

CECIMO Statistical Toolbox

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cecimo
European Association of
the Machine Tool Industries

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Glossary

The items in grey are not available in this edition of the Statistical Toolbox.

Introduction

The European Commission's winter forecast shows that the overall growth outlook has changed little since the autumn but the risk for growth not to achieve the forecast results has risen, mainly as a result of external factors. In the euro area, growth is projected to increase to 1.7% this year from 1.6% last year, and to climb to 1.9% in 2017. The EU economic growth is forecast to remain stable at 1.9% this year and rise to 2.0% next year.

Certain factors supporting growth, such as the low oil prices, favourable financing conditions and the euro's low exchange rate, are now expected to be stronger and last longer than previously assumed. At the same time, risks to the economy are becoming more pronounced and new challenges are surfacing: slower growth in China and other emerging market economies, weak global trade as well as geopolitical and policy-related uncertainty. Further interest rate rises in the United States could possibly cause disruption in financial markets or hurt vulnerable emerging economies, which weighs on the outlook.

A negotiation round for the free trade agreement was also held in February between the European Union and the United States. In the light of the global economic slowdown, these negotiations are particularly important, as it is necessary for those economic powers to act proactively and shape developments for the better. The discussed Transatlantic Trade and Investment Partnership (TTIP) is clearly one of the positive initiatives that can drive economic growth and create jobs for both Europe and the US.

On the other hand, the TTIP's impact lays on how broad and comprehensive is the agreement reached by both parties. Both CECIMO and its American counterpart, the Association for Manufacturing Technologies, consider the non-tariff barriers to be the most important area of trade talks. If the EU and the US can agree on critical standards and regulations with each other, they will significantly enhance their ability to make these the international standard, forcing other countries to adopt those norms and principles or else risk falling behind.

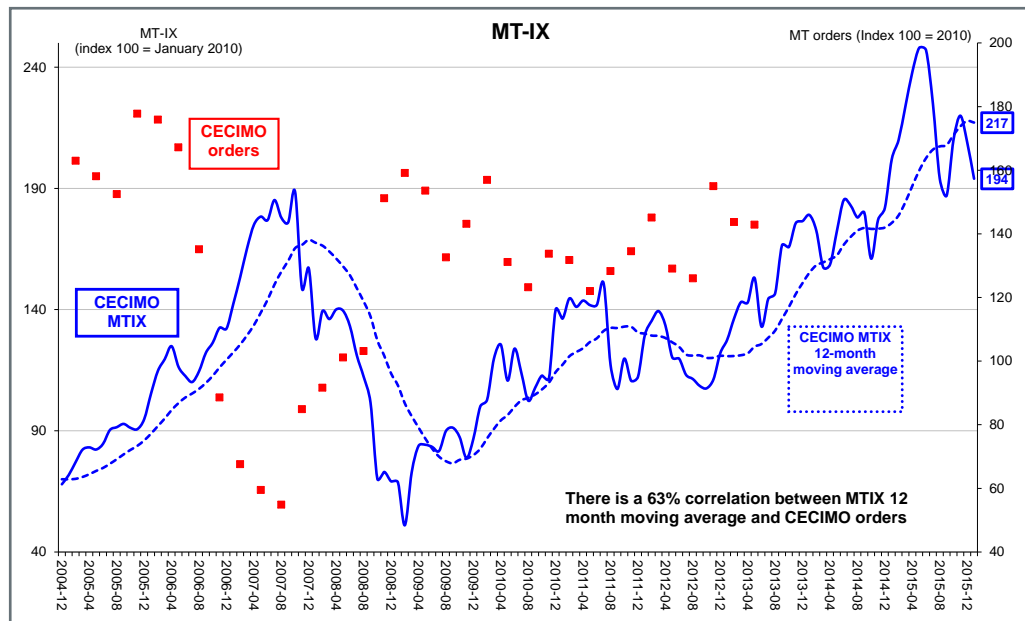
While two continents are taking all efforts to deepen their relations, the United Kingdom lives in the mood of Brexit, Britain's exit from the EU. The majority of economists think that Brexit would adversely affect the UK's medium-term economic prospects. While the consequences of Brexit would vary depending on the terms of departure as well as on the prevailing economic climate, the short and medium-term economic risks are quite clear : Brexit does not easily pass any cost-benefit analysis. Still, referenda are usually not driven only by rational arguments. The widely promoted Eurosceptic or even nationalistic views presented by supporters of the Out campaign such as Boris Johnson, mayor of London, gain popularity. Therefore, the British economy will suffer from the increased uncertainty at least until June.

1. Data specific to the European machine tool market

▼ 1.3 MT-IX ⁱ

In January, the MT-IX decreased by 8.1% and posted at 192 points. The index lost 17 points compared to December's value.

The market value of machine tool companies decreased in Brazil, South Korea, Japan, Switzerland, Taiwan, the United Kingdom and the United States. The market capitalisation of companies increased in Taiwan. In the euro area the market capitalisation of machine tool companies booked more varied results.



