Summary[1]

Economic indicators show a partial weakening of the recovery in the first half of 2018. According to PBO estimates, GDP increased by 0.26 per cent in the first quarter of this year (0.32 per cent in 4th 2017), supported by the resilience of services in the face of more uncertain developments in the industry. GDP growth will undergo a further marginal decline in the second quarter, reaching 0.21 per cent. Overall, economic activity is expected to grow by 0.5 per cent in the first half of the year compared to the previous six months, showing a slowdown compared to the expansion of the second half of 2017 (0.8 per cent). The still high level of economic indicators, the diffusion of the industrial recovery (PBO index), the slight uncertainty of operators (PBO index) and the confirmation, in the recent IMF forecasts, of favourable international trends would point, for the second half of 2018, to the continuation of the recovery which could result slightly stronger than in the first six months.

At the beginning of 2018, Italy shared the slowdown with the major countries of the euro area. After the very favourable performance that marked the second half of 2017, Italian exports recorded a deceleration in the early months of 2018. Domestic demand maintained a more sustained tone, in particular investment spending, driven by persistently positive growth prospects and the need to renovate plants, which had been postponed in the recessionary years.

Labour market conditions remain favourable, with moderate employment growth rates. In early 2018, there are signs of a certain recovery in the open-ended contract employment component, partly in connection with the new reductions in social-security contributions. The area of under-utilisation of labour, which is almost double the official unemployment rate, remains high. Like other European countries, this vast area seems to contribute to curbing wage trends and inflation.

Risk factors linked to international developments weigh on the prospects for recovery. Geo-political tensions, the protectionist tendencies triggered by US tariff measures and the accentuation of financial instability could increase uncertainty and risk aversion on the part of operators, with negative effects on global growth and the Italian economy.

[1] *By the macroeconomic analysis Service; note completed with information available on 19-04-2018.*

The International economic situation

Global expansion remains strong, but with a number of high-risk factors

Global expansion has further consolidated in recent months. Against the background of persistently favourable trends, the International Monetary Fund (IMF) confirmed in its April World Economic Outlook the global GDP growth forecasts for 2018 and 2019 made in last January's update, when it had already made upward corrections to previous estimates. In its April assessments, the Fund also raised its 2018 and 2019 forecasts for the dynamics of international trade once again. The global outlook is, however, threatened by a number of risk factors: continuing strong geo-political tensions; the intensification of protectionist trends induced by recent US tariff measures; the instability of financial markets, which could increase as a result of political and commercial tensions; and changes in expectations regarding the development of monetary policies in the major economies.

Trends in the most recent economic situation

In the United States, growth in the fourth quarter of 2017, although slowing down, remained robust (+2.9 per cent on an annualised basis), driven by domestic demand (in particular by private consumption), against a negative contribution from net exports. Labour market indications, while showing a deceleration in the creation of new pay slips in March, remain favourable, with unemployment stable at 4.1 per cent. According to estimates by the San Francisco Federal Reserve, structural unemployment is still a few tenths of a point lower than current figures would lead to believe. This would help explain the persistence of wage moderation and inflationary pressures, which continue to fall short of the monetary authority's target. According to the latest Federal Reserve projections released at the March meeting, when a new rise in the reference rates was decided, the US economy is expected to speed up this year, including thanks to the stimulus of the fiscal reform launched by the US administration at the end of 2017; the strengthening of the US expansion in the current year is confirmed by IMF estimates.

In the euro area, the last quarter of 2017 saw solid GDP growth, at a rate similar to that of previous quarters (+0.7 per cent). The expansion was mainly driven by net exports and investments. Particularly positive trends have been enjoyed by Germany, France and Spain. As economic activity improved, the unemployment rate in the euro area declined further to 8.5 per cent in February. The downturn experienced at the beginning of 2018 by various economic indicators (business confidence and industrial activity) indicates a probable slowdown in European recovery in the first quarter of the year, associated with a reduction in exports. Although the economic indicators are shrinking, they remain at high levels, suggesting that the positive growth phase of the European economy will continue. According to recent IMF estimates, the euro area's recovery is expected to continue in

2018 at a pace (2.4 per cent) similar to that of 2017, before slowing down in 2019; a similar development is forecast by the ECB in its March forecast.

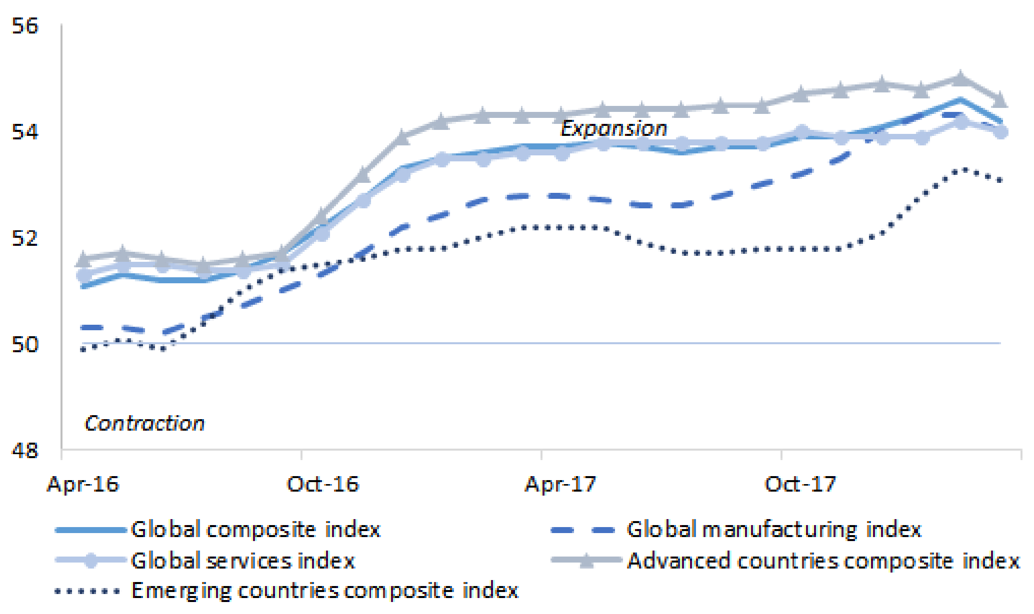
In the other major economies, 2017 also ended with better results than the previous year and 2018 is still an expansion year. Japan and China accelerated, while Russia and Brazil finally emerged from recession.

The most recent leading indicators that show the confidence of purchasing managers in the major economic areas (Purchasing Managers Index, PMI) still point to expansion, although the last PMI figure of March prefigures a more moderate growth rate (fig.1); the attenuation seems to mainly concern the industrial sector.

Significant growth in global trade, but trade tensions intensify

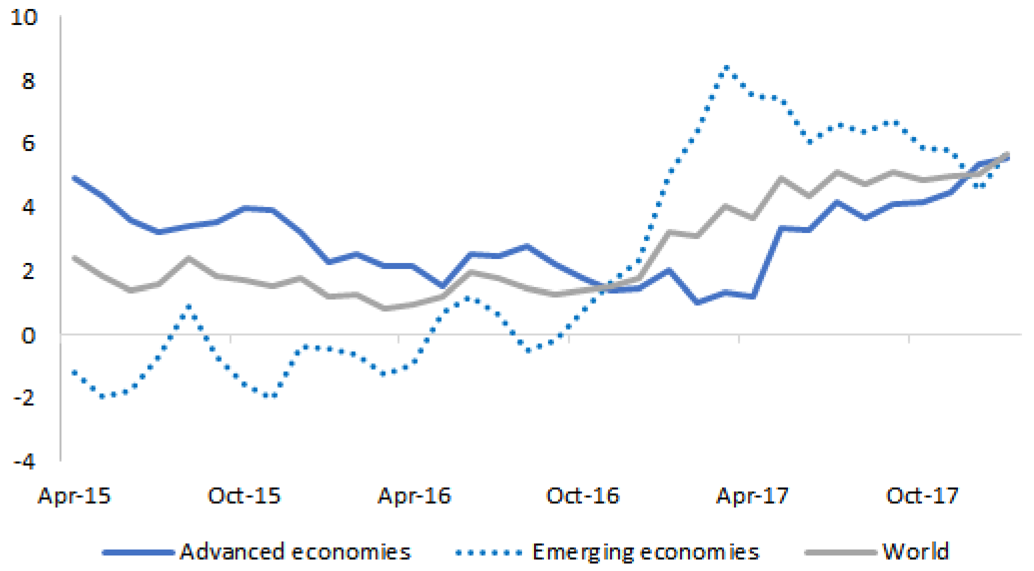
Between the second half of 2017 and the beginning of 2018, the pace of expansion of world trade accelerated considerably, benefiting from the strengthening of import trends in advanced countries, only partially offset by a slowdown of those in emerging countries (fig.2). The outlook for 2018 and 2019, as shown by recent IMF forecasts, remains broadly favourable, although the risks of heightened trade tensions have intensified.

Fig. 1 – JP Morgan Global PMI (1) Index
(moving average at 3 months)



Source: Thomson Reuters.
(1) Confidence indices based on company purchasing manager assessments; a figure above 50 indicates expansion.

