



European Association of the Machine Tool Industries  
and related Manufacturing Technologies

# Economic & Statistical Toolbox

Second Quarter 2019

## IN THIS ISSUE

**TRADE** weakens and **BUSINESS CONFIDENCE** worsens in Europe and abroad.

Machine tool builders **DOMESTIC AND FOREIGN ORDERS** continue a downward trend.

Industrial production decreases in Europe, while **CAPACITY UTILISATION** grows at a slower pace.



[www.cecimo.eu](http://www.cecimo.eu)



# Table of Contents

Introduction

Mindmap

## **1**     **Historical Data for the Sector**

- 1.1    CECIMO8 Orders (m)
- 1.2    CECIMO Trade (m)
- 1.3    CECIMO Production (m)

## **2**     **Demand**

- 2.1    CECIMO Consumption. Oxford Economics Consumption Forecast (m)
- 2.2    Peter Meier CECIMO8 Orders Forecast (m)
- 2.3    Industrial Production Index (M)

## **3**     **Investment**

- 3.1    Gross Fixed Capital Formation (M)
- 3.2    Capacity Utilisation in the Investment Goods Sector (M)
- 3.3    Bank Lending Survey (M)
- 3.4    Euribor – Interest rates (M)

## **4**     **Business Climate**

- 4.1    CECIMO Business Climate Barometer (m)
- 4.2    Purchasing Managers Index (M)
- 4.3    OECD Business Climate Indicator (M)

## **5**     **General Indicators**

- 5.1    GDP (M)
- 5.2    Inflation (M)
- 5.3    Foreign exchange rates (M)

Glossary <sup>i</sup>

Geographical Information

Other symbols and acronyms

# Introduction

The machine tool industry continues slowing down in this second quarter of 2019, following the trend seen in the first quarter.

- Total CECIMO Orders decrease -23% in Q2-2019 on a yearly basis, greatly due to significant drops in domestic and foreign orders.
- CECIMO competitor also register losses in their respective order intakes.

Regarding machine tool **trade**, CECIMO exports increase slightly on a quarterly basis, but the yearly change registers losses for the sector. CECIMO export to key regional markets also fall. Exports to Russia and the CIS group however increase.

Updated production information shows that **CECIMO output** should decrease in 2019 compared to 2018. Estimates suggest that CECIMO production could fall by more than 5% this year.

## Demand

- Recent **consumption** data show that CECIMO consumption grew in 2018 to 16,5 billion euros, but 2019 estimates suggest a -2,9% negative growth rate for this year compared to 2018.
- Orders are expected to decrease in the short term, as demand in capital goods market is in decline.