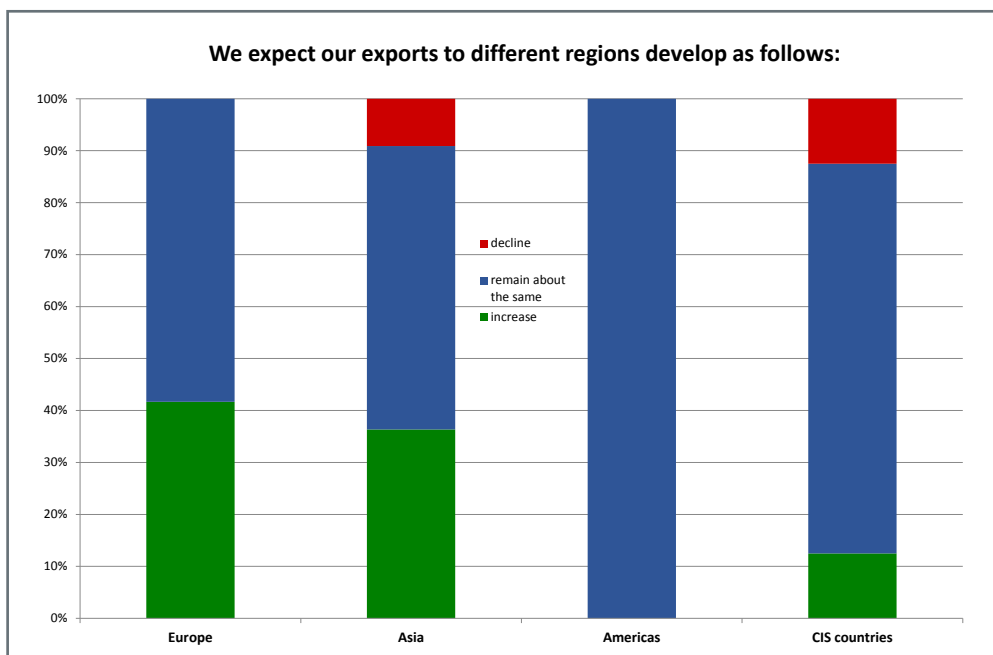
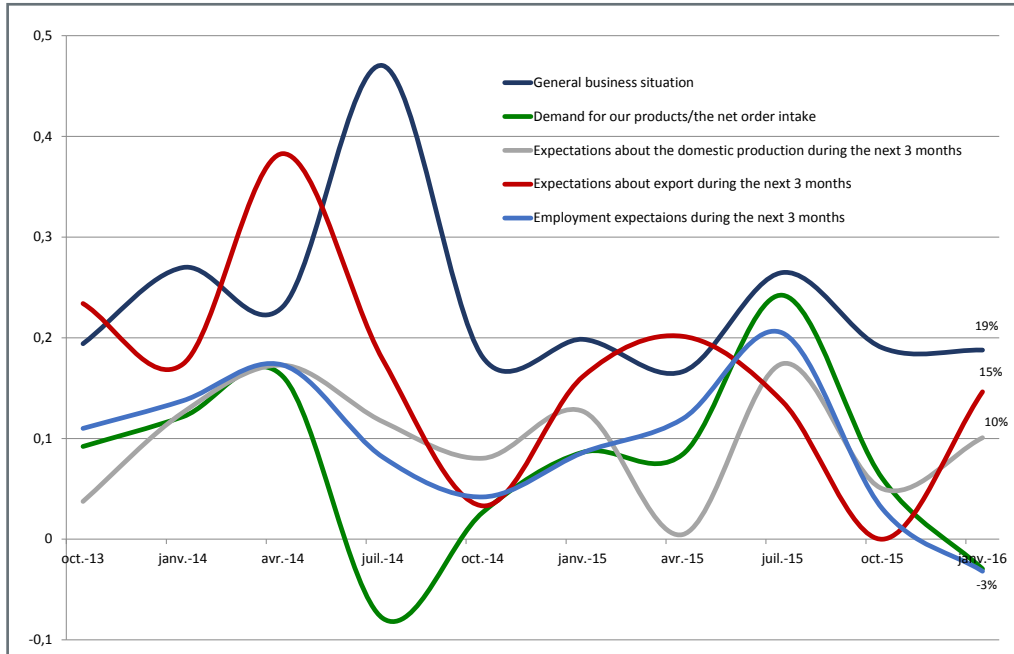
▼ 1.6 CECIMO Business Climate Barometer

The January's CECIMO Business Climate Barometer reflects the fragility of economic recovery in Europe. The survey included 68 machine tool companies in Europe and was distributed to the respondents between 14 January and 19 November 2016. The responses to questions in the CECIMO Business Climate Barometer are analysed as the difference (net percentage) between the share of companies reporting an increase and the share of companies reporting a decrease in their business activities.

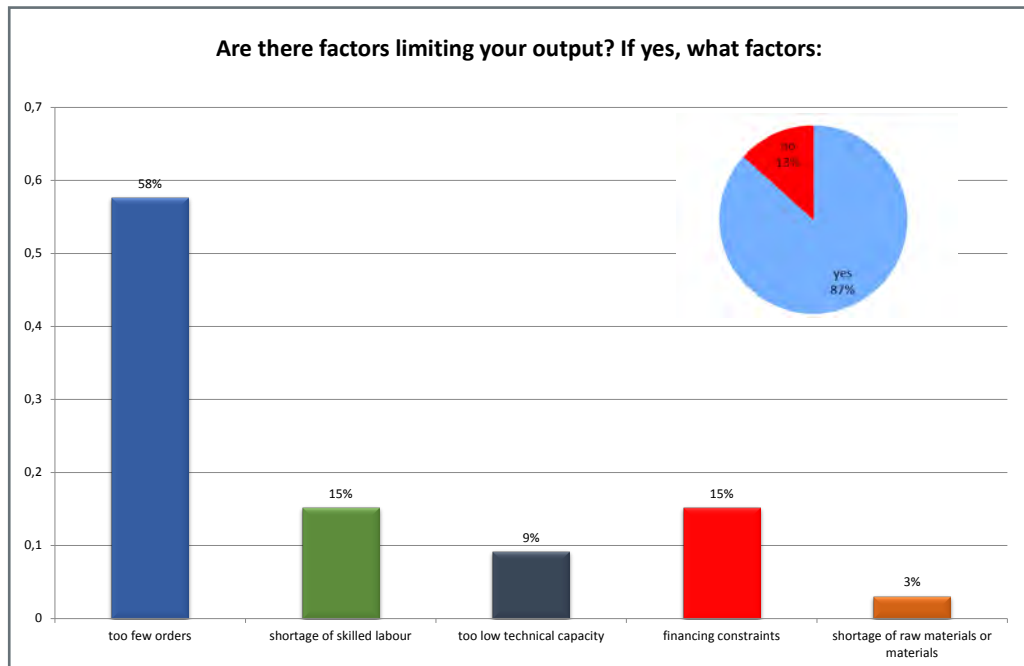
The net percentage of companies reporting a good business situation remained stable at 19% in January while the expectations about production volumes increased to 10% from 5% in October. On the other hand, European machine tool builders perceive the demand as declining and respond to the situations accordingly within their hiring policies.

Despite the global growth's slowdown, companies' assessment of their export possibilities have improved. The net percentage of companies expecting the exports to increase during the next 3 months increased to 10% compared to 0% in October. Europe is the export market with the most potential, not a single respondent forecasts its exports to Europe to decline. Americas have been a good performing market for European producers in the last couple of years. Now it seems that the American markets on the whole reach to saturation point. Asia is dominated by the rebalancing exercise of China which also means less investment in manufacturing sector.

