

CECIMO Economic and Statistical Toolbox

January - February 2018




cecimo
European Association of
the Machine Tool Industries

Table of content

Introduction

1 Data specific to the European machine tool market

- 1.1 CECIMO8 orders
- 1.2 Peter Meier's forecast
- 1.3 MT-IX
- 1.4 CECIMO trade
- 1.5 CECIMO production
- 1.6 CECIMO consumption
- 1.7 CECIMO Business Climate Barometer 

2 Macroeconomic data in relation with machine tool orders

- 2.1 GDP
- 2.2 Interest rates – Euribor
- 2.3 Inflation
- 2.4 Industrial production index
- 2.5 Gross Fixed Capital Formation
- 2.6 Capacity utilisation in the investment goods sector
- 2.7 Bank lending survey
- 2.8 Foreign exchange rates
- 2.9 Industrial employment
- 2.10 OECD Business Confidence Indicator for Europe
- 2.11 European Commission Economic Sentiment Indicator
- 2.12 Purchasing Managers' Index

Glossary

Geographical Information

Other symbols and acronyms

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

Introduction

We stepped into 2018 optimistically. 2017 ended greatly with the highest economic sentiments in history, Morgan Stanley analysts qualify the year as “absurdly good”. Hence, what is to be expected for 2018?

January marked the transition from an economic recovery to a solid and lasting expansion. According to the Winter 2018 Interim Economic Forecast of the European Commission, both the European Union and the Euro Area economies expect to watch their economies beholding a 2.4% growth rate in 2017, above the Autumn Forecast, which is the steepest rate in a decade. This expansion is likely to last for the next two years and register a 2.3% growth in 2018 and 2.0% in 2019. The bright expectations are fuelled by a continuously improving labour market, exceptionally high economic sentiment and favourable financial conditions for investment. In addition, OECD predicts a 3.6% growth for 2017 and 3.7% for 2018. The EA reached a 1.5% inflation rate in 2017, likely to repeat in 2018 and possibly increase to 1.6% in 2019, assuming a status quo situation in UK-EU27 trade relationship in 2019. Undeniably, the outcome of the Brexit negotiations and other geopolitical tensions remain the downward risks for economic growth. High asset prices might trigger a reassessment of fundamentals.

Central and Eastern European countries saw maybe the best year of economic growth in 2017. Focus Economics estimates the regional GDP growth at 4.6% in 2017, up from the 3.1% rate registered in 2016. Poland, its largest economy, grew at its steepest rate since 2011. The CEE currencies were the best performing among the emerging markets in 2017. Several factors are to be praised for the regional rebound. High investment sentiment, strong domestic demand, loose fiscal policies, along with tight labour markets and EU funds inflows outweighed political uncertainties.

For certain regions, overpassing the previous year might be difficult. China registered a 6.8% economic expansion in 2017, above all expectations (still the lowest in the last twenty-five years). Economists predict a slower growth (6.5%) in 2018, as the government campaigns for the second year in a row to break the Chinese dependency on debt heavy investment models. Poverty and pollution could undermine its strong position, and financial fragility is another reason to worry about, when it comes to the Chinese economic performance. That said, the risks faced by the Chinese economy will have repercussions on the global economy as well.

Likewise, it will be hard for Europe to match its own 2017 record high expansion. We are in the 18th quarter of consecutive growth. So far, no change of plans for the ECB’s quantitative easing or the interest rates is foreseen. Major European economies maintained their momentum in the beginning of 2018, PMI picked up, prices also surge following the costs increases for oil and raw materials, and inflation might build up as well. However, some asset purchases are likely to phase out by the end of the year. Central and Eastern Europe is likely to score a lower growth rate of 3.7% in 2018 and of 3.2% in 2019. Political risks and rising inflation might break the consumption and render the region less attractive.

The US stocks enthusiastically picked up, overheated by the Republican corporate tax cuts. The fruits of Trumpian work will appear much later than 2018, as corporates and consumers will respond to the tax reform. But, on a longer term, the long-awaited “policy gift” given to the nation for Christmas might come with a wider public debt gap, an income gap and possibly other additional gifts. Goldman Sachs analysts don’t see an end to the growth momentum anytime soon. On a longer term, by their calculations, wages growth and shortage of workers risk to start a recession. Keeping economic growth sustainable could become more challenging. Therefore, we are likely to see the end of an economic cycle.

1. Data specific to the European machine tool market

▼ 1.1 CECIMO8 orders ⁱ

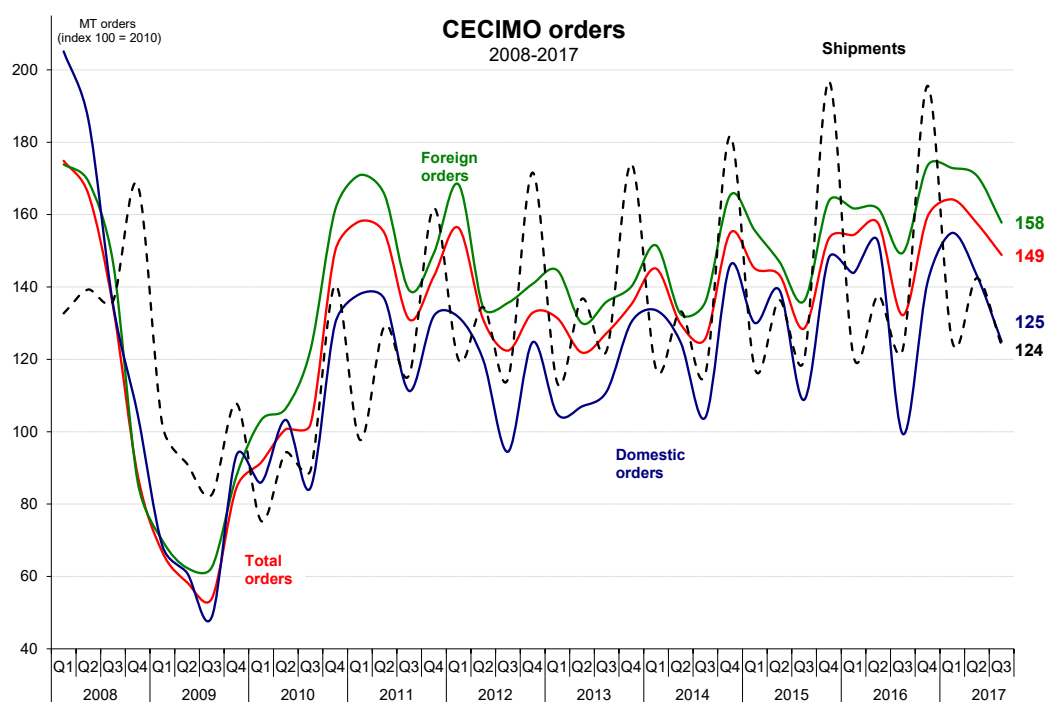
During the third quarter of 2017, machine tool builders registered an overall decrease by 6% in total orders in the CECIMO8 countries, an unchanged level compared to the same quarter of 2016. On a quarterly basis, Germany and Czech Republic booked 3% and 2% more orders in the third quarter, whereas the remaining countries recorded negative rates. France booked -49% less orders in the third quarter, following a negative trend for already three quarters in a row. Italy, after the -26% decline in the second quarter, observes a -21% further drop. Austrian and Swiss machine tool builders both booked -9% less orders. Spain observe a smaller, although third, consecutive decline (-3%). Its fourth quarter recovery (+38%) still doesn't make up for the yearly loss of -26%, when compared to the fourth quarter 2016. Meanwhile, the UK total orders almost did not change (-1%) in the third quarter, and further dropped in the fourth (-5% quarterly and -2% yearly).

Looking back on the third quarter of 2016, the picture of CECIMO8 total orders looks brighter. As a matter of fact, Austria and Germany increased their MT orders by +13%, Czech Republic by +14% and Italy by +16%. Switzerland and UK orders grew at sharper rates of 31% and 21% respectively, compared to the same quarter of the previous year. Spanish MT orders did not significantly vary with respect to the third quarter of 2016 (-1%), while France recorded the steepest quarterly decline, -52% on a yearly comparison. The fourth quarter looks good for Germany and Italy, whose orders' data is available. Germany registered a further increase of +17%, marking a three-quarters long positive trend, whereas Italy booked 49% more total orders, compensating for the two previous quarterly drops.

The quarterly domestic orders read a -13% decrease in the third quarter for CECIMO8 members, compared to the second quarter, but scored +26% higher than in the same 2016 quarter. Home demand looks good for Germany (+25%), UK (+18%) and Czech Republic (+11%), which pull up countries' total orders. For Spain, the picture is exceptionally good, as Spanish machine tool builders registered 54% more orders in the third quarter. Contrary, Italy, France and Switzerland saw a severe drop in the domestic demand by -63%, -42% and -27% each. The good news is that Italy still booked +69% more than in the same quarter one year ago and further tripled its domestic orders in the fourth quarter, whereas the French demand substantially worsened over the year by -47%. Austria also booked -14% less orders, compared to the second quarter and the third quarter in 2016.

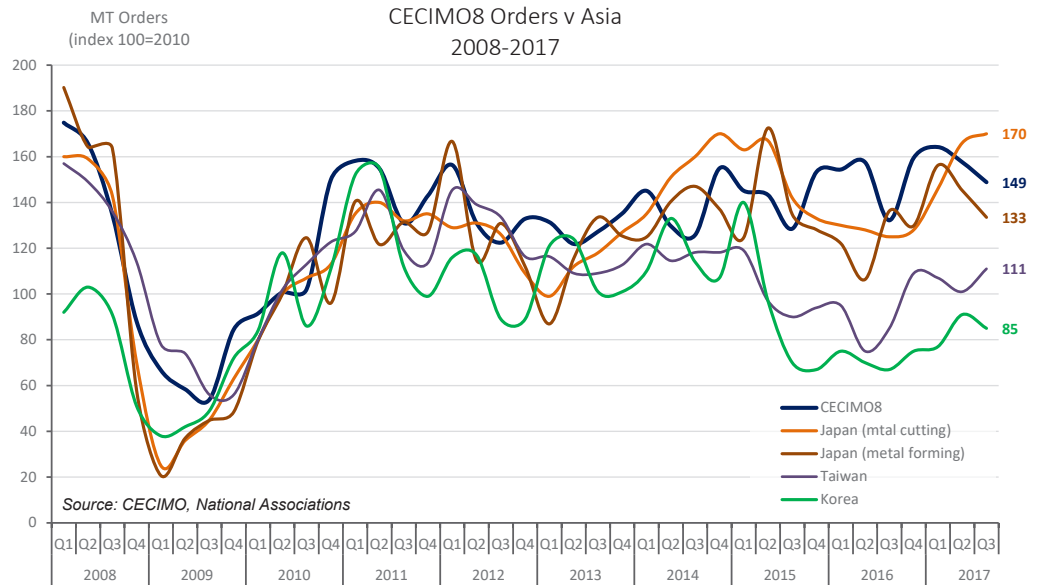
Third quarter orders data signals a very mild drop in foreign demand (-1%) for CECIMO8 countries, from the second to the third quarter, while yearly foreign orders picked up by +6%. Again, we read a sensible shrinking of the French foreign demand: by -52% compared to the second quarter and -55% compared to the third quarter of one year ago. The foreign demand for Spanish machine tools sees a milder fall by -13% over the quarter, which is -11% lower than the same quarter in 2016. British (-11%), Austrian (-8%), Italian (-7%), German (-6%) and Swiss (-6%) -

based machine tool builders also recorded a drop in foreign demand, although the order levels are still higher when seen in an annual perspective. Compared to the third quarter of 2016, Switzerland increased its orders by +35%, Czech Republic by +25%, United Kingdom by +21% and Austria by +18%, while German and Italian foreign orders saw a moderate +5% and 2% increase over the year. The quarterly orders' development of our Asia counterparts is similar. Japanese metal forming manufacturers register a -8% drop in total orders, dragged down by a -14 contraction of foreign demand and a -4% of domestic's. Over the year, this accounts for a small decrease of -2% in terms of total orders. Metal forming machines record a modest but consecutive increase of orders during third quarters, on one hand driven by a -1% drop in foreign orders and, on the other



hand, compensated by a +8% improvement on the domestic side. Nevertheless, this accounts for a 36% annual increase of total orders compared to the same quarter one year ago. South Korea booked -7% less orders in total compared to the previous quarter. The total orders level was dragged down by a -22 contraction of domestic demand, slightly compensated by an improvement on the foreign side (+15%). Still, the Korean machine tool builders scored better (+27%) than in the third quarter of 2016. Taiwan saw a quarterly 10% increase of total orders, fuelled by an improved demand on domestic (+9%) and foreign side (+15%). This level is 31% higher than in the third quarter of 2016.

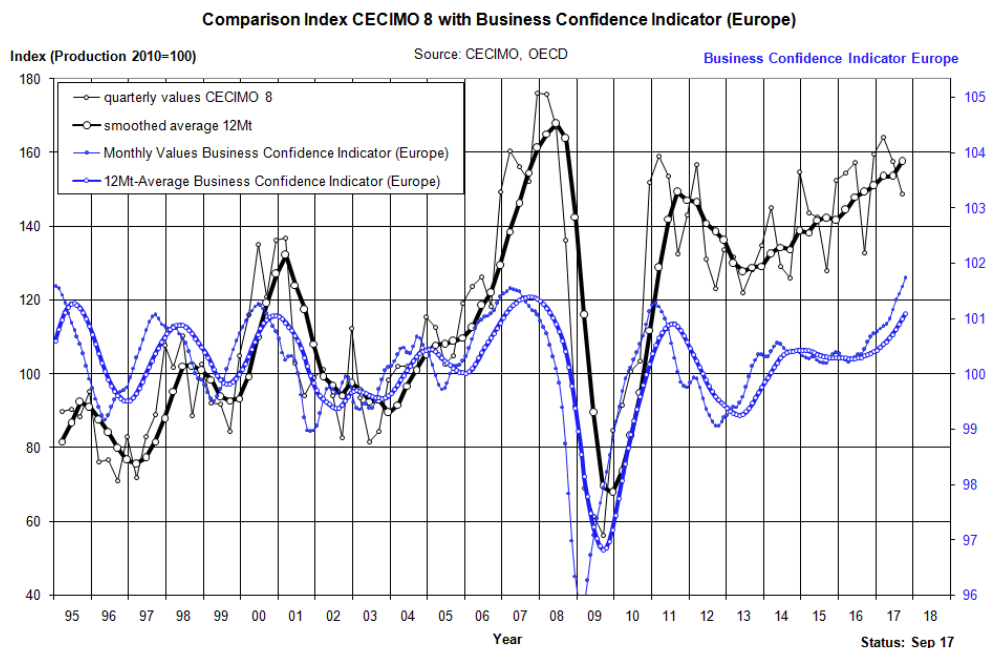
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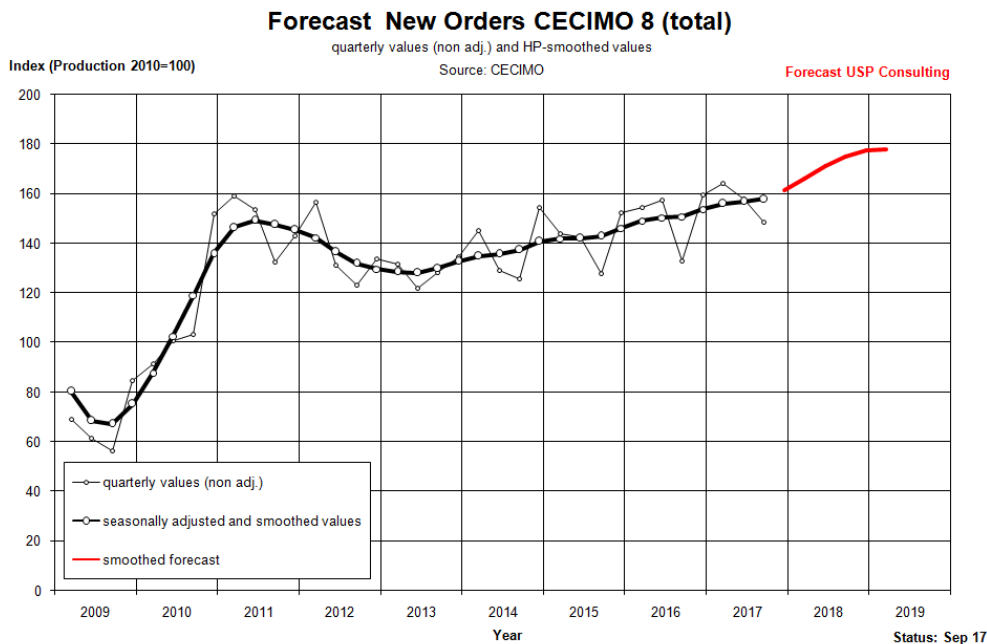
▲ 1.2 Peter Meier's forecast

The industrialized countries of the OECD are in high spirits. Consumer confidence in Europe has been recording its highest index level since 2008, while in US it hasn't been so high since 2000. The business confidence in the industrialized countries is at a level that has not been reached for a decade. Firm indicators, such as consumption and industrial production, also show a positive development in the OECD.