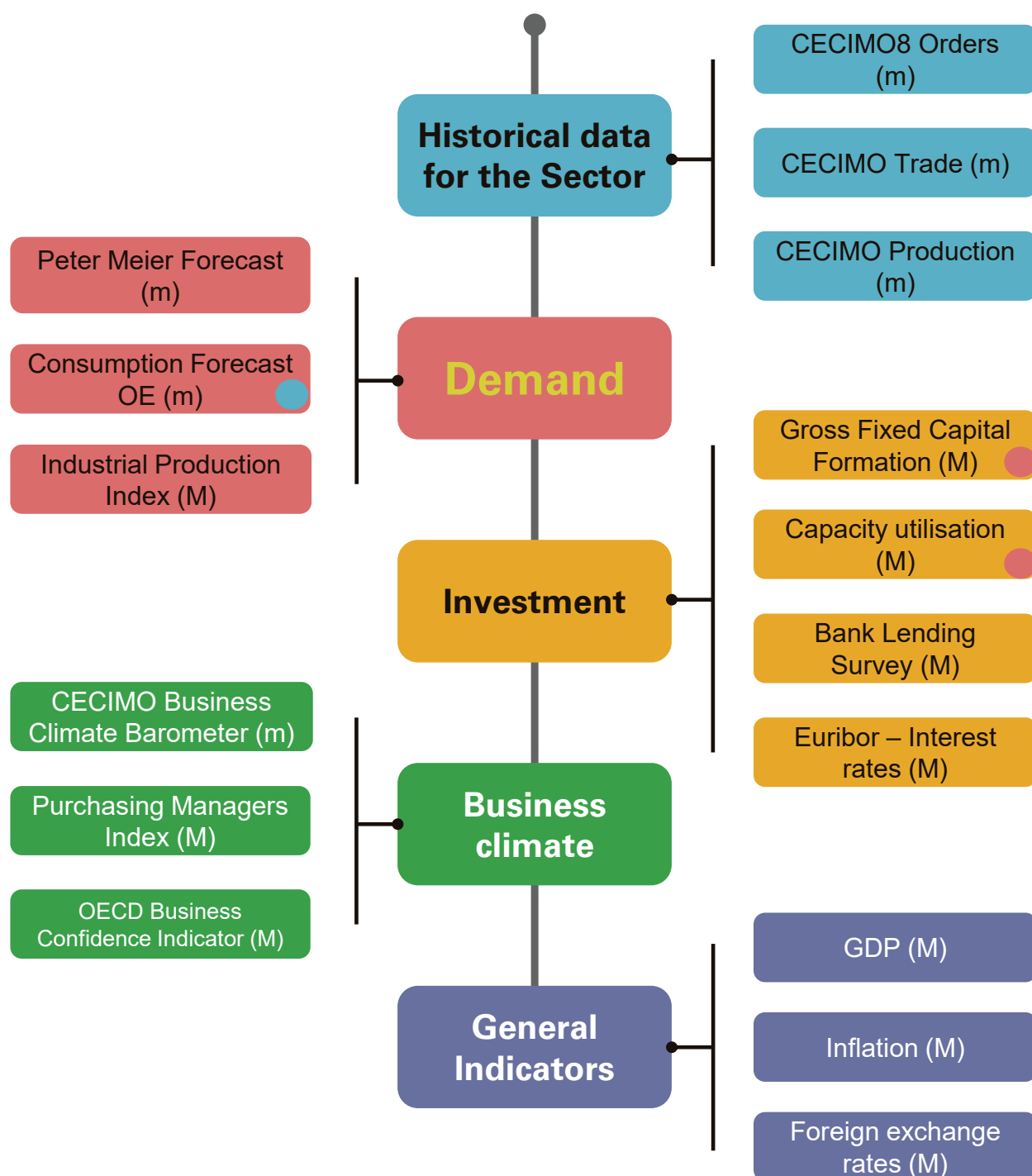
**Investment** continues to grow, but it increases at a slower pace. Capacity utilisation decreases this quarter, as it did the previous one. Financial conditions for companies tighten, while the ECB keeps its growth-supportive monetary policy in place.

**Business climate** worsens around the world. Global manufacturing PMI stands below the 50-point threshold as of July 2019.

**GDP** growth rates decelerate in Europe, the United States and China, while Japanese GDP flattens.

Key global currencies strengthen against the **euro**, but the European single currency remains relatively strong.

# Toolbox Mind Map



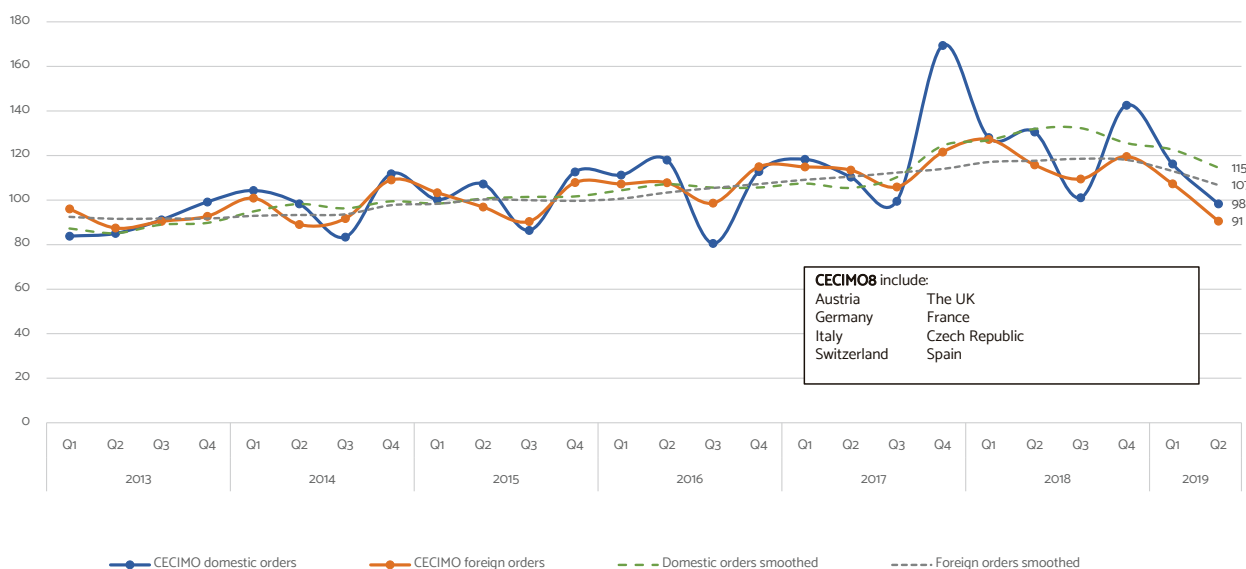
# 1. Historical Data for the Sector

## 1.1 Orders (m)

The second quarter of 2019 witnessed a -23% drop in total CECIMO 8 orders, against Q2 of 2018. In the meantime, foreign orders decreased -22% and domestic orders fell by -25%.

