CECIMO Economic and Statistical Toolbox

January 2017

European Association of the Machine Tool Industries

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The items in grey have not been updated since the CECIMO Statistical Toolbox's last edition.

Introduction

The international landscape is still feeble. It is characterized and highly influenced by the stagnant global trade, the uncertainty about US policy, the subdued investment and the rise of inward-looking protectionist policies. In Europe, the focus will also be on the formal start of UK-EU Brexit negotiations in late March.

Nonetheless, after a weak first half of last year, international trade flows have been giving evidences of slow recovery in the recent months. Although the higher than usual uncertainty still remains in place, the activity indicators show an increase that may move forward the European economic recovery in the coming years. Along with the depreciation of the effective exchange rate of the euro since mid-2016 and the modest recovery of global trade, CECIMO barometer and other business and consumer surveys suggest that European exports could gain momentum. The enhanced competitiveness could be partially offset by the protectionist tendencies at present and on the horizon.

So, in general terms, the global economic activity is gaining strength and the outlook seems to be improving. The growth forecasts for 2017 have been revised upward: the world gross domestic product is expected to rise between 2.7% and 3.5%. The optimism in the international economy performance could lead the companies to invest more into their businesses. In fact, the signals in the manufacturing sector are positive. The spending of companies in equipment and machinery has been accelerating since the end of last year. There are several signs of optimism for the near future: the purchasing managers' index showed strength in the fourth quarter last year, the economic sentiment is improving, companies are more confident about future orders and exports and the OECD Business Confidence Indicator anticipates stable growth momentum.

In the United States, although making assumptions on the medium-term policy stance is somewhat speculative, it is not far from sure to say at this point that the US will relax its monetary policy, putting an end to its accommodative measures. The uncertainty lies more on the roadmap and the extent of these changes.

The swift of the giant Chinese economy will probably result in China becoming a net investor this year or the in 2018: imports and investment inflows are catching up with its exports and investment outflows. Producer price inflation returned to positive values. Its real GDP is forecasted to increase 6.4% this year and 6.2% in 2018.

Finally, it is worth noting the prices upward trend. After some years of headline inflation fallen to extremely low levels, the reversal of oil prices is changing the picture. Oil prices are gradually increasing and they have already climbed back above 50 USD per barrel, after the OPEC decision to cut the output by 1.2 million barrels per day this year. That was followed by the non-OPEC countries' decision to a further reduction of 0.6 million barrels a day. A better-than-expected Chinese consumption drove the oil demand to have likely increased during the fourth quarter last year. Therefore, inflation levels will be closer to targets this year. Nonetheless, the global spare energy capacity restrains the underlying inflation, and core inflation –indicator which excludes food and energy prices– is showing much less dynamism, certainly below central bank targets.

1. Data specific to the European machine tool market

1.1 CECIMO8 orders ⓘ

The overall situation for machine tool orders to CECIMO countries gathered renewed force during the last quarter of 2016 compared to the previous one. According to the latest available data, CECIMO8 total orders increased 18% quarter-on-quarter. It represents an upward movement towards the end of the year, which is usually a better period than the third one in terms of orders intake, due to the cyclical activity of the machine tool sector. The level of orders MT companies based on CECIMO8 countries received is quite similar to the one of late 2015 and 2014, and significantly better than the fourth quarter of 2013 and 2012.

This quarterly increase was driven by Spain (+84%) and Italy (+41%). At a lesser degree, France (27%), United Kingdom (+18%) and the remaining countries experimented a higher level of new machine tool orders in the fourth quarter of 2016. The MT orders rebound leads to a quarterly rise of 5% in the seasonally adjusted index and follows a drop of 7% in the third quarter.

Comparing the fourth quarter of 2016 to the one of 2015, the highest hike in purchase orders was also recorded in Spain (+69%) and the United Kingdom (+15%). The only drops were seen in Czech Republic (-25%) and, at a lesser extent, in Germany (-4%).

The positive situation was mainly driven by domestic orders, which recorded a quarterly boost of 30% versus a 12% augmentation of foreign ones. The countries which performed particularly well in terms of domestic orders were Italy, Spain and Czech Republic. The first two countries received 60% more orders than in 2010, while the latter saw that value doubled. With regard to foreign orders, they registered a quarterly increment of 12%, and once again Spain showed an outstanding increase of more than 90% in comparison with the previous quarter. The trend in every country with updated data of the last quarter 2016 was quite positive: France (+42%), United Kingdom (+30%), Italy (+13%), Germany (+5%) and Czech Republic (+1%). Taking a look at these values one year before, Spain (+75%) and United Kingdom (+25%) were also leading the increases of CECIMO orders.

The international picture is a little more mixed. For instance, orders of metal cutting machine tools in Japan increased, while those of metal forming decreased. Orders intake in Taiwan increased almost 30%, while in the United States the situation is weak: MT orders from domestic manufacturers fell 41% from December 2016 to January 2017, after recovering up to the late 2015 levels in the third quarter of 2016 and further increasing at the year-end. The total of January 2017 represents a 11.4% drop from January 2016.

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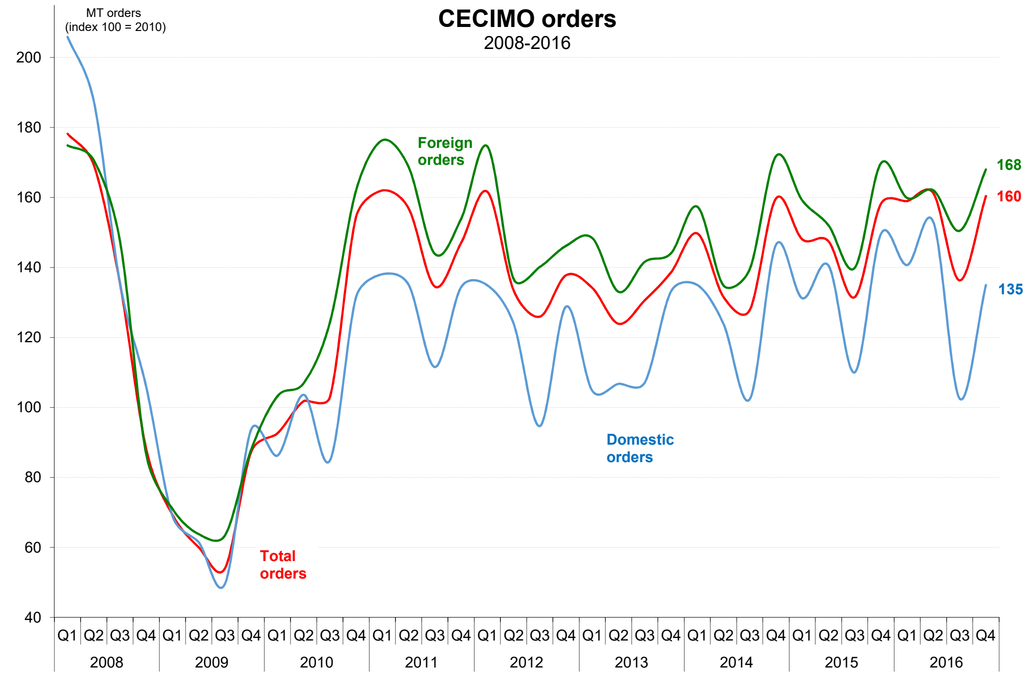
CECIMO orders
2008-2016
MT orders
(index 100 = 2010)
200
180
160
140
120
100
80
60
40
Foreign orders
Domestic orders
Total orders
168
160
135
Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4
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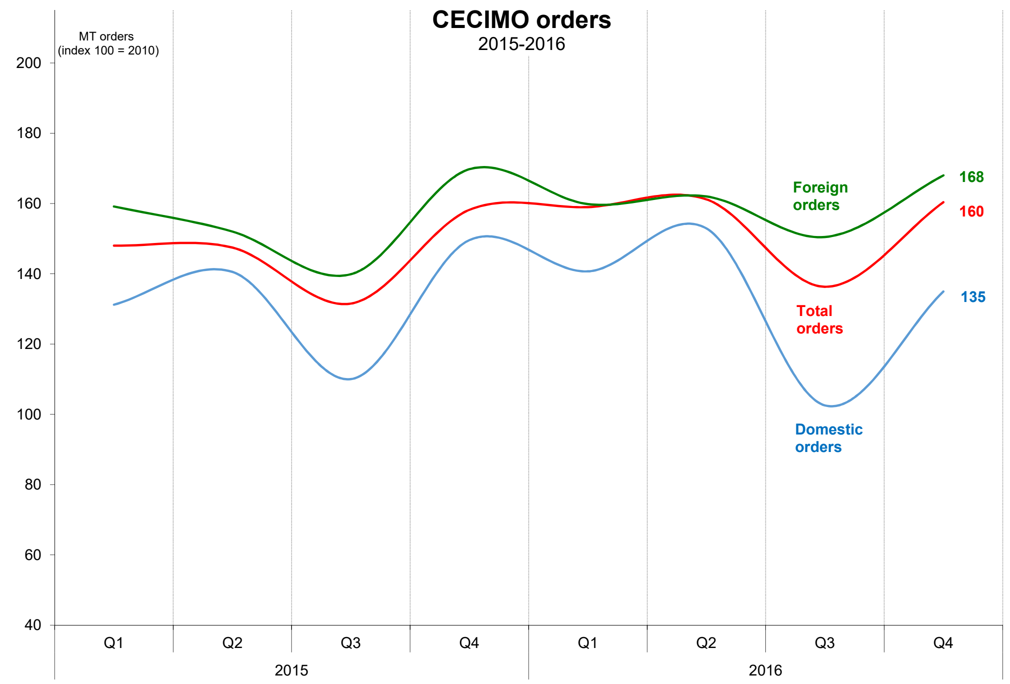
CECIMO orders
2015-2016
MT orders
(index 100 = 2010)
200
180
160
140
120
100
80
60
40
Foreign orders
Total orders
Domestic orders
168
160
135
Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4
2015
2016

1.2 Peter Meier's forecast

The upswing that has been emerging for some time now is gaining momentum. The business climate indicators have been on the rise already since last autumn. Consumer confidence climbed to 101.5 points in the USA, a level which has not been reached since 2000. In Japan, this indicator is now again in the expansive range after some years and also in China consumer confidence returned. In Europe, consumer confidence has been in the expansive range for some time, but a further improvement in sentiment is not yet apparent. Business confidence, which is traditionally a good indicator of the demand for investment goods, has been rising in all major world markets since last autumn.

In the United States consumption overcame the stagnation of 2014/15. Since mid-2016, the indicator has been on the rise again. In Europe too, the consumption is growing significantly, while in Asia, consumer growth has kept slowing, mainly due to a moderate growth in China. Altogether, consumption, which is now well above the level of 2007 in all world markets, is expected to provide a positive impetus to demand for investment goods.

Industrial production, which is ultimately decisive for the demand of investment goods, however, has just bottomed out of the current industrial cycle. In the States, it bobs up and down around the level of 2007. In Europe and Japan it has not yet reached that level, and in China significant overcapacity inhibits the propensity to invest. On the other hand these indicators have been rising significantly in all world markets for months.

Despite a general increase in consumption, the demand for investment goods is likely to develop quite differently in the coming months. Already in 2016 there were big differences: demand in general machinery has moved sideways, it slightly increased for machine tools and we observed a significant upswing in new orders for semiconductor equipment. For 2017, an increase in demand will probably occur, but it is expected to vary quite considerably from sector to sector.

The following graph clearly shows that the European Business Confidence Indicator has been rising in all important world markets since autumn of 2016. Given a time lag of several months, this usually has a positive effect on the propensity to invest in machinery.

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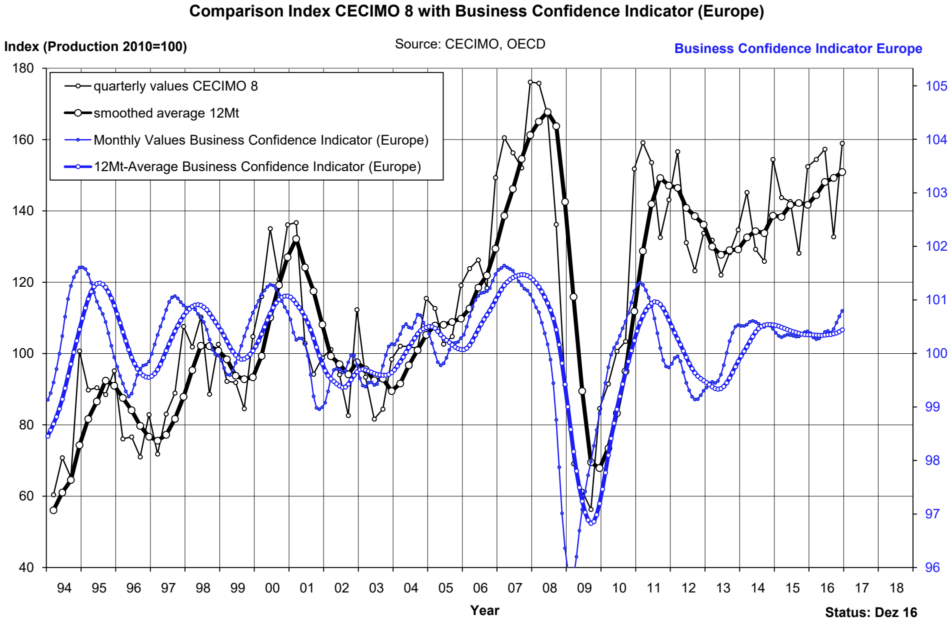
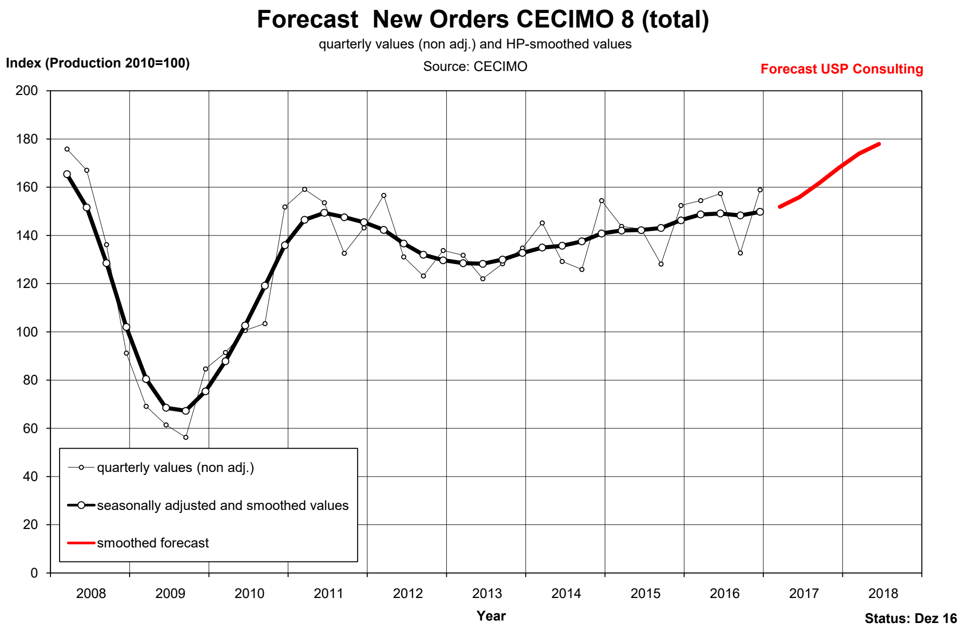