More respondents found their business limited by different restrictions in January, 87% of companies faced restrictions to the growth compared to 73% in October. The dominant restriction to businesses' growth is insufficient order intake. A shortage of skilled labour and financing constraints are the next most common limitations to the machine tool production.



See graph

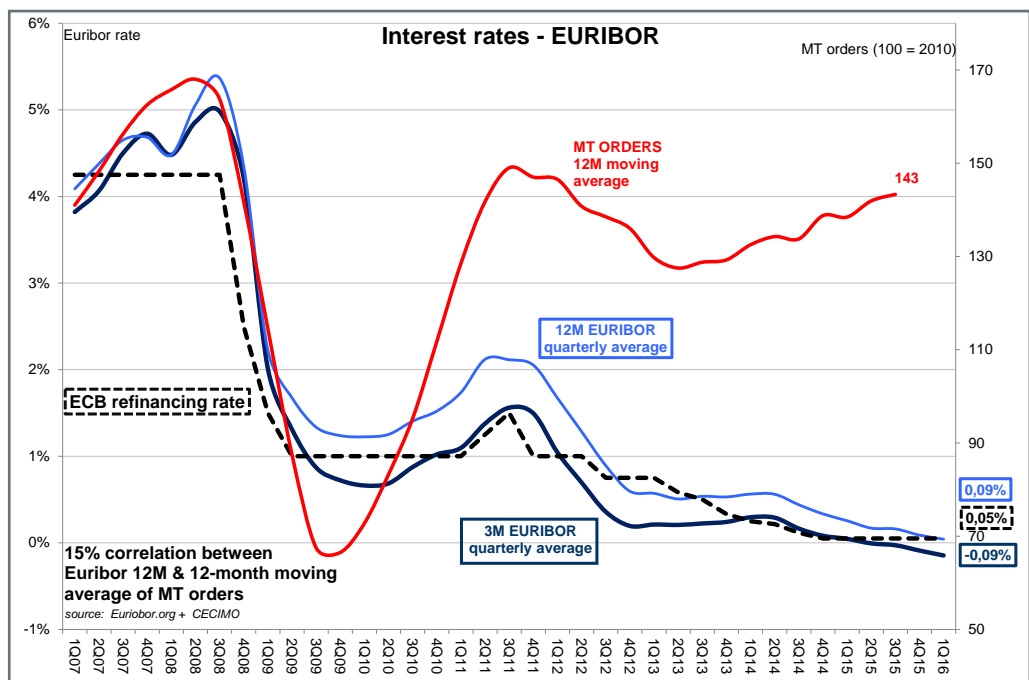


2. Macroeconomic data in relation with machine tool orders

▼ 2.2 Interest rates – EURIBOR ⁱ

The average 3-month Euribor and 12-month Euribor recorded respectively -0.15% and 0.04% in January 2016. Compared to December 2015, the average 3-month Euribor and the average 12-month Euribor decreased both by 2 percentage points. In January, the European Central Bank (ECB) kept its interest rate unchanged on the main refinancing operations as well as the rate on the marginal lending facility. The ECB decided to lower the interest rate on the deposit facility by 10 basis points to -0.30%.

The euro area annual inflation is estimated to reach 0.4% in January 2016 after 0.2% in December and 0.1% in November 2015. The ECB's President Mario Draghi has tempted to revive inflation with cheap loans to banks, bond purchases, and by charging lenders for depositing funds at the central bank, a measure he could expand in March. All those actions seem to finally have some effect on the euro area's general price level.



▼ 2.3 Industrial production index ⁱ

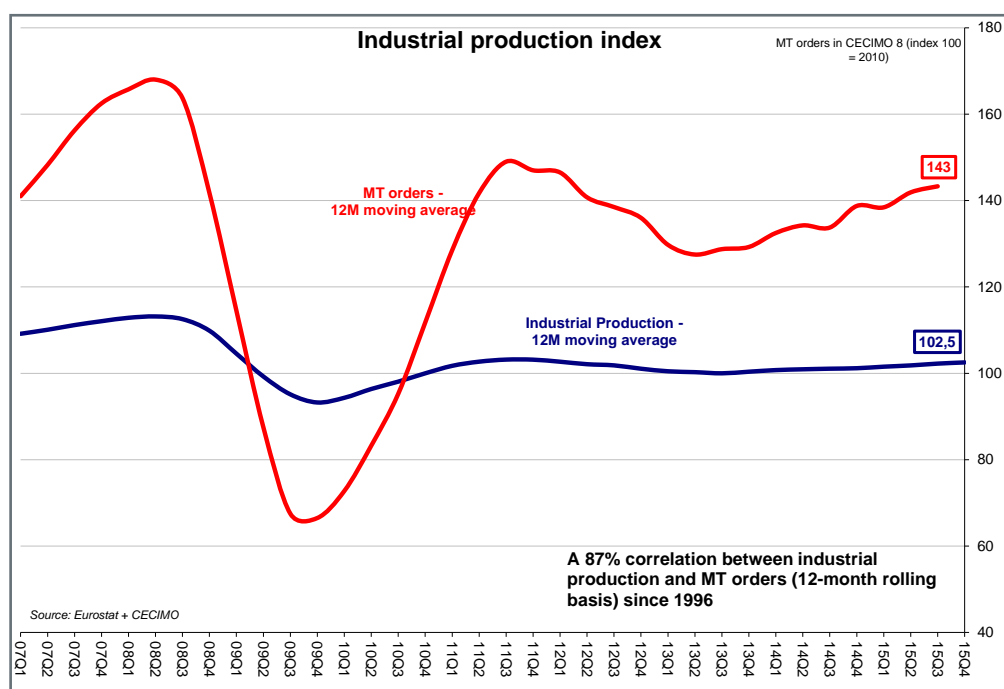
In December 2015 compared with November 2015, the seasonally adjusted industrial production fell by 1.0% in both the euro area and the EU28, according to estimates from Eurostat, the statistical office of the European Union. In November 2015, industrial production fell by 0.5% in both zones. The average industrial production for the year 2015, compared with 2014, rose by 1.4% in the euro area and by 1.7% in the EU28

The decrease in industrial production in the euro area is due to the production of energy falling by 2.4%, the production of capital goods by 1.9% and both the production of intermediate goods and non-durable consumer goods by 0.3%, while the production of durable consumer goods rose by 1.4%. In the EU28, the decrease is due to the production of energy falling by 2.8%, the production of capital goods by 1.6% and the production of intermediate goods by 0.4%, while the production of non-durable consumer goods rose by 0.1% and the production of durable consumer goods by 1.5%.

