multiplier is calculated corresponds to 10 years, except for the results obtained using the Bank of Italy quarterly econometric model (5 years) and IMF estimates (4 years). For the structural models it is assumed that monetary policy remains accommodative for the first 2 years and that there are no negative repercussions on sovereign risk premiums.

The estimated macroeconomic impact of greater investment expenditure is generally synthesized by the value of the multiplier, i.e. the percentage change in GDP generated by a steady – deficit-financed – increase (usually assumed to last between five and ten years) in public expenditure equal to 1 per cent of GDP. Analyses by the main institutions indicate that the multiplier of public investment is high (ranging from 1 to 1.8 over the medium term) when monetary and financial conditions remain unchanged and the resources allocated translate swiftly and efficiently into increases in public capital (see the table). These estimates must accordingly be interpreted as an upper limit: if there are inefficiencies in the expenditure process, the same analyses indicate lower values of the multiplier, ranging from 0.7 to 1.3 (not shown in the table).

According to our estimates – both those based on the Bank of Italy quarterly econometric model and those founded on a multi-country dynamic general equilibrium model – assuming expenditure processes are fully efficient, the medium-term multiplier ranges from 1.1 to 1.5; a higher level (1.8) could be attained if the increase in expenditure were coordinated among euro-area countries, thanks to greater aggregate demand and the continued accommodative stance of monetary policy (which in turn is linked to low inflation).[1] Analyses conducted by the OECD,[2] European Commission[3] and European Central Bank[4] and estimates by the International Monetary Fund[5] indicate values of the multiplier that are largely similar to our evaluations, ranging from 1.0 to 1.8.[6]

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[1] L. Burlon, A. Locarno, A. Notarpietro and M. Pisani, 'Public investment and monetary policy stance in the euro area', Banca d'Italia, Temi di Discussione (Working Papers), 1150, 2017. The results refer to a generic country in the euro area and do not derive from a calibration of the model specific to the Italian economy.

[2] A. Mourougane, J. Botev, J. M. Fournier, N. Pain and E. Rusticelli, 'Can an increase in public investment sustainably lift economic growth?', OECD, Economics Department Working Papers, 1351, 2016.

[3] J. in't Veld, 'Public investment stimulus in surplus countries and their euro area spillovers', European Commission, Economic Brief, 16, 2016.

[4] ECB, 'Public investment in Europe', *Economic Bulletin*, 2, 2016, 80-94.

[5] A. Abiad, D. Furceri and P. Topalova, 'The macroeconomic effects of public investment: evidence from advanced economies', IMF Working Paper, 15/95, 2015.

[6] Even higher, but not directly comparable, values are obtained through simulations of the IMF model, in which nonetheless a permanent increase of public investment expenditure is hypothesized (rather than of a five or ten-year duration, as in the other cases).

A recent study assesses the impact of an increase in public investment in the South and Islands based on a dynamic general equilibrium model calibrated on the economy of Italy's two macro areas. Assuming no inefficiencies in the decision-making process and execution of spending, the simulations show that, given the low public capital endowment and inadequate infrastructure in southern Italy, and the close commercial ties between the two areas, public investment would have a marked expansionary impact in the South and Islands but also favour economic activity in the Centre-North.[3]

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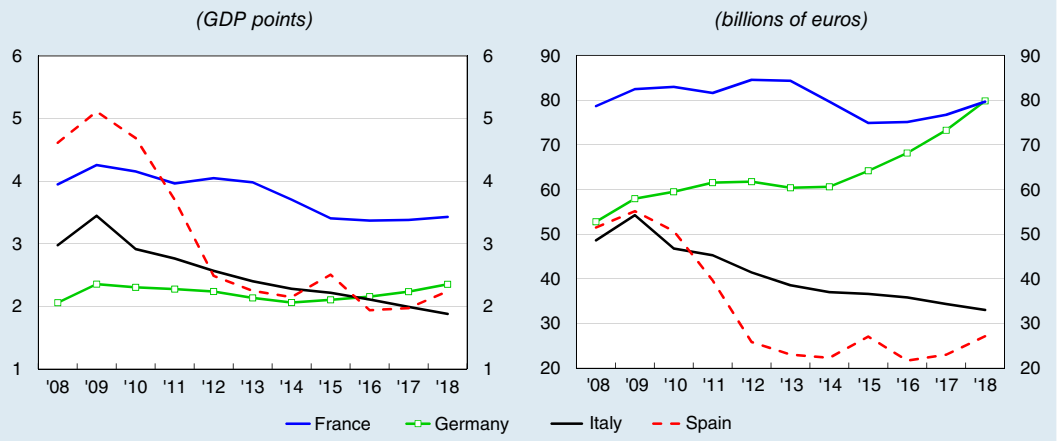
[3] A. Bartocci, A. Notarpietro and M. Pisani, 'Macroeconomic effects of public investment in the South of Italy: a model-based analysis', Banca d'Italia, Temi di Discussione (Working Papers), forthcoming.

