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Glossary

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

While spring should warm Europe, the latest World Economic Outlook of the International Monetary Fund (IMF) brings freezing winds. Global growth continues but at an increasingly disappointing pace, which leaves the world economy more exposed to negative risks. Growth has been too slow for too long. The Economic Outlook forecasts a meager 3.2% growth this year followed by 3.5% in 2017. Before the latest downgrade, the IMF had expected global growth of 3.4% this year and 3.6% next year.

It is the second time this year that the IMF downgrades its global economic growth forecast. The slowdown is broad-based across all countries, and the outlook will be progressively less optimistic over time. One danger highlighted is a return of the financial market turmoil that hit the world in the beginning of the year. China’s efforts to shift the national economy towards consumer spending and services will eventually benefit China itself and the world but given the country’s important role in world trade, disturbances along the way could be damaging for the global economy.

Lower growth means less room for error. The weaker is growth, the greater the chance that the existing risks, if they materialize, pull the world economy further down because the drop in economic confidence would bring down the demand and prices. Therefore persistent slow growth could reduce the capacity for further growth in the future. There is a risk of the world economy falling into widespread stagnation.

The global economy’s sentiment is also reflected in the views of European machine tool industry. The latest CECIMO Business Climate Barometer showed considerably reduced expectations regarding both the general business situation and the outlook for exports compared to the beginning of the year. Still, more European machine tool companies estimate their business situation good rather than unsatisfactory, but the optimism is shrinking quickly.

Nevertheless, economists are today all eyes on the 23 June’s referendum, more than on the global economy’s temperature. Will the EU count 27 or 28 Member States by the end of June? The Brexit supporters claim that the EU imposes too many rules on business and charges billions of pounds a year in membership fees for little in return. Britain should take back full control of its borders and reduce the number of people coming to the country to work, they add. Those campaigning for Britain to stay in the EU say it gets a big boost from membership: it makes selling goods to other EU countries easier and the flow of immigrants, mostly young and keen to work, fuels economic growth. The pro-EU camp believes Britain’s status in the world would be damaged by leaving. It is clear that the issues in questions are not all black and white.

The final balance of “in” or “out” is discussable but by now, most economists agree that the upcoming referendum has significantly increased uncertainty for companies and consumers in the UK. In the end, there is also the question raised by Paul De Grauwe, professor of European Political Economy at the London School of Economics – would Europe be better without the UK? Europe could benefit from eliminating a suborn contestor of more European convergence and the country group could increase cooperation and integration in the bloc. The only question remains if 27 countries would align easier than 28 countries.
1. Data specific to the European machine tool market

1.3 MT-IX

In April, the MT-IX increased by 5.4% and posted at 213 points. The index gained 11 points compared to March’s value.

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

1.6 CECIMO Business Climate Barometer

The latest CECIMO Business Climate Barometer reflects the cooling economic confidence in Europe. The survey included 62 machine tool companies in Europe and was distributed to the respondents between 25 April and 22 May 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 dropped from 25% in January to 7% in April. Along deteriorating economic conditions, European machine tool companies consider to reduce their workforce rather than to increase it. On the other hand, the expectations about production volumes increased to 24%, from 17% in January. European machine tool builders also estimate the demand for their products to go up.

In accordance with the lowdown in global growth, companies’ assessment of their export possibilities has deteriorated. The net percentage of companies expecting the exports to increase during the next 3 months declined to -6% compared to 16% in January. The best market opportunities are in Asia and the CIS countries. The European manufacturing sector has put many of its investments on hold. The Americas are facing lower growth in general, and the current troubles in Brazil tend to particularly shadow the southern part of the region.
More respondents found their business limited by different restrictions: in April, 95% of companies faced restrictions to growth compared to 87% in January. The dominant restriction to businesses’ growth is insufficient order intake, which is in correlation with slower growth and the cooling market sentiment. A shortage of skilled labour, financing constraints, a shortage of raw materials and low capacity are the other limitations to machine tool production.

See graph on next page
2. Macroeconomic data in relation with machine tool orders

2.2 Interest rates – EURIBOR

The average 3-month Euribor and 12-month Euribor recorded respectively -0.25% and -0.01% in April 2016. Compared to March 2016, the average 3-month Euribor decreased by 2 percentage points and the average 12-month Euribor remained stable. The policy rates of the European Central Bank were also maintained at their historically low levels.

The low inflation forecasts the accommodative monetary policies to continue still for some time. The euro area annual inflation was -0.2% in April 2016, down from 0.0% in March. A quantitative easing programme under which central bankers in the single currency area are buying about €80bn of (mostly government) bonds each month was launched in January 2015. Nevertheless, inflation has continued to be lower than the central bank’s target for price stability of 2%.
2.3 Industrial production index

In March 2016 compared with February 2016, the seasonally adjusted industrial production fell by 0.8% in the euro area and by 0.5% in the EU28, according to estimates from Eurostat, the statistical office of the European Union. In February 2016 industrial production fell by 1.2% in the euro area and by 1.0% in the EU28.

The decrease in industrial production in the euro area is due to the production of non-durable consumer goods falling by 1.9%, the production of capital goods by 1.1%, the production of intermediate goods by 0.8% and the production of durable consumer goods by 0.4%, while the production of energy rose by 2.0%. In the EU28, the decrease is due to the production of non-durable consumer goods falling by 1.4%, the production of both intermediate and capital goods by 0.7% and the production of durable consumer goods by 0.5%, while the production of energy rose by 1.7%.