The Business Confidence Indicator in Europe has reached a record level, which we haven't seen in the past twenty years. And it is rising in all important world markets as well. This will most probably boost the demand for machine tools in the coming months.



In the emerging countries, the consumer sentiment is at its highest level in twenty years, although business confidence and industrial production are declining. China continues to grow at 6.5% per year, in line with its targets. However, India, despite its declining business confidence and industrial production, takes over China. Therefore, the current upswing is mainly supported by developed countries. The emerging economies register a rather robust economic growth and Europe has its replacement investments still pending. Consequently, the upturn will continue the next year, and will likely lose momentum in mid- late 2018.



CECIMO Forecast

The demand for machine tools will gradually grow in the coming months until it reaches its peak by the end of 2018. New orders in the 3rd quarter of 2017 registered a level lower than expected, due to seasonal effects. However, the order volume in this quarter is considerably higher than last year. The latest economic indicators stretched the expected upswing into 2019, where it will probably lose momentum.

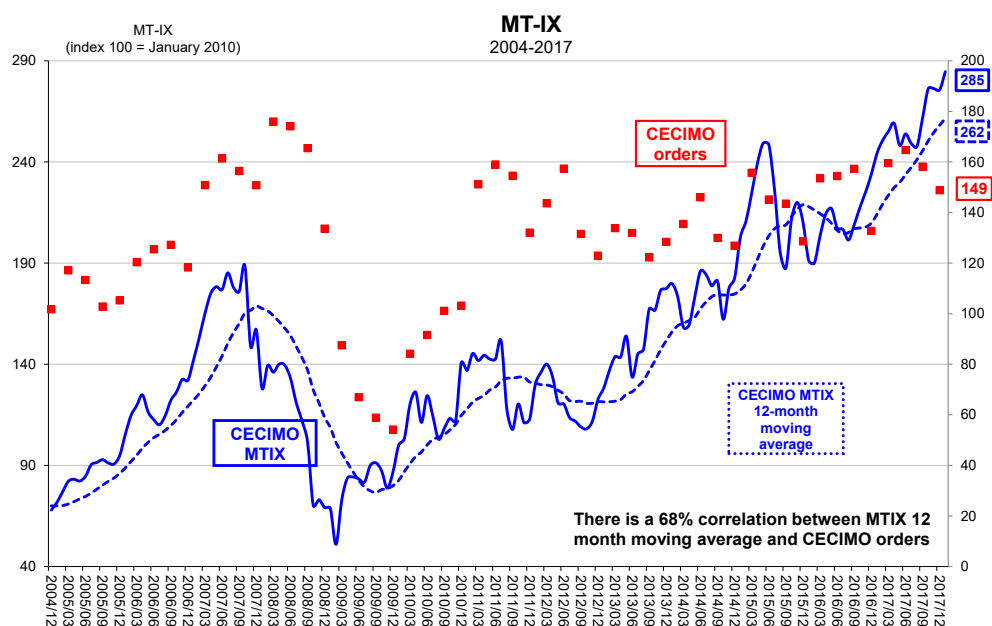
▲ 1.3 MT-IX ⁱ

In January, the Machine Tool Index scaled up by 3.3% in December, following a flat growth in November and December, with a reading of 284.7. Compared to January 2017, the MT-IX rose by 16.5%. This pick was largely driven by an increase of the market capitalization of the listed Korean machine tool builders (+26%), while US and Swiss companies saw a more moderate market cap growth of 6% and 5% respectively. CECIMO-based and Japanese-listed companies saw an augmentation of their market capitalisation by 3%. In December, Swiss companies' market value registered a 20% growth. Altogether we observe a 9 points pickup

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for the global MT-IX and a 4 points growth for the CECIMO MT-IX, for the second month consecutively.

The growth trend of the machine tool index and the 68% correlation between the MT-IX 12 months moving average and CECIMO orders suggests an improvement in orders in the fourth quarter - based on the data available so far, it's very likely - but also an upcoming pick up at the beginning of 2018.



▼ 1.4 CECIMO trade

In the third quarter of 2017, CECIMO-based machine tool builders experienced a mild moderation of exports' level by -3% with respect to the previous quarter, suggested also by a drop in foreign demand. Exports to our main destinations in Europe and Asia fell both by -3%. On the import side, CECIMO imported +18% more in value terms from its Asian suppliers, but decreased its imports from Europe (which accounts for 63% of world market share) by -3%. Consequently, the total imports positively varied by +3% over the quarter.

Looking back on the third quarter of 2016, we see a more dynamic trade. Our exports increased by a total of 8%, pushed upwards by a pickup of exports to Asian (+15%), America (+14%) and European (+4%) countries. Intra-CECIMO exports improved by 4% as well. Total imports picked up by 12% over the year, driven by a +7% increase of intra-European imports, a substantial +22% raise of imports from Asia and a +11% raise from Americas. Our forecasts signal a yearly increase of at least 5% of exports, reaching about 19 billion euro in 2017.

CECIMO exports and imports per zones - 2017Q3/2017Q2

in million euro. Export destinations and import origins

EXPORTS

ZONE	2017Q3	2017Q2	2017Q3/ 2017Q2	Share 2017Q3	Share 2017Q2
I. ASIA	1,242.9	1,284.3	-3%	26%	26%
II. AMERICAS	808.4	820.1	-1%	17%	17%
III. EUROPE	2,404.2	2,489.4	-3%	50%	50%
CECIMO	1,902.5	1,934.1	-2%	40%	39%
EU	2,231.7	2,259.6	-1%	47%	46%
IV. Russia + CIS	151.3	179.6	-16%	3%	4%
V. AFRICA	60.2	69.9	-14%	1%	1%
VI. OTHERS	114.7	101.7	13%	2%	2%
TOTAL EXPORTS	4,789	4,952	-3%		

IMPORTS

ZONE	2017Q3	2017Q2	2017Q3/ 2017Q2	Share 2017Q3	Share 2017Q2
I. ASIA	830.9	705.6	18%	32%	28%
II. AMERICAS	112.2	119.3	-6%	4%	5%
III. EUROPE	1,609.4	1,651.8	-3%	63%	66%
CECIMO	1,542.6	1,572.4	-2%	60%	63%
EU	1,253.3	1,305.6	-4%	49%	52%
IV. Russia + CIS	2.9	1.4	104%	0%	0%
V. AFRICA	0.8	1.2	-30%	0%	0%
VI. OTHERS	6.1	5.5	11%	0%	0%
TOTAL IMPORTS	2,568	2,494	3%		

Source: Eurostat

CECIMO exports and imports per zones - 2017Q3/2016Q3

in million euro. Export destinations and import origins

EXPORTS

ZONE	2017Q3	2016Q3	2017Q3/ 2016Q3	Share 2017Q3	Share 2016Q3
I. ASIA	1,242.9	1,082.4	15%	26%	22%
II. AMERICAS	808.4	710.0	14%	17%	14%
III. EUROPE	2,404.2	2,306.7	4%	50%	47%
CECIMO	1,902.5	1,822.5	4%	40%	37%
EU	2,231.7	2,118.1	5%	47%	43%
IV. Russia + CIS	151.3	147.2	3%	3%	3%
V. AFRICA	60.2	77.8	-23%	1%	2%
VI. OTHERS	114.7	96.8	18%	2%	2%
TOTAL EXPORTS	4,789	4,431	8%		

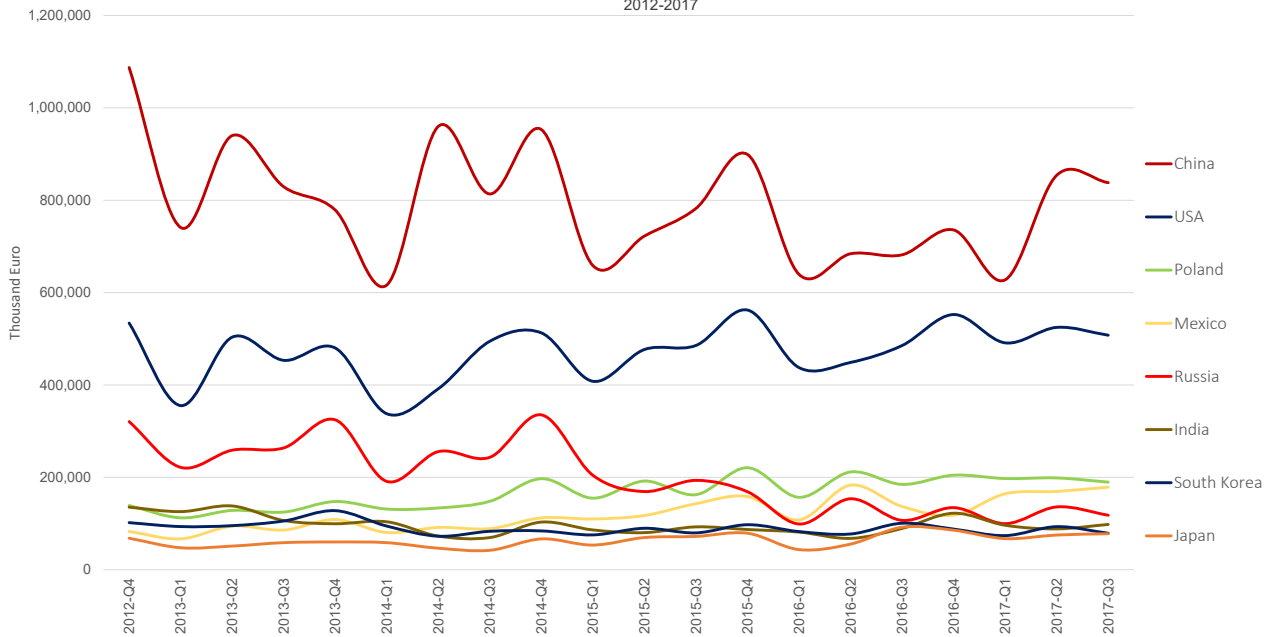
IMPORTS

ZONE	2017Q3	2016Q3	2017Q3/ 2016Q3	Share 2017Q3	Share 2016Q3
I. ASIA	830.9	681.2	22%	32%	27%
II. AMERICAS	112.2	101.1	11%	4%	4%
III. EUROPE	1,609.4	1,499.0	7%	63%	60%
CECIMO	1,542.6	1,432.8	8%	60%	57%
EU	1,253.3	1,197.0	5%	49%	48%
IV. Russia + CIS	2.9	1.9	47%	0%	0%
V. AFRICA	0.8	0.9	-6%	0%	0%
VI. OTHERS	6.1	5.8	6%	0%	0%
TOTAL IMPORTS	2,568	2,297	12%		

Source: Eurostat

Evolution of CECIMO exports to its main markets

2012-2017



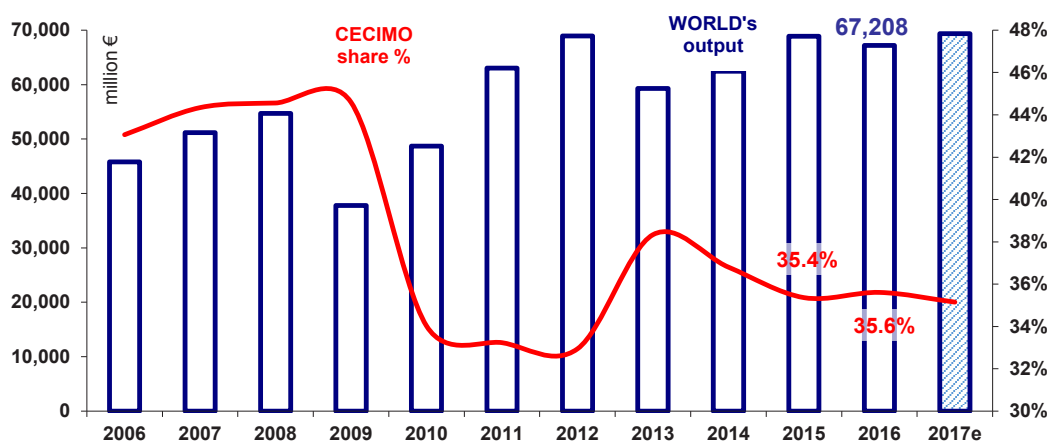
▼ 1.5 CECIMO production

The previous production data of the CECIMO machine tool builders for 2016 was very optimistic, announcing an outperformance of the estimates. However, according to the latest data input, the CECIMO production reaches 23.9 billion euro, which is 1.7% less than in 2015. Even though the production volume moderately decreased, CECIMO share of machine tool production moved from 35.4% to 35.6%. That is because the global production also declined by 2.4%, reaching a level of production of 67.2 billion, according to the available CECIMO data. It shows that the European machine tool builders are coping relatively well with the feeble international context and are firmly holding their competitive position among the global producers.

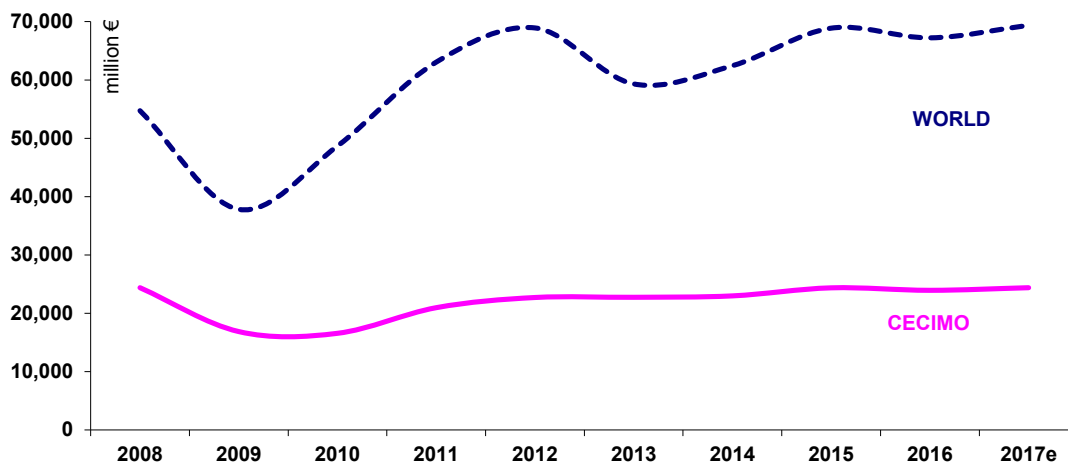
CECIMO detains its leadership position in the global machine tool production, followed by China (21%) and Japan (17%). The United States produced 8% of the MT output in 2016, keeping its share at the same level as in 2015. Among our members, Sweden and UK recorded sensible erosions of their machine tool production by 38% and 22% each. However, Switzerland and Czech Republic are dragging down the CECIMO output. Both their production decreased by 13%. The negative change of Switzerland is due to Swiss franc fluctuations at the beginning of 2015, that led to a shrinkage of investments in the country, but also pushed producers to sell with important discounts in 2016. Czech Republic, on the other hand, was hit by Russian sanctions. Fortunately, Germany, Belgium and Austria framed their decline to 1,2% and 3% accordingly last year. Italy and France, in defiance, enhanced their output by 7% and 9%.

The good news is the preliminary data for 2017, which foresees an increase in the global production up to 69.3 billion or so, representing a +3% change. Meanwhile, the same data for CECIMO predicts an annual production of 24.3 billion euro, which would mean a 5% increase as compared to 2016 and a small cutback in the CECIMO share to 35.2%. Altogether, unless there are unexpected major events or developments, the machine tool production and CECIMO share will not see significant changes.