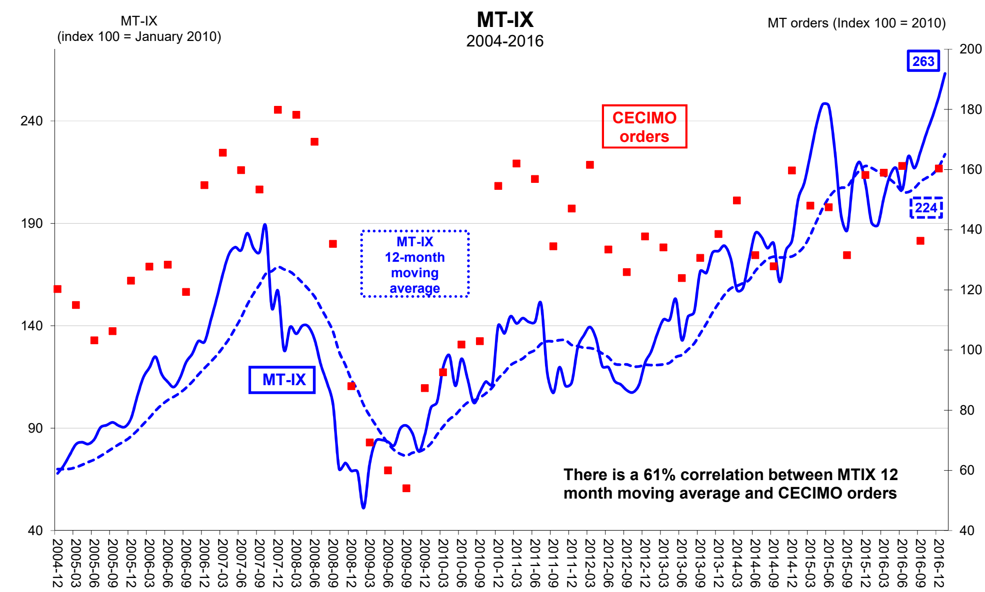
New orders in Q4 were above expectations. The latest economic indicators didn't change the forecast. The demand will most probably be expanding in 2017 by 10% or even more.



1.3 MT-IX ⓘ

In the second quarter of 2016, MT-IX index jumped almost 7% compared to the previous quarter's value, gaining 14 points and placing at around 220 points. The machine tool companies' market value increased during the summer throughout the globe, in particular in Brazil and Korea. The market capitalisation of companies based in CECIMO countries increased more than 5%, while the aggregated market cap of companies in the United States remained more or less stable. Among all countries included in this index, only Taiwan booked a slight decrease. Since then, the upward movement has been relatively constant and the index overpassed 260 points in January 2017, taking as reference value (100 points) the index value registered in January 2010. The MT-IX index rose 9% in the third quarter and 12% in the fourth last year, leading to an increase of 22% during the whole second half of 2016. The quarterly growth rate of this index remained fairly stable at about 12% from November 2016 to January 2017, following a less pronounced 5% rise in October last year.

For its part, the sub MT-IX value for CECIMO companies reveals an above 6.5% increase in value during the period July-December 2016, 10.5% when only considering Switzerland in the calculation.



1.4 CECIMO trade

CECIMO countries' exports are forecasted to remain stable at 18.7 billion euro in 2016. This clearly illustrates that CECIMO countries are coping pretty well with the global negative context for international trade: in circumstances of sharp declines of global MT trade, CECIMO countries' trade is suffering quite less intense contractions. Considering the first nine months of 2016 versus the same period of the previous year, the situation is quite obvious perceivable: the non-CECIMO exports of machine tools deterioration was almost 10 percentage points higher than those originated in CECIMO countries, which accounted for more than 48% of MT world exports. Particularly remarkable is the fact than during the above mentioned period, Asian exports of machine tools weakened around 16%.

In the first half of 2016, while machine tools' global exports declined around 10% year-on-year, those coming from CECIMO suffered just a 3% decrease. Furthermore, CECIMO MT purchases from foreign countries (including those from all European countries) decreased a mere 3%. Data for the third quarter of 2016 yields quite similar results. In interannual terms, global machine tools exports went down by nearly 8.5%, while the machine tool exports from CECIMO countries declined of around 7.5%.

Within CECIMO, considering our most updated statistics from January to September 2016, Germany accounted for 42.4% of total CECIMO exports. It is, alongside with Italy (16.6%) and Switzerland (12.7%), the most important European MT builder. In terms of imports, almost 4 of every 10 euros of investments in machine tools came from Germany (26%) and Italy (12.4%). These countries, together with Turkey (9.6%), France (8.8%) and Belgium (8.2%), account for two thirds of CECIMO machine tool imports.

Intra-European trade clearly remains the most important for CECIMO members, as the European market accounts for a bit more than half of total CECIMO exports, and attracts one third of the world exports. This trade resist the weaknesses of the current environment better: CECIMO MT total exports, which account for the vast majority of European MT exports, weakened 4.6% in January-September 2016 in comparison with the first three quarters of 2015, while CECIMO exports to EU countries decreased a mere 0.6%.

CECIMO countries are responsible for 28% of MT purchases from foreign countries worldwide. An analysis of the biggest markets reveals a stronger position of CECIMO in Asia. Data collected until the third quarter of this year shows a significant interannual increase of CECIMO market share in the region (from 31.4% to 36.6%). This is despite the nearly 6% decline in CECIMO exports to Asia, when comparing the values of the first three quarters of 2016 with the same period of 2015. As for the Commonwealth of Independent States (CIS), exports from CECIMO countries account for an undoubtedly important percentage of their global imports. Nevertheless, the economic situation and the EU-Russia sanctions in place are clearly affecting the European MT sector. CECIMO exports to Russia declined by 37% to 358 million euros in January-September 2016, compared to January-September 2015, and in Q3-2016, exports to Russia decreased by 30% quarter-on-quarter.

Finally, it should be mention that companies are relatively optimistic about exports in the coming years. According to data provided by the European Commission, 20% of the EU industry predicts its exports to increase and only 10% forecasts a short-term decline.

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CECIMO exports and imports per zones - 2016Q3

in thousand euro. Export destinations and import origins

EXPORTS

Zone	2016Q3	2015Q3	2016Q3/ 2015Q3	Share 2016Q3	Share 2015Q3
I. ASIA	**1,081.4**	**1,160.3**	**-7%**	**25%**	**25%**
II. AMERICAS	**708.7**	**768.1**	**-8%**	**16%**	**16%**
III. EUROPE	**2,207.9**	**2,309.0**	**-4%**	**51%**	**49%**
CECIMO	1,765.2	1,793.7	-2%	41%	38%
non CECIMO	442.7	515.3	-14%	10%	11%
IV. Russia + CIS	**147.2**	**218.1**	**-33%**	**3%**	**5%**
V. AFRICA	**79.1**	**80.8**	**-2%**	**2%**	**2%**
VI. OTHERS	**96.1**	**130.1**	**-26%**	**2%**	**3%**
TOTAL EXPORTS	**4,328.9**	**4,673.5**	**-7%**		

IMPORTS

Zone	2016Q3	2015Q3	2016Q3/ 2015Q3	Share 2016Q3	Share 2015Q3
I. ASIA	**657.0**	**708.1**	**-7%**	**27%**	**28%**
II. AMERICAS	**97.4**	**112.4**	**-13%**	**4%**	**4%**
III. EUROPE	**1,498.8**	**1,565.0**	**-4%**	**62%**	**61%**
CECIMO	1,432.8	1,507.8	-5%	59%	59%
non CECIMO	66.1	57.3	15%	3%	2%
IV. Russia + CIS	**1.9**	**3.7**	**-47%**	**0.1%**	**0.1%**
V. AFRICA	**0.9**	**1.9**	**-53%**	**0.0%**	**0.1%**
VI. OTHERS	**5.7**	**5.6**	**3%**	**0.2%**	**0.2%**
TOTAL IMPORTS	**2,412.5**	**2,551.7**	**-5%**		

CECIMO exports and imports per zones - 2016H1

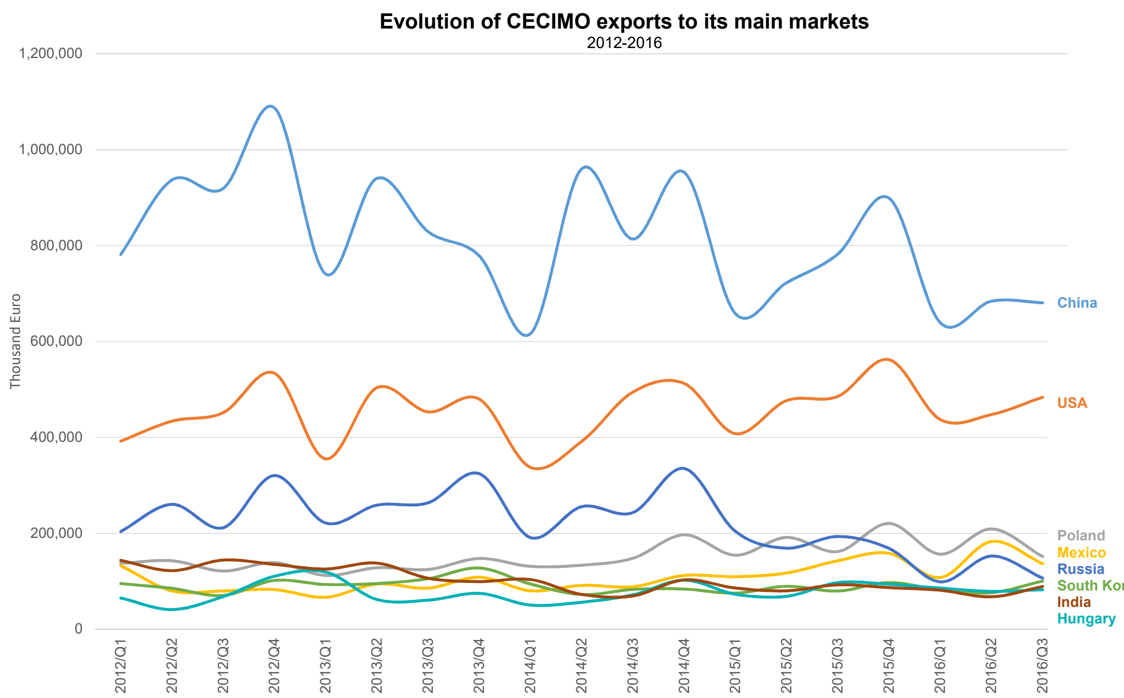
in thousand euro. Export destinations and import origins

EXPORTS

Zone	2016H1	2015H1	2016H1/ 2015H1	Share 2016H1	Share 2015H1
I. ASIA	**1,977.2**	**2,083.7**	**-5%**	**23%**	**23%**
II. AMERICAS	**1,404.4**	**1,384.6**	**1%**	**17%**	**16%**
III. EUROPE	**4,389.4**	**4,530.4**	**-3%**	**52%**	**51%**
CECIMO	3,471.0	3,594.7	-3%	41%	41%
non CECIMO	918.4	935.7	-2%	11%	11%
IV. Russia + CIS	**304.1**	**440.9**	**-31%**	**4%**	**5%**
V. AFRICA	**163.7**	**155.5**	**5%**	**2%**	**2%**
VI. OTHERS	**262.0**	**256.7**	**2%**	**3%**	**3%**
TOTAL EXPORTS	**8,508.4**	**8,873.3**	**-4%**		

IMPORTS

Zone	2016H1	2015H1	2016H1/ 2015H1	Share 2016H1	Share 2015H1
I. ASIA	**1,313.1**	**1,378.8**	**-5%**	**30%**	**31%**
II. AMERICAS	**191.4**	**256.3**	**-25%**	**4%**	**6%**
III. EUROPE	**3,046.7**	**3,131.9**	**-3%**	**69%**	**70%**
CECIMO	2,914.4	2,998.4	-3%	66%	67%
non CECIMO	132.3	133.5	-1%	3%	3%
IV. Russia + CIS	**7.7**	**6.3**	**23%**	**0.2%**	**0.1%**
V. AFRICA	**1.8**	**1.6**	**11%**	**0.0%**	**0.0%**
VI. OTHERS	**14.8**	**20.0**	**-26%**	**0.3%**	**0.4%**
TOTAL IMPORTS	**4,423.8**	**4,496.2**	**-2%**		



1.5 CECIMO production

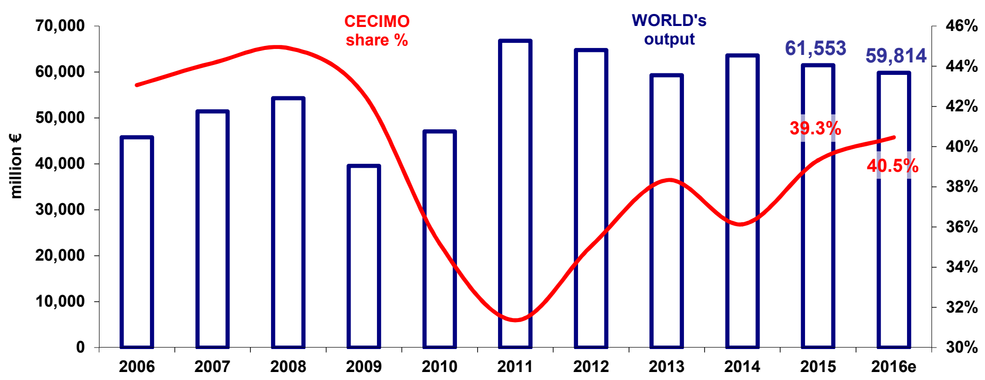
After a 5% growth in last year production of the 15 CECIMO countries, 2016 CECIMO MT production is expected to scarcely increase above 24.2 billion euro. It is important to stress that this fact is taking place in a negative international context, as global production is forecasted to fall 4% (from 61.5 billion euro in 2015 to 60 billion in 2016). Comparing the global production to the CECIMO one in 2016, CECIMO market share of production will increase beyond 40%.

Among CECIMO countries, the latest forecast on production shows production in all CECIMO countries to raise or remain fairly stable this year, except for the United Kingdom (-19% in euro, -13% measured in sterling pounds), Switzerland (-7.6%), Belgium (-6.7%), Austria (-4%), Czech Republic (-8%) and Turkey (almost -5%). Upward trends can be observed above all in France (+7.6%), Italy (+5.6%), Sweden (+4.2%) and Spain (+3%).

Thus the European machine tool industry has been able to keep its competitive position. Digitisation improvements in the European manufacturing sector are making machine tools exported by CECIMO countries more attractive. In addition, some previously postponed investments are positively influencing local machine tool sales.