Among Member States for which data are available, the largest decreases in industrial production were registered in Ireland (-4.3%), Lithuania and Sweden (both -3.3%), and the highest increases in Denmark (+2.9%), the Netherlands (+1.5%) and Greece (+1.4%).

In December 2015 compared with December 2014, industrial production decreased by 1.3% in the euro area and by 0.8% in the EU28. The decrease in the euro area is due to the production of energy falling by 7.3% and the production of capital goods by 2.6%, while the production of intermediate goods rose by 0.4%, the production of durable consumer goods by 0.8% and the production of non-durable consumer goods by 1.4%. In the EU28, the decrease is due to the production of energy falling by 5.7% and the production of capital goods by 1.4%, while the production of intermediate goods rose by 0.1%, the production of non-durable consumer goods by 1.4% and the production of durable consumer goods by 1.5%.

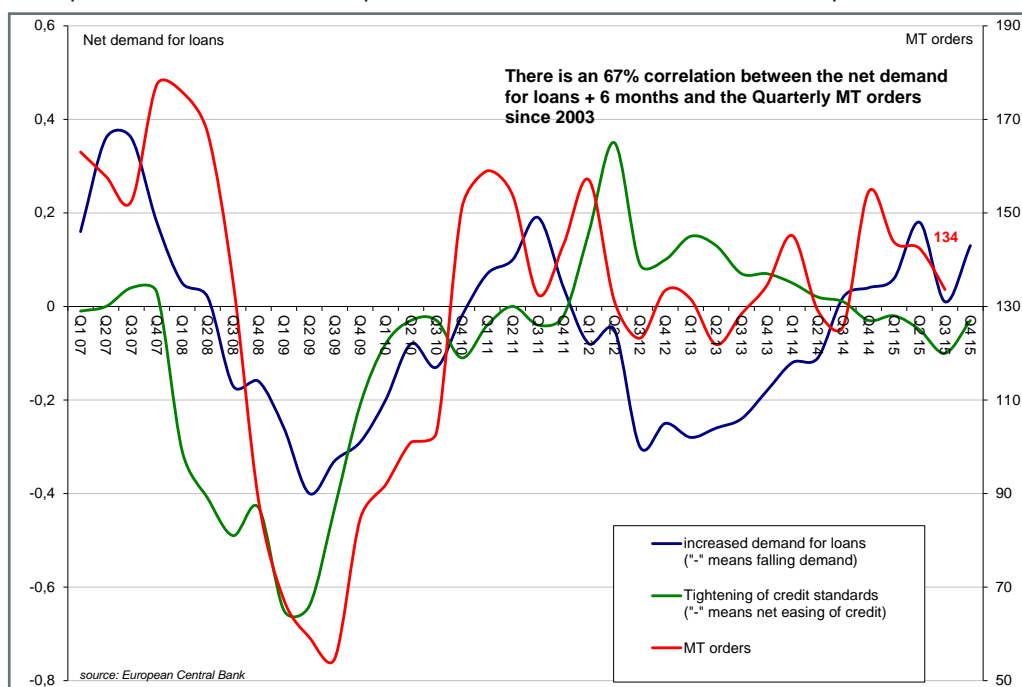
In yearly comparison among Member States for which data are available, the largest decreases in industrial production were registered in the Netherlands (-9.4%), Estonia (-8.8%) and Germany (-2.3%), and the highest increases in Ireland (+18.5%), Hungary (+6.9%) and Malta (+5.7%).



▲ 2.6 Bank lending survey ⁱ

Changes in credit standards and loan demand continue to support a recovery in loan growth in the EU. Banks reported a continued easing of credit standards on loans to enterprises in the fourth quarter of 2015 (-4%, as in the previous quarter), which was slightly less pronounced than expected in the previous survey round. Across the different firm sizes, credit standards were again eased more strongly on loans to small and medium-sized enterprises (SMEs) than on loans to large firms. Banks continued to ease their terms and conditions on new loans across all categories. The net easing of credit standards on long-term loans and for short term loans were eased by the same net percentage as previous quarter: -4%. Looking ahead to the first quarter of 2016, euro area banks expect a further net easing of credit standards on loans to enterprises at current levels (-4%).

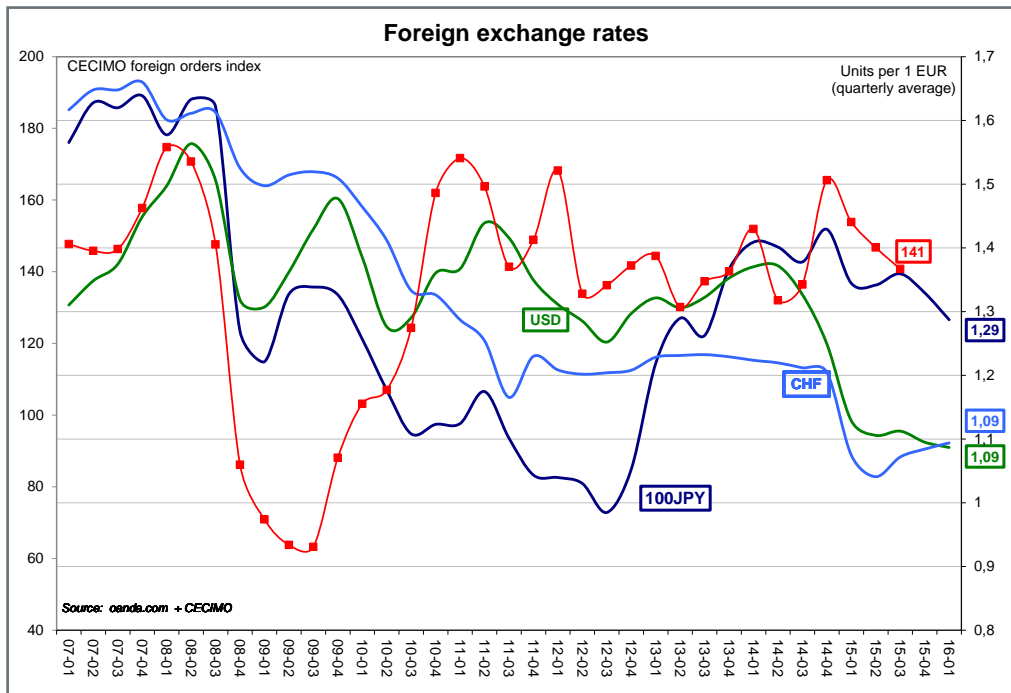
Net demand for loans to enterprises (i.e. the difference between the sum of the percentages of banks reporting an increase and that of banks reporting a decline in demand) increased further. The net percentage of banks reporting an increase was 27%, up from 16% in the previous quarter. However, this increase was still somewhat below the banks' expectations reported in the previous round. In the first quarter of 2016, banks expect a similar rise in demand from enterprises.