World MT output; CECIMO share



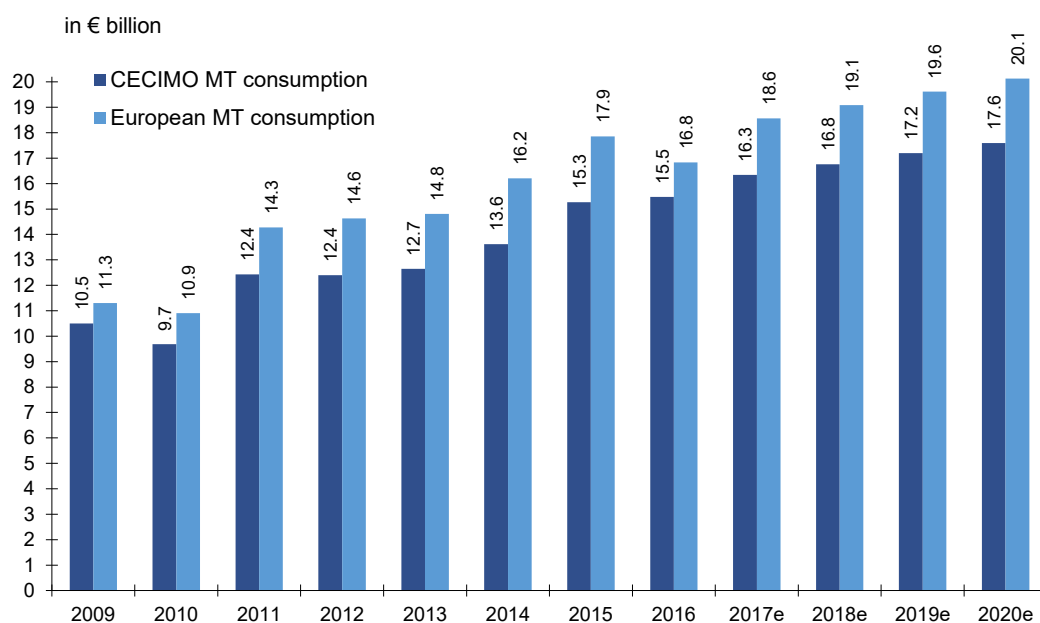
Global production of machine tools since 2008



▲ 1.6 CECIMO consumption

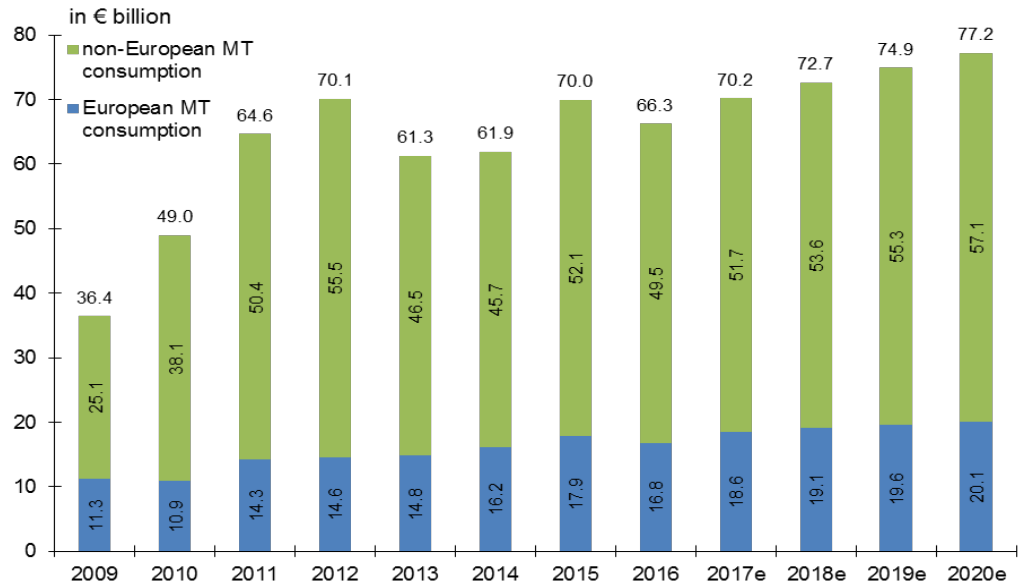
The global machine tool consumption appears to have fallen by 5% in 2016, according to the latest data available to CECIMO. Unsurprisingly, this follows the trend of the machine tool production for the same year. Nevertheless, CECIMO countries show obvious signs of improvement in consumption, going from 15.27 to 15.47 billion, equivalent to a 1.3% change since 2015. Therefore, in the negative change of the global context, our consumption not only rose in value, but also in market share, shifting from 21.8% to 23.3%.

CECIMO and European MT consumption



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Global MT consumption



In an analysis by country, we should note that our production leaders showed the highest consumption rates. Germany and Italy account for 55.5% of CECIMO consumption. Their consumption value amounted to 3.6 and 2 billion each in 2016, shortly followed by Turkey and France with 1.1 and 1 billion. Sweden decreased its level of consumption by 37.6% in 2016. Spain downgraded 28%, Swiss and Finnish consumption fell by approximately 23%, while Belgium and UK lowered their indicators by 20% and 18%. Despite these negative change rates, Portugal read a very positive rate of 26%. Italy and Austria augmented their consumption by 19% and 14%. Moreover, CECIMO aggregated consumption of machine tools per capita is markedly higher than the global average.

According to the Oxford Economics forecasts, the CECIMO share in global consumption is likely to stay stable at least for 4 years to come, oscillating around 23%. This year, CECIMO consumption in value is expected to improve by 5.6%, quite in line with the global change of +5.9%, and grow above 16 billion. As of 2018, in consonance with Peter Maier foreseeing signs of saturation, the machine tool consumption is inclined to step on a path of constant growth of 2.6% in 2018 and 2019, and 2.3% in 2020, in a comparable pace with the forecasted global growth between 3.5% and 3% for these years.

▲ 1.7 CECIMO Business Climate Barometer

The Business Climate Barometer is a quarterly assessment of the CECIMO based companies' expectations for the next quarter. The survey is based on the responses of companies from 11 CECIMO countries, carried out in October 2017.

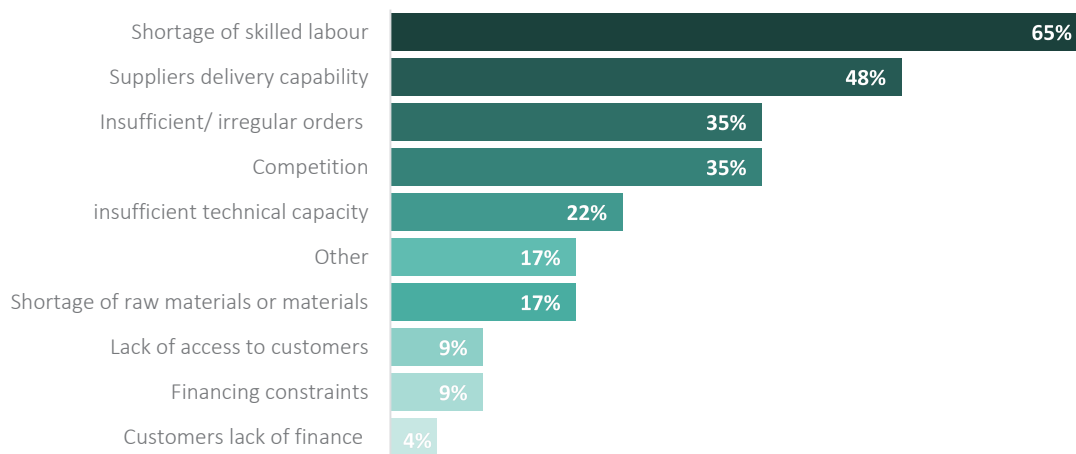
Methodology

National associations and individual companies in Austria, Belgium, Switzerland, Sweden, Finland, France, Spain, Italy, Netherlands and UK assessed their current business climate and their expectations for the fourth quarter of 2017, in relation with demand, domestic production, export sales and employment, on one side. On the other side, they were asked whether their activity is hindered by any factors and which ones. The results were weighted on the national production share for 2017 within CECIMO.

Main challenges and expectations for the 4th quarter of 2017

92% of the respondents pointed out that there are factors limiting their level of output. As a matter of fact, on average our companies operate at an 83.5% operation rate. You can see below the identified obstacles. The figures represent the weighted average of the national percentages which voted each option.

Obstacles limiting the activity

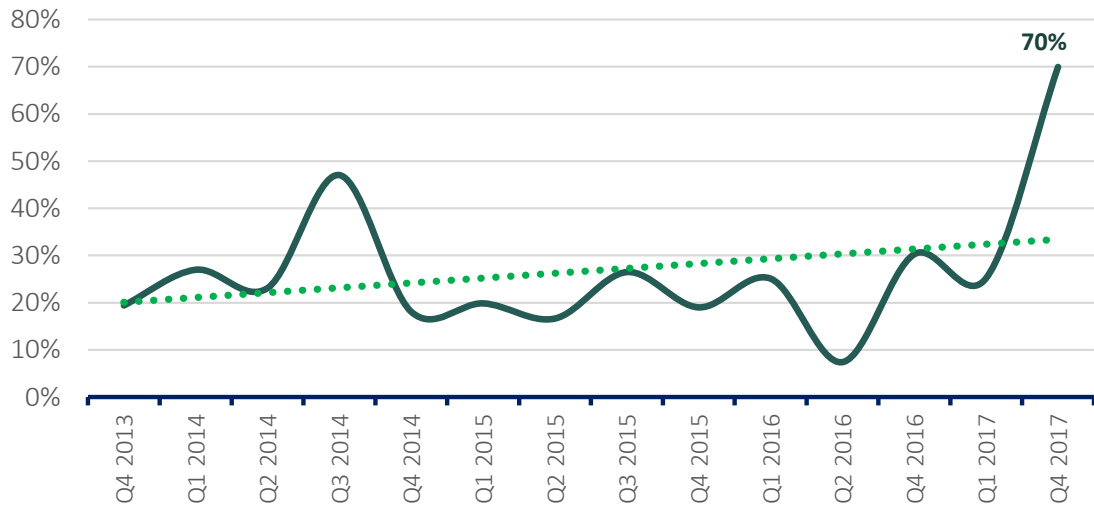


This quarter, our business confidence is stronger than ever before, in line with the Peter Meier's forecasts. In this quarter, our business climate assessment hit a record balance¹ of 70%. CECIMO-based companies acknowledge their current demand is higher than in the previous month. Similarly, for the fourth quarter of 2017, our machine tool builders expect the national production and export sales to rather increase. Employment expectations, consequently, mirror the later results as shown below.

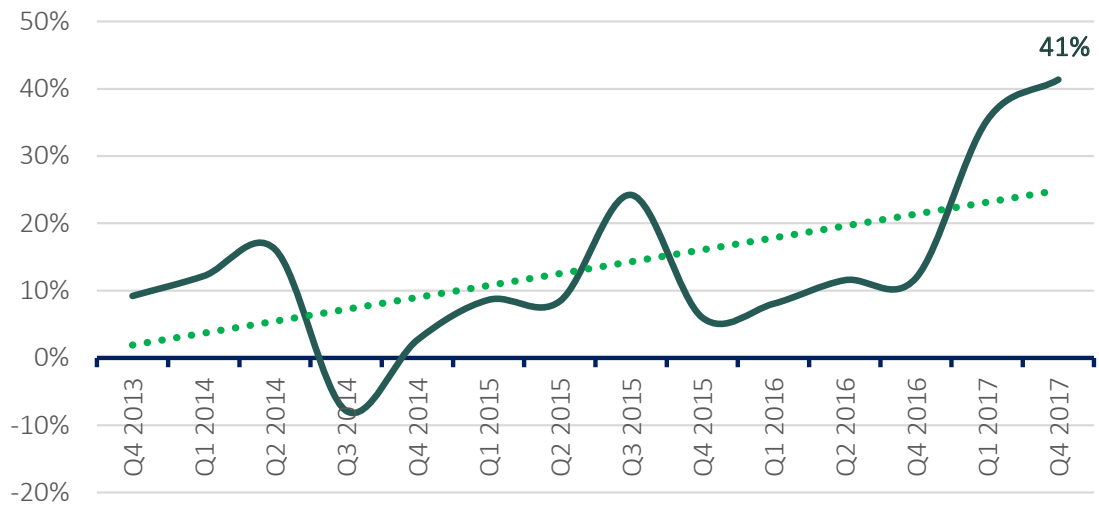
1. The balance represents the difference between positive and negative answers, excluding the middle category, weighted based on national machine tool production shares within CECIMO.

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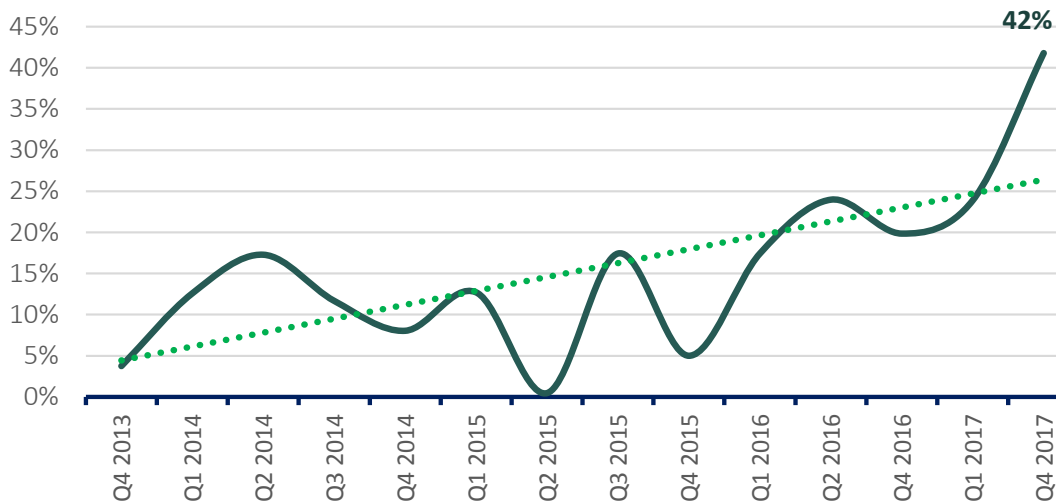
Business climate assessment



Demand

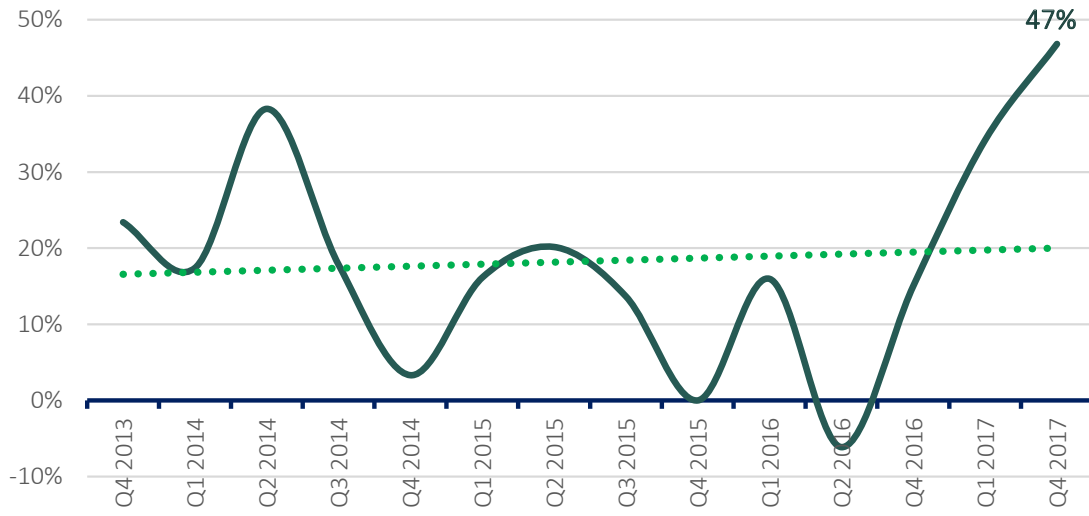


Domestic Production

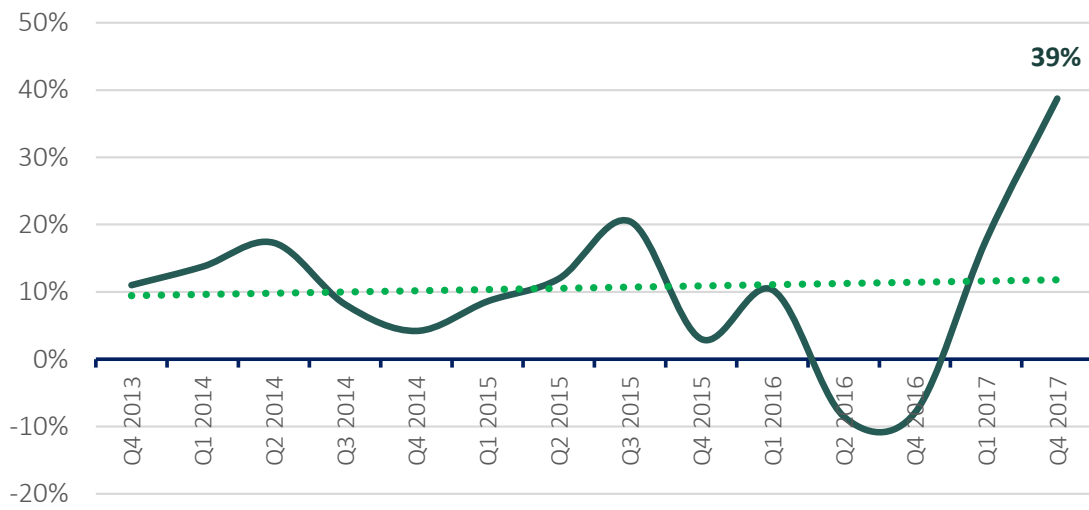


Weighted average of the national balances of positive & negative expectations, in %