A country-by-country analysis indicates that the European MT sector doesn't expect any significant change in the market shares for 2016. Germany, which together with Italy accounts for more than two thirds of CECIMO machine tool output, is, by far, the biggest CECIMO MT producing country with 46.2 percent of its total production last year. Italy and Switzerland represent respectively 19.3 and 12.0%, followed by Spain (3.9%), Austria (3.5%) and UK (3.4%). The three major CECIMO MT producers account for more than three quarters of the MT production in this group of countries.

World MT output; CECIMO share



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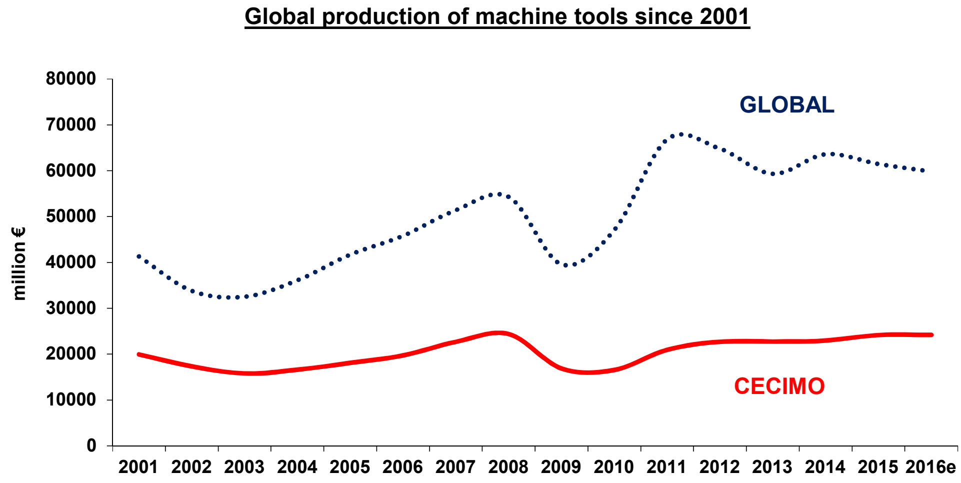


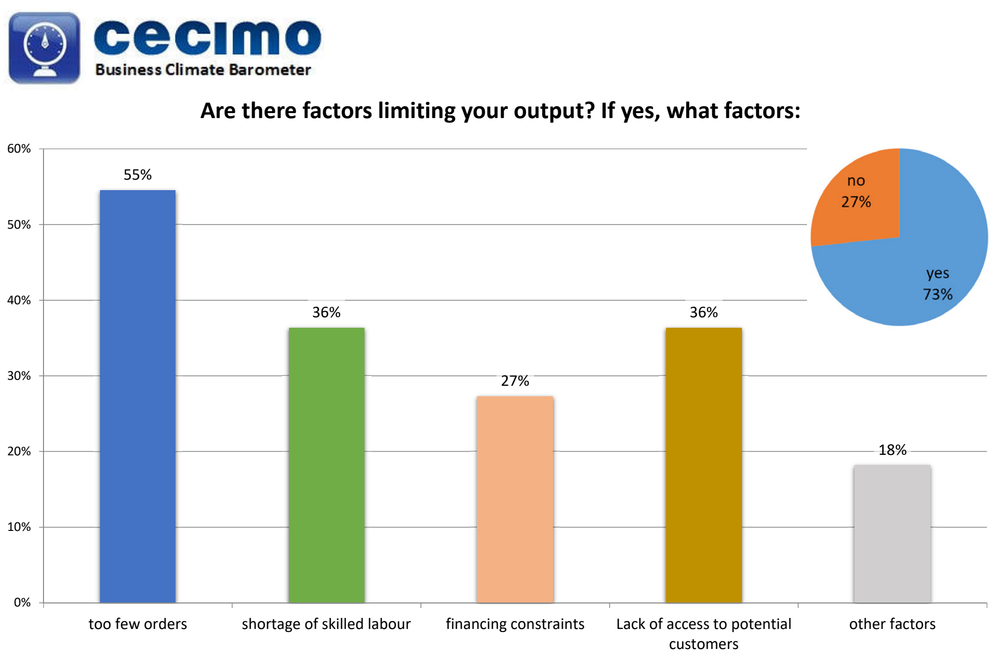
	2016e		2016e/2015
	% share	**Mio. €**	% change
CECIMO	**40.5%**	**24,203**	**0.2%**
China (offic.)	27%	16,078	-4.5%
Japan	19%	12,295	0.1%
S. Korea	5%	2,900	-20.0%
USA	5%	2,923	-16.6%
Taiwan	5%	3,073	0.1%
India	1%	759	9.9%
Canada	1%	390	-3.6%
Russia	1%	356	-3.6%
Thailand	1%	350	-3.6%
Singapore	1%	330	-3.6%
Poland	0%	199	-3.6%
Others	1%	781	-3.6%
TOTAL	**100%**	**59,814**	-2.7%

1.6 CECIMO Business Climate Barometer

The latest CECIMO Climate Barometer reflects the growing economic confidence in Europe. The survey was distributed to the respondents from 13 December 2016 to 31 January 2017 and the data gathers altogether replies to the CECIMO questionnaire, responses sent by national associations from their own sources and, in the case of German companies, we also take into account data from the Ifo Institute. The responses 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, or their perceptions about the reality.

The net percentage of companies reporting a good business situation grew from 7% in April 2016 to 30% at the end of the same year. In line with this positive outlook, export expectations increased to 7%. Thus, companies' assessment of their export possibilities ameliorated: MT companies believe that exports will keep driving the growth of the sector, helping them to offset the few number of orders, which is their main concern. Moreover, although the primary restriction to businesses' growth is insufficient order intake, it is worth mentioning that the index of companies stating to have too few orders decreased from 62 in April to 55 late last year, and the net percentage of companies expecting their net order intake to move upwards remain the same than in the previous barometer (12%). However, the effect of employment is still modest: the net percentage of companies considering to reduce its labour force rather than to increase it is 8% and 36% of respondents found their business limited by shortage of skilled labour and/or lack of access to potential customers.

The best market opportunities are in Europe and, to a lesser extent, Asia. The results of the survey confirm the expectation of intra-European MT trade to remain the most important one for European machine tools builders.



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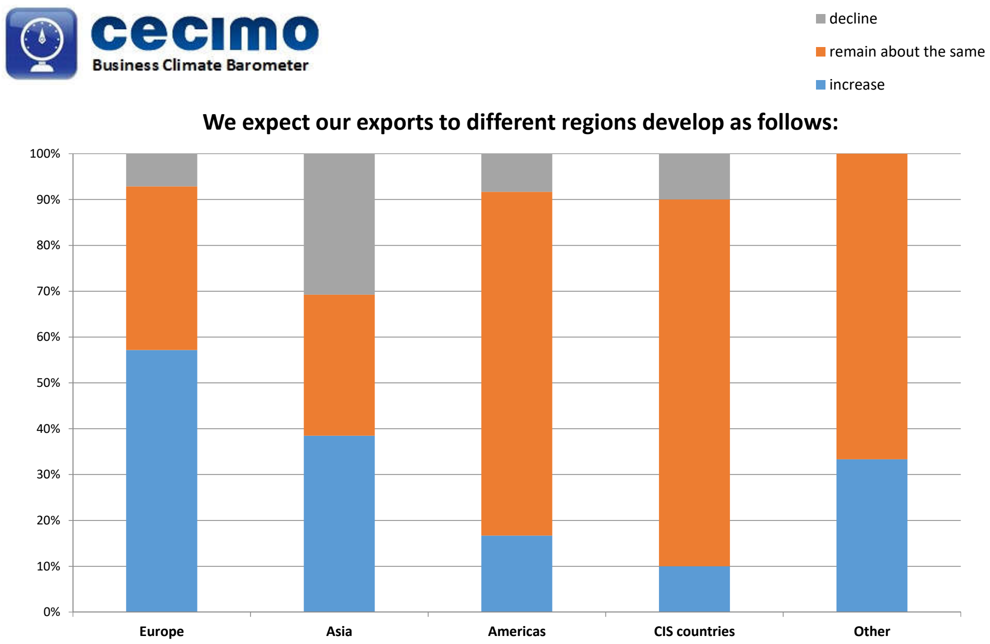
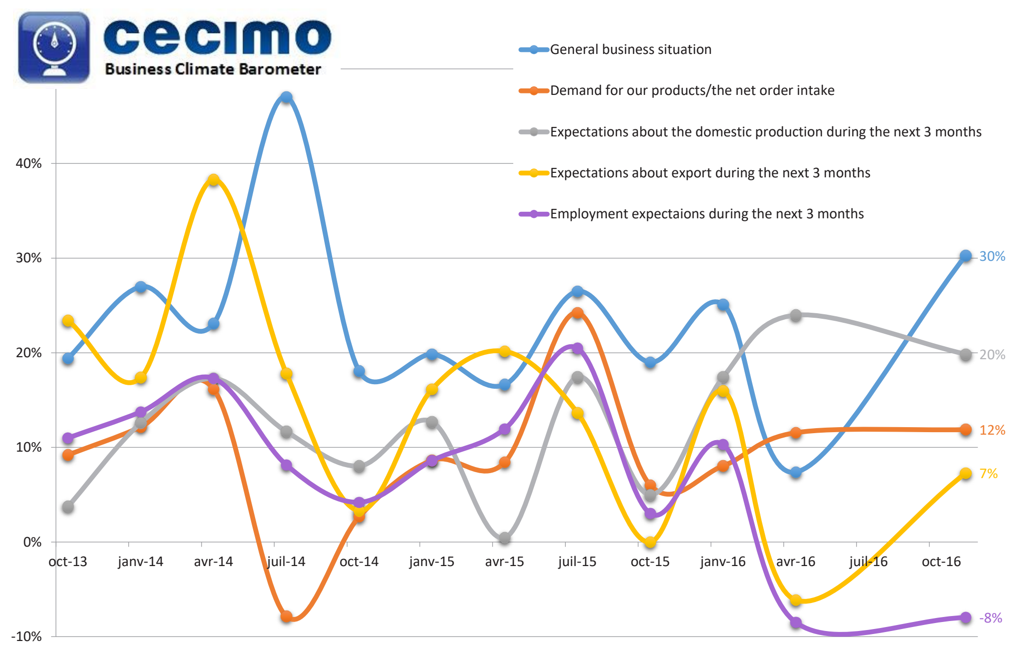

cecimo
Business Climate Barometer
decline
remain about the same
increase
We expect our exports to different regions develop as follows:
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Europe
Asia
Americas
CIS countries
Other


cecimo
Business Climate Barometer
General business situation
Demand for our products/the net order intake
Expectations about the domestic production during the next 3 months
Expectations about export during the next 3 months
Employment expectaions during the next 3 months
40%
30%
20%
10%
0%
-10%
oct-13
janv-14
avr-14
juil-14
oct-14
janv-15
avr-15
juil-15
oct-15
janv-16
avr-16
juil-16
oct-16
30%
20%
12%
7%
-8%

2. Macroeconomic data in relation with machine tool orders

2.1 GDP

Global economic growth remains solid and it is expected to regain momentum in the coming years, rising at 3-3.5%. The International Monetary Fund forecasts the nominal GDP to accelerate up from 3.1% in 2016 to 3.4% in 2017 and 3.6% in 2018. Job creation gathers pace but the conversion of GDP growth into employment is still modest. The World Bank only improved its June 2016 forecast for 2017 by 0.1 percentage points (2.7%), and the projection for 2018 is 2.9%.

Emerging markets and developing economies will take the lead in growth, even though the picture is quite mixed: China is performing better than expected but some important South American players, such as Argentina and Brazil, are in recession. Among this group, China and Russia saw the fastest output growth at the end of last year. The political turmoil in Turkey and the reduction in tourism revenues are affecting the Turkish economy. Oil prices recovery is definitely giving some respite to the Russian activity.

The economic activity of the advanced economies is set to pick up but moderately: about 2% growth in 2017 and 2018, 0.3-0.4 percentage points more than the value registered in 2016 (1.6%). These values are an upgrade of the forecasts published last year. The stronger recent activity is mostly caused by a reduced drag from inventories, some recovery in manufacturing production and the expected fiscal stimulus in the United States.

In Europe, according to the latest data published by Eurostat, the seasonally adjusted nominal gross domestic product rose by 0.5% q/q in the European Union and by 0.4% q/q in the Euro Area during the third and fourth quarter of 2016. In interannual terms, data for the fourth quarter of 2016 reveals that the seasonally adjusted GDP quarterly rose by 1.8% in the EA and by 1.9% in the EU. Real GDP rose between 1.6% and 1.9%, taking into consideration the whole 2016. It rose at a quarterly rate of 0.3% in July-September last year, thanks to the contributions from domestic demand. The European Commission projects the real GDP to accelerate at a yearly pace of 1.8% in 2017 and 2018. On a country-by-country analysis, Estonia is expected to top the 2017 ranking with a growth rate close to 2.8%, while Belgium, Germany, Spain, Latvia, Lithuania and Luxembourg will see a rise of their output of around 2%. On the negative side, Slovakia and Ireland are likely to growth at 1% rate or less.

In the US, growth slowed down last year. The persistence of stagnant productivity, as well as the subdued investment and the weak exports, are certainly underlying factors which led to a real GDP growth of 1.6%, down from 2.6% in 2015, 0.7-1.4 percentage point less than the World average. Weak productivity growth is also a matter of concern in the European continent.