Public investment expenditure and infrastructure

In the last few years in Italy, general government gross fixed investment has fallen sharply (-3.6 per cent on average each year between 2008 and 2018; Figure 16.1),[4] much more than in the euro area as a whole (-0.4 per cent). As a share of GDP, it declined from around 3 to roughly 2 percentage points. The reduction was more marked for local government (from 1.7 to 1.0 percentage points of GDP).

Figure 16.1

General government gross fixed investment in the main euro-area economies



Source: Based on European Commission Data (Ameco).

The investment expenditure recorded in the general government accounts does not accurately reflect countries' infrastructure capital formation. On the one hand, it includes items that do not concern the financing of infrastructure (such as armaments, machinery and patents); these expenses amount to a little more than half of the total and have declined by almost 1 per cent on average each year. On the other hand, entities outside of the general government perimeter also make infrastructure investments (such as motorway concessionaires and telecommunications companies).

Notwithstanding the mismatch between investment expenditure and infrastructure, the sharp drop in the former over the last decade indicates a downward trend in Italy's infrastructure capital formation.

The infrastructure endowment can be measured, albeit approximately, using a number of different methodologies. The permanent inventory approach adds the time series of annual investment expenditure, taking account of the depreciation of the main categories of capital goods. The International Monetary Fund[5] used this method

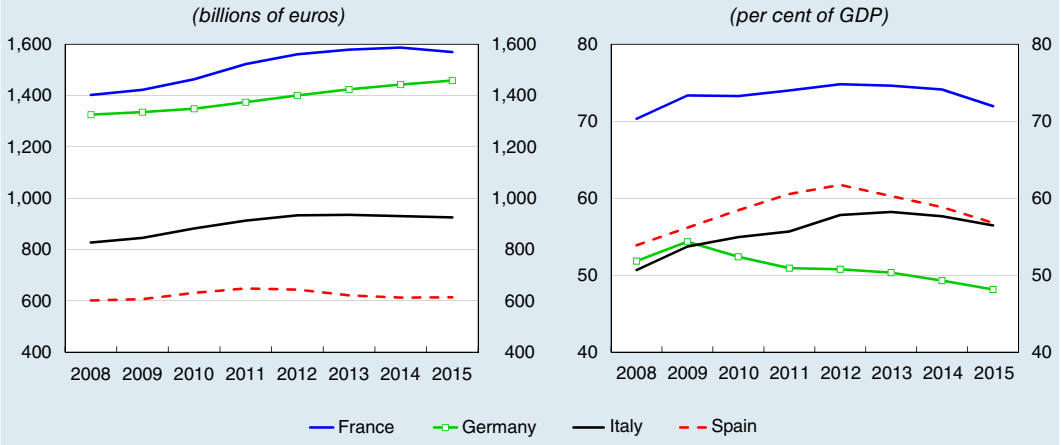
[4] Following a decision by Eurostat in 2019, a number of entities (including Rete Ferroviaria Italiana SpA) were included in the general government perimeter starting in 2017. In order to sterilize the effect of this discontinuity, the growth rate for just 2016-17 was calculated omitting investment by these entities, which in 2017-18 amounted to more than €8 billion.