Among Member States for which data are available, the largest decreases in industrial production were registered in Ireland (-11.2%), Lithuania (-3.5%) and Estonia (-3.3%), and the highest increases in Croatia (+5.0%), Latvia (+4.3%), the Czech Republic (+1.4%) and Spain (+1.3%).

In March 2016 compared with March 2015, industrial production increased by 0.2% in the euro area and by 0.3% in the EU28. The increase in the euro area is due to the production of capital goods rising by 1.6% and the production of both intermediate goods and durable consumer goods by 1.1%, while the production of energy fell by 0.7% and the production of non-durable consumer goods by 3.0%. In the EU28, the increase is due to the production of capital goods rising by 1.8%, the production of durable consumer goods by 1.4% and the production of intermediate goods by 0.7%, while the production of energy fell by 0.4% and the production of non-durable consumer goods by 2.5%.

In yearly comparison among Member States for which data are available, the largest decreases in industrial production were registered in Ireland (-10.6%), Malta (-5.4%), Estonia (-4.8%) and Greece (-4.1%), and the highest increases in Croatia (+6.9%), Sweden (+4.9%) and Slovenia (+4.4%).

A 87% correlation between industrial production and MT orders (12-month rolling basis) since 1996.
2.6 Bank lending survey

The net easing in credit standards continues to support the recovery of loan growth in the euro area. In the first quarter of 2016, banks of the euro area reported a net easing of credit standards for loans to enterprises (net percentage of reporting banks at -6%, compared with -4% in the previous quarter), which was stronger than the historical average calculated over the period since the start of the survey in 2003. The net easing was also slightly more pronounced than expected in the previous survey round. Across firm sizes, credit standards were eased more strongly for loans to large firms than to small and medium-sized enterprises (SMEs). Banks continued to ease their terms and conditions on new loans across all categories. The net easing of credit standards on long-term loans recorded -5% compared to the -4% in previous quarter. The standards for short-term loans were eased by -10% compared to the -4% in previous quarter: -4%. Looking ahead to the second quarter of 2016, euro area banks expect a continued net easing of credit standards on loans to enterprises (-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) continued to increase, but at a slower pace, in the first quarter of 2016 (17%, down from 27% in the previous quarter). While this rise was below the banks' expectations reported in the previous round, banks expect an increase in loan demand from enterprises in the second quarter of 2016.

There is a 67% correlation between the net demand for loans + 6 months and the Quarterly MT orders since 2003.

2.7 Foreign exchange rates

The euro's effective exchange rate has appreciated over the last three months amid the increase in global uncertainty. 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 April at 0.8% above March's rate and 5.7% above its level one year earlier.

In bilateral terms, the picture is more varied. The average euro exchange rate appreciated against the US dollar by 1.9% and against the Swiss franc by 0.05% in April compared to previous month. At the same time, the euro depreciated against the Japanese yen by 1.1%.

See graph on next page
2.9 Business confidence index

Business confidence indicators (BCIs), designed to anticipate turning points in economic activity relative to trend, point to stable growth momentum in the OECD area as a whole.

In Europe, the BCI point to easing growth. A stable growth momentum is expected in the euro area as a whole, including Germany, France and Spain. In Italy, the outlook is for firming growth. The BCI for the United Kingdom shows signs of growth stabilisation.

Among other developed countries, growth is recovering in the United States but is easing in Japan.

Among the major emerging economies, the outlook has improved since last month’s assessment. Signs of a positive change in growth momentum are now emerging in Brazil, China and Russia, while in India’s BCI points to stable growth momentum.
2.10 Purchasing Managers’ Index (PMI)

Global manufacturing growth almost stalled in April, as rising prices have halted a pick-up in new orders. The global manufacturing PMI came in at 50.1 last month, just above the 50 level that separates growth from contraction. Manufacturing activity in China unexpectedly declined further in April. The PMI fell to 49.4 from 49.7 in March. The manufacturing output shrank in most of other Asian emerging countries. The Japanese manufacturing activity has also contracted in April at the fastest pace in more than three years, its PMI fell to 48.2 in April, from 49.1 in March. The US manufacturing activity expanded in April but at a slower pace than the previous month, the PMI declined to 50.8 from 51.8 the month before.

Manufacturing growth in the euro area was little changed in April as stronger readings in Germany, Italy and Spain were offset by contraction in France. The PMI climbed to 51.7 from 51.6 in March. The rise was driven by a faster growth in employment and deflationary pressures moderating. There was a four-month high in Italy’s PMI and German manufacturing activity speeded up to 51.8 from 50.7 in previous month. Most of other euro area economies recorded at least a limited monthly improvement. The notable exception was France where the manufacturing sector weakened to the lowest level for 12 month, PMI posting at 48.0.

“The PMI has now edged higher for two successive months, but has improved only marginally from what was a worryingly low base earlier in the year. The survey is signalling an anaemic annual rate of growth of manufacturing production of just less than 1%, which is half the pace seen in the months leading up to the recent slowdown. Prices also continue to fall, both in terms of raw material costs and average prices charged for goods leaving the factory gate, albeit at reduced rates compared to prior months. The survey data therefore so far show no signs of ECB stimulus or the weaker euro helping to revive the manufacturing sector, at least for the euro area as a whole. Hopes are therefore pinned on recent signs of increased bank lending and more aggressive quantitative easing providing the much needed boost,” commented Markit.

![Purchasing Managers’ Index (PMI) - Global](image-url)
Purchasing Managers' Index (PMI) - Europe

Purchasing Managers' Index (PMI) - Asia
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.


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