Fig. 2 – Import growth rate
(annual percentage variation of the moving average at 3 months)



Source: figures based on Thomson Reuters data.

In recent weeks, the US administration has taken measures to restrict foreign trade. The United States action, besides aiming at the protection of a number of domestic products, seems to be aimed at bringing major commercial partners to the bilateral negotiation table, with the consequent reduction of the role of the WTO, for the elimination of some constraints to trade and direct investments which limit the access of American companies to the foreign market. The immediate effect, however, has been to induce closed responses with retaliatory action by China in particular.

Considering the main measures taken at the beginning of 2018, the US introduced temporary tariffs on imports of washing machines and solar panels at the end of January. On 23 March, steel and aluminium import tariffs were added to these, temporarily exempting some countries, including those of the EU. At the beginning of April, there was a Chinese reaction with restrictions on 128 product categories representing approximately USD 50 billion of Chinese imports from the United States. On 3 April, the U.S. government published an additional list of 1,333 potential products on which to impose new tariffs. The next day, in response, China also published a new list of 106 products at risk of restrictions, including soy and cars. In total, the measures that could be taken by the American authorities concern imports of around USD 150 billion. From the point of view of the amount of trade potentially involved in the restrictions, China seems only able to react partially with retaliatory measures to the American offensive due to the lower value of its imports from the United States (130 billion dollars, against the 500 billion of made in China product purchases made by the United States). However, given the position of Chinese producers in global value chains, retaliatory action in this economy can potentially result in significant costs for the reorganisation of the production activities of the most internationalised American companies. The consideration of the latter aspect probably had an impact in inducing significant falls in equity prices in the US when the decision to tighten duties on steel and aluminium was taken.

The global economy in the recent IMF forecasts

The persistence of a framework of positive trends led the IMF to confirm in April the estimates for the growth of world output published last January (3.9 per cent in 2018 and 2019, Table 1) and to raise those on world trade trends (to 5.1 per cent in 2018, five tenths more than in January; to 4.7 per cent in 2019, three tenths more). With reference to the major economies, the April outlook brought further small upward revisions to GDP growth in the advanced area, in particular for the United States (2 tenths of a point more in both years) and for the euro area limited to 2018 (two tenths more) following stronger than expected domestic demand and improved foreign demand.

Geopolitical tensions affect oil prices; dollar tends to stabilize

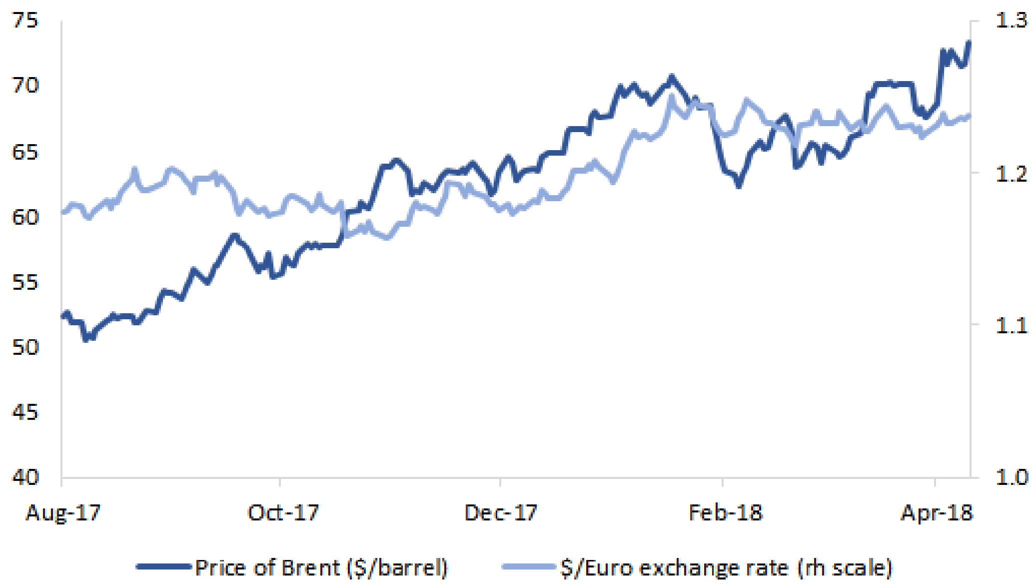
Political tensions in recent weeks have contributed to upward pressures on crude oil prices. The recent publication of the OPEC assessment, which revised upwards the estimates of oil supply by producers not belonging to the cartel (mainly due to the effect of US shale oil), has only marginally mitigated upward trends. The loss of Venezuelan production as a result of the economic crisis which has affected this country since 2014 has also contributed to the increase in prices. After falling to around USD 63 per barrel in mid-February, the price of oil rose to above USD 70 in mid-April (Fig. 3). The expectations formulated in the forward markets point to recent rises as being temporary, forecasting a crude oil price likely to fall below 65 dollars by the end of next year.

Tab. 1 – IMF forecasts
(percentage changes and percentage point differences)

	WEO April 2018		Difference from WEO January 2018	
	2018	2019	2018	2019
World product	3.9	3.9	0.0	0.0
Advanced economies	*2.5*	*2.2*	*0.2*	*0.0*
United States	*2.9*	*2.7*	*0.2*	*0.2*
Euro area	*2.4*	*2.0*	*0.2*	*0.0*
Emerging economies	*4.9*	*5.1*	*0.0*	*0.1*
World trade	5.1	4.7	0.5	0.3

Source: FMI World economic outlook April 2018, World economic outlook Update January 2018.

Fig. 3 – Price of crude oil and dollar/euro exchange rate



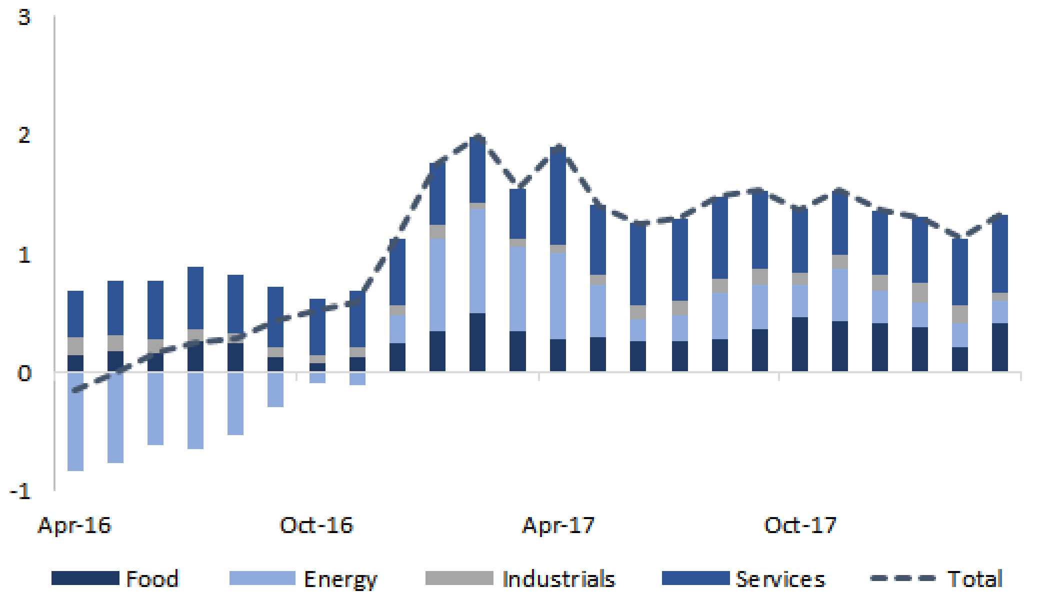
Source: figures based on Thomson Reuters data.

Between early December and late January, the value of the dollar against the euro had weakened, with the US currency falling from 1.18 to 1.25 dollars per euro, mainly as a result of the reduction in political and economic uncertainty in Europe. Subsequently, the strengthening of American growth prospects, together with an increase in interest rates by the Federal Reserve, seem to have halted the dollar's downward trend and the US currency has begun to fluctuate in a narrow range around 1.23 dollars per euro.

Inflation in euro area still low, monetary policy remains expansive

After the sharp deceleration in February, when the harmonised index of consumer prices for the euro area showed a year-on-year change of 1.1 per cent, prices returned to growth in March at a higher rate of 1.4 per cent (fig. 4). This performance was mainly affected by the external components, which were more volatile than price trends. Core inflation (consumer price index net of energy and food), on which the ECB's attention is more focused, has, however, remained stable at around 1 per cent over the last three months.