▲ 2.7 Foreign exchange rates

The increase in global uncertainty has been accompanied by an appreciation of the effective exchange rate of the euro. The nominal effective exchange rate of the euro, as measured against the currencies of 19 of the euro area's most important trading partners, stood in January at 1.2% above December's rate, but 1.7% below its level one year earlier.

On bilateral level, we can see more variable trends. The average euro exchange rate depreciated against the Japanese yen by 2.8% and against the US dollar by 0.3% in January compared to previous month. At the same time, the euro appreciated against the Swiss franc by 1.1%.

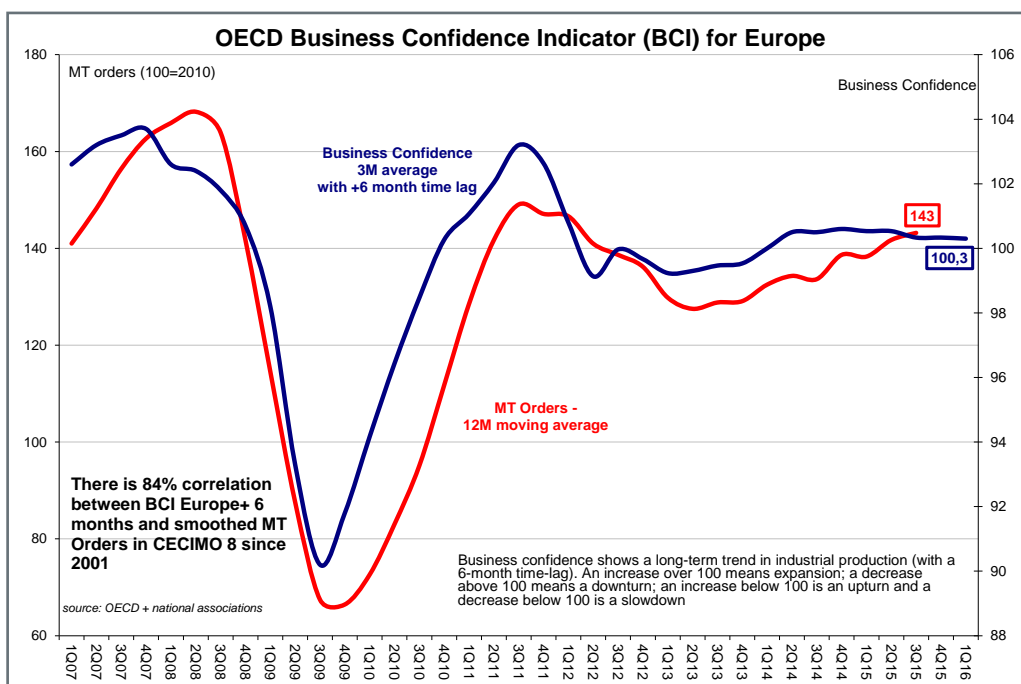


2.9 OECD Business Confidence Indicator (BCI) for Europe

Business confidence indicators (BCIs), designed to anticipate turning points in economic activity relative to trend, continue to signal a mixed outlook across major emerging economies and stable growth momentum in the OECD area.

In Europe as a whole and in Spain, BCIs signal stable growth momentum while in France the outlook is for firming growth. The BCIs for broader euro area, Germany and Italy show a loss of growth momentum albeit from relatively high levels. BCI continues to point to easing growth in the United States. Stable growth momentum above long term average is anticipated in Japan and the United Kingdom.

The BCI for Brazil confirms the tentative signs of stabilisation. In India, the BCI points to stable growth. A loss in growth momentum is anticipated in Russia and China.