[5] The IMF considers general government gross fixed investment in 170 countries. The rate of depreciation is estimated separately for each country.

to estimate that in 2015 Italy's public sector capital came to around 56 per cent of GDP, in line with Spain (57 per cent) and midway between Germany and France (48 and 72 per cent, respectively; Figure 16.2).

Figure 16.2

Stock of public capital in the main euro-area economies
(permanent inventory method)



Source: IMF.

Other approaches are based on physical measures of existing infrastructure. Italy ranks less favourably in international comparisons based on these kinds of measurements. For example, our country's motorway and rail networks are significantly smaller relative to the population compared to those of the main European economies; Italy's relative position improves only in part if the data are compared to the surface area (Table 16.2).

Table 16.2

Transport networks in the main euro-area countries (1)

	Motorways/Population	Railways/Population	Motorways/Surface area	Railways/Surface area
France	174.3	425.6	0.0183	0.0448
Germany	158.1	470.0	0.0364	0.1081
Italy	114.4	276.7	0.0230	0.0556
Spain	332.6	348.1	0.0305	0.0320

Source: Eurostat.
(1) The data, which refer to 2016, are expressed in kilometres and are unadjusted for orographic effects. The population is expressed in millions, the surface area in square kilometres.

Again in relation to transport, the adequacy of the networks can also be assessed, for example by considering average travel times between the various localities. These indicators tend to favour the places served by a greater number of transport links, which are well connected to the most densely populated areas (insofar as travel times are

typically weighted by the population at the place of final destination)[6] and geographically at the centre of the territory of reference. This type of measurement also suggests that Italy is at a marked disadvantage (Figure 16.3).

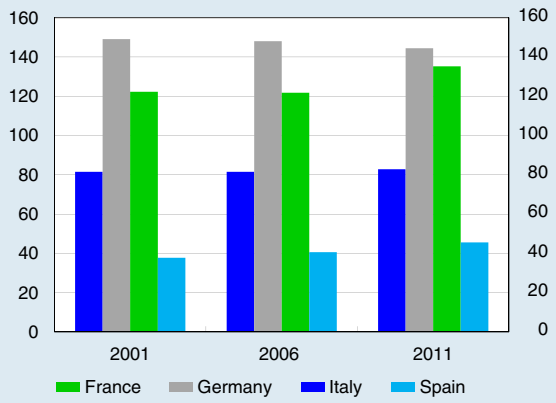
Considerable infrastructure gaps also exist within the country. For example, the motorway network in southern Italy is less extensive relative to the population. The South and Islands are also disadvantaged when it comes to railways and access to transport networks (motorway tollbooths, railway stations, ports and airports).[7]

In terms of accessibility, the provincial capitals with the best indicators are concentrated in Lombardy, Veneto, Piedmont, Emilia-Romagna and, to a lesser extent, Tuscany and Lazio (Figure 16.4).[8]

Overall, while taking account of the difficulties arising from the many different dimensions involved, in terms of physical measurements, Italy's infrastructure gap compared with the other European countries appears larger than the indicators based on investment expenditure would suggest. This points to less efficiency in the realization of the works, which is generally more marked in the South and Islands (see the section 'Infrastructure', Chapter 11, *Annual Report for 2010*, 2011).

Figure 16.3

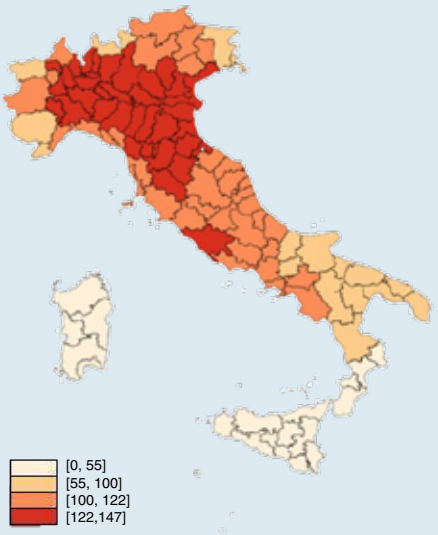
Index of accessibility (1)



Sources: Based on European Spatial Planning Observation Network (ESPON) and EU data.
(1) Share of the European population that can be reached within 4 hours using intermodal networks (air, train and motorway). The values of the indicator are obtained by setting the EU27 index at 100. The indicator for each country is constructed as the simple average of the provincial indicators.