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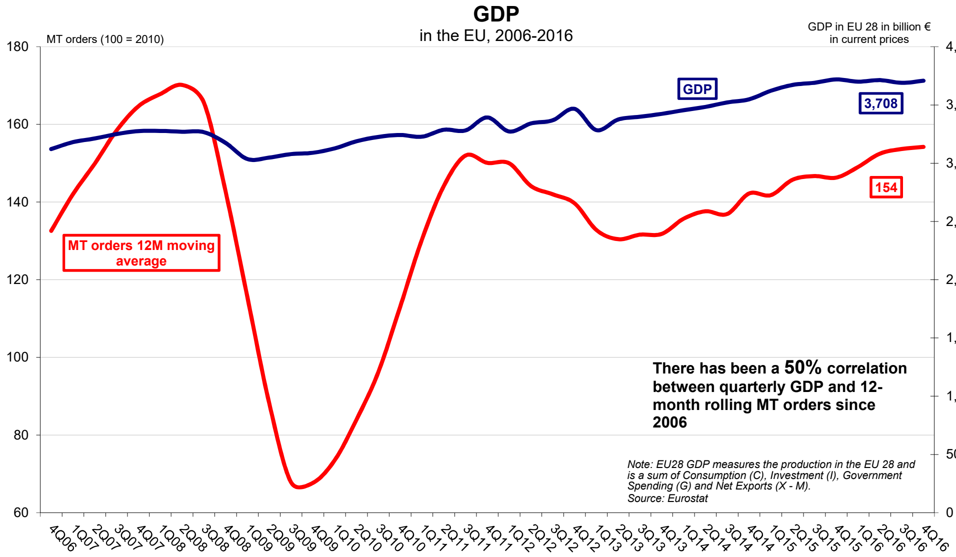
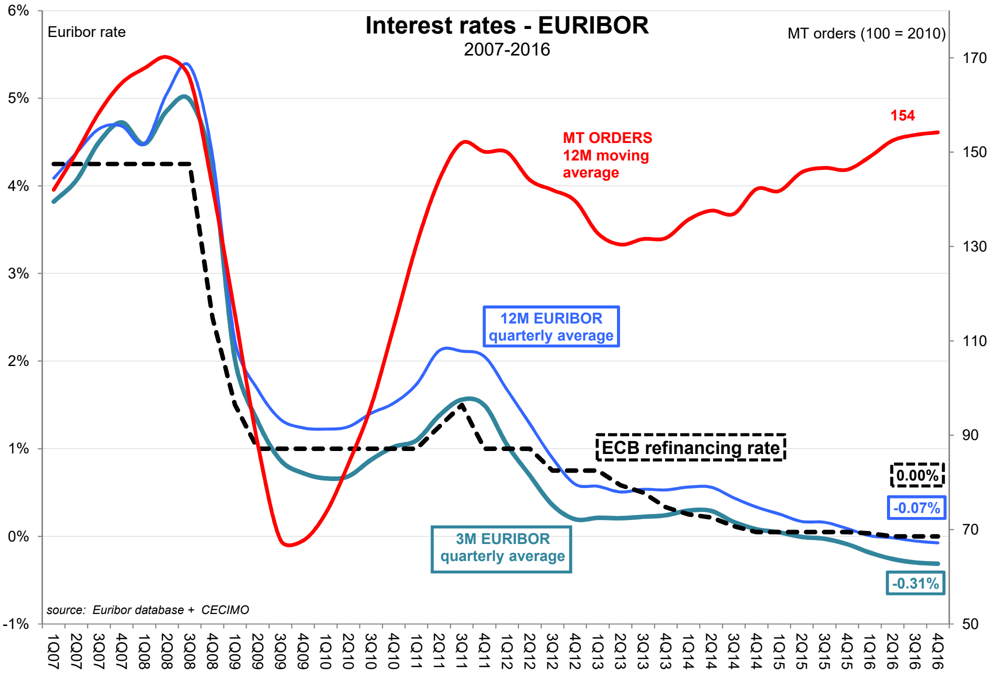
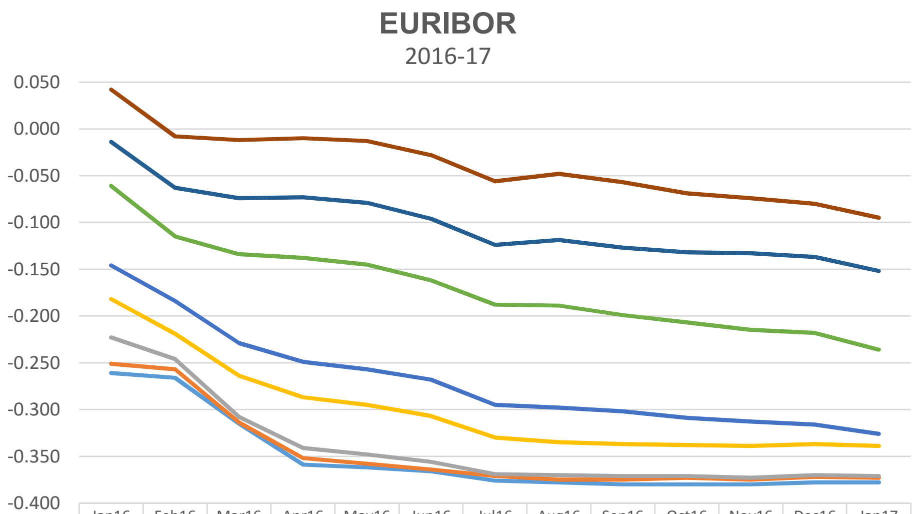


2.2 Interest rates – EURIBOR ⓘ

The key European Central Bank interest rates for the Euro Area were kept unchanged by the Governing Council meeting on 19 January 2017. The rate on the deposit facility continues at -0.4%, while the rate on the marginal lending facility and the interest rate on the main refinancing operations have remained unchanged since March 2016 at 0.25% and 0% respectively. Mario Draghi, ECB President, confirmed that the current asset purchase programme will continue to be in place at a monthly pace of 80 billion euro until the end of March 2017, at 60 billion euro from April to December 2017 and even beyond if necessary.



In average 2016 values, the 3-months and 12-months Euribor (short for EURo InterBank Offered Rate) were -0.265% and -0.035% respectively. In January 2017 the average 3-months Euribor continued to go down and reached -0.326% from its December value of -0.316%, after having registered -0.313% and -0.309% in the two previous months. The 12-months Euribor interest rate also kept dropping, as its average value in January 2017 was -0.098%, lower than the -0.08% in December, -0.074% in November, -0.069% in October and -0.057% in September. A similar trend was registered for loans of other maturities, as shown in the figure below.



	Jan16	Feb16	Mar16	Apr16	May16	Jun16	Jul16	Aug16	Sep16	Oct16	Nov16	Dec16	Jan17
1w	-0.261	-0.266	-0.315	-0.359	-0.362	-0.366	-0.376	-0.378	-0.380	-0.380	-0.380	-0.378	-0.378
2w	-0.251	-0.257	-0.314	-0.352	-0.358	-0.364	-0.371	-0.375	-0.375	-0.373	-0.375	-0.372	-0.373
1m	-0.223	-0.246	-0.308	-0.341	-0.348	-0.356	-0.369	-0.370	-0.371	-0.371	-0.373	-0.370	-0.371
2m	-0.182	-0.219	-0.264	-0.287	-0.295	-0.307	-0.330	-0.335	-0.337	-0.338	-0.339	-0.337	-0.339
3m	-0.146	-0.184	-0.229	-0.249	-0.257	-0.268	-0.295	-0.298	-0.302	-0.309	-0.313	-0.316	-0.326
6m	-0.061	-0.115	-0.134	-0.138	-0.145	-0.162	-0.188	-0.189	-0.199	-0.207	-0.215	-0.218	-0.236
9m	-0.014	-0.063	-0.074	-0.073	-0.079	-0.096	-0.124	-0.119	-0.127	-0.132	-0.133	-0.137	-0.152
12m	0.042	-0.008	-0.012	-0.010	-0.013	-0.028	-0.056	-0.048	-0.057	-0.069	-0.074	-0.080	-0.095

1w 2w 1m 2m 3m 6m 9m 12m

2.3 Inflation

The inflation picked up in the second half of last year. While increasing energy prices are recovering inflation, core inflation is still below targets. Having said that, the inflation is set to revive this year in the advanced economies and therefore to allay the fears of deflaction. Apart from increases of headline inflation registered in recent months (e.g. 1.7% in Germany in December last year), oil prices are already above 50 USD per barrel and everything suggests that it will firmly push the inflation upwards, becoming the primary driver of prices pressure. The energy annual inflation keeps rising: in contrast with the negative values of 2015 (e.g. -7.3% and -5.8% in November and December respectively), it moved up to -1.1% in last November, 2.6% in December and it is foreseen to overpass 8% in January this year.

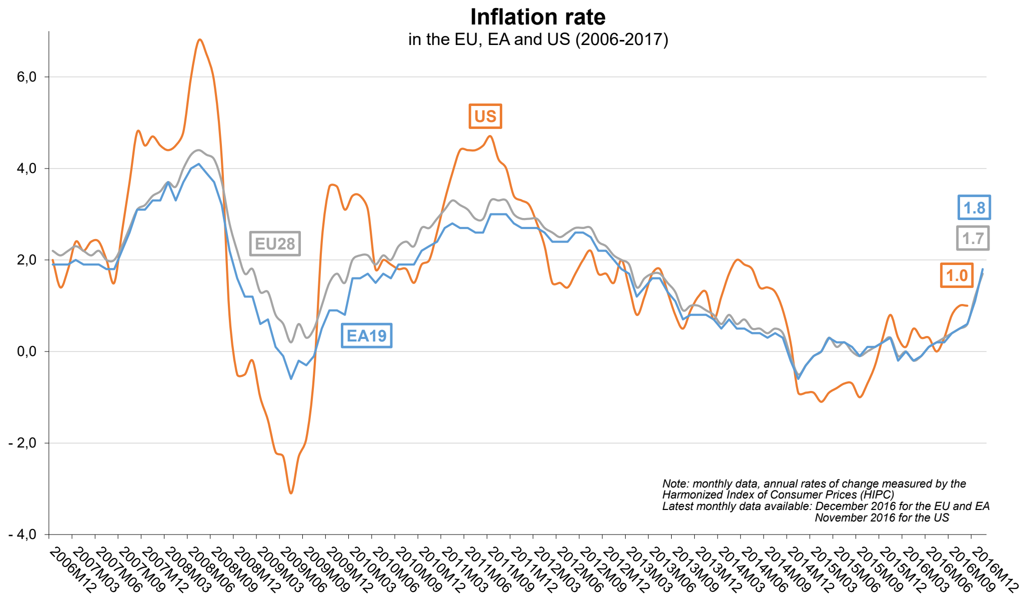
Continued ▶

The inflation annual rate in the Euro Area was 1.8% in January 2017, up from 1.1% in December, 0.6% in November, 0.5% in October and 0.4% in September. This data confirms the upward trend of inflation in the continent. While the annual inflation for the whole year 2016 is foreseen to have been 0.25% in the EA and the EU, it is expected to gradually rebound to slightly higher values than expected for 2017: 1.8% in the European Union and 1.7% in the Euro Area.

Among the Member States within the Euro Area, the highest annual rates were registered in Belgium (3.1%), Latvia (2.9%), Spain (2.9%) and Estonia (2.8%), outdistancing the annual rates in Bulgaria (0.4%), Romania (0.3%) and Ireland (0.2%).

Compared with November 2016, in December the annual inflation fell only in three Member States, namely Iceland (from 0.6% to -0.1%) and more modestly in Slovenia (from 0.7% to 0.6%) and Norway (from 3.9% to 3.8%). In the UK, the inflationary pressure continues: the December annual rate was 1.6% (up from 1.2% in October), which is one of the highest values across the EU, just behind the Nordic and Baltics countries, Belgium, Luxembourg and Czech Republic. The weak pound keeps affecting imports in the service sector, driving up costs such as fuel prices and food. Costs in businesses have been rising steeply for the last two months at the highest rate in the past five years and a half. The consumer-price inflation in the UK will likely reach 3% in 2017.

Industrial production prices followed the same trend, after scaling back their increase in November (0.3% both in the EU and the EA). In December 2016 compared with the previous month, they rose by 0.9% and 0.7% in the EU and EA respectively. Not surprisingly, this increase was mainly driven by the 2.1% rise in the energy sector and, at a lesser extent, by 0.4% of intermediate and non-durable consumer goods. In contrast, the average for the whole year 2016, compared with 2015, decreased by 1.9% in the EU and 2.3% in the EA.



2.4 Industrial production index ⓘ

The industry sector is still the largest economic activity in the EU, accounting for 19% of total gross value added and for 15% of employment. On average terms, in 2016 the volume of industrial production (excluding construction) for the full year 2016 rose by 1.4% in the European Union and 1.3% in the Euro Area.

Industrial production
(percentage change compared with the previous month)

	EA19			EU28		
	Dec. 2016	Nov. 2016	October 2016	Dec. 2016	Nov. 2016	October 2016
Total industry	-1.6	1.5	0.2	-1.0	1.6	0.1
Capital goods	-3.3	0.2	1.4	-2.2	0.3	0.9
Intermediate goods	-0.2	1.9	-0.3	0.0	2.0	-0.2
Energy	-1.4	1.3	0.8	-1.4	1.7	0.2
Durable consumer goods	2.9	0.6	1.2	2.7	0.7	0.9
Non-durable consumer goods	-1.2	1.9	-1.2	-0.8	2.0	-0.4

Industrial production
(percentage change compared with the same month of 2015)

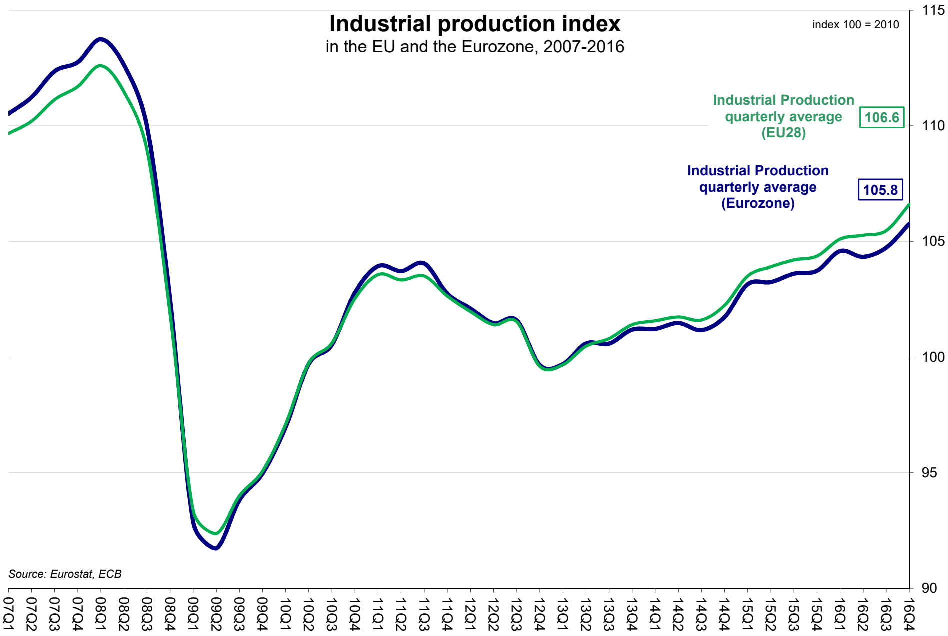
	EA19			EU28		
	Dec. 2016	Nov. 2016	October 2016	Dec. 2016	Nov. 2016	October 2016
Total industry	2.0	3.2	0.8	2.9	3.1	0.6
Capital goods	-0.1	3.3	1.3	1.1	2.9	1.3
Intermediate goods	3.4	2.9	0.9	4.6	3.1	0.8
Energy	6.5	5.8	2.0	5.4	4.4	-0.1
Durable consumer goods	3.9	-0.2	-1.9	4.5	1.0	-0.2
Non-durable consumer goods	0.1	2.9	-0.6	1.4	3.2	-0.5

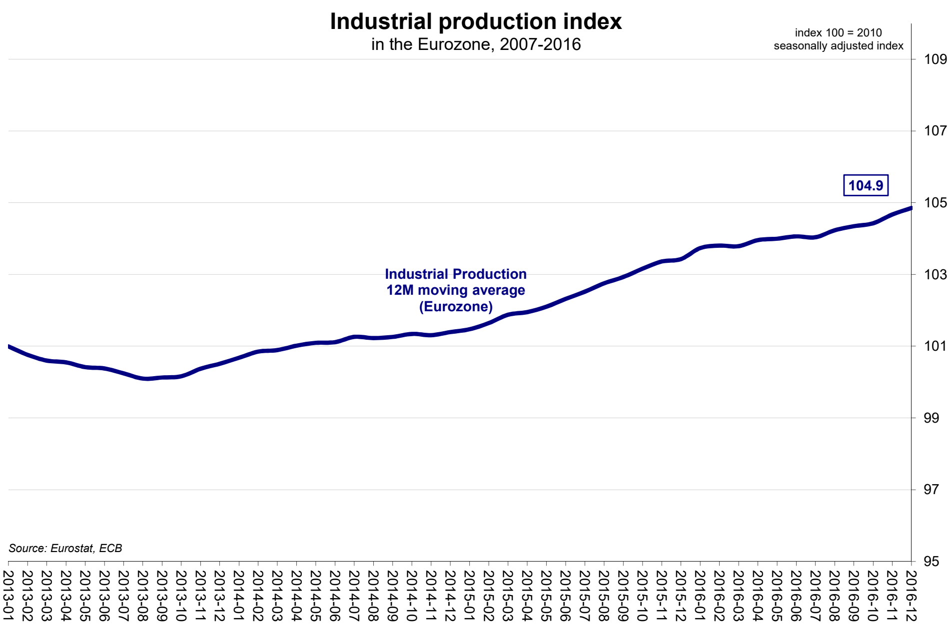
In November 2016 the industrial production picked up considerably in the EU and the EA (1.5-1.6% monthly and above 3% annually), driven by a remarkable annual increase in Ireland (+16.3% - monthly terms: +14.6%) and, at a lesser extent, in Denmark (+4.6% - in monthly terms: +10.7%) and Latvia (+11% - in monthly terms: 2.8%). In the rest of Europe, it should be underlined the nearly 11% monthly accumulated acceleration in the Norwegian industrial production during October-November 2016.