Fig. 4 – Inflation in the euro area
(annual percentage variations and contributions)

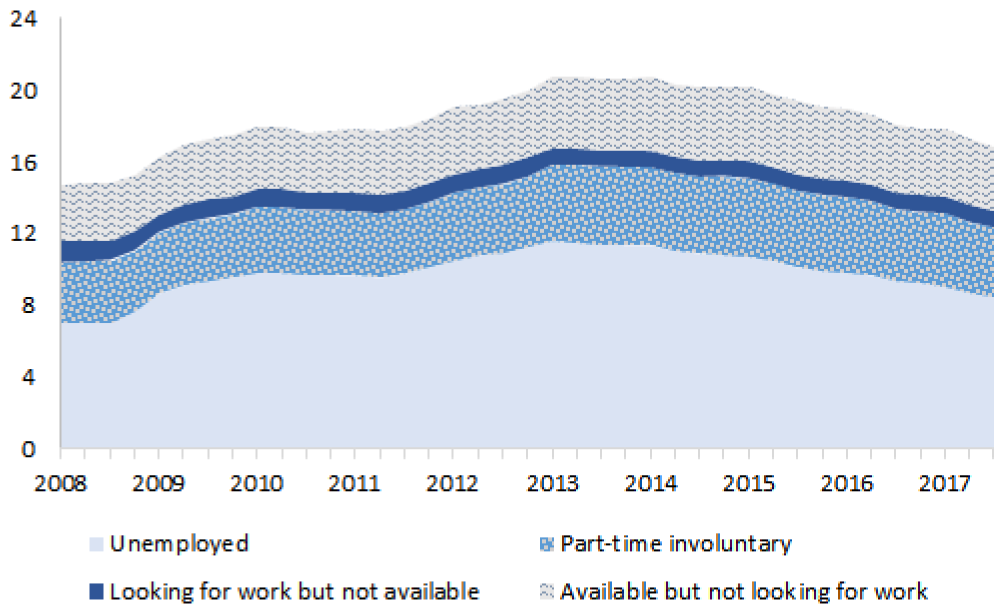


Source: figures based on Thomson Reuters data.

The lack of price acceleration, despite the recovery of the euro area and the continued reduction in unemployment, is a crucial element of discussion in the euro area, which is particularly relevant for the definition of monetary policy prospects. In this respect, the ECB's assessment seems to identify two main factors that keep inflation low and encourage an expansionary stance over an extended period of time[2]. The first factor links the apparent weakening of the relationship between inflation and economic activity (known as the Phillips curve) to an underestimation of still unutilised productive resources. In particular, according to this assessment, the under-utilisation of the labour factor should include not only officially defined unemployed, but also involuntarily underemployed part-time workers, jobseekers who are not immediately available and discouraged individuals, i.e. individuals who are available to work and have stopped looking for work. The consideration of this wider pool of potential workers, leads to almost doubling the measure of the under-use of the labour factor in the euro area compared to the quantification provided by official unemployment figures (fig. 5), still indicating the presence of a wide gap in the actual use of resources tending to compress wage and inflation trends.

[2] See for example the speech of Benoît Cœuré dated 12 April 2018 “Scars that never were? Potential output and slack after the crisis” and that of Peter Praet dated 9 April 2018 “Economic developments in the euro area”.

Fig. 5 – Euro area: Unemployment, inactive close to labour market and under-employed
(in percentage of potential workforces, four-term moving average)



Source: figures based on Eurostat data.

The second factor in curbing price trends is, in the ECB's valuations, a possible change in the formulation of the inflation expectations of European operators. In particular, the sudden drops in commodity prices in 2014 and 2015, which occurred during a period of falling internal inflation, could have favoured a disanchorage of inflation expectations with respect to the European central bank target, making the process of returning to the 2% target more complex. In this regard, although inflation expectations from inflation-linked swaps show an improvement compared to the fall experienced in 2014 and 2015, they are not sufficiently robust, showing substantial stability in the medium/long-term horizons in recent months (fig. 6).

On this basis, the ECB intends, as reiterated in its last meeting on 8 March, to maintain a high degree of monetary accommodation for an appropriate period of time, with official rates remaining at current levels well beyond the end of the net purchases of securities programme, which is expected to run until September 2018, but could also be extended beyond that date if inflation trends make it necessary. The expansive nature of monetary policy also benefits from the repurchase of maturing securities, which, in the ECB programmes, will continue for an extended period after the assets have been purchased.

Fig. 6 – Inflation expectations in the euro area
(inflation linked swaps)

Source: Thomson Reuters.

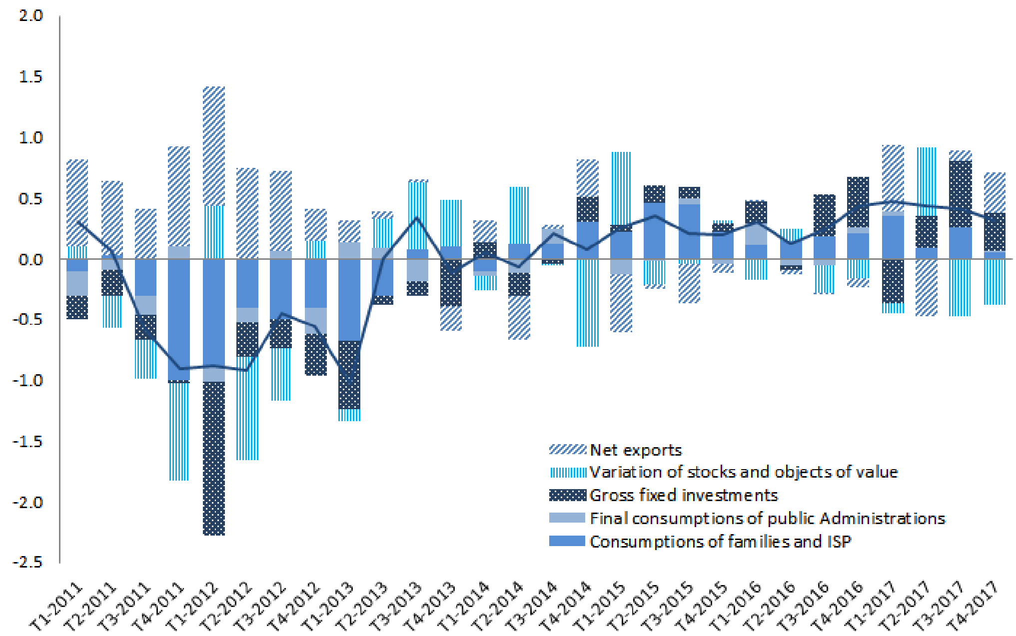
The Italian economy

Recovery strengthens in late 2017

The recovery of the Italian economy continued in the last quarter of 2017. On the basis of the national accounts data recently released by ISTAT, GDP grew in October-December by 0.3 per cent on a cyclical basis, suffering a slight slowdown compared to the trend recorded in the summer months. On average in 2017, seasonally adjusted and calendar-adjusted GDP increased by 1.6 per cent; in raw terms, i.e. not taking into account the different number of working days, the increase stood at 1.5 per cent. The carry-over to the current year was positive and equal to 0.6 per cent.

On the supply side, the increase in the level of activity in the fourth quarter reflected a cyclical increase in the value added of the industrial sector (+0.9 per cent for manufacturing; +0.8 per cent for construction) and, to a lesser extent, of services (+0.2 per cent), against a drop in agriculture (-0.8 per cent). With reference to the demand components (fig. 7), the contribution of internal expenditure to growth remained positive (by about 0.4 percentage points), despite the almost zero contribution of final consumption. The change in stocks, on the other hand, subtracted about four tenths of a percentage point. The positive contribution of net foreign demand (0.3 percentage points) reflected a more positive economic trend in exports than in imports.

Fig. 7 – Change in GDP compared to previous quarter and contributions of demand components to GDP
(percentage changes and contributions in percentage points)



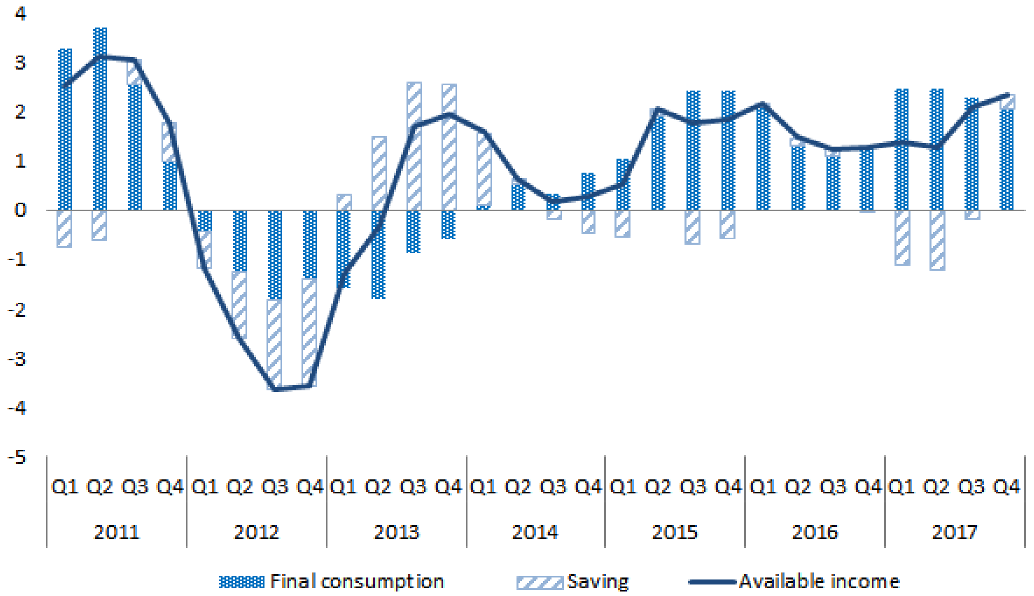
Source: figures based on Istat data.