Export



Employment



2. Macroeconomic data in relation with machine tool orders

▲ 2.1 GDP

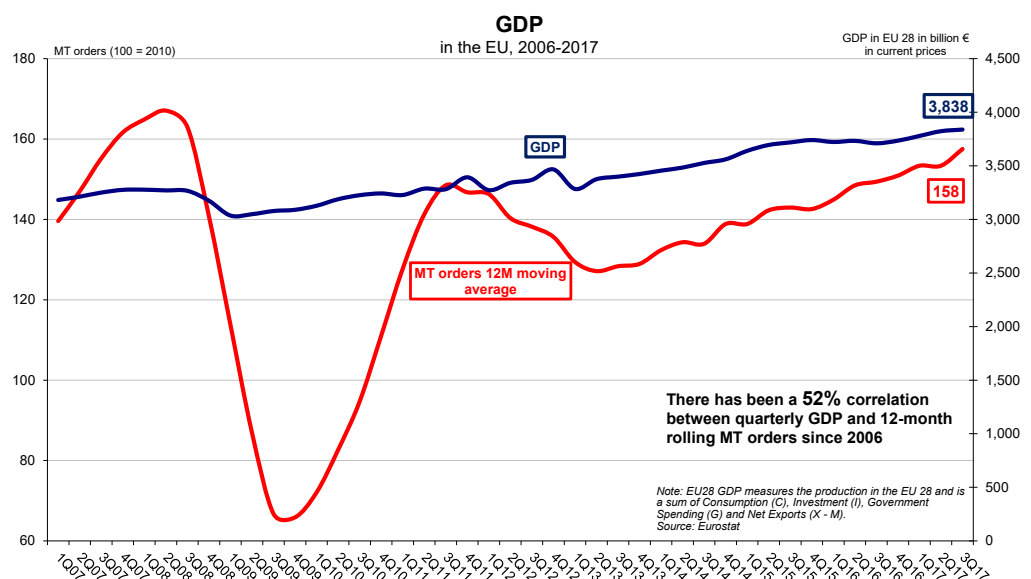
The third quarter of 2017 for the EU28 marked a modest 0.4% growth compared to the second quarter, but a 3.5% increase with respect to the third quarter of 2016. If no major changes happen, the yearly growth rate is likely to reach or surpass the 2.3% rate predicted in the Autumn 2017 Economic Forecast.

Falling unemployment, strong private consumption and a generally stronger global growth are boosting the European economy's performance, although wages are rising at an atypically slow pace. It means that the cyclical recovery is still incomplete, as GDP and inflation rely upon policy support.

Although EU growth has exceeded the expectations, it is foreseen to ease in the next two years. For 2018, the European Commission expects a 2.1% growth rate for the EU and Euro Area. Whereas for 2019, the growth rate predictions oscillate around 2.1% for the EU and 1.9% for the Euro Area. These projections are based on the assumption of a status quo in EU27 – UK relationships.

The US economy expanded by 3.2% in the third quarter 2017, compared to the previous one. This reading has been the highest since the first quarter of 2015, pumped up by a fast growth of durable and non-durable goods, personal consumption expenditure and less by the spending on services.

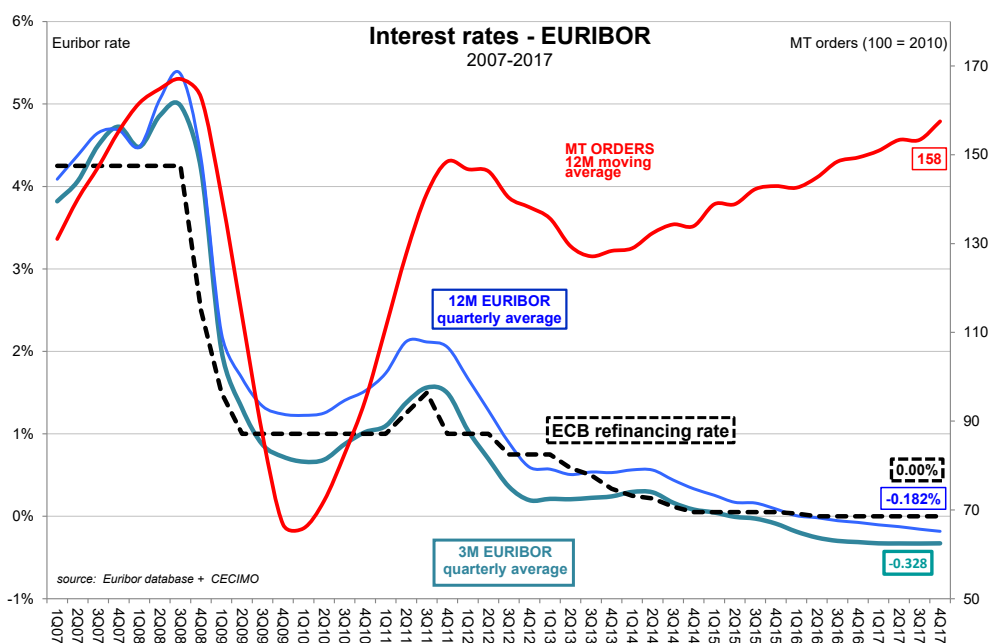
China beat the growth targets in 2017, reading a 6.8% expansion (the lowest rate in the last twenty-five years). This year, it is expected to slow down to a 6.5% growth rate. The government campaigns for the second year in a row to break the Chinese dependency on debt heavy investment models.



▼ 2.2 Interest rates – EURIBOR ⁱ

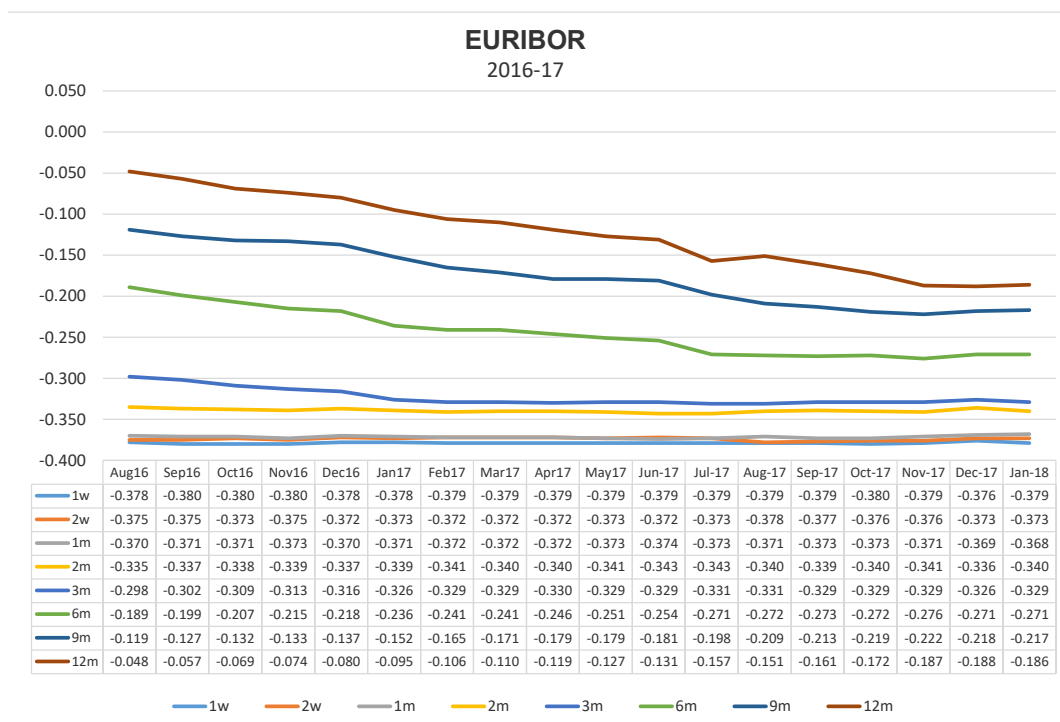
In the last five years, the ECB held the Euro Area Interest rates almost null as policy support measure for the Eurozone economic recovery. In the short term, the ECB is likely to stick to its quantitative easing programme and keep rates low. The current demographic trends, such as longer life expectancy and later retirement, implies increased savings and increased demand for savings. However, increased birth rates and more immigration could lead to an interest rates increase on a medium-term.

Even if so, the quantitative easing unwinding will be postponed until 2019 and will happen slowly, to avoid economic shocks. The current demographic trends will last for a long time, putting pressure on interest rates and keeping them at the lowest historical levels. Over the next ten years, they are not expected to rise beyond 0.75%. As we previously mentioned, the low interest rates policy helped secure a sustainable national debt and the positive results of the ultra-loose monetary policy are already visible.



In January, the longer maturity Euribor rates remained unchanged (6 months) at -0.271 or slightly picked up (9 and 12 months). The 2 and 3 months maturity Euribor rates decreased by 0.003 percentage points each, as well as the one-week maturity Euribor rate. The 2 weeks maturity rate remained the same as in December – the highest since the beginning of 2017. Whereas the one-month maturity rate only slightly increased, reading its highest level since July 2017. It appears that the longer maturity rates' trend is positive, while the rest is negative or flat at best.

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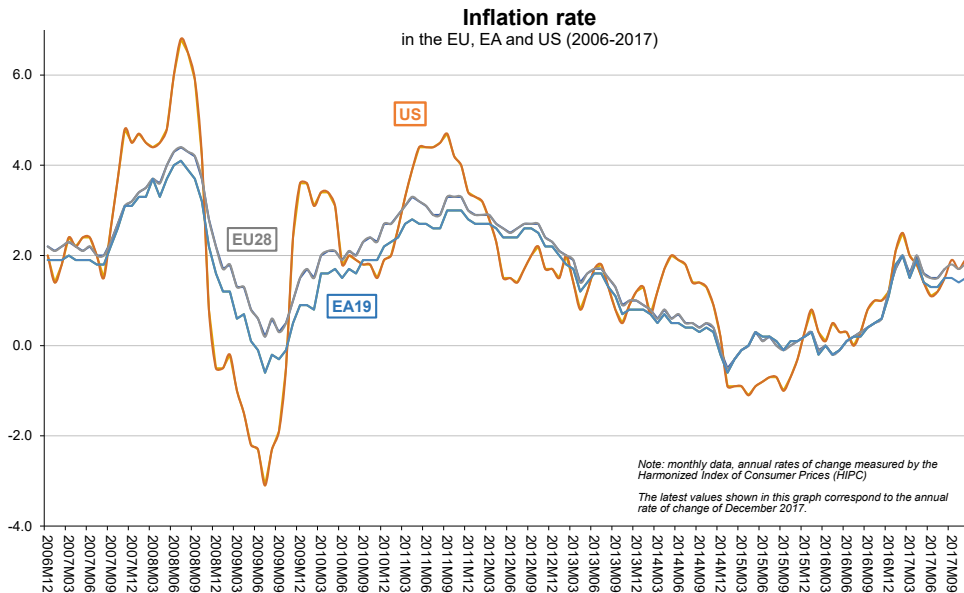


▼ 2.3 Inflation

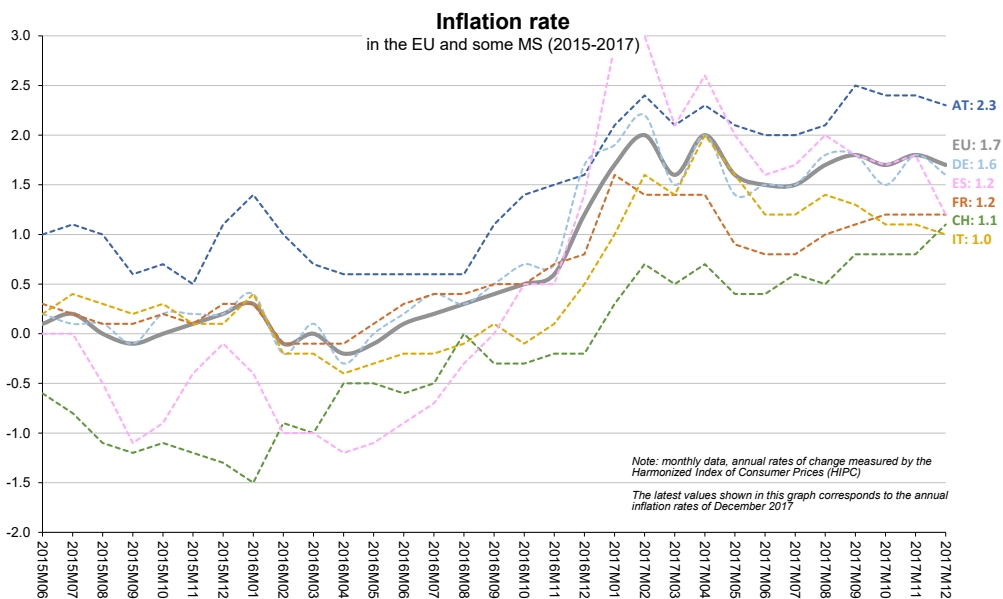
The 2% inflation rate standard is being repeatedly criticised as unsustainable and unfit for the modern economy. Regardless of the average of 2% inflation target for a certain zone, it might be appropriate for some countries in that zone to tolerate higher inflation, explains Christine Lagarde, Managing Director of the International Monetary Fund. According to Haruhiko Kuroda, Governor of the Bank of Japan, based on two decades of Central Banks' experience, this target is still meaningful for the monetary policy management, as price indexes tend to overestimate the real price development, and it also secures the necessary "policy room" to implement accommodative policies. This standard ensures the medium to long-term exchange rate relationship between major currencies.

The annual inflation rate in December 2017 slightly dropped to 1.7% down from 1.8% in November in the EU28. A year earlier, the inflation was 1.1%. Likewise, it settled at 1.4% down from 1.5% in November in the EA19, whereas in 2016 it was only 1.2%.

Finland and Denmark were the countries registering the lowest annual rates, 0.5% and 0.8% respectively. United Kingdom recorded a 3.0%, following the Baltic countries usually with the highest rates in the EU. Cyprus was the only country registering a negative inflation rate (-0.4%), while the rest of the twenty-three member states stayed relatively at the same level.



The upward pressure on the inflation rate is due to fuels for transport (-0.11 percentage points), tobacco (+0.06 pp), and milk, cheese and eggs (+0.05 pp). Telecommunication, garments and vegetables dragged the annual rate down by -0.10 pp and -0.05pp. The HICP items with the highest inflation rates are energy (2.9%) and food, alcohol and tobacco (2.1%), whereas the aggregate with the lowest annual rate was non-energy industrial goods, with 0.5%, and services, with 1.2%.

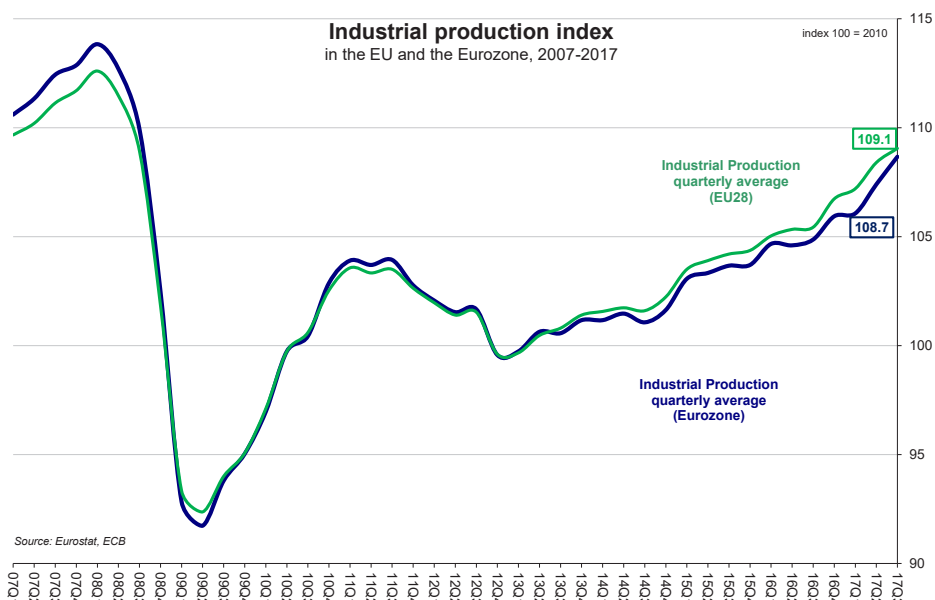


▲ 2.4 Industrial production index ⁱ

Based on the latest industrial production data, the seasonally adjusted industrial production index rose by 1% in November for the Euro Area (EA19) and by 0.9% in the European Union (EU28). In October 2017, the index grew more modestly, by 0.4% in the EA and 0.5% in the EU. In the EA, this increase is due to a pick up in the capital goods production by 3.0%, in the intermediate goods by 1.1% and in the non-durable goods by 0.1%. Energy production remained stable in a monthly

Continued ►

comparison. In the EU, the 0.9% rise builds up on the 2.4% increase of the capital goods production, the 1.4% increase in the durable consumer goods sector, the 0.9% increment in the intermediate goods, and the moderate increase on energy and non-durable consumer goods production by 0.4% and 0.2%.