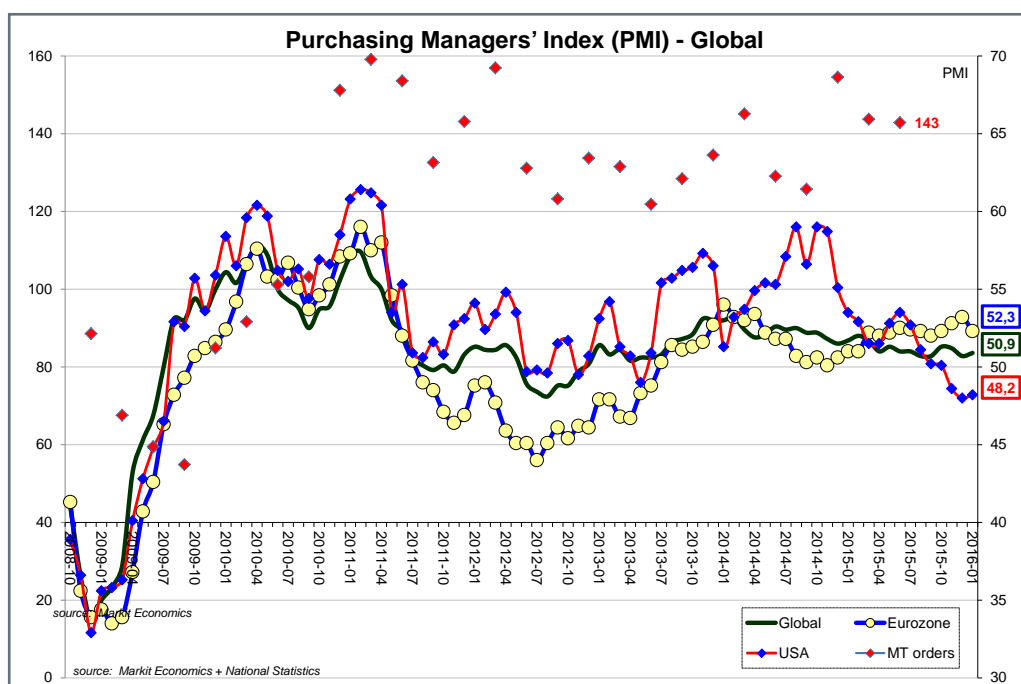


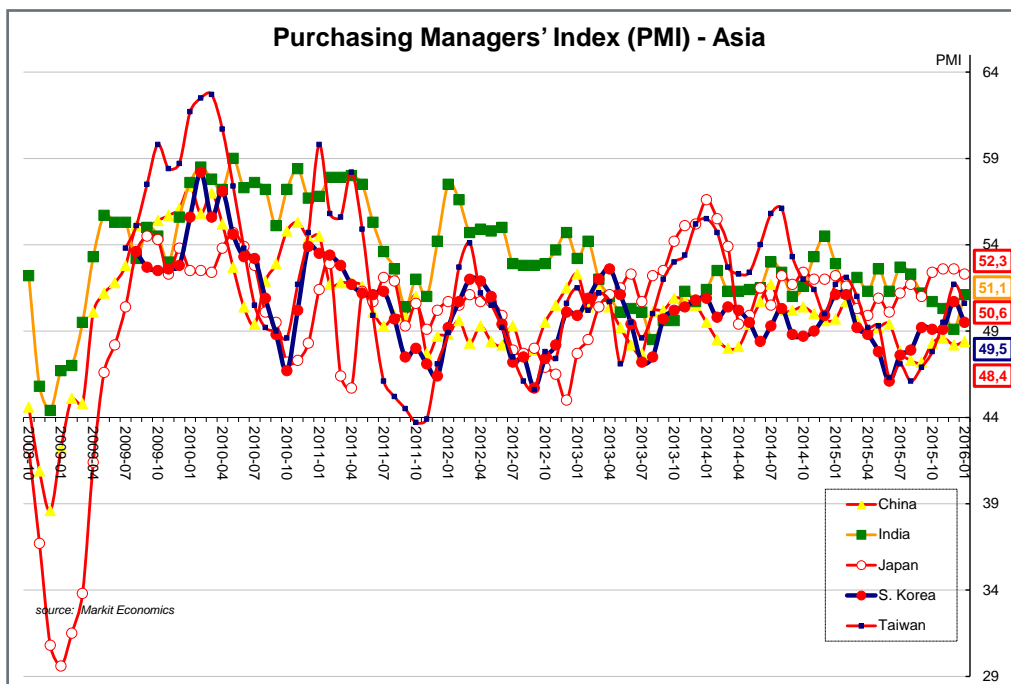
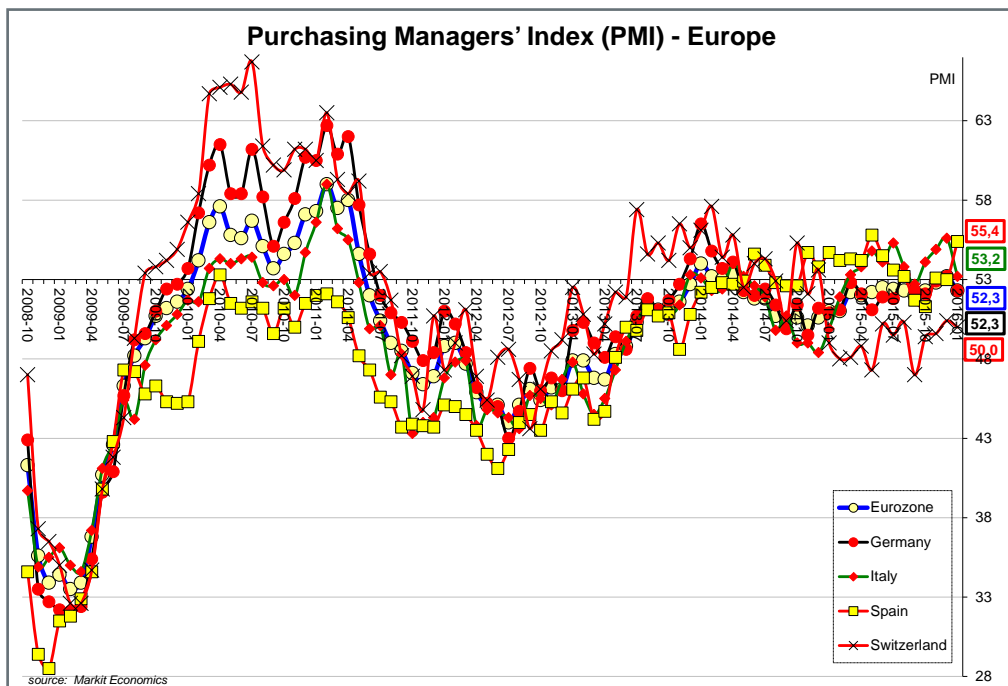
▼ 2.10 Purchasing Managers' Index (PMI) ^①

Global manufacturing expansion accelerated slightly but remained weak at the start of 2016. The global PMI rose to 50.9 in January 2016, compared to 50.7 in December 2015. Developed economies helped the global manufacturing PMI to stay in the expansionary zone, e.g. above 50-mark, for 32 consecutive months. Among the developed nations, the United States and the United Kingdom saw rises after recording lows in December 2015. Japan also continued to expand at a moderate rate in January 2016. Emerging markets, on the other hand, struggle to keep their manufacturing growing. China's PMI underscored the trend by showing manufacturing activity shrinking for an 11th month in a row and recording 48.4 in January. South Korea's manufacturing index slipped into contraction. Its exports suffered their sharpest annual fall since August 2009. The only exception was India that returned unexpectedly to growth. Its PMI jumped to a four-month high, 51.1, after slumping to a 28-month low in December.