In December 2016 compared with November 2016, the seasonally adjusted industrial production fell by 1.0% in the EU and by 1.6% in the EA, after having experimented increases of 1.5%-1.6% in November. On a yearly basis, industrial production grew by 2.9% in the EU and 2.0% in the EA. The highest monthly

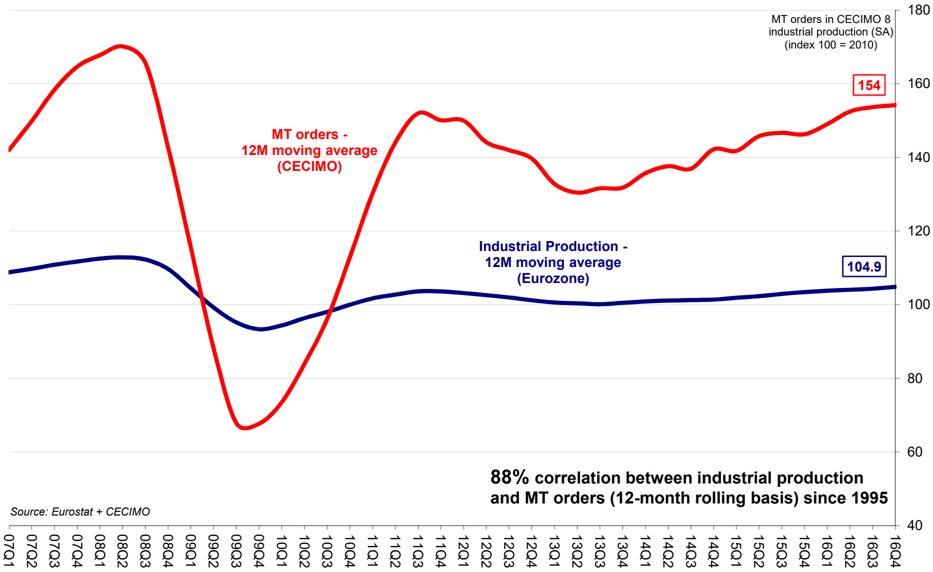
Continued ▶

increases were registered in Croatia (+3.9%), Greece and Malta (both +2.4%), while Ireland (-11.7%), Germany (-3.1%) and Czech Republic (-2.2%) experienced the largest decreases of December. Year-on-year, industrial production increased the most in Croatia (+14.9%), Latvia (+11.5%) and Denmark (+11.1%), and fell 5.1% in Luxembourg and 1.8% in Ireland. Always on an annual comparison, that is, comparing the values of December last year and the same month of 2015, capital goods production fell by 0.1%. In Germany, the production dropped 0.8%.





Industrial production index
in the Eurozone, 2007-2016



In the United States, the industrial production moved down 0.6% in the fourth quarter after rising in the third quarter of 2016 at an annual rate of 1.8%. Taking a look at the recent months, it increased 0.6% in December and decreased 0.3% in January: it is currently at similar levels than one year ago. Manufacturing and business equipment output edged up by 0.2 (0.9 in November) and 0.1 percent respectively.

2.5 Gross Fixed Capital Formation

Following quite positive levels of investment growth in the second quarter of 2016, business investment grew moderately in the third quarter. This positive outcome is expected to continue beyond 2016, thanks to demand upturn, replacement needs, improving profits, accommodative monetary policy, positive consumer sentiment –with consumer spending at higher than expected levels– and favourable financing conditions (see sections 2.7, 2.10 and 2.11 for further information of these two latter).

It should be highlighted that the 0.2% quarter-on-quarter investment rise during the third quarter reflects largely an increase in the construction sector, offsetting a decline in non-construction investment. The negative side was the investment in transport equipment, maybe a reversal after the important growth registered during the second quarter. Investment levels in other sectors quarter-on-quarter remained broadly unchanged in the third quarter last year, and intellectual property products showed increased investment values. For the fourth quarter, the situation is expected to be more balanced, with construction investments slowing down their growth and the other types accelerating a bit.

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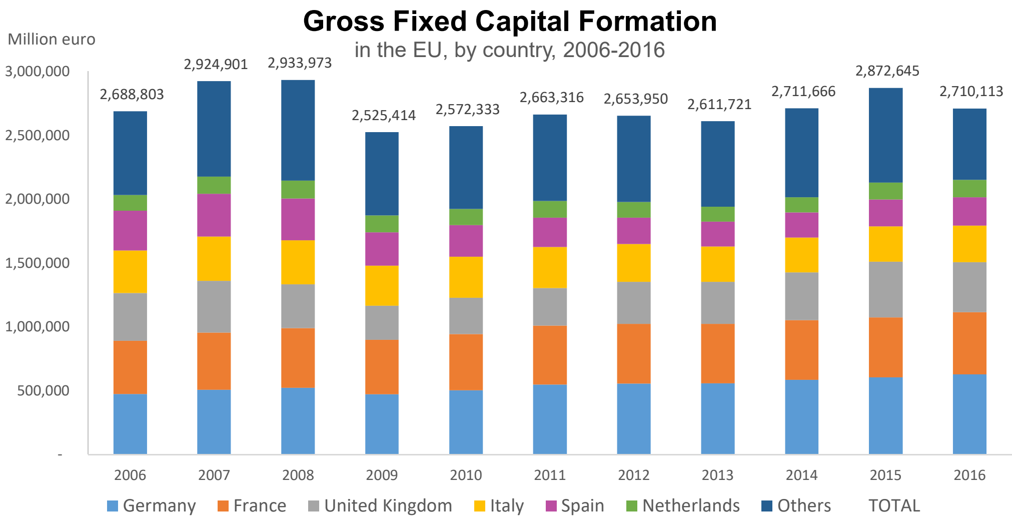
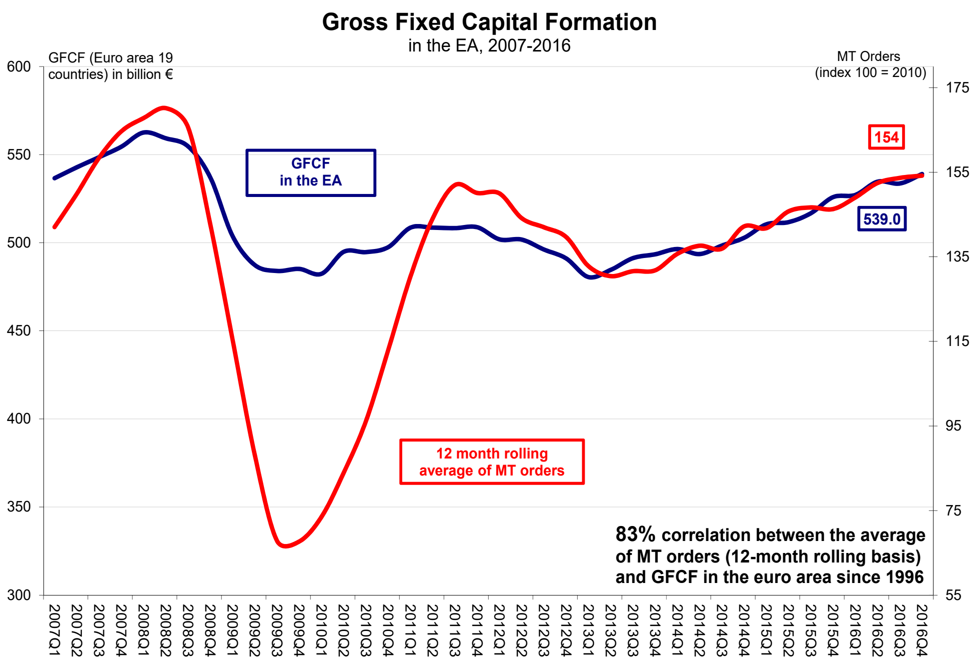
With regard to the gross fixed capital formation in the machinery sector in the Euro Area as a whole, it amounted to 163.7 billion euro in the third quarter, representing a 0.37% quarterly negative growth. The net increase in fixed assets is an important indicator for MT builders. In fact, there is a 83% correlation between orders (measured on rolling orders average) and GFCF in the euro area since 1996.

In 2016, among the Member States of the European Union, the largest investors were Germany (627 billion euro), France (486 billion euro), United Kingdom (394 billion euro), Italy (284 billion euro) and Spain (222 billion euro). In terms of percentage of GDP, the countries that devoted a larger portion of their output to gross fixed capital formation in 2016 were Czech Repulic (24.6%), Sweden (24.2%), Romania (23.7%), Belgium (23%) and Austria (22.9%).

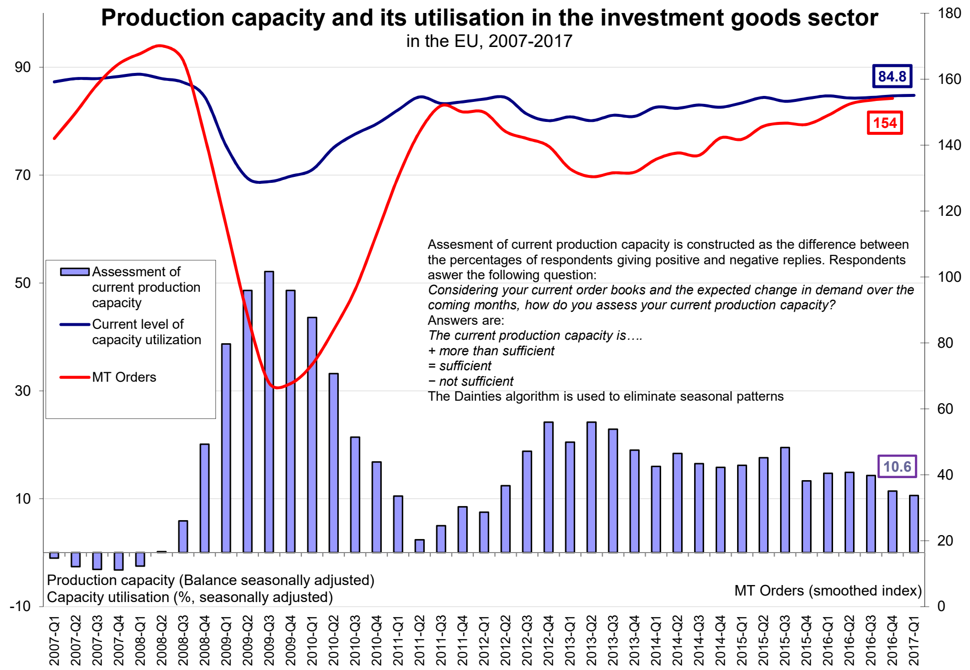




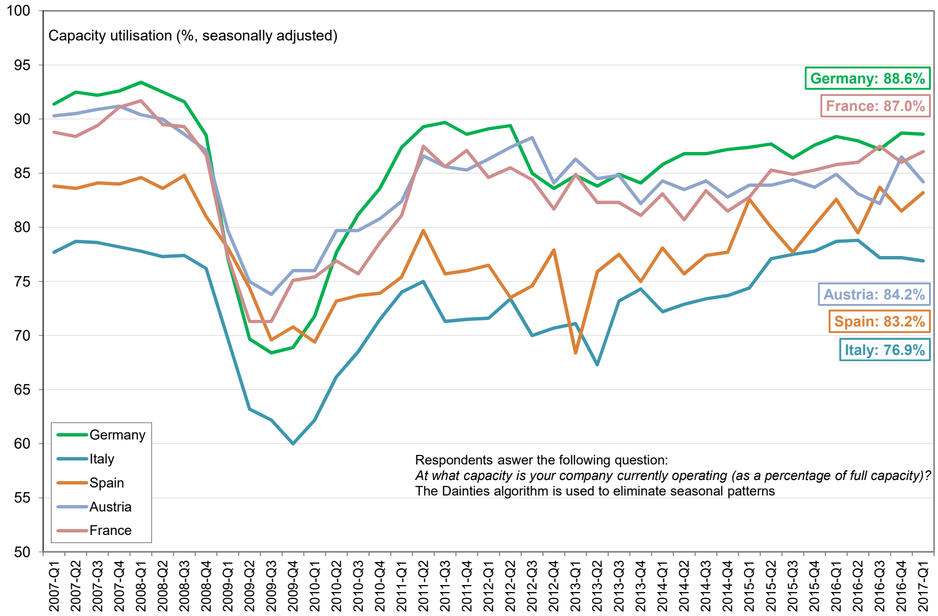
2.6 Capacity utilisation in the investment goods sector ⓘ

At 84.6%, the capacity utilisation in the EU is so far reaching pre-crisis levels in the first quarter of 2017 and it is slightly greater than one year ago. This recording has been preceded by an increase in the second half of 2016: from 84.3% to 84.7% at the end of the year. The highest correlation between the evolution of the level of capacity utilization and machine tools orders is observed when using one quarter time lag. In this case, the correlation is almost 42% in the period 1996-2017. , Companies in the EU19 forecast that the capacity utilization during the first quarter of 2017 will be 85.2%, which is the largest percentage since the end of 2015, comparable only with the levels booked before the financial crisis. Among all EU Member States, the business surveys conducted by the European Commission revealed that the highest capacity utilizations are in Germany (88.6%), Slovak Republic (87.9%), France (87%) and Czech Republic (86.5%), while the weakest levels are in Cyprus (63.9%), Latvia (72.2%), Bulgaria (74.1%) and Estonia (74.5%). Italy, the second biggest producer of machine tools in the EU, marked a value below 77%.