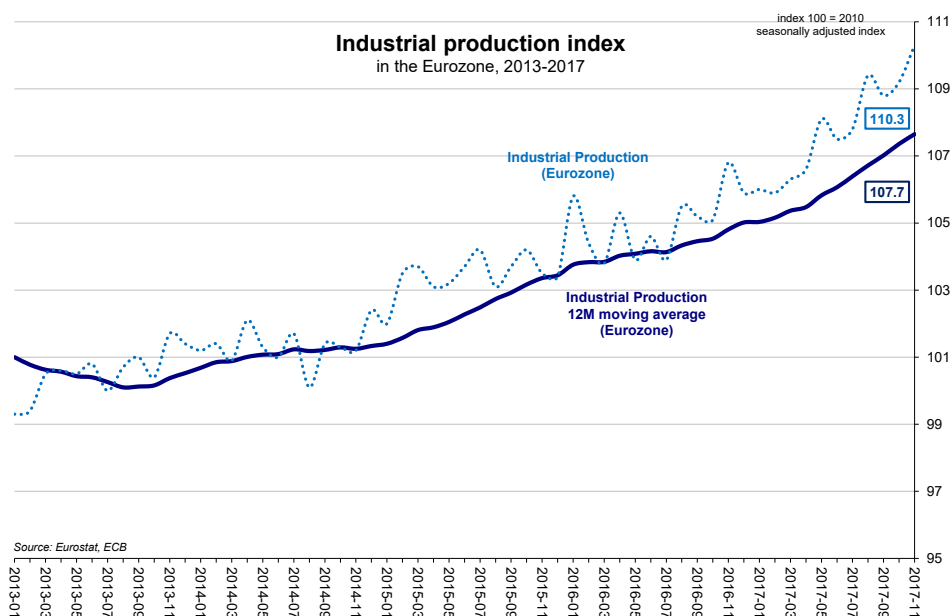


The champion countries registering the highest growth rates in industrial production are Czech Republic and Germany with +3.6% each, whereas Ireland recorded the largest decrease of -9.4% this month.

Industrial Production

(percentage change compared with the previous month)

	EA			EU28		
	Sept17/ Aug17	Oct17/ Sept17	Nov17/ Oct17	Sept17/ Aug17	Oct17/ Sept17	Nov17/ Oct17
Total industrial production	-0.50%	0.40%	1.00%	-0.50%	0.50%	0.90%
Capital goods	-1.60%	-0.20%	3.00%	-1.40%	0.10%	2.40%
Durable consumer goods	-0.30%	-2.10%	1.60%	-0.10%	-1.90%	1.40%
Intermediate goods	-0.50%	0.30%	1.10%	-0.30%	0.50%	0.90%
Energy	-1.20%	0.20%	0.00%	-0.60%	-0.20%	0.40%
Non-durable goods	0.30%	0.40%	0.10%	-0.30%	0.70%	0.20%



Compared to November 2016, the industrial production increased by 3.2% in the EA, mainly due to the capital goods production that rose by 6.2%, the intermediate and durable consumer goods by 4.6%. Inversely, the energy production dragged the index down registering an annual short fall of 3.4%. The 3.5% annual increase in the EU28 is the result of a rise in capital goods production by 6.8%, durable consumer goods of 4.6% and modest improvement for the non-durable consumer goods by 0.3%. The production of energy saw a decrease of 2.0% over the year.

Industrial Production

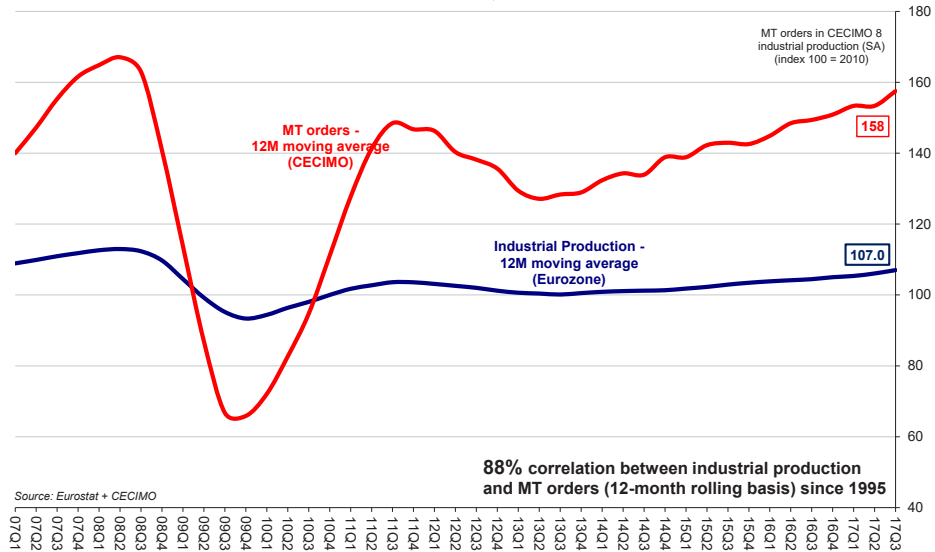
(percentage change compared with the same month of the previous year)

	EA			EU28		
	Sept17/ Sept16	Oct17/ Oct16	Nov17/ Nov16	Sept17/ Sept16	Oct17/ Oct16	Nov17/ Nov16
Total industrial production	3.40%	3.90%	3.20%	3.70%	4.20%	3.50%
Capital goods	4.50%	3.50%	6.20%	4.70%	4.50%	6.80%
Durable consumer goods	7.60%	3.90%	4.60%	7.50%	3.80%	4.60%
Intermediate goods	4.60%	5.30%	4.60%	4.60%	5.70%	4.80%
Energy	-1.10%	-1.70%	-3.40%	0.40%	-0.50%	-2.00%
Non-durable goods	1.50%	5.40%	-0.10%	1.70%	4.60%	0.30%

The highest yearly industrial production increases were revealed in Slovenia (+9.9%), Romania (+9.3%) and the Czech Republic (+8.5%). This expansion is in line with the Central and Eastern Europe's positive economic overview. The region registered the fastest growth in the last decade, due to the expansionary fiscal policy, resilient business sentiment and tighter labour market that fuelled investments. Ireland saw a large cutback of -10.1%, whereas Netherlands and Denmark shrank this index by -2.7% and -1.6% respectively.

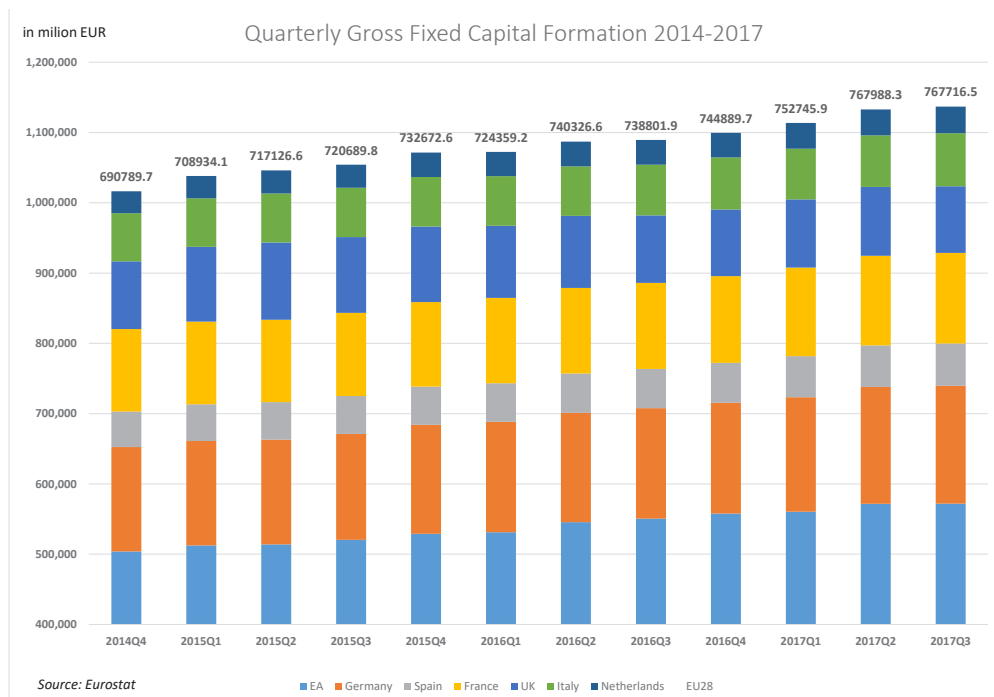
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Industrial production index in the Eurozone, 2007-2017

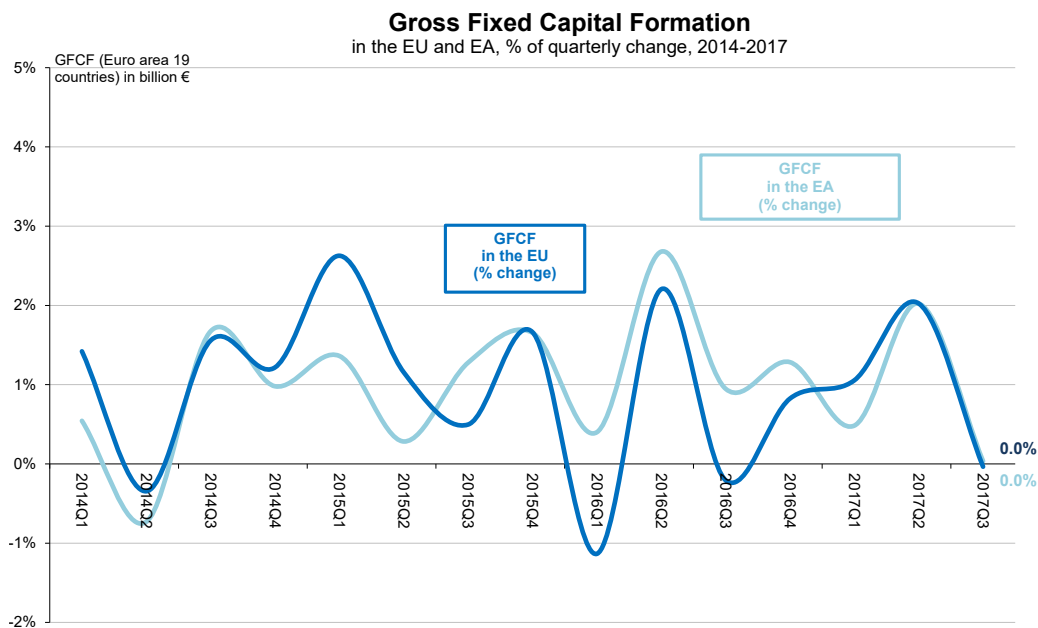
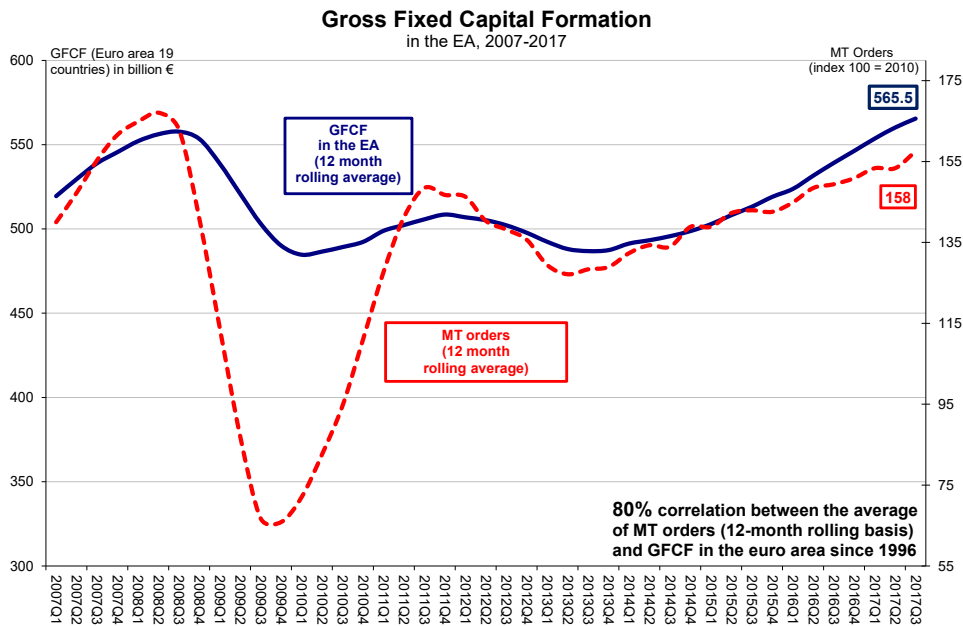


2.5 Gross Fixed Capital Formation ⁱ

The percentage contribution of the gross fixed capital formation (GFCF) of machinery and equipment to the total GDP in 2016 was stable at 6.1%. For 2017, this contribution is likely to oscillate at a similar level. In the third quarter, the GFCF remained stable for both the EA and EU, compared to the second quarter, although on an annual basis both blocs registered a 3.9% increase. For the EU28, this growth is in line with the quarterly growth rates it recorded over 2017, whereas for the EA it constitutes the most modest growth since the beginning of 2016. It is still a good sign for the machine tool builders. As the growth remains robust and positive, it is strongly correlated to the machine tool orders, notably by 83%. The government final consumption expenditure is growing across the EA and EU by 0.3% and 0.2% respectively, at a similar pace as in the third quarter of 2016.

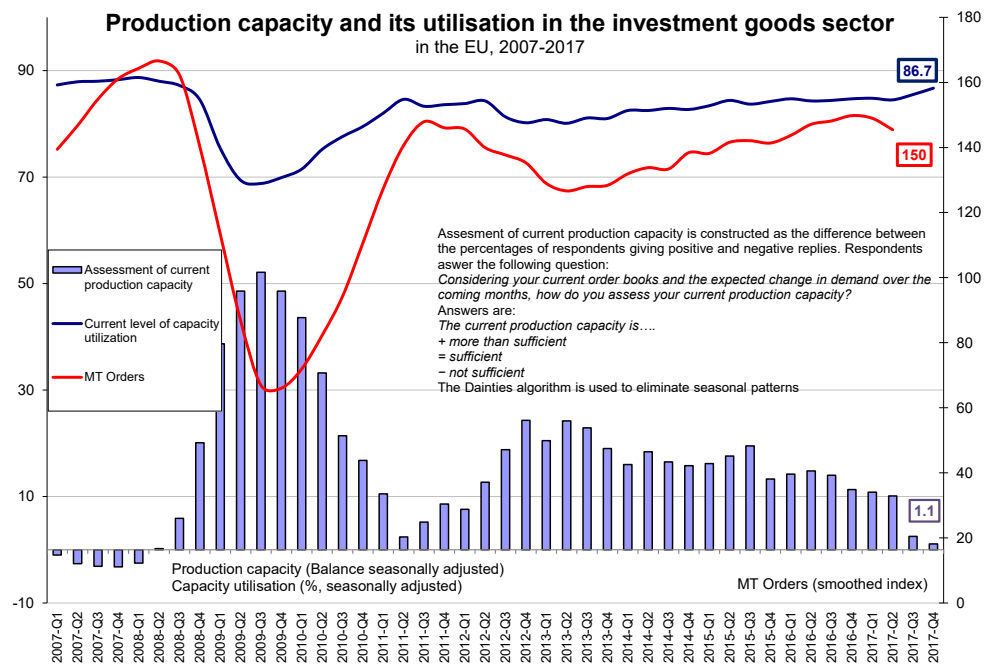


In 2016, the countries with the largest GFCF in absolute terms were Germany (630 billion euro), France (489 billion), and UK (395 billion), shortly followed by Italy (287 billion) and Spain (223 billion); although the contribution of the GFCF to the national GDP of these countries in percentage terms is among the smallest: UK (16.5%) and Italy (17.1%). The countries with the largest proportion of the GFCF as percentage of the GDP are Ireland with 31.8%, Czech Republic with 25% and Sweden with 24.1%. Countries whose GFCF has the smallest proportion in the national GDP are Greece (11.7%), Portugal (15.3%), UK (16.5%) and Italy (17.1%).