The euro area manufacturing PMI stood at 52.3 in January 2016, down 0.9 points from 53.2 in December 2015. With this reading at above 50-mark in January, the area's manufacturing has now stayed above the neutral level for 31 consecutive months. With a slower growth rate in all three big economies in the euro area, new orders and production expanded at a moderate pace in January. Growth in Germany, Italy, and the Netherlands slowed down, while it stagnated in France. However, the rate of growth accelerated in Spain and Austria. The Germany's manufacturing PMI fell to 52.3 compared to 53.2 in previous month. The PMI for France fell by 1.4 points to 50.0 and the index for Italy recorded 53.2 in the first month of the year.

"The eurozone's manufacturing economy missed a beat at the start of the year. Having accelerated for three straight months, the rate of growth slipped from the 20-month high attained at the end of 2015. Growth of order books, exports and output all slowed. If the slowdown in business activity wasn't enough to worry policymakers, prices charged by producers fell at the fastest rate for a year to spur further concern about deflation becoming ingrained. The survey data signal an annual rate of growth of manufacturing output of just 1.5% at the start of the year. As such, the data are likely to add to pressure on the ECB to expand the central bank's stimulus programme as soon as March," commented Markit.





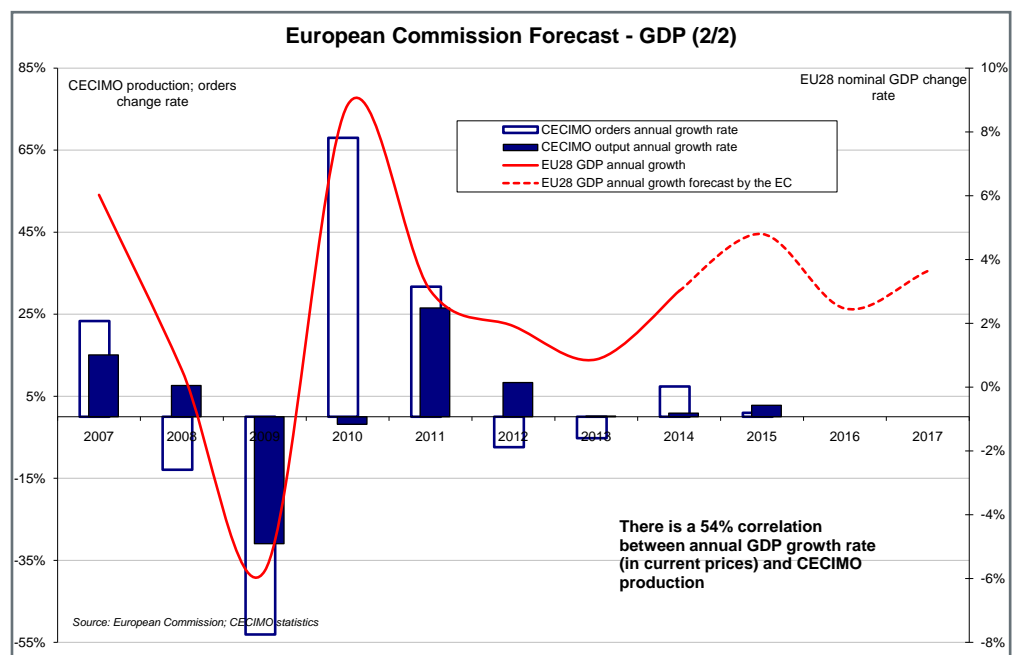
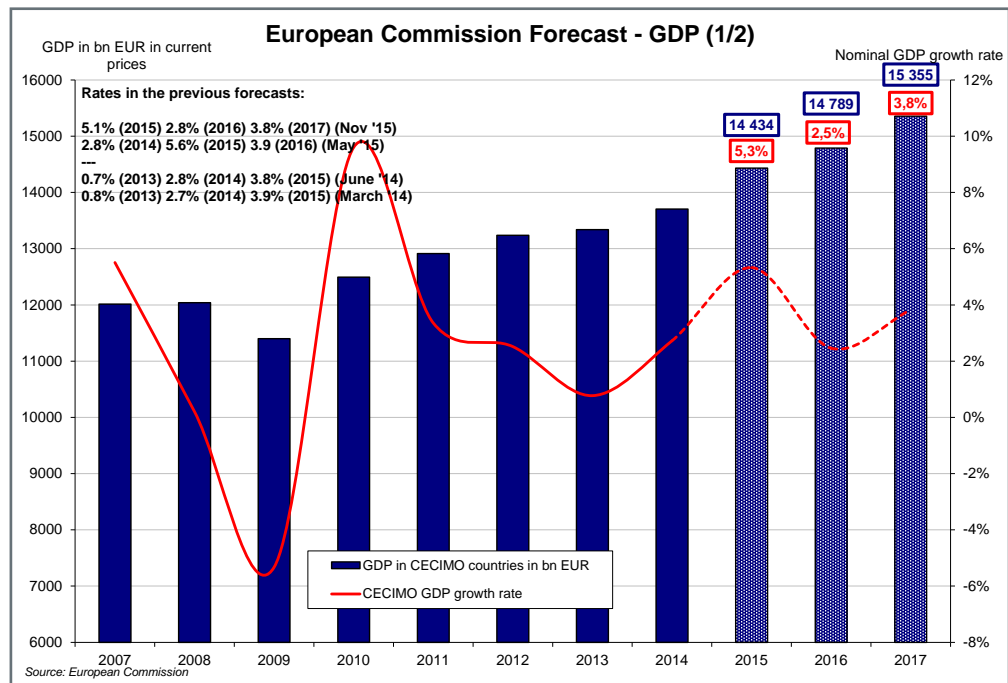
▼ 2.11 European Commission's Forecast [ⓘ]

The European economy remains supported by a number of positive factors such as oil prices, euro's exchange rate and financing costs which have stimulated exports and private consumption. Investment, however, remains hampered by economic and policy uncertainty and in some countries, excessive debt. The euro area's GDP is forecast to accelerate slightly from 1.6% in 2015 to 1.7% this year, which is a notch lower than forecast in the autumn, and to 1.9% in 2017. In the EU, the GDP growth is forecast to reach to 1.9% in 2016 and rise to 2.0% in 2017.