Slowdown in consumer growth…

In the last quarter of 2017, household consumption increased by 0.1 per cent, a slowdown compared to the trend experienced in July-September. This trend was fuelled by the positive trend in the purchase of durable goods and services (up 0.2 per cent), while there were no changes in non-durable goods and a decrease in semidurable goods (down 0.2 per cent). The modest increase in household consumer spending was affected by the slowdown in the purchasing power of households (up 0.2 per cent on a cyclical basis) compared with the jump recorded in the July-September average (+0.9 per cent).

The average propensity to save of households remained substantially stable compared to the previous quarter, at 8.2 per cent of disposable income, which, although higher than the figures recorded in the first half of 2017 (about 7.7 per cent), was about half a percentage point lower than the average figure for the previous year. The recovery of the savings rate in the second half of 2017 (fig. 8) was accompanied by an improvement in the level of household confidence, with reference both to the economic situation and to the personal situation, recorded starting from the summer months of last year.

Fig. 8 – Income, consumption and savings of households
(tendential percentage change)



Source: figures based on Istat data.

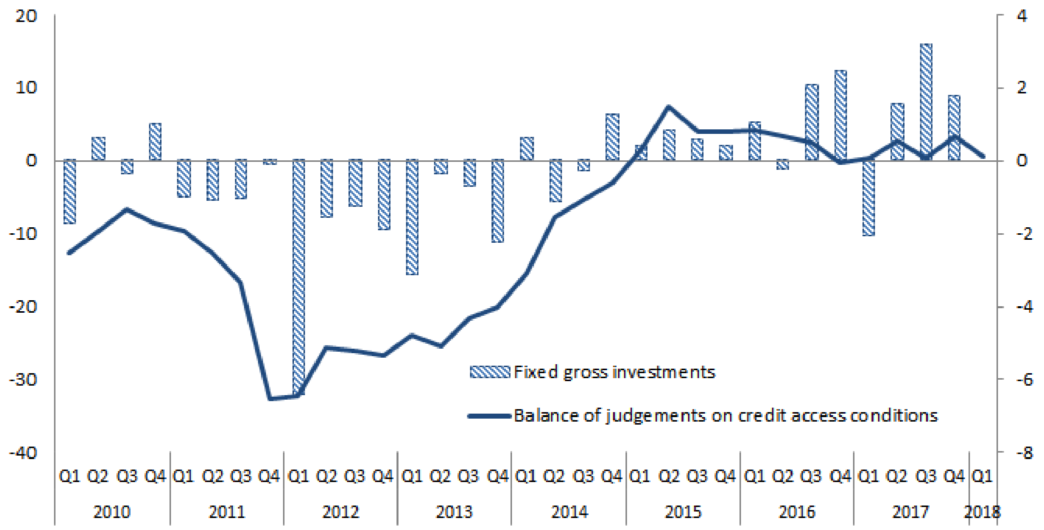
On this front, the March data from the surveys indicate a further improvement in the opinion climate, both economic and personal, after the upward revisions in January and February. The more favourable personal climate, in the presence of a mitigation of some uncertainty factors linked, for example, to the value of residential property, could contribute to better sustain the spending plans of families in the coming months.

...and surge in investments

Capital accumulation recorded a further strong recovery in the fourth quarter, consolidating the positive trend that affected the central quarters of 2017. Growth in gross fixed investment (+1.7 per cent on a cyclical basis) was driven by the liveliness of investment in machinery and equipment (+1.3 per cent) and, above all, expenditure on transport equipment (+8.2 per cent). This expansion is influenced by the growth prospects and the process of plant renewal, which was postponed in the years of recession. There were also positive signs from construction investments, which rose 0.9 per cent.

The profitability indicators for companies also provide favourable indications, as they continued to benefit in the latter part of last year from still moderate trends in labour costs and imported inputs, as well as from relatively favourable credit access conditions (fig. 9). The return on investment is expected to continue this year.

Fig. 9 – Manufacturing industry investments and judgement on credit access conditions
(percentage changes and percentage balance between positive and negative judgements)



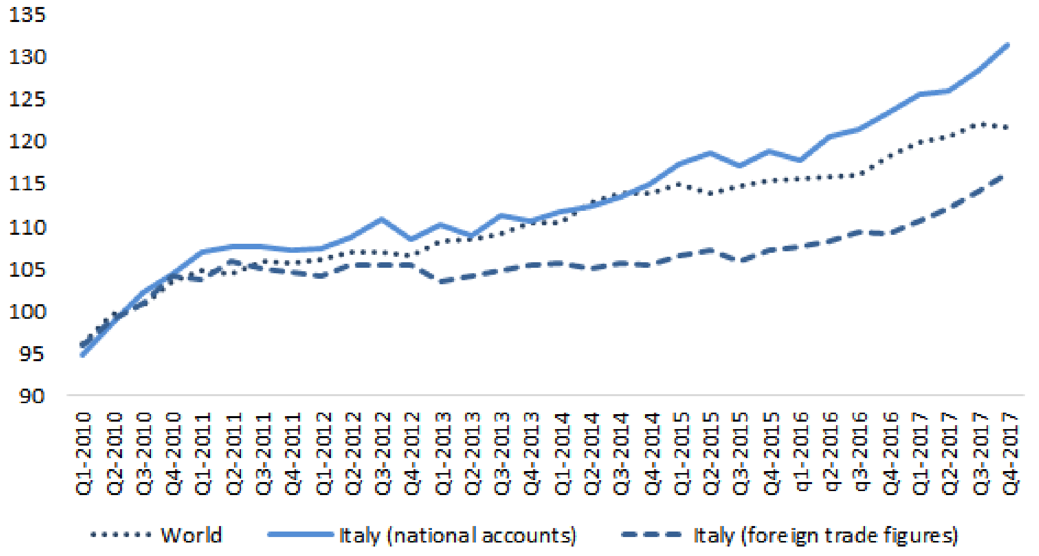
Source: figures based on Istat data.

The most favourable trend in the accumulation process is confirmed by ISTAT economic surveys, which show an improvement in the balance of domestic orders for capital goods for the sixth consecutive quarter, in January-March. The results of the survey on the Bank of Italy's inflation and growth expectations, largely confirming the picture that emerged from the Istat/European Commission half-yearly survey last January, pointed to an expansion of investment plans in services and manufacturing industry for the current year, despite a slight worsening of the balance relating to opinions on investment conditions.

Exports and imports remain lively in late 2017, but with signs of a slowdown in early 2018

Benefiting from the favourable performance of foreign markets, the volume of exports of goods and services recorded a further increase in the fourth quarter (+2 per cent compared to the July-September average; +6.2 per cent compared to the same period last year). This performance, in line with the change recorded in the third quarter, was mainly driven by sales of goods abroad (up 2.4 per cent), which were more dynamic than sales of services (up 0.2 per cent). With reference to the export of goods only, the upward trend observed in the second half of 2017 points to the continuation of the trend observed in the last period of gradual improvement in the Italian share in relation to world exports (fig. 10).

Fig. 10 – Italian and global exports of goods in volume
(index numbers 2010=100, seasonally-adjusted data)



Source: figures based on Istat, Eurostat, CPB data.

However, the indications available for the beginning of the current year show signs of a slowdown. In January-February, exports of goods fell both in value and volume (obtained by deflating the figure in value with production prices on foreign markets). The survey of manufacturing companies, conducted by ISTAT in March, shows stable judgements for orders from abroad and worsening as regards turnover on international markets, pointing to a pause in the positive evolution of sales abroad in the first quarter of the year.

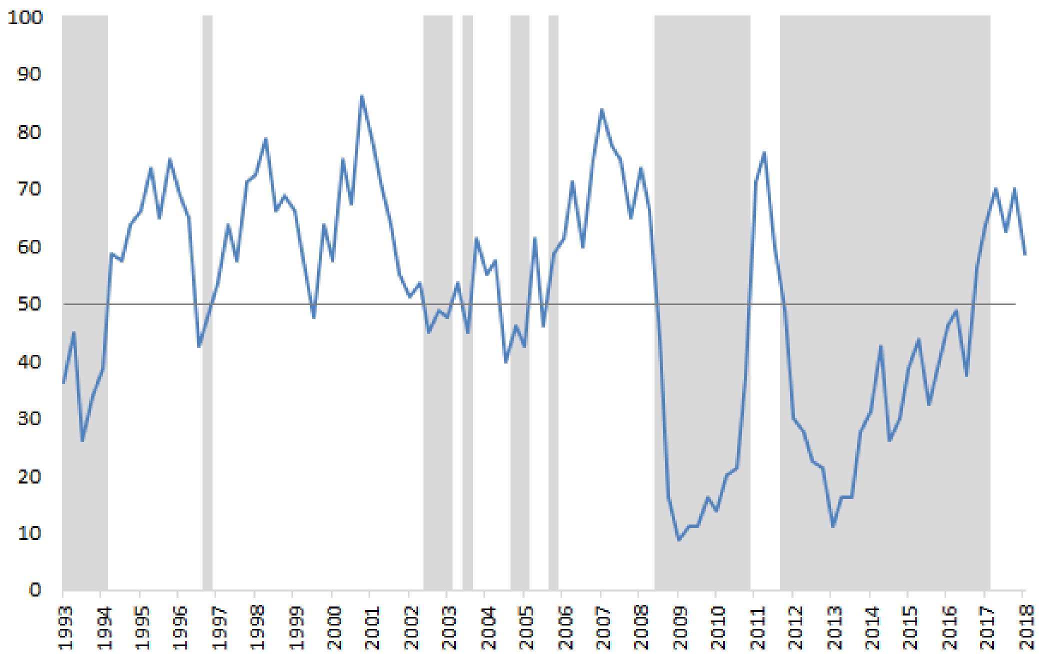
The good performance of exports in the final months of 2017 was accompanied by an increase in imports (+1 per cent on an economic basis), driven by a recovery in domestic demand (particularly investments) and exports. Compared to the October-December average, the most recent economic indicators show a slowdown, with particular reference to imports of intermediate and investment goods.