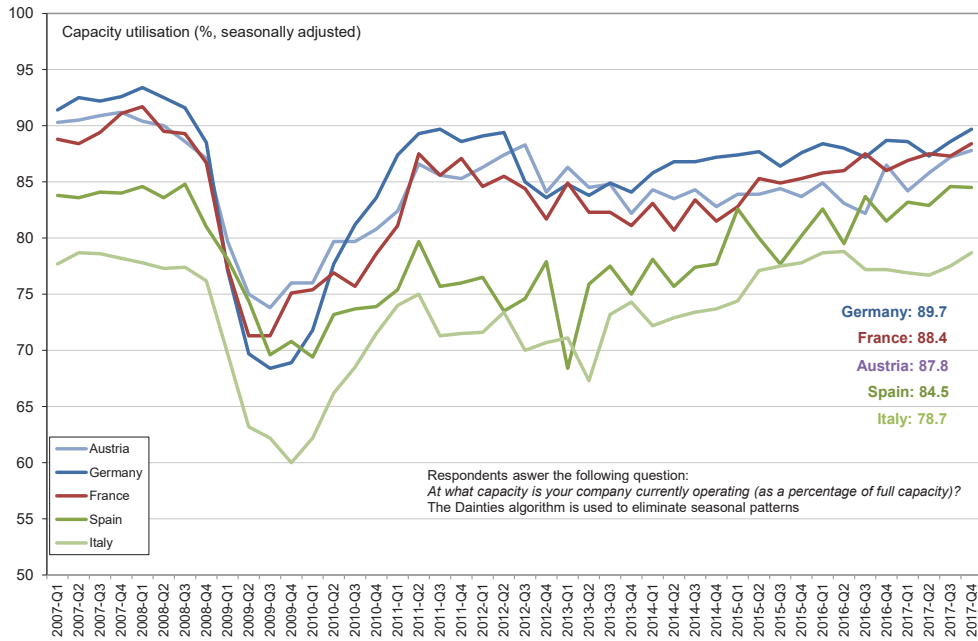
▲ 2.6 Capacity utilisation in the investment goods sector ⁱ

The capacity utilisation across the EU increased by 1 percentage point from the second quarter to the third one, reaching 85.5%. Later in the fourth quarter it scored 1.2 percentage points (pp) higher. Compared to the third quarter of 2016, the capacity utilization picked up 1.1 pp, just 0.8 pp below the 9-years average pre-crisis level. In the current state of things, the highest correlation between the level of capacity utilisation and the machine tool orders is observed when using one quarter time lag in the period between 1996 and 2017, equal to 47%.



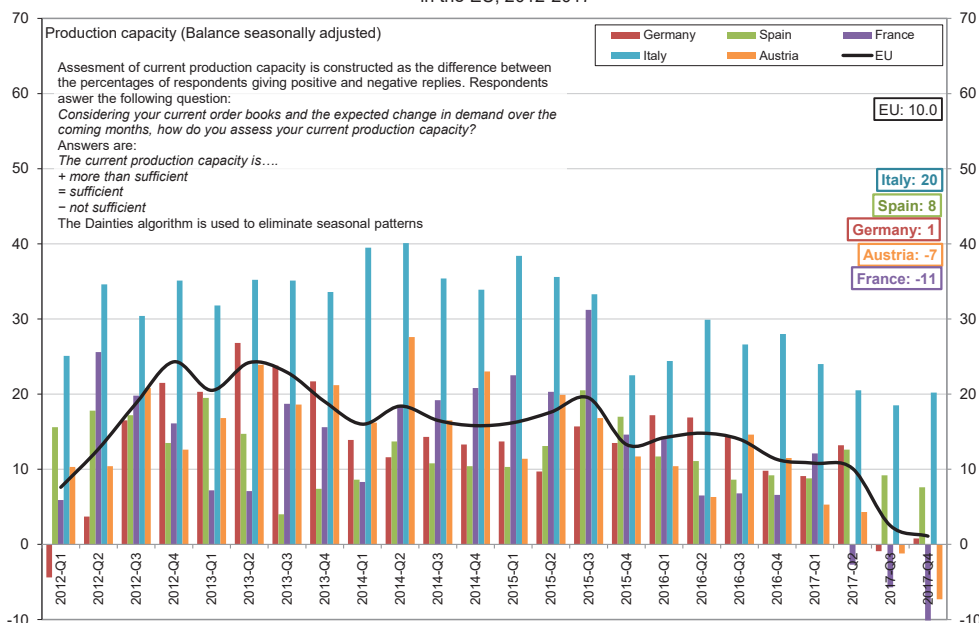
In the EA the capacity utilisation developed similarly, shifting from 84.7% in the second quarter to 85.6% in the third. This value is the highest in the Eurozone since 2008. According to the Business Climate survey of the European Commission, the countries with the highest capacity utilisation rates in the third quarter are Germany (88.6% up from 87.3%), Sweden (88.3% up from 86.6%), France (87.3% down from 87.5%) and Austria (87.2% up from 85.8%). At the opposite extreme, among the lowest levels Cyprus and Greece remain at 62.2%, up from 53.3% and 64.2%, up from 61.1%, respectively, whereas Malta considerably improved its position from 65% in the previous quarter to 80.2% in the current one. Italy moderately improved its level reading at 77.5%, instead of 76.7%, while the UK capacity utilisation level remained unchanged at 84%.

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



Across the Atlantic, the industrial activity picked up in October, recovering from Hurricanes Harvey and Irma. The industrial production in US edged down by 0.3% in the third quarter, compared to the previous decrease of 1.5%. The capacity utilisation in manufacturing reached a 76.4% level in October, concluding the third quarter with an average of 75.5%, 0.2 pp lower than in the previous quarter. The rather modest change is due to a 0.2 pp increase (to 75.7%) of utilization for durables, and an improvement of 1.7 pp (to 78.1%) of the operating rate for nondurables. Similarly, the rate for utilities rose 1.5 pp to 77.2%, whereas the operating rate for mines recorded a 1.3 pp decline to 82.4%.

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

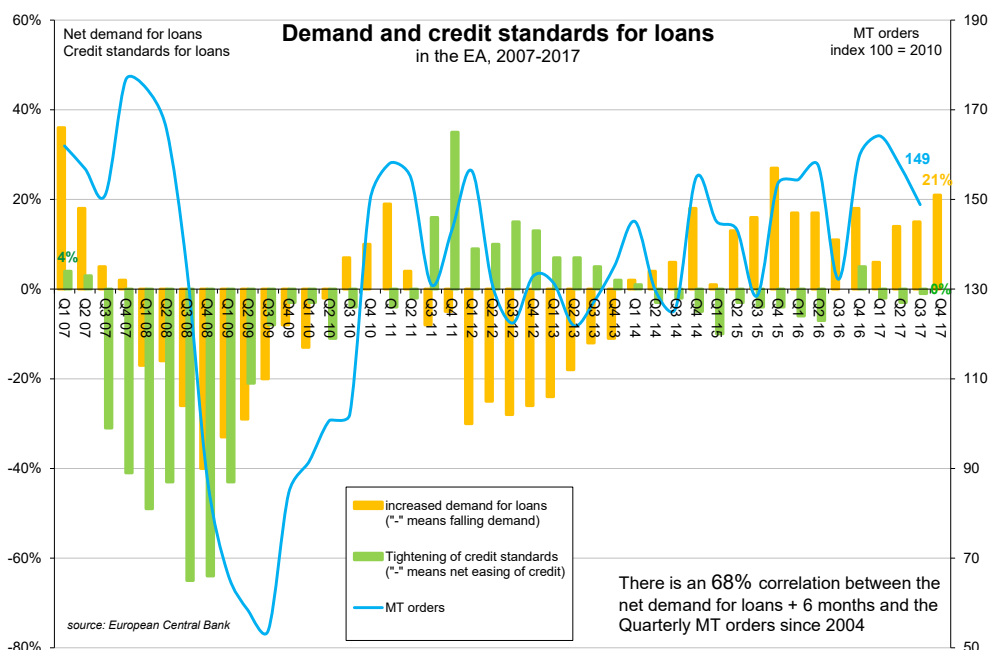


▼ 2.7 Bank lending survey ^①

The results of the EA bank lending survey for the fourth quarter of 2017 were in line with the previous quarters expectations. The credit standards on loans to enterprises remained unchanged, after a -1% easing in the third quarter. This percentage change is in line with the previous survey's expectations but also below the historical average of 2003. Although Germany reported a marginal ease of -3% and Italy reported a 10% tightening, in Spain, France and the Netherlands, the credit standards were stable. From a firm size perspective, credit standards were rather stable for SMEs (-1%), but eased by -6% on loans to large firms.

According to the banks participating in the survey, the competitive pressure and the banks' risk perceptions had an easing effect on the credit standards of loans to enterprises. On the other hand, the costs of funds and balance sheet constraints as well as the banks' risk tolerance had a neutral effect. In the first quarter of 2018, the EA banks expect a net easing of credit standards for loans to enterprises.

The terms and conditions, applicable when granting new loans and credit lines to companies, further eased in the fourth quarter of 2017. This easing was a result of an additional shrinkage of margins on average loans, whereas risky loans eased more modestly. Enterprises could benefit of better terms and conditions for loans, also due to eased collateral requirements and other terms and conditions in the last quarter of 2017. Banks report that the change in terms and conditions for loans or credit lines to enterprises was driven by competitive pressure, risk perceptions, and costs of funds and balance sheet constrains. The banks' risk tolerance didn't foster an important change in any of the EA large countries.

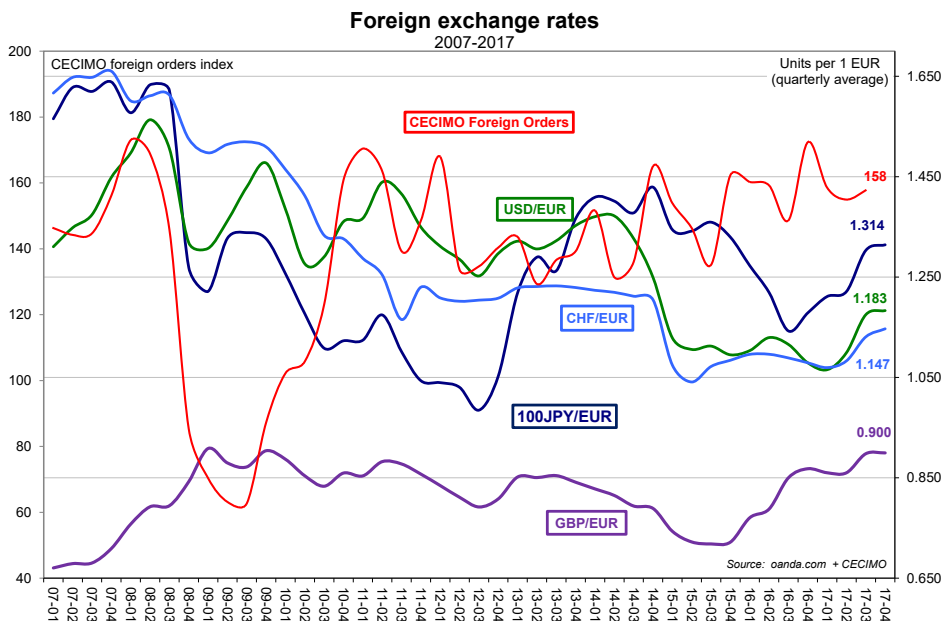
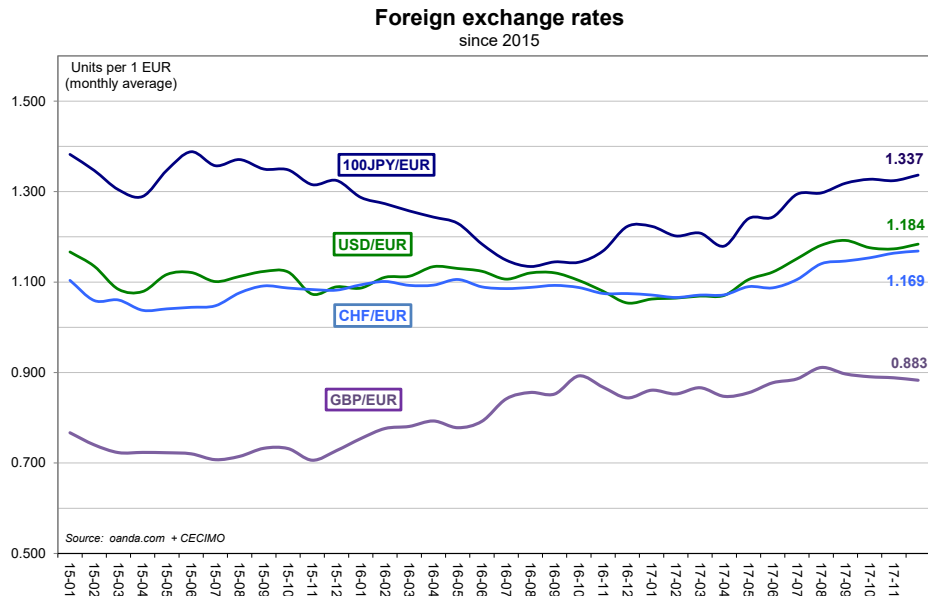


Following the same trend, the net percentage of rejected loan applications declined by -4%, after the minor increase of +1% in the third quarter. In the fourth quarter, the share of enterprises that obtained a loan rejection decreased in Germany, Italy and Spain, while in France and Netherlands, the rejection rate increased.

Based on the ECB's bank lending survey, the net demand for loans to enterprises continued to increase by 21%, after a 15% increase in the previous quarter. This percentage change is in line with the previous survey's expectations. This increase was driven by a rise in fixed investment of 20% after 13% in the third quarter, a 13% rise in inventories and working capital after 2% in the third quarter and a 12% increase in merger and acquisitions activity after a previous 11%. The general level of interest rates remained unchanged at 14%, and the impact of the use of alternative finance was rather neutral, reading -1% after -2% in the third quarter.

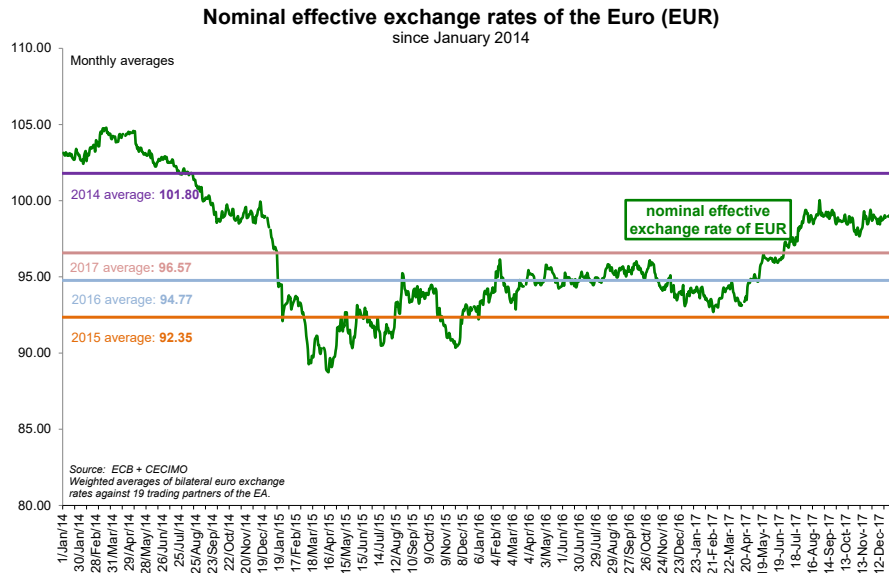
▲ 2.8 Foreign exchange rates

In December 2017, the major currencies fluctuated in a consistent way with respect to each other, except for the British Pound, registering an opposite trend. The Japanese Yen and the US Dollar both decreased by 0.9%, compared to the previous month, whereas the Swiss Franc and the Chinese Renminbi weakened their position against the Euro more modestly, by 0.4% and 0.46% each. The British currency, in return, rose by 0.6% compared to the single currency, continuing the 4 months moderate growth trend.