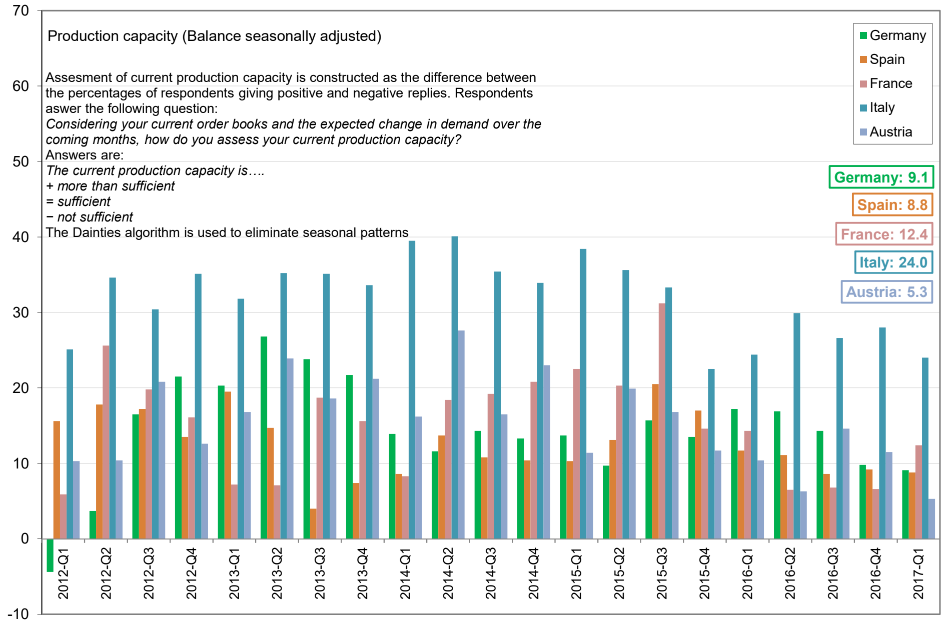
In the US, the capacity utilization for the industrial sector keeps growing. In January 2017 it reached 75.7%, following the 75.5 percent of capacity utilization showed in December and 74.9 in November. However, it still remains well below the US average on the long-run: more than 4 percentage points less than the mean between 1972 and 2015. For the manufacturing sector, the capacity utilization in January was 75.5%, which is 0.7 percentage point more than in December and 3 pp less than its long-term average.



Capacity utilisation in the investment goods sector
of some top machine tools producers, 2007-2017



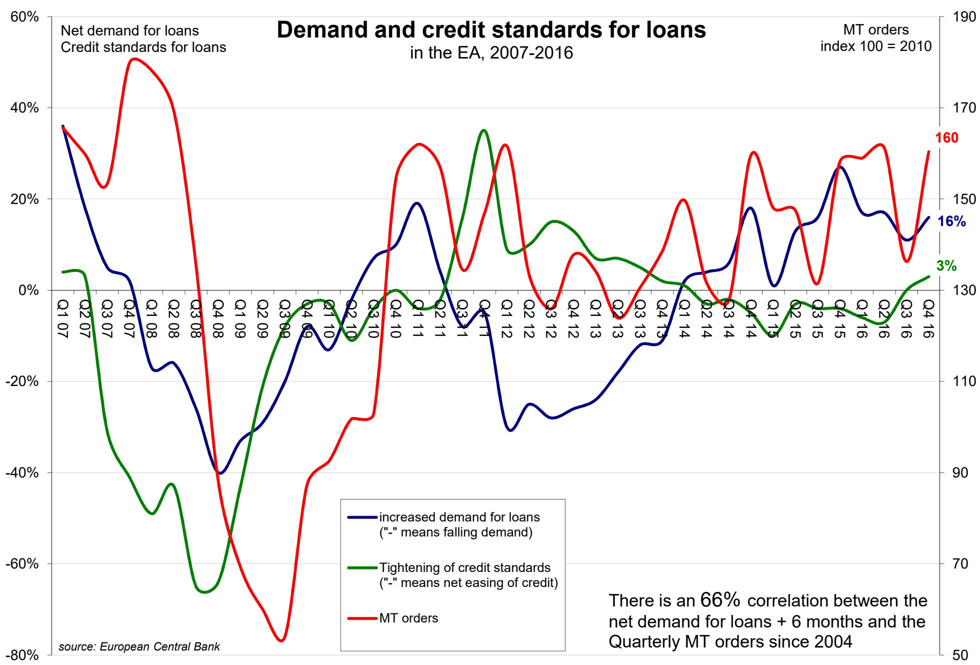
Production capacity in the investment goods sector
in the EU, 2012-2017



2.7 Bank lending survey ⓘ

Euro area banks continued to further reduce their share of rejected loan applications from enterprises, despite the tightening of credit standards in net terms –with the Netherlands playing the main role– in the fourth quarter, as consequence of the lower willingness of banks to tolerate risk. The rejection rate of loans to enterprises decreased at -5 net percentage rate in the fourth quarter of 2016, which follows declines of -7 and -4 net percentages in the two previous quarters. This was mainly due to the competitive pressure, but also somewhat to the banks' lower cost of funds and the decrease of balance sheet constraints. Across the large EA countries, the share of rejected applications for loans to enterprises decreased in Italy, Spain and the Netherlands, while it remained unchanged in Germany and picked up in France. Broadly in line with expectations, the overall credit standards of banks of the EU19 on loans to enterprises have experimented the first tightening in net terms (3%) since the fourth quarter of 2013. However, that 3% is largely the result of the tightening of credit standards to enterprises reported in the Netherlands (34%), as the indicator remain mostly unchanged in the majority of euro area economies. That being said, banks in the EA envisage to ease their credit standards applied to the loan approval for enterprises (-2% in net percentage) during the first quarter of 2017.

As expected, the approved loans and the net demand for loans to enterprises kept increasing during the fourth quarter of 2016 but at a slower path than foreseen. It registered a net percentage of 16%, following a 11% in the third quarter and a 17% rate in the second one. Among the several factors that push the loan demand, the low level of interest rates was the most important one, followed by the increase in debt refinancing, the higher dynamism in Merger and Acquisitions' operations and the increasing consumer confidence. The favourable house market contributed too. Among the large Euro Area members, the loan demand by enterprises increased in Germany, France, Italy and the Netherlands, while it moved down in Spain. Considering the different sizes of enterprises, the small and the medium ones (SMEs) increased their loan demand in a higher proportion than the largest ones: SMEs registered a 16 net percentage rise in the fourth quarter of 2016 (8% in the third one), while the large businesses experimented 9% net positive percentage rate in October-December last year and 6% in July-September.

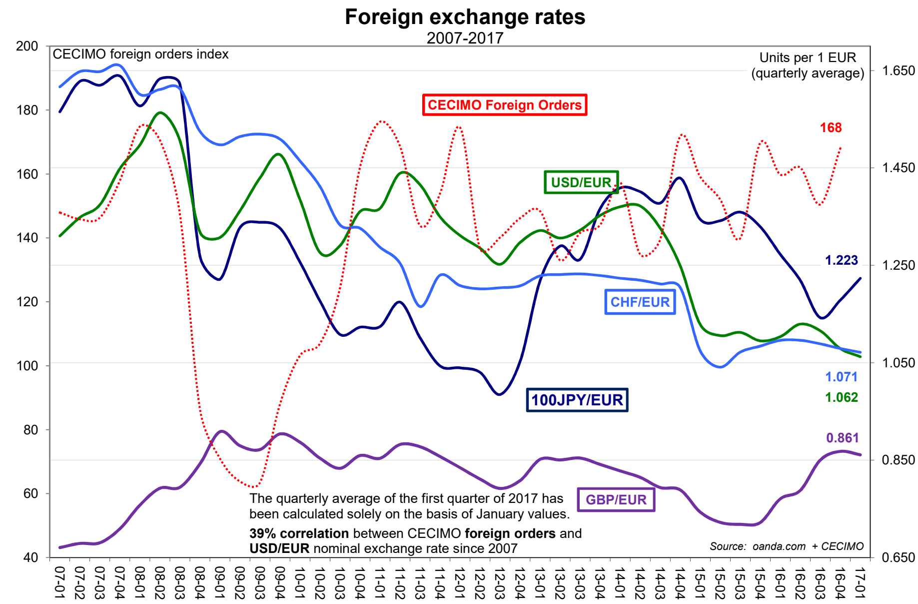


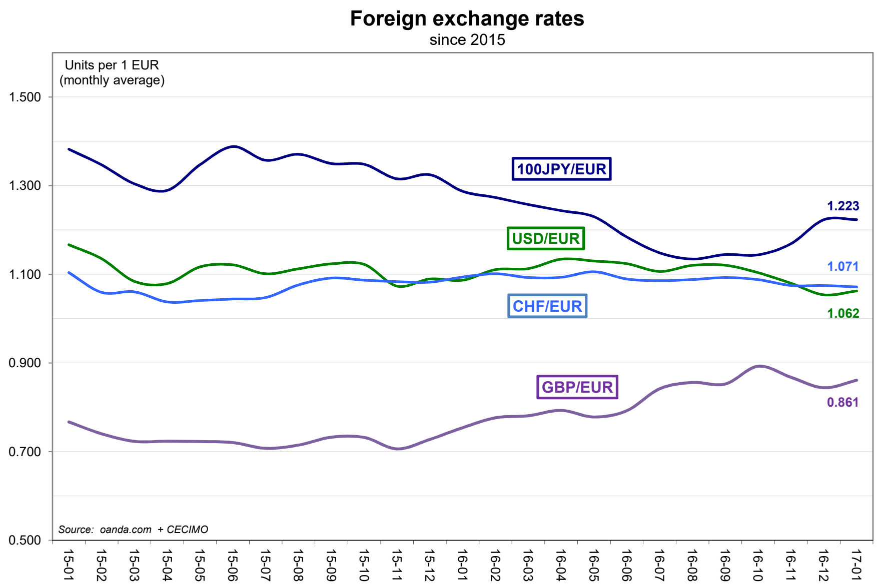
2.8 Foreign exchange rates

The effective exchange rate of the euro depreciated in recent months. From 8 December 2016 to 18 January 2017 the euro depreciated vis-à-vis the US dollar by 0.9%, by 1.3% against the Japanese yen, by 1.4% against the Swiss franc, and by 1.5% versus the Chinese renminbi. In trade weightened terms, the EA currency was more or less stable in the aforementioned period.

The dollar appreciation following Trump's victory in the presidential elections, held in November last year, seems to come to an end or take a breath: the US dollar is hovering around 1.05-1.06. The Russian Rouble also appreciated, partly as a result of the recovery in oil prices. The Mexican Peso and the Turkish Lira suffered from a sharp depreciation, with rising interest rates.

The pound kept moving in historically low levels and depreciated 2% in January and came back to its November mean of 0.86 GDP per EUR. The weakening of the pound is already having a clear impact in import and producer prices.





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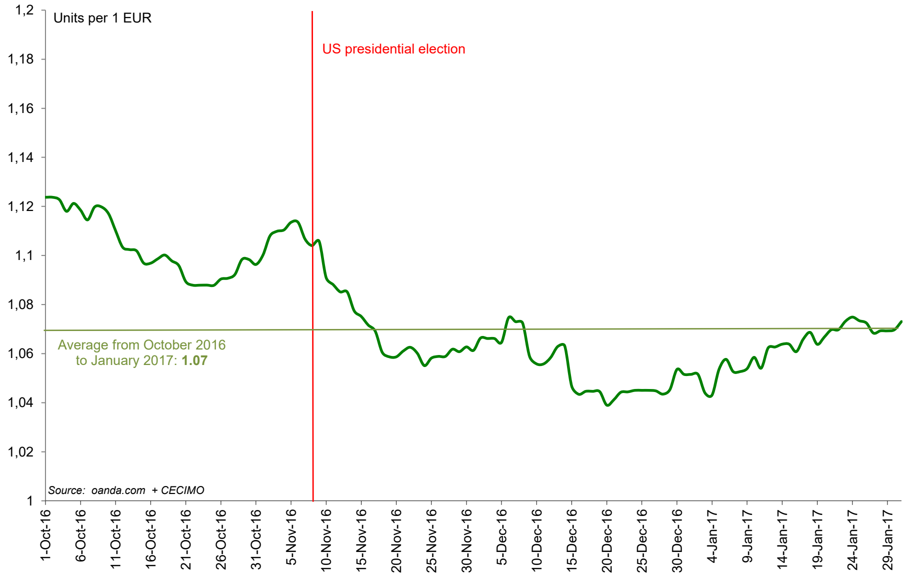
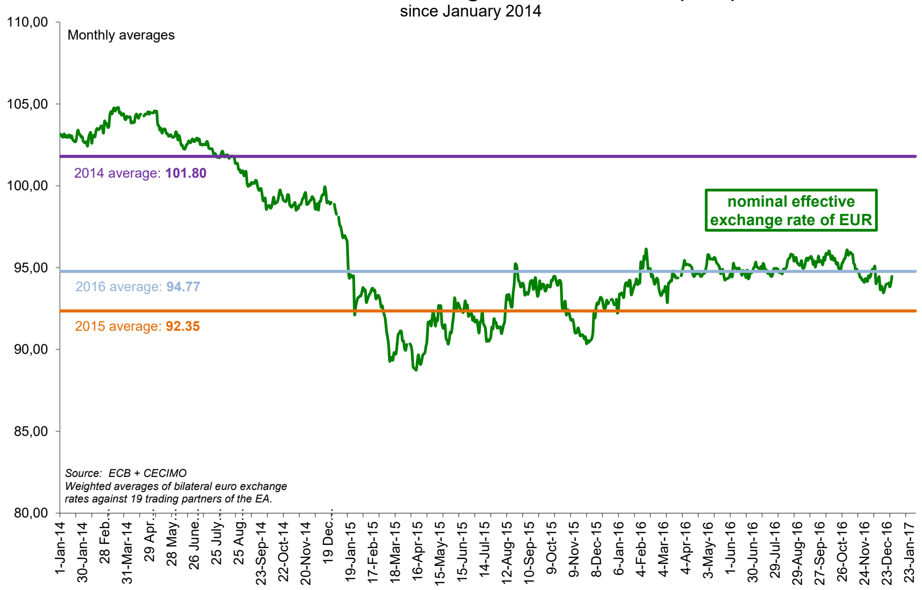
Nominal exchange rates Euro (EUR) to US Dollar (USD)

since October 2016



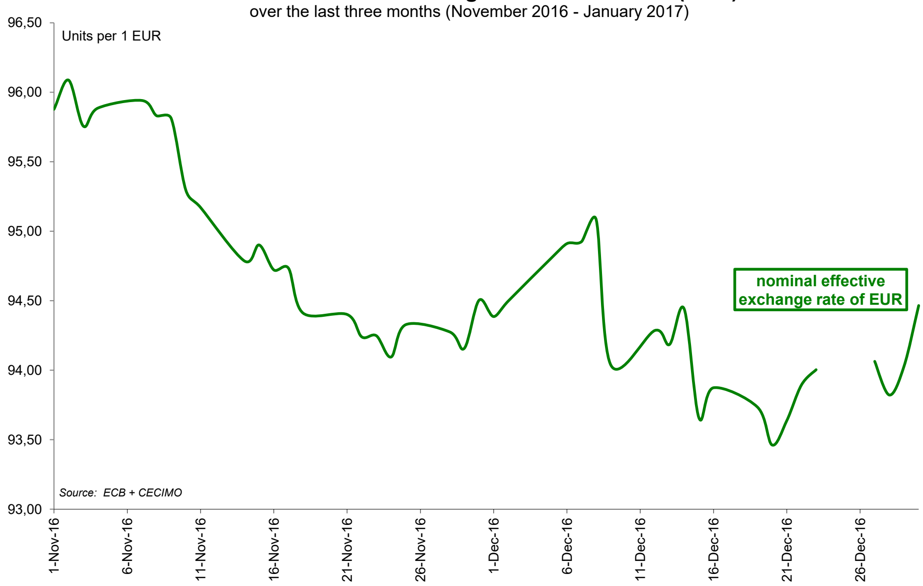
Nominal effective exchange rates of the Euro (EUR)

since January 2014



Nominal effective exchange rates of the Euro (EUR)