Signs of temporary weakening of most recent sector indications

The most recent economic information suggests that economic activity is weakening at the beginning of the year, but remains on an expansionary path. The acceleration in the volume of industrial production recorded at the end of last year was followed by falls in January (-1.8 per cent compared with December) and February (-0.5 per cent). The signs of a slowdown were confirmed by the evolution of sales and orders in the same period. Based on PBO industrial production estimates, the first quarter should nevertheless record an increase compared to the October-December average, thanks to a rebound in the index expected for March. Moreover, despite the setback in production, at the beginning of 2018 the expansion phase was still considerably extended between the various manufacturing groups, as can be seen from the diffusion index trend (fig. 11), which remained well above the 50% threshold, highlighting a positive cyclical condition for the vast majority of sectors (the construction of the indicator is described in the box: *The PBO diffusion index for the manufacturing sector*).

More generally, the qualitative indicators of the beginning of 2018, while suggesting a slowdown in the pace of expansion in the industry, continue to be at historically high levels. In March, PMI manufacturing marked up the second consecutive monthly decline after having reached in January its highest peak for more than six years. The confidence index of manufacturing companies, which had been improving significantly until last autumn, worsened starting last November and then stopped in February; despite the weakening of November-January, the climate for industrial companies remained at a high level.

Fig. 11 – Diffusion index in the manufacturing sector (1)
(percentage shares)



Source: figures based on Istat data.

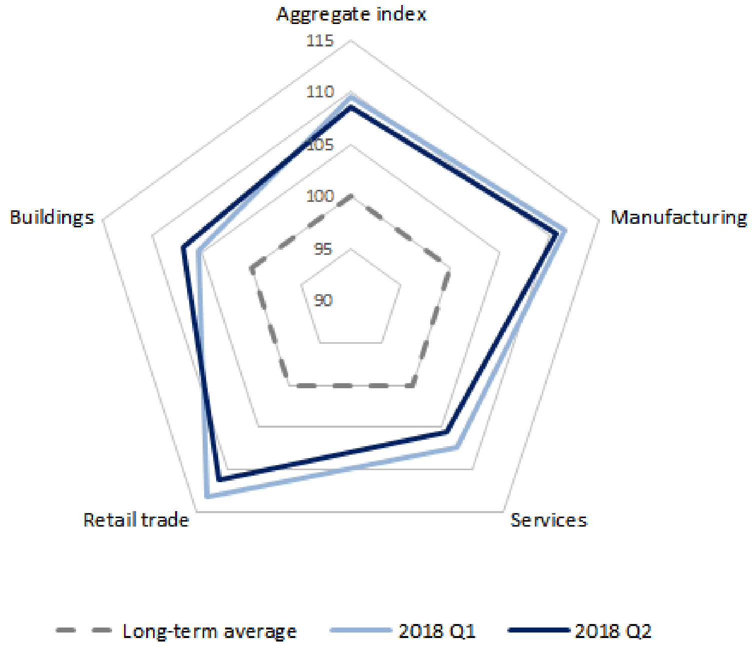
(1) The areas in grey identify recession periods relating to the manufacturing aggregate. The threshold of 50 percent qualifies the degree of diffusion among the manufacturing groups of the aggregate cyclic trend (i.e., high diffusion above 50; limited diffusion, if, vice versa, the indicator is below such value).

As far as the other sectors are concerned, the construction production index continues along an erratic trajectory at historically low values; in February there was a marked downturn, which was also affected by bad weather conditions. This uncertain evolution is contrasted by the progressive consolidation of the expansionary trend of the sector’s confidence index, underway, albeit with some pauses, since the first few months of 2015. Positive indications can also be inferred from the results of the survey conducted by the Observatory of the real estate market, which indicate a further positive change in the number of sales in the fourth quarter (four-term moving average), continuing the recovery phase begun in 2014. The economic survey on the housing market, conducted by the Italian Revenue Agency, the Bank of Italy and Tecnoborsa in January, however, indicates a worsening of sales prices in the opinions of operators, against the stability of the discount margin on offer prices.

In the services sector, the recovery phase continued. In the fourth quarter of last year, the seasonally adjusted turnover index increased by 1.3 per cent on a cyclical basis, driven by the growth of wholesale trade (+2.1 per cent). The retail sales indices (both in terms of volume and value) continued to perform poorly in the first two months of the current year. On average in the first quarter, confidence ratings were largely stable (for service companies) or tended to fall back (for the retail sector) compared to late-2017 levels.

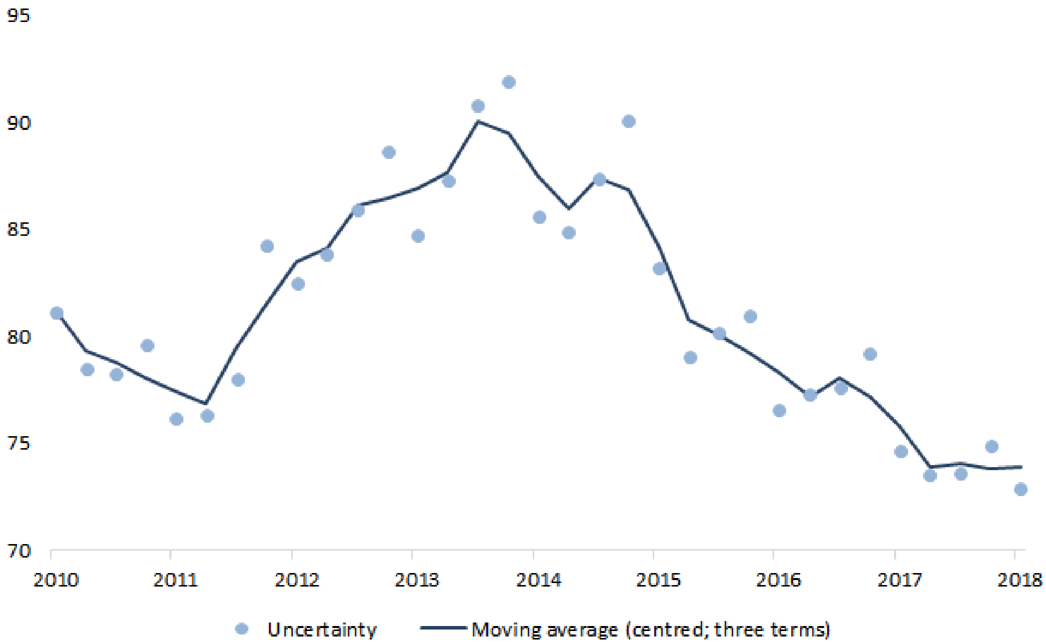
In the production sectors as a whole, the aggregate index of business confidence, obtained as a weighted average of the sector climates, was relatively high at the end of the first quarter of the year in relation to the long-term average, although slightly lower than at the end of 2017 (fig. 12). More specifically, there was an improvement in confidence in the construction sector, while in the other sectors there was a slight downward revision in the confidence of operators. At the same time, the level of economic uncertainty that can be inferred from the surveys conducted on businesses and households remains at the same low levels as last year, favouring the continuation of the phase of recovery of economic activity (fig. 13).

Fig. 12 – Confidence in production sectors (1)
(index number, average January 1998 - March 2018=100)



Source: figures based on European Commission and Istat data.
(1) The aggregated confidence index is built by applying to the series (standardized) of sector confidence climates of the European Commission the weights used by Istat to build the IESI (Istat *Economic Sentiment Indicator*).

Fig. 13 – Uncertainty index
(index number, January 1993=100)



Source: figures based on European Commission data.

There were positive signs, albeit less than in previous months, from the summary indices of the economic cycle drawn up by various institutions. Both the coinciding ITA-coin indicator of the Bank of Italy, which returned in March to the average levels of the fourth quarter of 2017 after the jump of January-February, and the leading Istat indicator, which remains at high levels despite the further decline notched up in March, suggest that the favourable economic phase will continue in the first part of the current year.