The year 2015 is expected to be the first year since the crisis in which no Member State reported a decrease in output. Private consumption is the main driver of economic recovery. Last year, it was supported by the rise in real gross disposable incomes attributable to the fall in headline inflation and improved labour market

conditions. A further acceleration is foreseen this year, and private consumption should continue to be the main growth driver, supported by the expected acceleration in real disposable income driven by low oil prices. On the other hand, investment has so far failed to emerge as a strong driver of the ongoing recovery as it has been held back by the slowdown in growth momentum outside the EU and the high level of economic and policy uncertainty. Also, investment levels do not at the moment appear to be very sensitive to changes in financing conditions. However, investment is expected to gradually pick up in the near term as demand increases, capacity utilisation rates rise and profit margins improve.

The outlook for global GDP growth has again deteriorated and risks have increased considerably, mainly due to the intensified downturn in emerging markets. Global economic growth outside the EU is expected to have slowed from 3.7% in 2014 to 3.2% in 2015. It is now forecast to recover gradually to 3.6% in 2016 and 3.8% in 2017. The economic momentum in the US has remained robust and GDP growth is expected to be around 2.5% over the next two years. Developments in China have so far been broadly consistent with a 'rebalancing' scenario and the GDP growth is forecast to slow down from 6.9% in 2015 to 6.2% in 2017.



Glossary

1.3 MT-IX

MTIX is an index based on the capitalization of 23 leading, publicly listed machine tool producing companies. The capitalization of the companies included is weighted by the share of machine tool turnover in total revenues. The total capitalization calculated in that way is weighted then by an estimated share of the European companies in the world total output in 2010.

2.2 Interest rates - Euribor

Euribor® (Euro Interbank Offered Rate) is the rate at which euro interbank term deposits are being offered by one prime bank to another within the EMU zone.

<http://www.euribor-ebf.eu/>

2.3 Industrial production index

The objective of the production index is to measure changes in the volume of output at close and regular intervals, normally monthly. It provides a measure of the volume trend in value added over a given reference period. The production index is a theoretical measure that must be approximated by practical measures. Value added at basic prices can be calculated from turnover (excluding VAT and other similar deductible taxes directly linked to turnover), plus capitalised production, plus other operating income plus or minus the changes in stocks, minus the purchases of goods and services, minus taxes on products which are linked to turnover but not deductible plus any subsidies on products received. The division of production in construction between building construction and civil engineering is based on the classification of types of construction (CC). Statistical population: Production: sections B, C, D of NACE (D353 excluded); Base period: Year 2010 = 100.

http://epp.eurostat.ec.europa.eu/cache/ITY_SDDS/EN/is_esms.htm

2.6 Bank lending survey

The bank lending survey is addressed to senior loan officers of a representative sample of euro area banks. Its main purpose is to enhance the understanding of bank lending behaviour in the euro area. The questions distinguish between three categories of loan: loans or credit lines to enterprises; loans to households for house purchase; and consumer credit and other lending to households. For all three categories, questions are posed on credit standards for approving loans; credit terms and conditions; and credit demand and the factors affecting it. The responses to questions related to credit standards are analysed in this report by focusing on the difference (“net percentage”) between the share of banks reporting that credit standards have been tightened and the share of banks reporting that they have been eased. A positive net percentage indicates that a larger proportion of banks have tightened credit standards (“net tightening”), whereas a negative net percentage indicates that a larger proportion of banks have eased credit standards (“net easing”). Likewise, the term “net demand” refers to the difference between the share of banks

reporting an increase in loan demand and the share of banks reporting a decline. Net demand will therefore be positive if a larger proportion of banks have reported an increase in loan demand, whereas negative net demand indicates that a larger proportion of banks have reported a decline in loan demand.

<http://www.ecb.eu/stats/money/surveys/lend/html/index.en.html>

2.9 OECD Business Confidence Indicator (BCI) for Europe

The Composite leading indicators (CLI), which BCI is part of, comprises a set of component series selected from a wide range of key short-term economic indicators to ensure that the indicators will still be suitable when changes in economic structures occur in future. While theory says that a turning point in the CLI signals a turning point in the reference series, such turning points, in reality, are determined by a complicated process. Therefore, one often needs to wait for several periods to draw a more definite conclusion. A useful way to exploit the information in CLIs is to take their year-on-year growth rate.

The standardised BCIs represent only the manufacturing sector. BCI shows a long-term trend in industrial production (with a 6-month time-lag). An increase over 100 means expansion; a decrease above 100 means a downturn; an increase below 100 is an upturn and a decrease below 100 is a slowdown.

<http://stats.oecd.org/mei/default.asp?lang=e&subject=5>

2.10 Purchasing Managers' Index (PMI)

The Global Report on Manufacturing is compiled by Markit based on the results of surveys covering 9,000 purchasing executives in 30 countries. Together these countries account for an estimated 86% of global manufacturing output. Questions are asked about real events and are not opinion based. Data are presented in the form of diffusion indices, where an index reading above 50.0 indicates an increase in the variable since the previous month and below 50.0 a decrease.

<http://www.markiteconomics.com/Survey/Page.mvc/AboutPMIData>

2.11 European Commission economic forecast

European Commission Directorate General for Economic and Financial Affairs produces short-term macroeconomic forecasts twice a year, in the spring and autumn. These forecasts concentrate on the Member States, the euro area and the EU, but also include outlooks for candidate countries as well as some non-EU countries. Each forecast has at least a two-year time horizon (with an additional year added each autumn) covering the current year and the next. The forecasting process considers a total of 180 variables and is the result of several iterative rounds.

The forecasts are not based on a centralised econometric model. Instead, they result from analyses made by the DG ECFIN country desks, each of which uses statistical methods to varying degrees. The forecasts are checked for consistency, in particular as regards trade flows. The EU and euro-area variables are not a direct forecast, but are obtained by aggregating the individual Member State forecasts.

In between the fully-fledged spring and autumn forecasts, interim forecasts are produced in which an update of real GDP growth and inflation is estimated for the seven largest Member States and for the current year only. The interim forecasts are largely prepared using indicator-based models.

http://ec.europa.eu/economy_finance/eu/forecasts/index_en.htm

The weights of the Member States in the EU and euro area aggregates can be found through the link below.

<http://circa.europa.eu/Public/irc/dsis/ebt/library?>

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