Figure 16.4

Accessibility of the Italian provinces
(index: average=100).



Source: M. Bucci, G. Ivaldi and G. Messina, op. cit.

[6] This is certainly true in the case of indicators built using theoretical velocity formulas. In fact, a theoretical velocity can be used (for example, based on road speed limits) or estimates of actual velocity to calculate travel times. The populousness of a city has a negative impact on actual velocity, given that the exit and entry points from a large centre are normally more congested.

[7] Svimez, *Rapporto sull'economia e la società del Mezzogiorno*, il Mulino, Bologna, 2018.

[8] M. Bucci, G. Ivaldi and G. Messina, 'I divari infrastrutturali in Italia: una ricostruzione mirata', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), forthcoming.

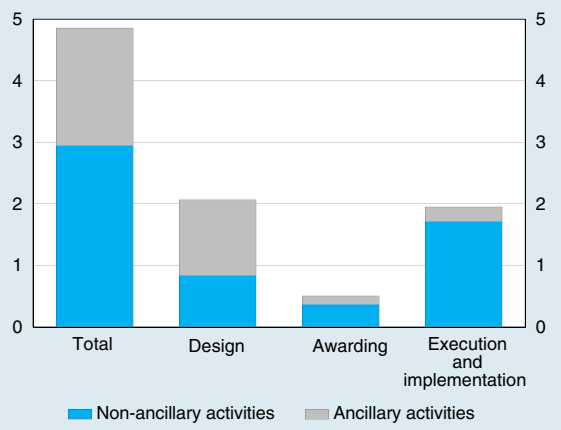
Timeframes and obstacles to the completion of infrastructure projects

Infrastructure projects – even relatively low cost, and therefore presumably less complex – ones, take a long time to be completed in Italy. According to an analysis of projects linked to cohesion policies, which account for a little more than one tenth of all those undertaken in Italy, the average duration of this kind of project is 4 years and 10 months, with a median value of €300,000. This rises to almost 11 years for works whose value exceeds €5 million.[9]

The design phase has a median duration of a little more than 2 years (around 40 per cent of the total duration); execution and implementation takes almost the same amount of time; it takes around 6 months to award the project. A number of ancillary administrative activities (especially authorizations and red tape) have a significant effect on how long it takes to complete the projects: together, they account for around 40 per cent of the total duration. These ancillary activities account for more than 60 per cent of the design phase alone, which includes authorization procedures involving numerous bodies responsible for safeguarding special interests, such as environmental ones (Figure 16.5).

Figure 16.5

Duration of the different phases of public works
(median values; years)



Source: Based on Agency for Territorial Cohesion data.

Much longer than planned execution times lead some projects to be classified as unfinished. According to the Register of unfinished projects managed by the Ministry of Infrastructure and Transport pursuant to Law 214/2011, at the end of 2017 some 647 interventions were under way but not yet complete, for a total value of almost €4 billion. In over half of the cases, lack of funds (which includes delays in their disbursement) is indicated as the cause of the impasse.

Completion times are longer in the South and Islands: considering only the projects managed by municipalities, the overall median time of completion is around 5 years in the South and Islands, as against 4.3 years in the Centre-North