Short-term estimates

The economic situation outlined above suggests a phase of less buoyant economic growth in the first half of 2018 compared to the rates recorded in the previous six months. In particular, on the basis of estimates of the short-term models of the PBO, it is estimated that GDP (which increased by 0.32 per cent in the fourth quarter of 2017) could increase in cyclical terms by 0.26 per cent in the first quarter of 2018 (which is in a 90 per cent error band with a maximum limit of 0.39 per cent and a minimum limit of 0.12 per cent), reflecting the substantial stability of the services sector against a less brilliant trend in industry. The slowdown in exports at the beginning of the year would be partly offset by the still favourable trend in domestic demand. Estimates for the second quarter of 2018, surrounded by greater uncertainty, would seem to point to a further slight slowdown in the recovery (with an economic increase of 0.21 per cent, in error band with a maximum limit of 0.38 per cent and a minimum limit of 0.03 per cent). Overall, growth in the first half of this year is expected to be around 0.5 per cent compared to the second half of 2017 (when the increase over the previous six months touched 0.8 per cent)..

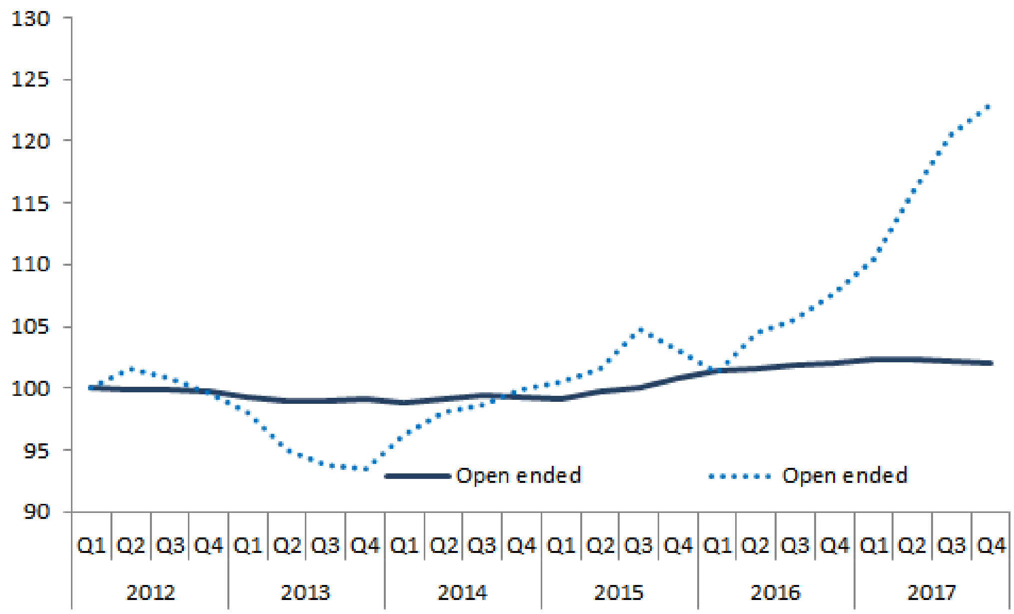
Employment trends remain moderate, with signs of recovery of the open-ended contract component in early 2018

In the fourth quarter of 2017, labour market indicators were broadly favourable, with employment levels holding up and the unemployment rate gradually falling. On the basis of the Workforce Survey, the increase in the number of persons employed was 0.1 per cent, a slowdown compared to the third quarter (when the increase was 0.3 per cent). The slight increase was entirely supported by growth in the number of employed workers (+0.2 per cent). As in previous quarters of 2017, the latter was characterised by the development of the temporary component (up 2%), though slowing down compared to previous quarters. The trend of open-ended contract employment, on the other hand, contributed negatively, on the decline in the third quarter of last year. This was probably also affected by the possible postponement of part of new employment contracts in the early part of the current year as a result of the start of the new reductions in social security contributions provided for by the

2018 budget law (fig. 14). The evolution of free-lance workers, which fell for the fourth consecutive quarter, also contributed to the weakening of the growth rate of overall employment. The predominance of the temporary-worker component in sustaining employment figures is confirmed by flow data on the labour market, which recorded an increase in the rate of permanence in temporary employment in the fourth quarter of 2017 (65.3 per cent between the fourth quarter of 2016 and the fourth quarter of 2017, from 58.2 per cent in the same period between 2015 and 2016).

According to national accounts information, the increase in full-time equivalent work units in the fourth quarter of 2017 closely followed the increase in the number of people in employment, reflecting a decline in the number of jobs (-0.3 per cent on a cyclical basis) and an increase in the number of hours worked. Unlike employment in terms of "heads" found in the Workforce Survey, labour input (measured in terms of total hours worked), although recovering in recent quarters, still appears far from the levels that preceded the crisis, indicating the slower recovery which marked the intensity of use of the labour factor during the recovery phase.

Fig. 14 – Employed workers
(index numbers, 2012T1 = 100)



Source: figures based on Istat data.

Considering the results for 2017 as a whole, the increase in the number of people in work (+1.2 per cent, 265 thousand units) was slightly less than the increase in gross domestic product, an evolution that confirmed the elasticity of employment to income at still high levels. Employment levels were driven by the considerable increase in fixed-term employment (+12.1 per cent, up from 2.2 per cent in 2016), while growth in open-ended contract employment was moderate (+0.5 per cent, up from 1.8 per cent a year earlier). With reference to the type of working hours, the recovery mainly concerned full-time employment (+1.3 per cent) and, to a lesser extent, part-time employment (+0.8 per cent), which reflected the fall in involuntary part-time, particularly for the female component of employment. This is a reversal of the trend recorded in 2016, when the part-time component grew more than twice as fast as the full-time component.

In the early months of 2018, the employment trend became even more moderate. The preliminary figures from the Workforce Survey were substantially unchanged in January, when the 2.1 per cent increase in fixed-term employment was entirely offset by the negative performance of the open-ended contract and freelance components. The slight increase in February (up 0.1 per cent), on the other hand, benefited from the recovery in employment (up 0.3 per cent on January), driven in particular by the open-ended contract component (up 0.4 per cent).

The slowdown in open-ended contract employment in the last few months of 2017 was probably due to a postponement in hiring by companies in order to benefit from the tax relief in force since the beginning of this year. Indications in this direction come from flow data taken from the INPS Observatory on precariousness. According to this source, the net change in open-ended contract positions was extremely negative in the fourth quarter of 2017 (128,000 fewer contracts than in the same period of 2016), due to lower recruitment and the fall in the conversion of fixed-term contracts into open-ended contracts. On the contrary, the data currently available for 2018, relating to the January-February period, provided signs of a recovery in the transformation of fixed-term positions into open-ended contract jobs (+83,000, +79.5 per cent compared to the same period of 2017). Open-ended contract hirings also increased (8.4 per cent, +18,000 positions compared to January-February 2017), alongside the positive trend that continued to characterise temporary components (including employment contracts with staff-leasing and intermittent workers). The net change in the number of staff on open-ended contracts thus returned, at the beginning of 2018, to a positive level (+89,000). It should be noted that the increase in open-ended contract hirings and in the transformation of fixed-term jobs is not entirely attributable to the effect of contribution relief. The INPS Observatory notes that individuals meeting the requirements for benefits (under 35 years of age on the occasion of the first open-ended contract) account for less than 1/5 of the total number of recruitments and transformations to open-ended contracts.

In terms of labour supply, it was slightly down in the fourth quarter of 2017, reflecting a moderate increase in employment and a significant drop in the number of jobseekers (-

1.9 per cent compared to the third quarter). This led to a further fall in the unemployment rate to 11 per cent (two-tenths less than in the previous quarter). This evolution was widespread among the gender components. In terms of age, this was mainly due to the reduction in the number of younger jobseekers (between 15 and 24), followed by a significant fall in the unemployment rate (33.3 per cent, 1.2 percentage points lower than in the third quarter). On average for the year, the unemployment rate stood at 11.2 per cent, down 0.5 percentage points from 2016.