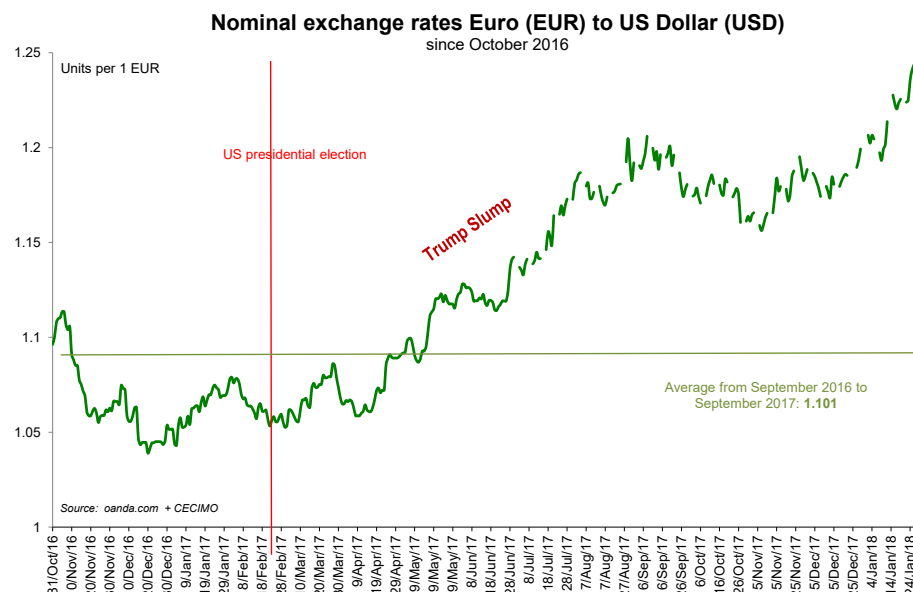
The Pound's pickup could steer the Bank of England's position towards a raise of interest rates sooner than expected, and increase the chances of holding a second referendum on country's membership in the EU. A stronger Pound Sterling raises the possibility of a worse off outcome for corporates and individuals purchasing in the national currency, especially exporters who until now benefited from a weaker Pound. However, this strength is likely to be offset by uncertainties around the Brexit prospects.

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Altogether, the Eurozone currency considerably improved its position with respect to all major world currencies. It outweighed the US Dollar over 2017 by 12.3% compared to December 2016. It also strengthened against the Japanese Yen and the Swiss Franc, by 9.3% and 8.7% each, compared to their value 12 months ago. Curiously, despite the mild decrease observed over the fourth quarter, the Euro still increased by 6.9% compared to the Chinese Renminbi and by 4.9% compared to the British Pound.

Throughout the 2017, the Dollar was consistently diving, weakening against the Euro (see the chart below). By the end of summer, the US Dollar Index touched its lowest levels in the last two years or so, marking the longest sustained fall in the last 14 years. Among the reasons of the so-called Trump Slump there are the trade war uncertainties. At the beginning of November we saw an apparent recovery of the green buck position against the Euro, perhaps cyclical or due to uncertainties around the German government, but it continued to fall. The National Bank of Canada, among others, predicts a rebound later in 2018, driven by tighter Fed policies, notably a shrinkage of the balance sheet, and the tax holiday aiming at repatriating foreign profits to US.

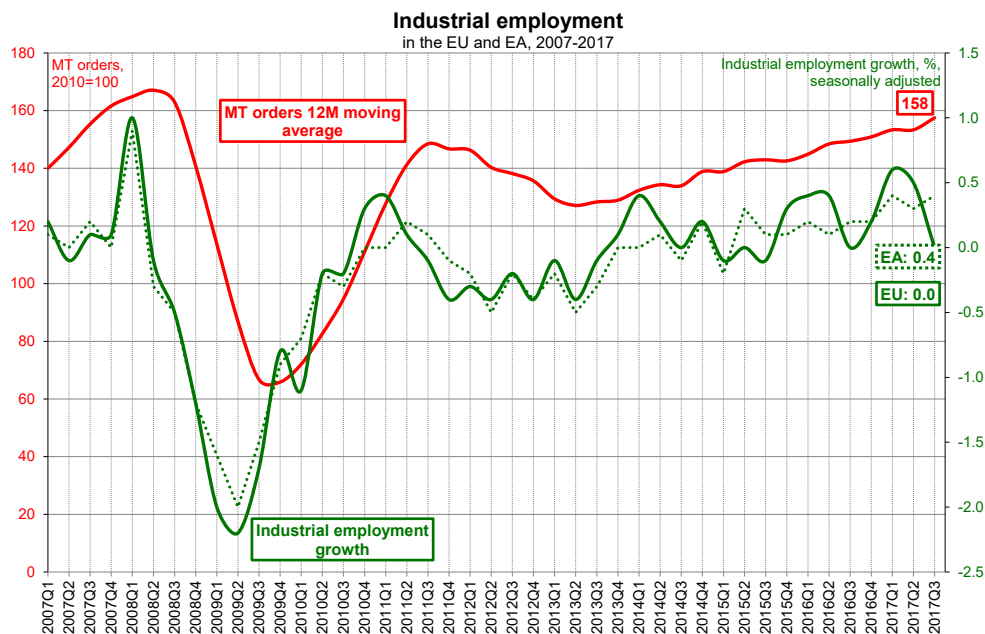


▲ 2.9 Industrial employment

The total employment in the third quarter of 2017 grew by 0.4% in the Euro Area and by 0.3% in the EU28. Specifically, the percentage change in the industrial employment was 0.4%, of which only manufacturing accounts for 0.4% for the EA19. In the EU28, the change was null for industrial employment, the manufacturing contribution accounting for -0.1%. These figures are seasonally adjusted.

In the European Union, the industrial sector employed 36.07 million men and women in the third quarter, this level remaining unchanged compared to the second quarter. In the Euro Area, the industrial employment recorded a level of 23.034 million employees, marking a 10 quarters long growth trend in absolute terms, since the beginning of 2015.

Among CECIMO members, the countries registering the highest industrial employment growth rates on a quarterly basis were Finland (2%), Portugal (1%), Czech Republic and Spain (both with 0.8%), whereas UK registered a negative change of -1.3% in the third quarter.

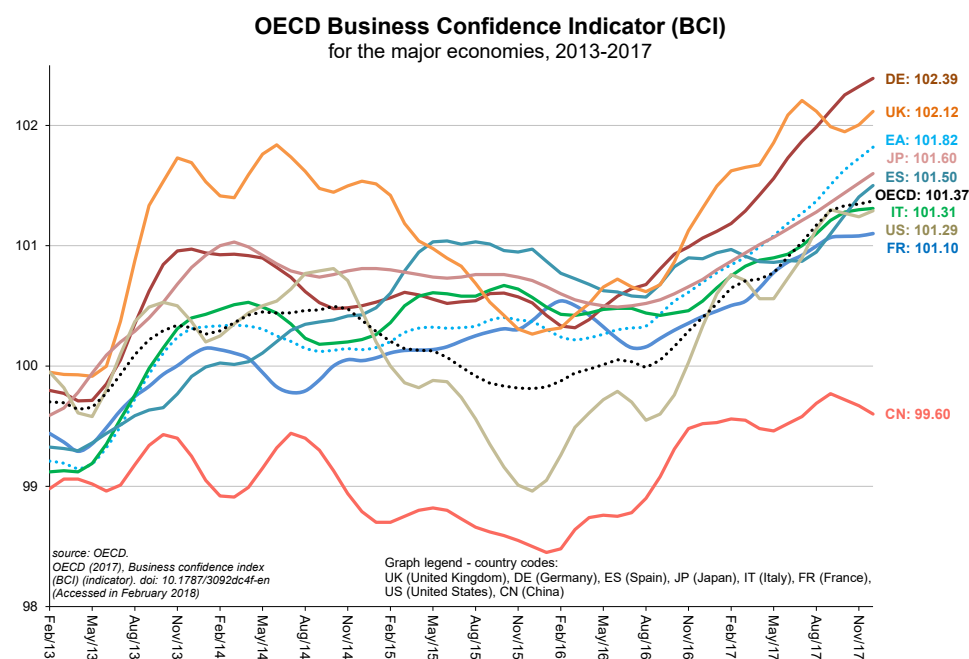
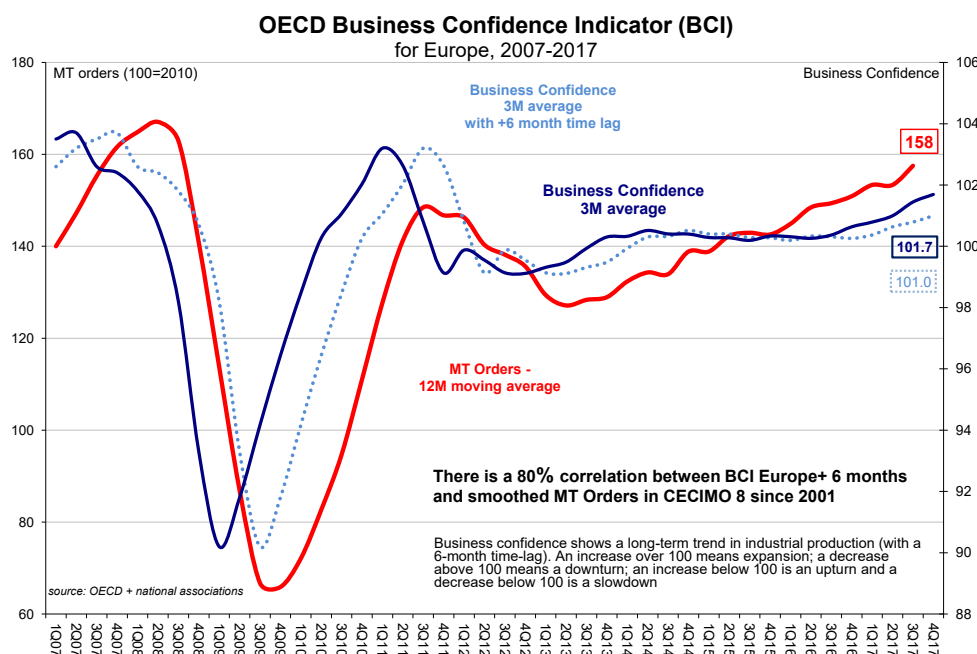


Compared to the same quarter in 2017, the total employment increased by 1.7% in the Euro Area and by 1.8% in the EU28. As for the industry specifically, the employment picked up by 1.3% in the EA and by 1.5% in the EU28.

2.10 OECD Business Confidence Indicator for Europe ⁱ

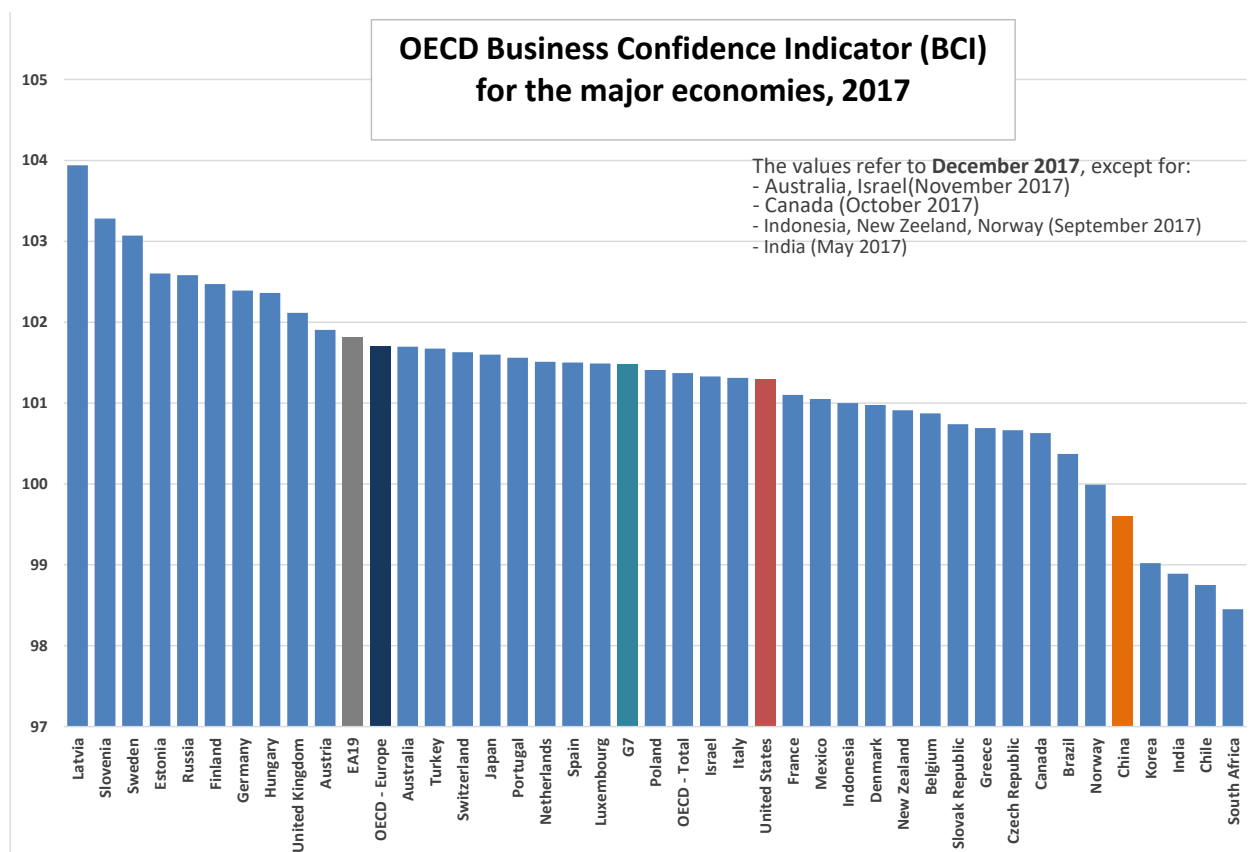
The OECD Business Confidence Indicator (BCI) for Europe did not sensibly vary from November to December 2017, staying for the third month in a row at 101.7. For the Eurozone, the BCI moderately increased by 0.1% monthly. Compared to December 2016, the indicator rose by 1% for Europe and 1.1% for the Eurozone, scoring 101.8. The BCI for the OECD economies recorded a 101.37 level and it has never been higher.

The Composite Leading Indicator (CLI) stayed at the same level since September 2017, but showed a mild improvement by 0.35% compared to the same month one year ago. It has registered its highest level since June 2015.



Among CECIMO members, Sweden reached the highest BCI in the region of 103.07, 0.26% lower compared to November 2017 and 0.91% higher than December 2016. Germany and the UK follow with a BCI of 102.39 and 102.12 each. Apart from Austria, the rest of our members scored below the 101.7 European average. Chinese BCI was 0.07% lower in December, decreasing for the fourth month in a row, but 0.08% better than in December 2016. The US scores 0.05% higher than in November 2017 and 0.96% higher than in December one year ago.

A modestly growing business confidence indicator gives a more favourable signal to the European machine tool builders, as historically its 6-month time lag shows an 80% correlation with the smoothed CECIMO8 orders.