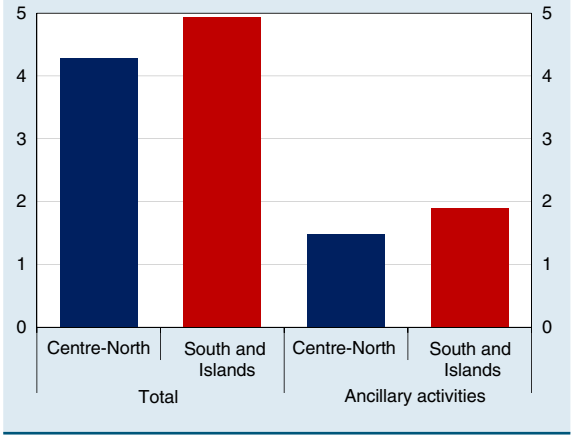
[9] C. Carlucci, C. Giorgiantonio and T. Orlando, 'Tempi di realizzazione delle opere pubbliche e loro determinanti', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), forthcoming. Cohesion policies use public resources (both EU and national) in order to eliminate development gaps and promote nationwide economic cohesion. The analysis was based on data collected by the Agency for Territorial Cohesion, pertaining to projects launched in the period 2000-13. The biggest beneficiaries of the funds are administrations located in the southern regions (around 75 per cent). The projects linked to cohesion policies account for around 30 per cent of the total public works under way in the South and Islands and 5 per cent of those undertaken in the Centre-North. Estimates of representativeness are based on the information available in the OpenCUP database, administered by the Presidency of the Council of Ministers.

(Figure 16.6).[10] A large part of this gap stems from the time spent on administrative ancillary activities: in southern Italy this amounts to almost 2 years, 28 per cent more than in the Centre-North.

More than 70 per cent of the interventions classified as incomplete in 2017 are located in the South and Islands, while these regions account for only around one third of all projects undertaken in Italy. The frequency with which lack of funds is cited as the cause of the delay reaches 57 per cent in the South and Islands, while it is 24 per cent in the North, where technical issues such as those of *force majeure* are more common (52 per cent of the cases).

Figure 16.6

Duration of public works and ancillary activities (1)
(median values; years)



Source: Based on Agency for Territorial Cohesion data.
(1) The figure shows the median values of the total duration of the works and of ancillary activities only, for the municipalities of the Centre-North and the South and Islands.

In recent years, wide-ranging reforms have been passed to raise the efficiency of investment expenditure. In the context of a broader reorganization of public administration, Law 124/2015 (the 'Madia Law' after the Minister who proposed it) and subsequent implementing decrees significantly simplified authorization processes (see Chapter 15, 'The public administration', *Annual Report for 2014*, 2015). The Public Procurement Code (Legislative Decree 50/2016) introduced a comprehensive reform of the sector aimed, in particular, at streamlining the regulatory framework of reference, at ensuring greater accountability of public and private sector operators and at combating corruption (see Chapter 12, 'Business activity regulation and the institutional environment', *Annual Report for 2015*, 2016).

The Code also envisaged: *ex ante* and more accurate cost-benefit analyses of projects; improvements in technical-financial planning and design quality; a qualification system for performance rankings of the contracting authorities. However, more than three years after their approval, these measures have not yet been implemented or become fully operational.[11]

The Government recently adopted several measures to speed up the completion of public works (Decree Law 32/2019, currently being converted into law), which, however, mostly concern the contract awarding phase. These simplifications (such as extending the possibility of subcontracting and recourse to negotiated procedures with just three participants), if not combined with greater transparency in administrative activity and adequate levels of expertise of the contracting

[10] C. Carlucci, C. Giorgiantonio and T. Orlando, op. cit. This gap is not explained by differences in the nature or size of the works in the two macro areas.

[11] C. Giorgiantonio, A. Pasetto and Z. Rotondi, 'La dotazione infrastrutturale: i nodi da affrontare nella nuova legislatura', in G. Arachi and M. Baldini (eds.), *La finanza pubblica italiana. Rapporto 2018*, Bologna, il Mulino, 2018, 211-236; F. Busetti, C. Giorgiantonio, G. Ivaldi, S. Mocetti, A. Notarpietro and P. Tommasino, op. cit.

authorities, could heighten the risks of corruption and inefficient allocation of resources.[12] The effectiveness of some of the measures depends on the adoption of implementing provisions.

[12] F. Decarolis and C. Giorgiantonio, 'Corruption red flags in public procurement: evidence from Italian calls for tenders', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), forthcoming; A. Baltrunaite, C. Giorgiantonio, S. Mocetti and T. Orlando, 'Discretion and supplier selection in public procurement', Banca d'Italia, Temi di Discussione (Working Papers), 1178, 2018.

ADMINISTRATION OF THE BANK OF ITALY

AT 31 MAY 2019

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