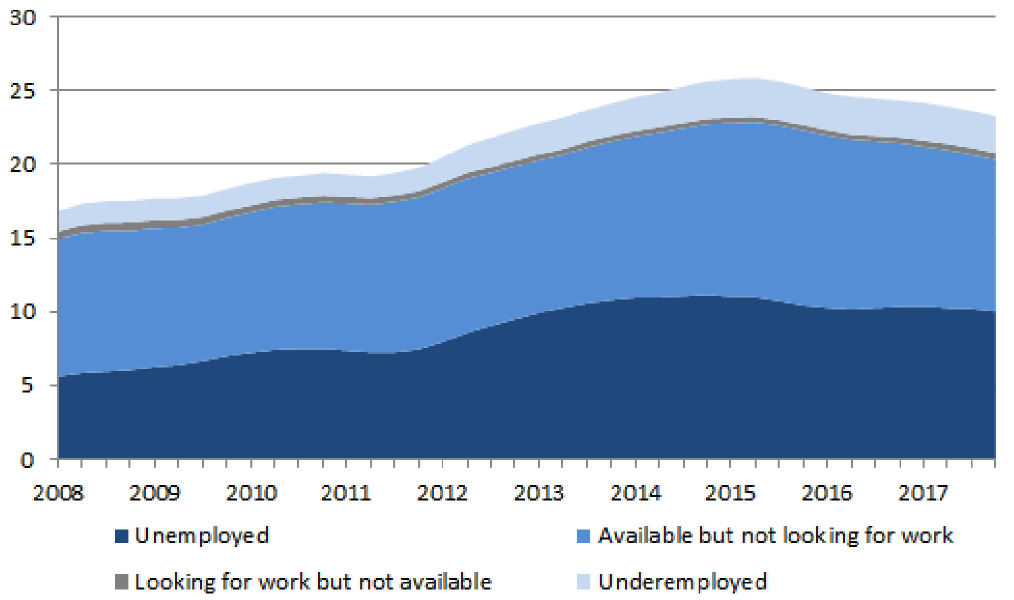
In 2017, the reduction in the number of inactive persons continued (-242,000), although at a slower pace than in 2016. The slow re-absorption of the potential labour force and, in particular, the decrease in people who are not looking for work but are willing to work (230,000 fewer people) contributed to this. The reduction in this component of inactivity reflected the marked decline in the number of discouraged people (-112,000) as well as the decrease, albeit smaller, of people inactive for other reasons (with the exception of family reasons). These trends, which imply an increase in outflows from inactivity, contribute, at least in part, to making the process of reducing the unemployment rate more gradual. On the other hand, the decline in the number of inactive people is held back by the substantial stagnation of those who are not looking for work and are not available to work (-28,000 people), which is the component most distant from the labour market and represents about 2/3 of the total inactive population.

Taking into account, in addition to unemployment and potential labour force, the share of the underemployed population, the degree of under-utilisation of the labour force, although declining, is still high. It stood (in the raw data corrected with a four-term moving average) at around 23 per cent in the fourth quarter, 13 percentage points higher than the share of the official unemployed over the same period (calculated in relation to the potential labour force, fig. 15). The evolution shows an improvement compared to the situation at the beginning of 2015, when the under-utilisation rate reached a peak of 25 per cent with a distance of almost 15 points from the percentage of unemployed, but indicates a condition still substantially far from that which characterized the Italian labour market in the pre-crisis period (in 2007, the under-utilisation rate was around 17 per cent, equal to about 10 points more than the percentage of unemployed).

In the short-term perspective, employment developments seem to remain moderate and with significant differences from one sector to another. The expectations of entrepreneurs, on the basis of the economic surveys conducted by ISTAT in the first three months of this year, indicate a substantial stagnation in employment levels in manufacturing. The recovery of employment in the construction sector and substantial stability in market services seem likely to continue. On the other hand, there are unfavourable signs for the retail sector.

Fig. 15 – Unemployment, inactive persons close to the labour market and under-employment

(in percentage of the potential workforce, four term moving average)



Source: figures based on Istat data.

Inflation still weak and subject to fluctuations in the most volatile components

Overall, price trends continue to be curbed, affected by the more erratic components (oil and food). The relatively strong euro exchange rate and low pressures in the labour market contribute to limiting inflationary pressures. In particular, although a slight acceleration in wages can be observed, mainly linked to contracts signed at the end of 2017 (trade, telecommunications, freight transport and logistics, post office) and to renewals in the civil service, wage developments still appear insufficient to boost inflation. It should be noted that, compared to the previous round, the new contracts do not provide for automatic adjustments to inflation, a mechanism that would have helped to curb wage trends in the last two years.

In March, consumer inflation (national index for the whole community, NIC) increased by 0.3 per cent compared to the previous month and by 0.8 per cent in trend terms (from 0.5 per cent in February). Given the slowdown in energy prices (non-regulated prices rose to +1.1 per cent from +2.1 per cent in the previous month), core inflation (net of energy and fresh food) recovered only one tenth of a percentage point compared to February, reaching 0.7 per cent. The rebound in inflation in March, affected by a favourable base effect (due to the slowdown observed a year earlier), was affected by the easing of the fall in unprocessed food, increases in tobacco prices, as well as by the acceleration in service prices driven by higher transport prices.

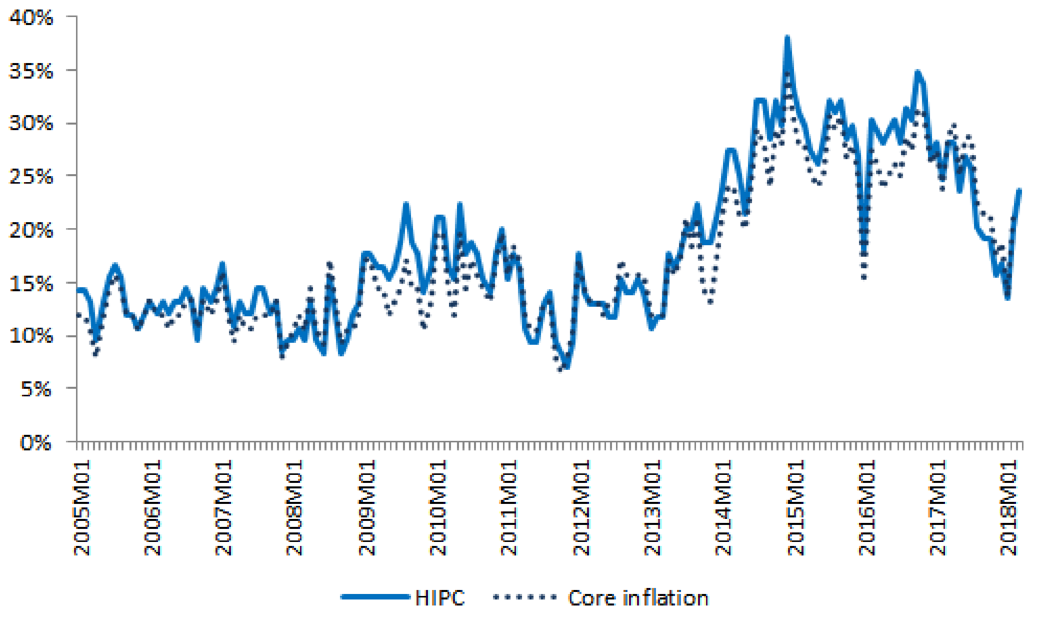
The persistence of low inflationary trends in the Italian economy is also signalled by the rise in March of the share of goods and services that recorded price reductions, which returned to the average values of a year ago. The incidence of deflationary products in the basket of the harmonised index of consumer prices was 24%, while it was around 17% on average over the previous three months (fig. 16). Similarly, items with low inflation (tendential changes of less than 0.5 per cent and 1 per cent respectively) returned to the levels observed in the summer of last year, reaching 45 per cent and 63 per cent respectively.

In the upstream phases of the inflationary process, the rise in the production prices of industrial goods that began in 2017 continued (+1.6 per cent year-on-year in February), mainly thanks to the contribution of goods sold on the domestic market (+1.8 per cent), which were mainly affected by the trend in the prices of intermediate goods. At the same time, production prices in the services sector also continued to rise, although they were down, with an average growth of 0.5 per cent in the fourth quarter of 2017 (+1.3 per cent year-on-year) due to widespread increases in many sectors of economic activity (such as air transport, mobile telecommunications and professional activities).

The slowdown in energy prices is reflected in the import prices of industrial products, which fell by 0.2 per cent in February compared to the previous month (-0.1 per cent net of energy). Also in tendential terms, the trend in import prices continued to weaken for the third consecutive month, after the peak recorded in November (+3.1 per cent), reaching 1.4 per cent in February.

In terms of inflation expectations, the ISTAT survey shows a decrease in the proportion of households in March that expect prices to accelerate (14.7 per cent compared to about 22 per cent at the beginning of the year). During the first few months of the year, in fact, the share of those who expect price stability (from 41.8 in January to 55.1 in March) gradually increased, to the detriment of those who expect prices to accelerate or only rise. The positive balance in January (22) then fell to -8.9 in March as a result of the calculation method that assigns double weight to extreme modes. At the same time, the percentage of undecided people fell by only 3 per cent in March (an average of 8 per cent in 2017). A similar trend can be observed among industrial entrepreneurs, who are increasingly orienting themselves towards expectations of price stability, reducing the expectations of price increases forecast at the beginning of the year (balance drops to 7.7 in March from 11.7 in January). Intermediate goods and energy are the main sectors affected by a greater downward revision of expectations, while expectations of increases are more widespread for companies that produce consumer goods, in particular durable goods.

Fig. 16 – Incidence of goods and services in deflation in the basket of consumer prices of the IPC harmonized index
(percentage shares)



Source: figures based on Eurostat data.

Box – The PBO diffusion index for the manufacturing sector

The diffusion index (of sector expansions) is a tool for assessing the robustness of cyclical developments. It is generally constructed as the share of sectors that experience a cyclical expansion over a given period of time (e.g. month or quarter). Although it is a frequently used tool, its construction poses operational difficulties which may limit its practical usefulness for cyclical analysis. This box shows the methodology adopted to calculate the PBO diffusion index of the Italian industrial production cycle and the evidence obtained from some preliminary results aimed at assessing its consistency properties with respect to the aggregate cycle and its robustness with respect to revisions.