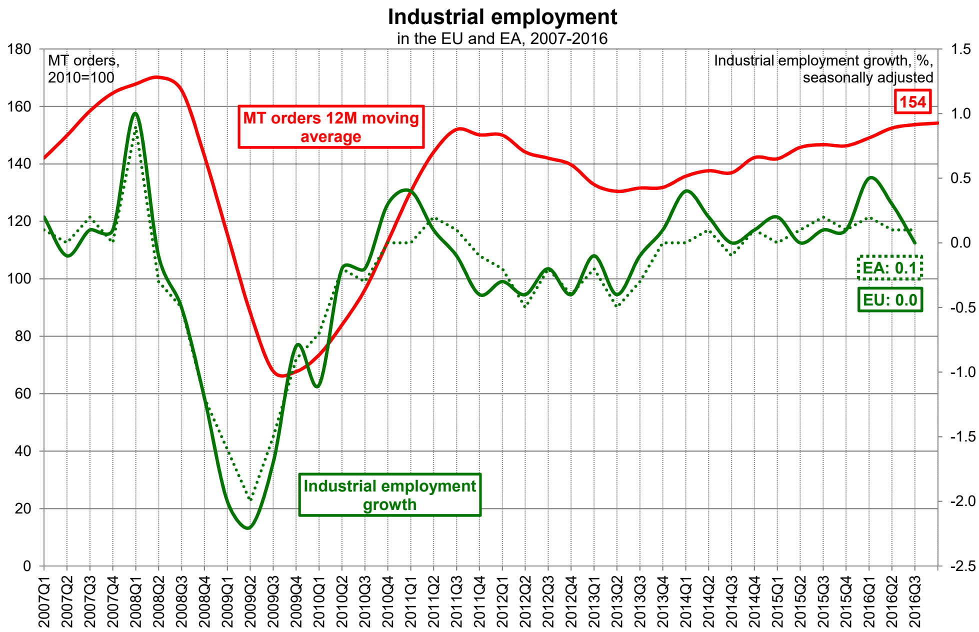
over the last three months (November 2016 - January 2017)



2.9 Industrial employment

Industrial employment has not catched up yet with the activity and output increases. Following an outstanding start of the year, when the industrial employment grew at rates not seen since before the crisis (1.0% with no adjustment, +0.5% seasonally adjusted), it decelerated towards the end of the year (+0.7%, -0.1% after adjustment). The correlation between machine tool orders and the industrial employment is 50.6% in the EU and 55% in the Eurozone.

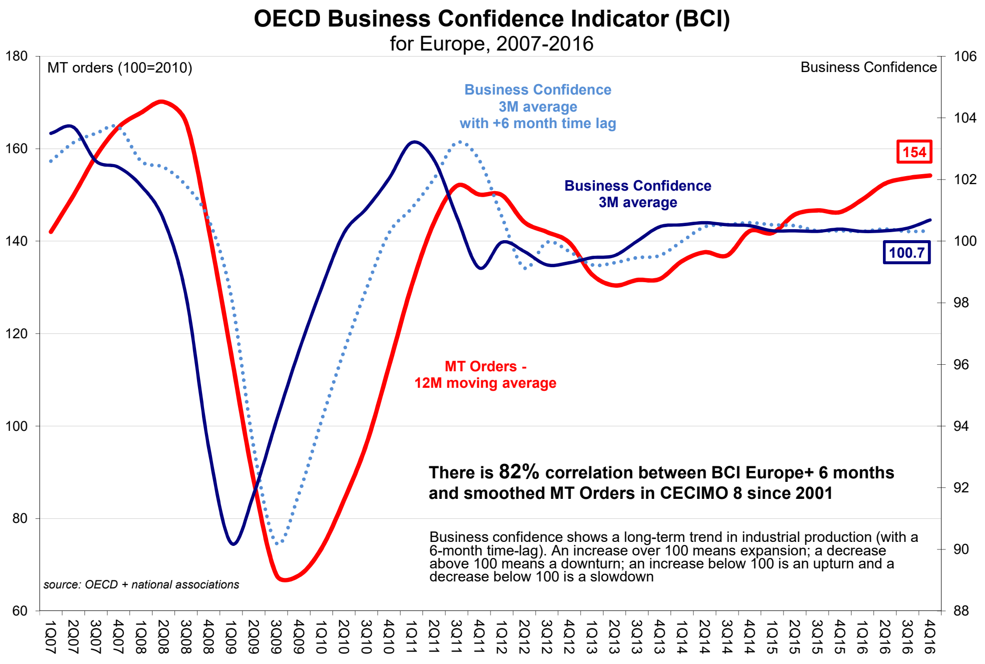
General employment is in its lowest levels since 2009. The EA unemployment rate (seasonally-adjusted) posted at 9.6% in January 2017, 0.8 percentage points less than one year ago and broadly unchanged since December last year. On the other hand, the EU unemployment rate (seasonally-adjusted) was 8.1% in January 2017, down from 8.2% in the previous month and 8.9% the same month last year. This index varies a lot across the different member states of the EU, ranging from 3.4% in Czech Republic and 3.8% in Germany to 18.2% in Spain and around 23% in Greece. Europe is still far from the 4.8% US unemployment rate, which went up from the December value of 4.7%.

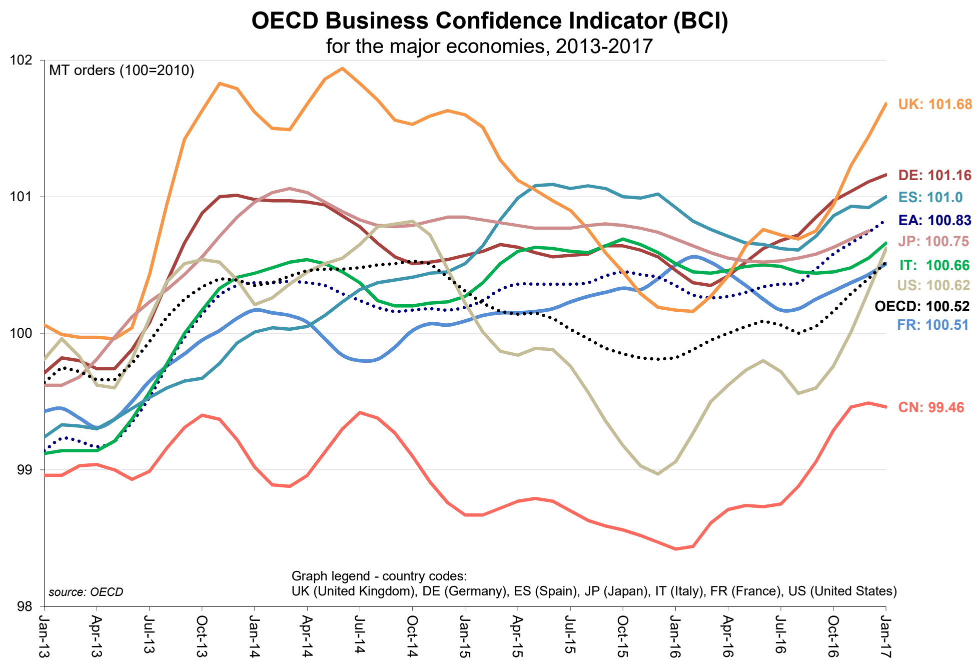


2.10 OECD Business Confidence Indicator for Europe ⓘ

Business confidence indicators (BCIs) anticipate stable growth impulse in the OECD area and the Euro Area. In Europe, the BCI signals gaining impetus for growth in Germany and France. On the other side of the Atlantic, United States and Canada enjoy good prospects as well, as pointed out by their BCI. Among other developed economies, the BCIs point out a pickup in Japan's growth.

Among major emerging economies, the BCIs picture an optimistic growth outlook for China, Brazil and Russia, while the growth momentum in India is easing a bit.



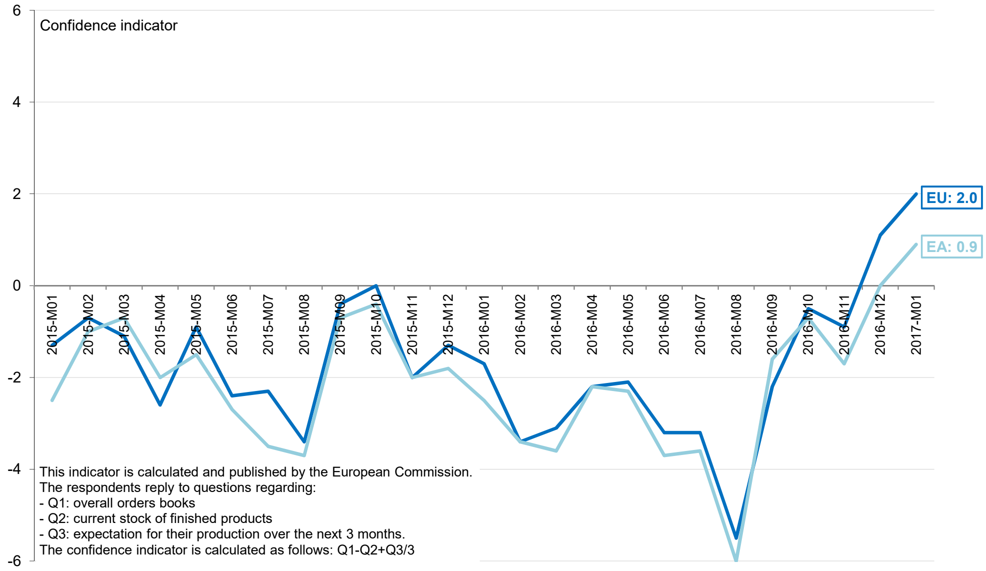


2.11 European Commission Economic Sentiment Indicator ⓘ

The EC Economic Sentiment Indicator (ESI) signals an improvement in Europe. The confidence indicator have experimented a noticeable increase since mid-2016, thanks to gains in the assessments of order-book levels and production expectations, and decreases in stocks. The overall index for the euro area broke again its record of 2016 (107.9 in January 2017) and the EU shrank by 0.4 points to 108.5. The only decreases in January of the ESI among the largest EA economies was registered in France (-0.6 points to 104.9) and Germany (-0.3 to 109.1). The recordings in Spain, Italy and Netherlands were quite positive (around

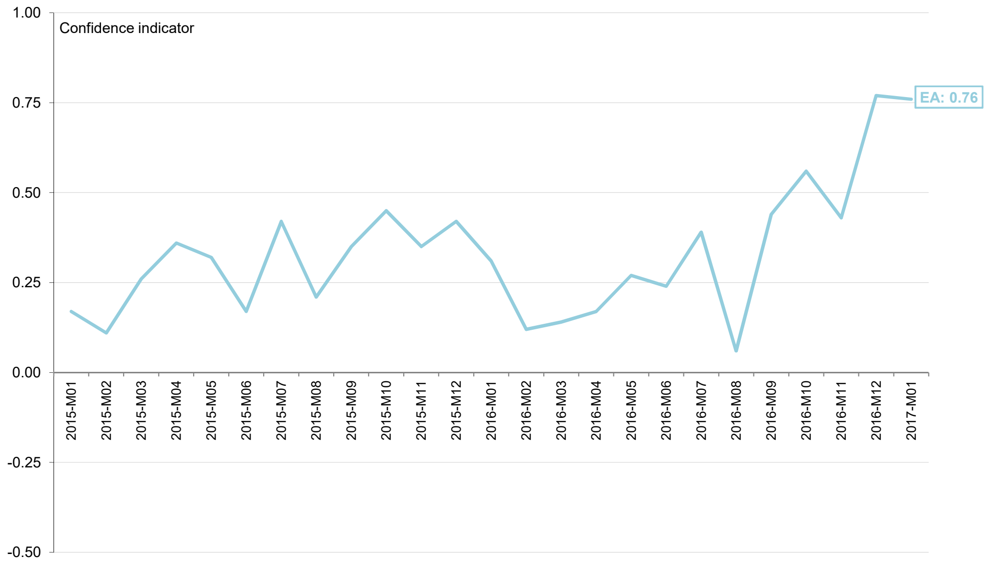
+1.3). Regarding non-Euro Area economies, it is worth to mention the significant deterioration of economic sentiment in the United Kingdom (-1.4 to 107.1, the same than two months ago) in January, in contrast with the 0.1 points gain in the EA. This negative value comes after seven months' improvements in a row. It is largely due to the pessimism of the construction sector, plus consumer confidence is also losing strength.

Confidence indicator
in the investment goods industry sub-sector, 2015-2017



In January, the Business Climate Indicator (BCI) remained broadly stable at 0.76 for the EA (down from 0.77 in December), but managers' optimism for the future production and export orders resulted in +0.8 increase in industry confidence from December to January, which is weighted 40 per cent in the calculation of the ESI. Consumer sentiment rose 0.2 points due to better expectations of employment and savings, but not about the specific financial situation or the general economic situation.

Business Climate Indicator
in the Euro Area, 2015-2017



2.12 Purchasing Managers' Index ⓘ

Purchasing managers' indices remained strong in the fourth quarter of 2016 in most areas.

Global output and orders rates of expansion improved in January 2017. The PMI global index confirmed its value of 52.7 –also registered in December last year–, level lastly recorded at the beginning of 2014. Business confidence rose to a 20-month high in January. Output expectations for the near future are quite positive according to the values of the index in recent months: 63.4 in December and 65.2 in January. The index for new export orders reached its highest level in more than two years.