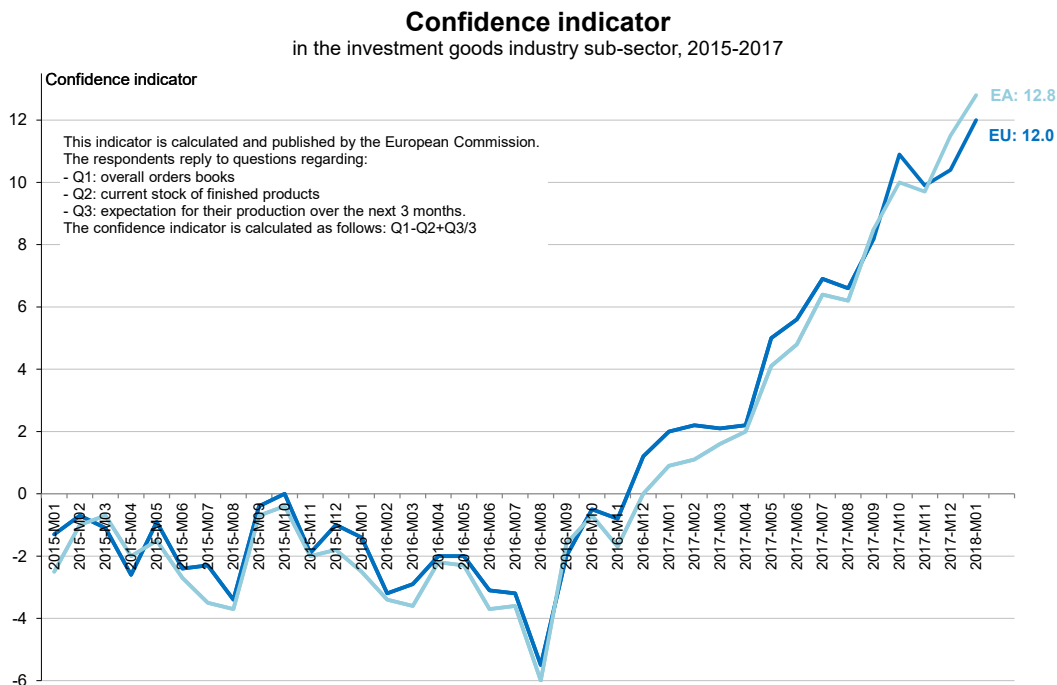


▼ 2.11 European Commission Economic Sentiment Indicator ^①

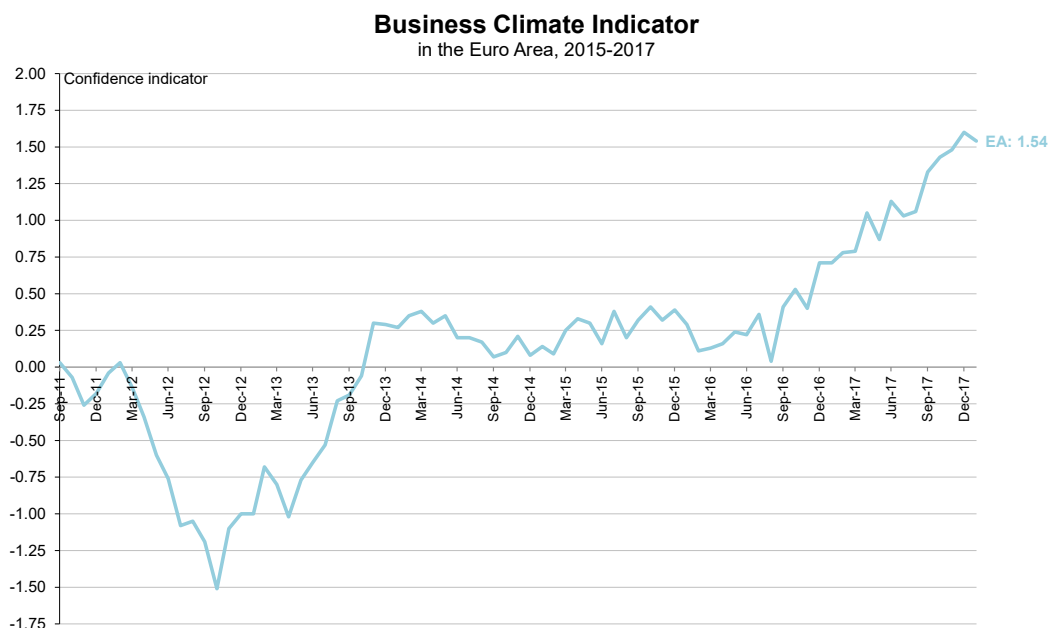
In January, the economic sentiment indicator (ESI) slightly decreased from its 17 years record, scoring 114.7 points in both EU28 (down from 115.1) and EA17 (down from 115.3). Nevertheless, the monthly growth rates registered in December compensate for this slight downturn. We still observe the highest ESI levels since the pre-crisis period. As a matter of fact, in January 2018, the ESI improved by +6.7 points for the EU28 and by +7.2 points for the EA19 with respect to January 2017. In the Euro Area, the industry confidence saw a flat development (+0.0) due to further managers' optimism on the level of overall order books, counterbalanced by a more negative assessment of stocks of finished products. The Services' confidence declined by -1.3, dragged down by lower demand expectations. The retail trade confidence also put a downward pressure on the indicator (-1.0). Whereas consumer confidence and construction confidence contributed positively with +0.8 and +1.5, due - to some extent - to positive employment expectations. Financial services confidence saw a sensible improvement (+3.4) reflecting a positive assessment of the past demand and business situation in general. The

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employment plans in the industry edged lower from a 30-years high in December. In the European Union, as in the EA, the consumer confidence and the financial services confidence improved, while the confidence in industry remained rather steady. Although, the employment expectations of industrial managers were revised downwards.



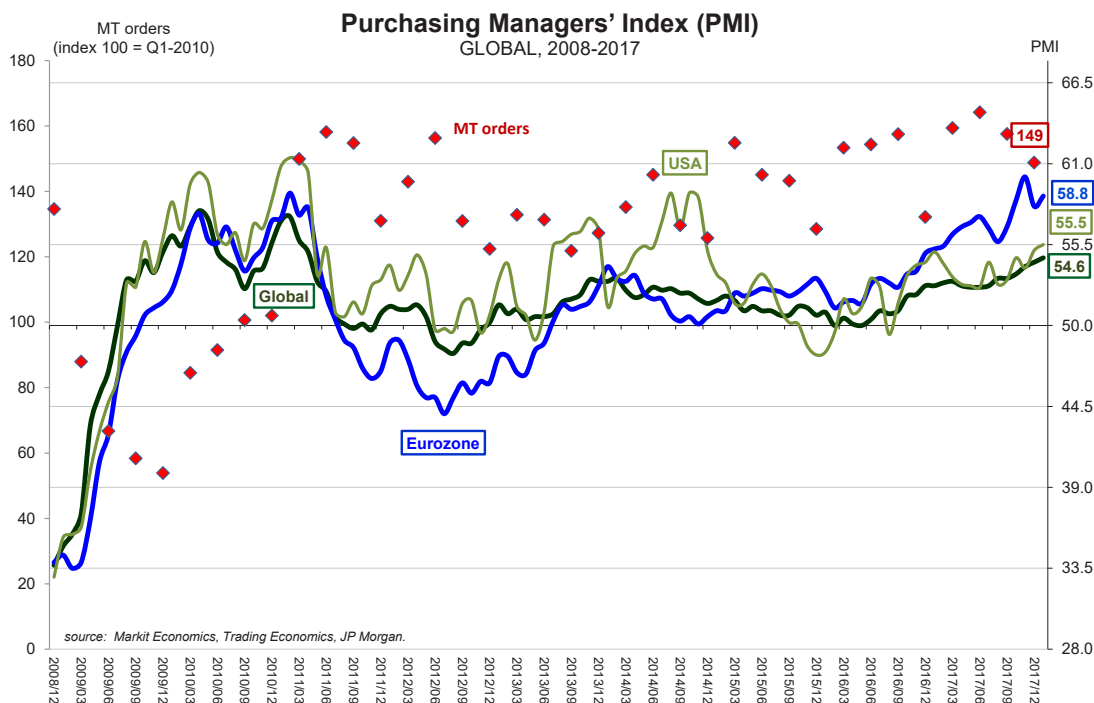
The Business Climate indicator for the EA recorded a mild drop to 1.54 in January, down from its 32-year record in December (1.6). The improvement is driven by managers assessment of the overall order books and export order books. The worsening of the stocks of finished products dragged the indicator lower, while the managers' view on the future production remained broadly unchanged.



▲ 2.12 Purchasing Managers' Index ⁱ

The beginning of 2018 saw a substantial expansion of global economic activity. The Global PMI marks a strong upturn with an increase in manufacturing output, hitting so a 40-month high in January. The HIS Markit Eurozone Composite PMI has hit a record level since June 2006, reaching 54.6, which followed an expansionary trend for 55 consecutive months. This growth was driven by a strengthening of the manufacturing production and the highest acceleration of the business activity since August 2007.

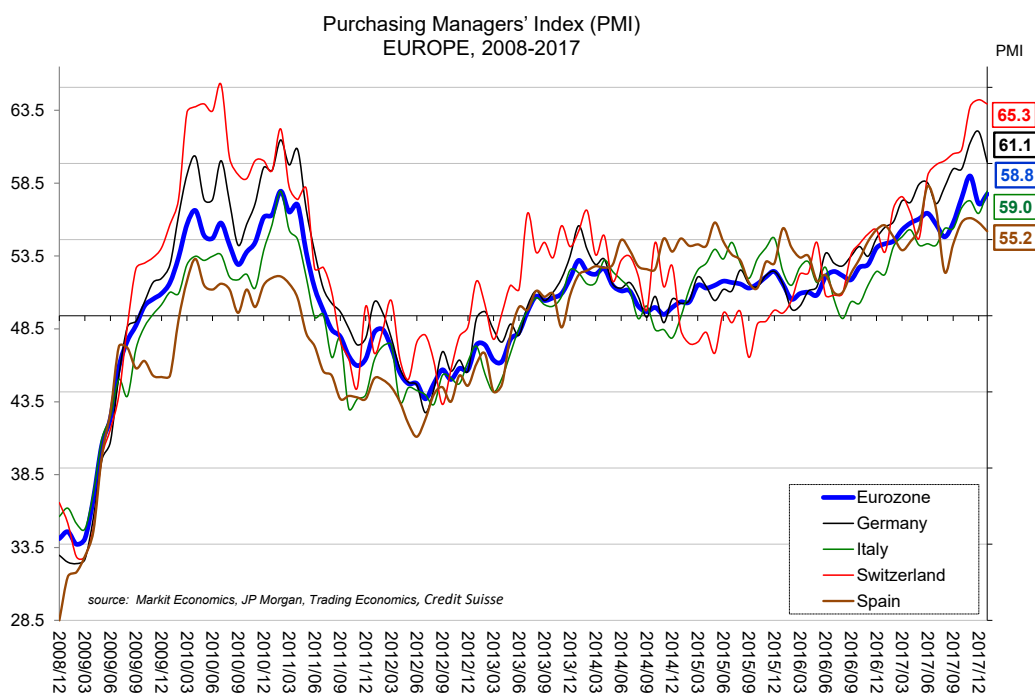
The US manufacturing sector began the year with a further progress. The operating conditions for manufacturers improved, the production and new orders have been at the steepest rates for a year, while the purchasing activity grew at the fastest pace registered since September 2014.



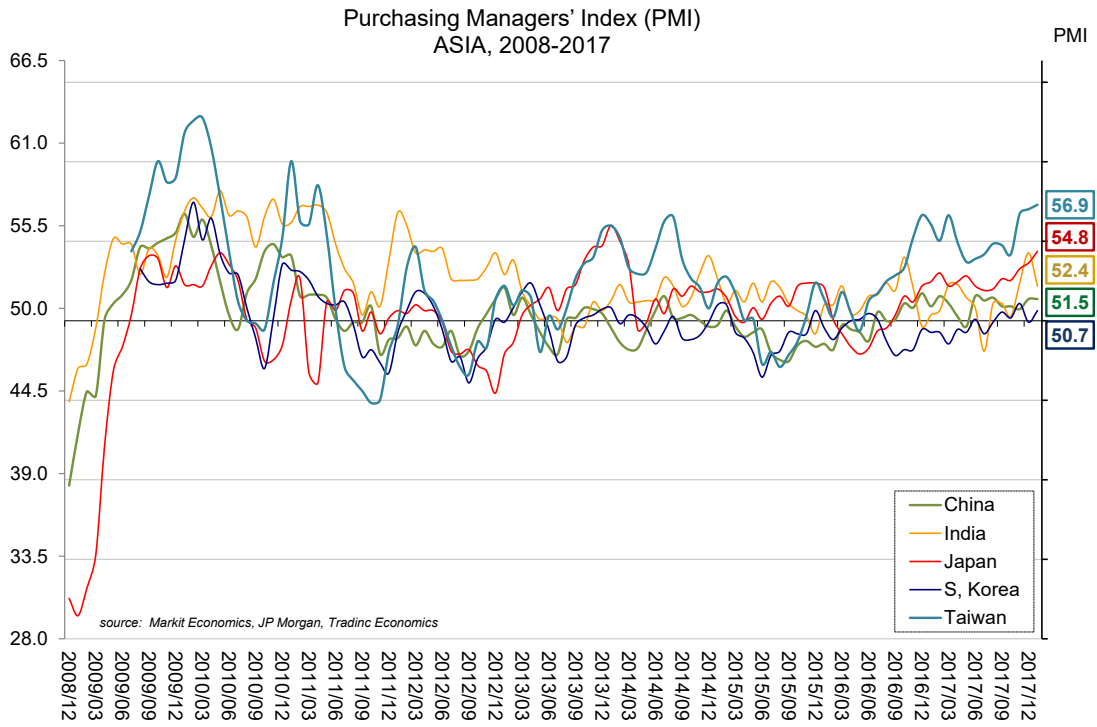
Our members started the year in an expansionary mode. Germany, although easing to a three-month low in January, still signals one of the biggest upturns in overall business conditions in history. Output growth has been the fastest since April 2011 and new orders growth is also significant. Italy sees its production picking up at the highest rates since February 2011, while the rise in employment is second strongest in history. The Netherlands hits an absolute record in January, led by record high levels in employment, suppliers' delivery times and stocks of purchases, not to mention a record improvement of the operating conditions for manufacturers. Austria slows the growth pace from December, yet has one of the best record since the beginning of the survey. The growth of output, new orders, exports and employment is high, driving the output prices at the second fastest rate in about six and a half years. Likewise, the Czech Republic registers the strongest expansion in seven years, driven by greater domestic and foreign demand.

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Turkey reaps the fruits of a strong underlying demand, despite unfavourable exchange rates. Spain has been improving the business conditions for manufacturers for already fifty months in a row, while UK scores above its long-term average but further decreases to its lowest level since June 2017.



We observe an overall improvement across our Asian counterparts. The operating conditions of manufacturing firms upgraded to different extents, while the demand on both domestic and overseas sides strengthened. The Chinese PMI was unchanged from its December level, reading 51.5, and registering the highest output growth in 13 months. This softer increase in production sales is the result of a continued decline in employment and a signal of moderating demand. Japan saw the health of its manufacturing sector enhance at the steepest pace since 2014, benefiting from a quickened new business demand and robust demand from existing customers. India sees its employment growth slow down and the operating conditions improve modestly. Similarly, Korea has been experiencing a decline in employment for the fifth month in a row and a milder improvement of operating conditions. However, the new orders depleted the finished goods stocks at the quickest rate since October. Taiwan mirrors this trend and registers the fastest expansion of new export sales in the last seven years, pressuring the supplier performance. Russian managers start the year optimistically with new businesses from abroad and the strongest manufacturing sector expansion in the last six months.



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/>

The deposit facility rate is the one the banks receive for depositing money with the central bank overnight.

The so-called main refinancing rate, minimum bid rate or rate for the main refinancing operations (MROs) is the interest rate which banks do have to pay when they borrow money from the ECB for a period of one week.

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' acquisitions, 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, 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. 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 indicators 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 in association with ISM and IFPSM 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.

Other symbols and acronyms

GDP

Gross Domestic Product

Billion

Billion means one thousand million

US

United States

Q1, Q2, Q3, Q4

1st quarter, 2nd quarter, 3rd quarter, 4th quarter

EUR / €

Euros

USD / \$

United States Dollar(s)

CHF

Swiss Franc(s)

ECB

European Central Bank

Fed

Federal Reserve (System), the US Central Bank

GBP

Great Britain Pound(s), the pound sterling

IMF

International Monetary Fund

WB

World Bank

MT

Machine tools

CECIMO countries

Countries whose machine tool sector is represented by CECIMO

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Member Associations

Austria: FMTI
Fachverband Metalltechnische
Industrie
www.fmti.at

Belgium: AGORIA
Federatie van de Technologische
Industrie
www.agoria.be

Czech Republic: SST
Svazu Strojírenské Technologie
www.sst.cz

Denmark: The Manufacturing Industry
a part of the Confederation of Danish
Industry
ffi.di.dk

**Finland: Technology Industries of
Finland**
www.teknologiateollisuus.fi

France: SYMOP
Syndicat des Entreprises de
Technologies de Production
www.symop.com/fr

Germany: VDW
Verein Deutscher
Werkzeugmaschinenfabriken e.V.
www.vdw.de

Italy: UCIMU
Associazione dei costruttori Italiani
di macchine utensili robot e
automazione
www.ucimu.it

Netherlands: FPT-VIMAG
Federatie Productie Technologie /
Sectie VIMAG
www.fpt-vimag.nl

Portugal: AIMMAP
Associação dos Industriais
Metalúrgicos, Metalomecânicos e
Afins de Portugal
www.aimmap.pt

**Spain: AFM - Advanced Manufacturing
Technologies**
Asociación española de fabricantes
de máquinas-herramienta, accesorios,
componentes y herramientas
www.afm.es

Sweden: MTAS
Machine and Tool Association of
Sweden
www.mtas.se

Switzerland: SWISSMEM
Die Schweizer Maschinen-, Elektro-
und Metall-Industrie
www.swissmem.ch

Turkey: MIB
Makina Imalatçileri Birliği
www.mib.org.tr

United Kingdom: MTA
The Manufacturing Technologies
Association
www.mta.org.uk

cecimo is the European Association representing the common interests of the Machine Tool Industries globally and at EU level. We bring together 15 National Associations of machine tool builders, which represent approximately 1300 industrial enterprises in Europe (EU + EFTA + Turkey), over 80% of which are SMEs. CECIMO covers 98% of total Machine Tool production in Europe and about 36% worldwide. It accounts for almost 150,000 employees and a turnover of nearly €24 billion in 2016. Approximately 75% of CECIMO production is shipped abroad, whereas around half of it is exported outside Europe. CECIMO assumes a key role in determining the strategic direction of the European machine tool industry and promotes the development of the sector in the fields of economy, technology and science.