One of the prerogatives that generally characterize the construction of the diffusion indexes resides in the need to resort to the use of seasonally adjusted data in order to reduce its erraticness to the benefit of easier interpretation. However, the use of seasonally adjusted data greatly reduces its usefulness because of the revisions brought about by the seasonal adjustment process, especially in the most recent observations, i.e. those that are most relevant from the point of view of economic analysis. Similarly, statistical filters used to obtain the cyclic component of a series can produce biased estimates at the end of the sample (end-point bias).

Based on these considerations, the diffusion index proposed in this box uses non-seasonally adjusted series (adjusted for the different number of working days), which are therefore only marginally subject to statistical review processes. In order to further reduce the erratic nature of the indicator, the analysis was carried out using quarterly averages of monthly observations.[3] In addition, in order to mitigate the problem of end-of-period estimates, the cyclical component for industrial production volumes was extracted at individual manufacturing group level through the procedure recently proposed by Hamilton (2017)[4] which can be applied to non-seasonally adjusted data and has the advantage of not relying on two-sided filtering techniques (typically affected by the end-point bias). This method consists in the decomposition of a generic time series y_t of observations with frequency f through the estimation of a simple dynamic linear model with a lag structure that depends on the desired amplitude of the cycle $K = kf$ expressed at the frequency of the data used:

$$y_t = \alpha + \sum_{j=1}^{f} \beta_j y_{t-(kf)-j+1} + \varepsilon_t \qquad (1)$$

where k is the amplitude of the cycle expressed in years. As in Hamilton (2017), the analysis was conducted by extracting a two-year cyclical component ($k = 2$) using quarterly data ($f = 4$). The estimation is obtained through ordinary least squares (OLS) method, whose estimator, being in closed form, does not require the imposition (often arbitrary) of initial values for the initialization of the process of maximization of the log-likelihood function. The estimated value $\hat{y}_t$ identifies the long-term trend of the series, while the residual, obtained as the difference between the actual value of the series and its MQL estimate, $\hat{\varepsilon}_t$, represents the cyclical component. Specifically, a positive residual value would signal an actual value higher than the trend (configuring a cyclical expansion); on the other hand, negative values for $\hat{\varepsilon}_t$ would result from observed series levels lower than those of the trend (thus signalling a cyclical contraction).

For the construction of the index, the groups in the Ateco classification of economic activities (2 detailed figures) for which information is available as from January 1990 have been taken into account. On this basis, 80 out of 230 manufacturing groups were included in the analysis.

[3] Given the timing of the Economic Outlook, the proposed indicator covers the quarter prior to the month of publication of the Economic Outlook. Moreover, when the Note was published, the ISTAT calendar for the publication of the industrial production series made available only the observations relating to the first two months, requiring an estimate for the third observation of the quarter. The missing observation has been obtained following the vertical re-alignment method as, for example, in Altissimo, F., Cristadoro, R., Forni M., Lippi, M., and Veronese G. (2010), New Eurocoin: Tracking Economic Growth in Real Time, The Review of Economics and Statistics, 92: 1024-1034.

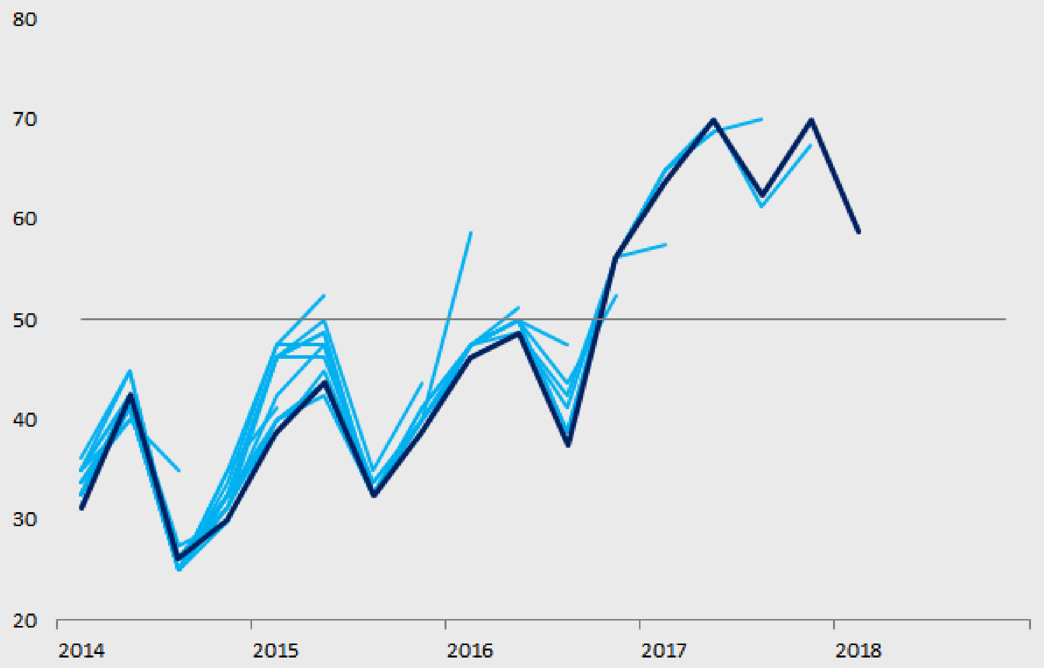
[4] Hamilton, J.D. (2017), Why You Should Never Use the Hodrick-Prescott Filter, *The Review of Economics and Statistics*, currently being printed.

Specifically, the diffusion index shown in figure 10 in the text of the Note was obtained through the following steps: I) estimation of the model (1) for each of the 80 series considered in the analysis; II) extraction of the residual component $\hat{\varepsilon}_t$ from each of the estimates carried out; III) transformation of the residual series $\hat{\varepsilon}_t$ into 0 dichotomous variables (if $\hat{\varepsilon}_t$<0) and 1 (if $\hat{\varepsilon}_t$>0); IV) calculation for each quarter t of the percentage of the cases in which positive values of the cyclical component are observed; V) comparison of the value thus obtained with the threshold of 50 per cent, which is generally understood as the relevant value to qualify the degree of diffusion among the manufacturing groups of the aggregate cyclical trend (i.e. "high" if higher than 50, "low" if, on the other hand, lower than this figure). In order to evaluate the representativeness of the subset of the selected groups with respect to the aggregate manufacturing sector, the proposed indicator obtained (blue line in figure 10) has been put in relation with the expansion and contraction phases of the total manufacturing obtained by applying the same procedure to the series (not seasonally adjusted and adjusted for the number of working days) of the aggregate manufacturing production. The degree of association between the diffusion index and the cyclical phases of the aggregate was evaluated by means of the McNemar test, which required the transformation of the diffusion index itself into a dichotomous variable (equal to 1 when higher than 50 and 0 if lower than the threshold). The result of the test leads to the non rejection of the null hypothesis, suggesting the homogeneity between the cyclical trends of the two series.[5]

In order to verify the usefulness of the proposed indicator in providing a timely and reliable picture of the degree of diffusion of the cyclical expansions of the manufacturing groups, the diffusion index was recalculated over a temporal horizon increased by one quarter at a time starting from 2014Q2. Figure R.1 shows the sequence of the 16 diffusion indices obtained, where the dark blue line refers to the one calculated on the largest sample. In general, the graph shows a marked stability of the indicator across vintages, with the only exception of the first quarter of 2016, a period for which the indicator calculated in October 2015 would have given indications consistent with a rather high level of diffusion (close to 60) which would not have been confirmed in the subsequent quarters. In order to provide a quantification of the average revision of the last quarter calculated over a given time period (the equivalent of a one step 'forecast') compared to the penultimate quarter of the indicator calculated over the following year (the equivalent of the 'realised value' of the series examined), the average absolute error and the average square error were calculated for the period 2014Q2-2017Q4. The two errors were equal to 4.75 and 5.8 per cent, respectively 40 and 35 per cent lower than what was obtained with a naïve benchmark based on the random walk hypothesis (i.e. where the "expected" value of the indicator consists of its "realisation" at the previous time), providing further indications to support the usefulness of the proposed indicator for the purposes of the economic analysis of the Italian manufacturing sector.

[5] This procedure is based on the construction of a contingency matrix of order 2x2 where in the main diagonal cases of cyclic concordance between the two series are collected in comparison (expansion/high diffusion, n_{11} and contraction/low diffusion, n_{00}), while in the secondary diagonal are cases of discrepancy (contraction/high diffusion, n_{01}, and expansion/low diffusion, n_{10}). The statistic of interest, $\rho = (|n_{10} - n_{01}| - 1)^2/(n_{10} + n_{01})$ uses the elements outside the main diagonal and is distributed as a χ^2 with a degree of freedom. See, for example, Liddell, D. (1976), Practical Tests of 2×2 Contingency Tables, Journal of the Royal Statistical Society, 25: 295-304.

Fig. R.1 – Real-time calculation of diffusion index: 2014T1-2018T1



Source: figures based on European Commission and Istat data.