Global Manufacturing and Services PMI
(Nov. 2016 – Jan. 2017)

	October 2016	November 2016	December 2016	January 2017
Output	53.3	53.3	53.6	53.9
New orders	53.2	53.5	53.8	54.3
Employment	51.0	51.3	52.0	52.0
Input prices	54.8	55.2	57.1	57.4
Output charges	51.6	51.1	52.4	52.2
Backlogs	50.9	50.3	50.6	50.9

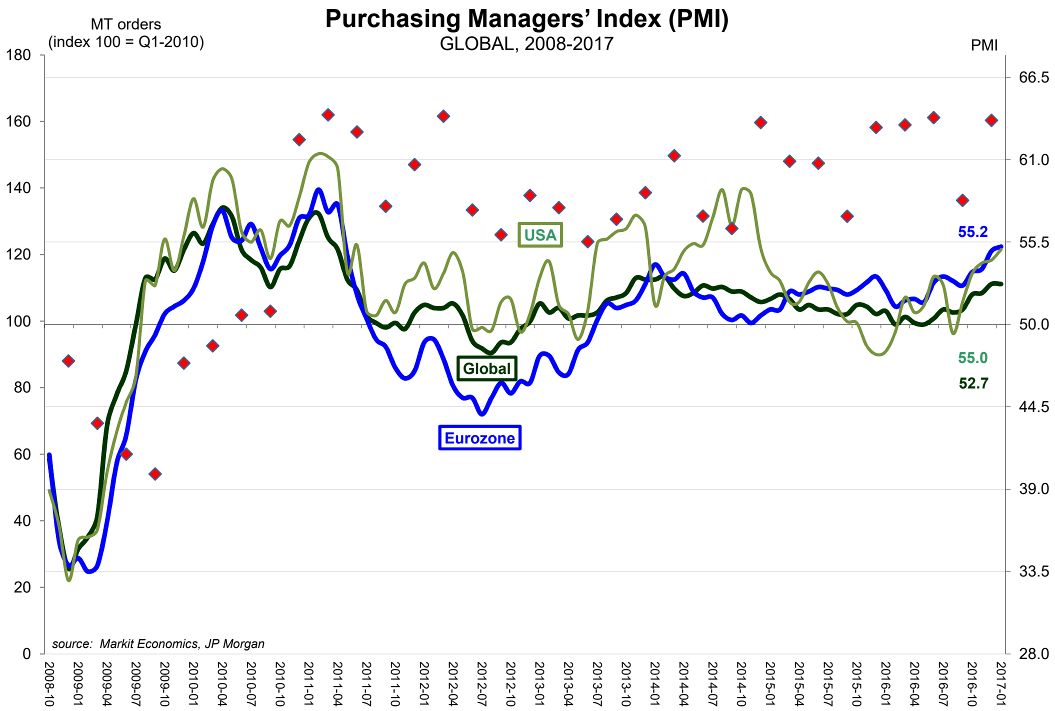
Eurozone output was strong in the second half of last year and also made a positive start in 2017. EA manufacturing production increased for the 43th successive month, so the PMI index continues to signal expansion for the manufacturing sector in the Eurozone. This marked improvement in business conditions in the Eurozone can be deducted from the PMI index increase for the fifth consecutive month: it hit 55.2 points, greatest recording since early 2011 and up from the December value of 54.9. Austria (57.3), the Netherlands (56.5) and Germany (56.4) top the manufacturing growth rankings. France is also performing well to judge by its 68-month high recording (53.6). The UK (55.9 in January down from 56.1 in December) started the new year on good footing too, notably thanks to a robust increase in new order intakes and a higher number of new business and export orders.

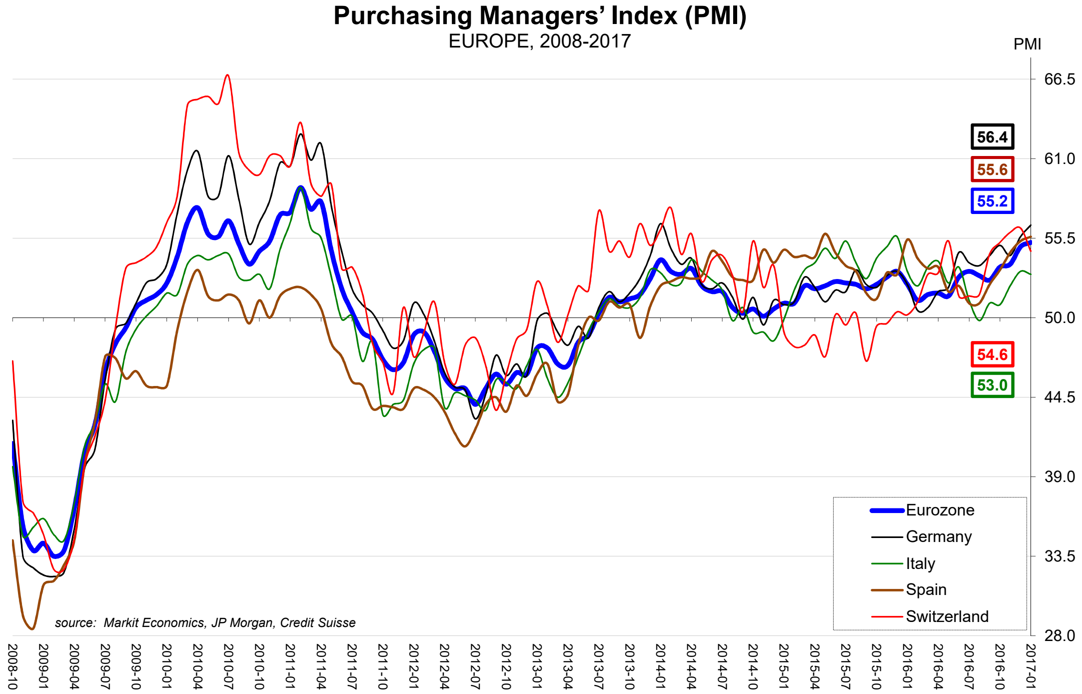
Nevertheless, inflationary pressures continue to go up. As showed in the table above, the persisted inflation rise concerns both input and output prices, which could pose a threat to the outlooks. The intensification of the price inflation of purchases in the manufacturing sector leads to a faster pace of input price inflation, which marks highest values in recent years. With regard to Germany, the optimism for future output has been the strongest for three years. Job creation picked up to a 65-month high. Concerning the relation between output growth and prices, Markit commented that "if current growth of manufacturing activity and the associated rise in prices is sustained, rhetoric at the ECB is likely to become more hawkish, albeit tempered with caution over the potential for political developments to cloud the outlook."

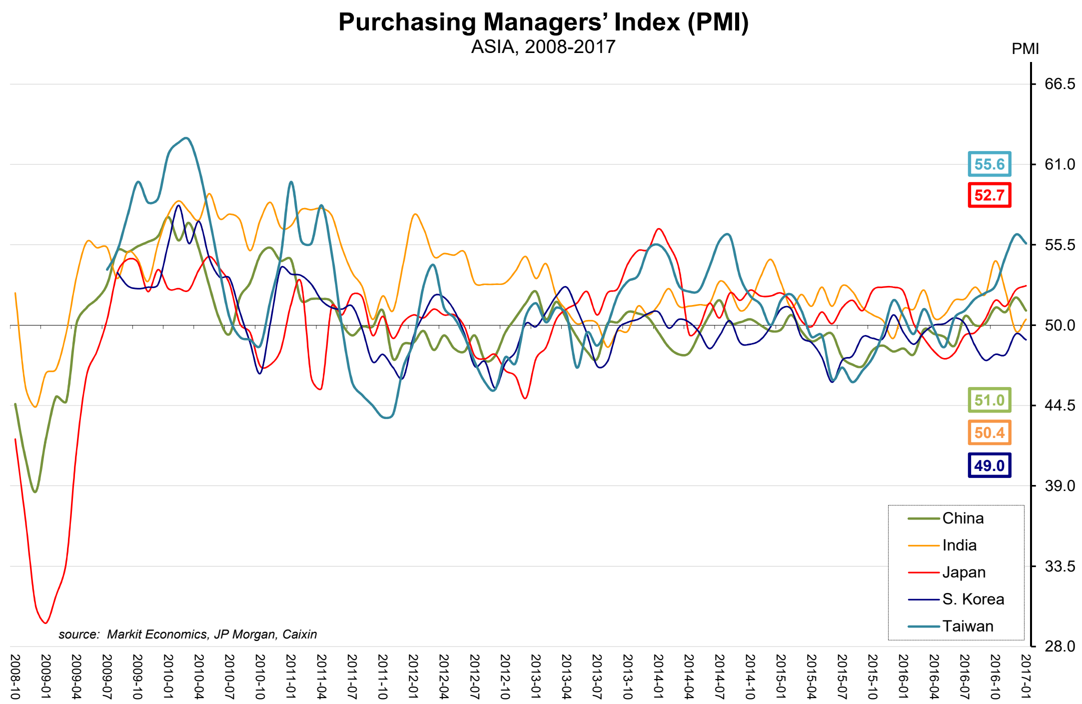
The US manufacturers are also in expansion according to their January PMI reading of 55.0 (up from 54.3 in December and 54.1 in November). They keep informing of higher prices: the input cost inflation was the fastest for almost two and a half years. Unlike foreign orders, which are suffering from the strong dollar, domestic demand is driving order books to highest growth rates for over two years.

In Japan the survey reveals the greatest improvement in manufacturing conditions since December 2015, and signalled better domestic and foreign intakes. Job creation has been growing for the last two and a half years. Prices also experiment upward pressure, since input prices have been rising at the fastest rate for nearly two years.

Finally, Chinese manufacturers also face inflationary pressures both in input costs and output charges. Despite the rebound of new export business in the manufacturing sector, the increases in production and orders intake slowed down in comparison with December last year. Nevertheless, managers are optimistic about the future in a way not registered by this survey since half year ago.




Purchasing Managers' Index (PMI)
EUROPE, 2008-2017
PMI
56.4
55.6
55.2
54.6
53.0
Eurozone
Germany
Italy
Spain
Switzerland
source: Markit Economics, JP Morgan, Credit Suisse


Purchasing Managers' Index (PMI)
ASIA, 2008-2017
PMI
55.6
52.7
51.0
50.4
49.0
China
India
Japan
S. Korea
Taiwan
source: Markit Economics, JP Morgan, Caixin

Glossary ⓘ

1.1 CECIMO8 orders

This section presents the “new orders received index” showing the development of the machine tool demand as an indication of future production. An order is defined as the value of the contract linking a producer and a third party in respect of the provision by the producer of goods and services.
The CECIMO8 orders index combines the relevant indexes of Austria, the Czech Republic, France, Germany, Italy, Spain, Switzerland and the United Kingdom. The weights of the different indexes correspond to the countries shares in total production of the eight countries in 2010. The new orders received are split according to the origin of the order, based on the change of ownership. This identification is the basis for domestic and foreign new orders. The origin is determined by the residency of the third party that has made the order.

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. Monthly data are calculated as averages of daily values from the banks with the highest volume of business in the euro area money markets.
http://www.euribor-ebf.eu/

2.4 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.
Industrial production is compiled as a fixed base year Laspeyres type volume-index.
Base period: Year 2010 = 100.
Source: Eurostat.

2.5 Gross Fixed Capital Formation

The Gross Fixed Capital Formation (GFCF) consists of resident producers´ aquisitions, less disposals, of fixed tangible or intangible assets. This covers in particular machinery and equipment, vehicles, dwellings and other buildings. The GFCF is a key determinant of both aggregate demand and supply.
Source: Eurostat and ECB.

2.6 Capacity utilization in the investment goods sector

Population: Investment goods producers. Data covered: Assessment of current production capacity, measured as a balance (seasonally adjusted); Current level of capacity utilization, measured in % (seasonally adjusted). More than 38.000

industrial firms are surveyed every month, while the biannual investment survey includes over 44.000 units. Answers obtained from the surveys are aggregated in the form of “balances”. Balances are constructed as the difference between the percentages of respondents giving positive and negative replies. The Commission calculates EU and euro-area aggregates on the basis of the national results and seasonally adjusts the balance series.
http://ec.europa.eu/economy_finance/db_indicators/surveys/documents/userguide_en.pdf

2.7 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

2.10 OECD Business Confidence Indicator (BCI) for Europe

The Composite leading indicators (CLI), which BCI is part of, comprise 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. CLIs are calculated for 33 OECD countries (Iceland is not included) and several regional aggregates, based on enterprises’ assessment of production, orders and stocks, together with its current position and expectations for the near future.
These indexes are designed to anticipate turning points in economic activity relative to trend, on average 6 to 9 months before they happen. 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. Turning points in the detrended reference series are usually found about 4 to 8 months in advance. 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.
Typical indictors in the CLI include orders and inventories changes, financial market indicators, business confidence surveys and data on key sectors and trend in the main trade partners.
The standardised BCIs represent only the manufacturing sector. It is based on companies’ assessment of production, orders, stocks and its current position and expectations. 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

2.11 European Commission Economic Sentiment Indicator

The Economic Sentiment Indicator (ESI) is a composite indicator made up of five sectoral confidence indicators with different weights: Industrial confidence indicator, Services confidence indicator, Consumer confidence indicator, Construction confidence indicator Retail trade confidence indicator. Confidence indicators are arithmetic means of seasonally adjusted balances of answers to a selection of questions closely related to the reference variable they are supposed to track (e.g. industrial production for the industrial confidence indicator). Surveys are defined within the Joint Harmonised EU Programme of Business and Consumer Surveys. The economic sentiment indicator (ESI) is calculated as an index with mean value of 100 and standard deviation of 10 over a fixed standardised sample period. Data are compiled according to the Statistical classification of economic activities in the European Community, (NACE Rev. 2). The industry confidence is weighted at 40 per cent in the calculation of the ESI. Source: DG ECFIN

2.12 Purchasing Managers' Index (PMI)

The Global Report on Manufacturing is compiled by IHS Markit and J.P. Morgan 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, below 50.0 a decrease and equal to 50.0 means no change on prior month. All the indices are seasonally adjusted at the national sector level.
http://www.markiteconomics.com/Survey/Page.mvc/AboutPMIData

Geographical information

CECIMO countries

The European Association of the Machine Tool Industries (CECIMO) bring together 15 national associations of machine tool builders from the following countries: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Italy, the Netherlands, Portugal, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Euro area (EA)

The euro area (EA19), also called Eurozone, consists of those Member States of the European Union that have adopted the euro as their currency. It includes Belgium, Germany, Estonia, Ireland, Greece, Spain, France, Italy, Cyprus, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Austria, Portugal, Slovenia, Slovakia and Finland.

European Union (EU)

The European Union (EU28) includes Belgium, Bulgaria, the Czech Republic, Denmark, Germany, Estonia, Ireland, Greece, Spain, France, Croatia, Italy, Cyprus, Latvia, Lithuania, Luxembourg, Hungary, Malta, the Netherlands, Austria, Poland, Portugal, Romania, Slovenia, Slovakia, Finland, Sweden and the United Kingdom. EU15 refers to the 15 countries forming the European Union before the enlargements of 2004, 2007 and 2013.

CECIMO aisbl
66, avenue Louise
1050 Brussels
Belgium

Tel: +32 2 502 70 90
Fax: +32 2 502 60 82
www.cecimo.eu

For more information:
information@cecimo.eu