MT Orders (Index 100 = 2015)

CECIMO Domestic & Foreign Orders (2013-2019)



### Breakdown by countries

#### Total Orders

- General decrease in CECIMO 8 orders on a yearly basis (from Q2-2018 to Q2-2019), with steep drops in Italy (-30%), Czech Republic (-37%) and France (-51%).
- Decreases in other relevant countries are also significant: Switzerland (-19%), Germany (-22%), Spain (-27%) and the United Kingdom (-28%).
- Austria, with a -2% decrease, is the only CECIMO country with a single figure drop.

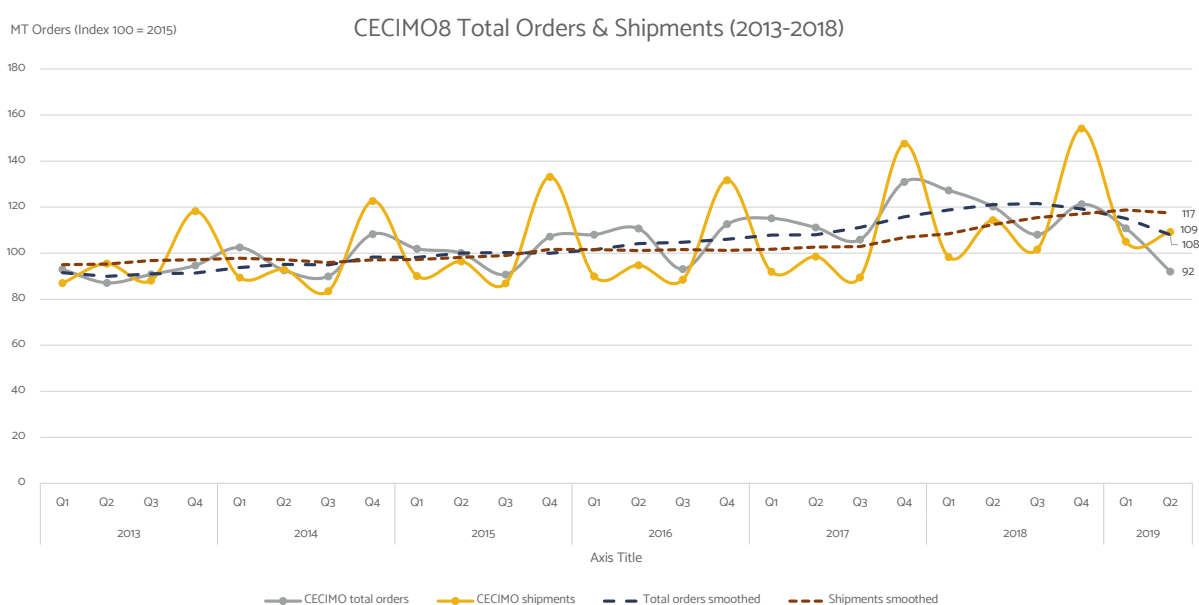
#### Domestic Orders

- Domestic orders have decrease sharply as well, especially in Germany (-28%), UK (-36%), Spain (-35%) Italy (-42%), France (-53%).
- The Czech Republic has experienced a rather moderate drop (-6%) in comparison.
- Switzerland and Austria on the other hand have both registered an increase in domestic demand, with a 2% and 19% increase, respectively.

## Foreign orders

- Foreign orders experience notable decreases too. In this regard, France and the Czech Republic register the largest drops: -48% and -44%, respectively.
- Four other countries register drops above 20%: Switzerland (-23%), United Kingdom (-23%), Spain (-26%) and Italy (-27%).
- Austria (-5%) and Germany (-18%) show the smallest drops.

In general terms, CECIMO8 MT orders have experience a slowdown, continuing the previous downward trend commented on the previous issue. The decreases are noticeable in the "big countries", Germany and Italy, as well as other relevant members, such as UK and Spain. France however suffers drastic drops on all items, as explained.

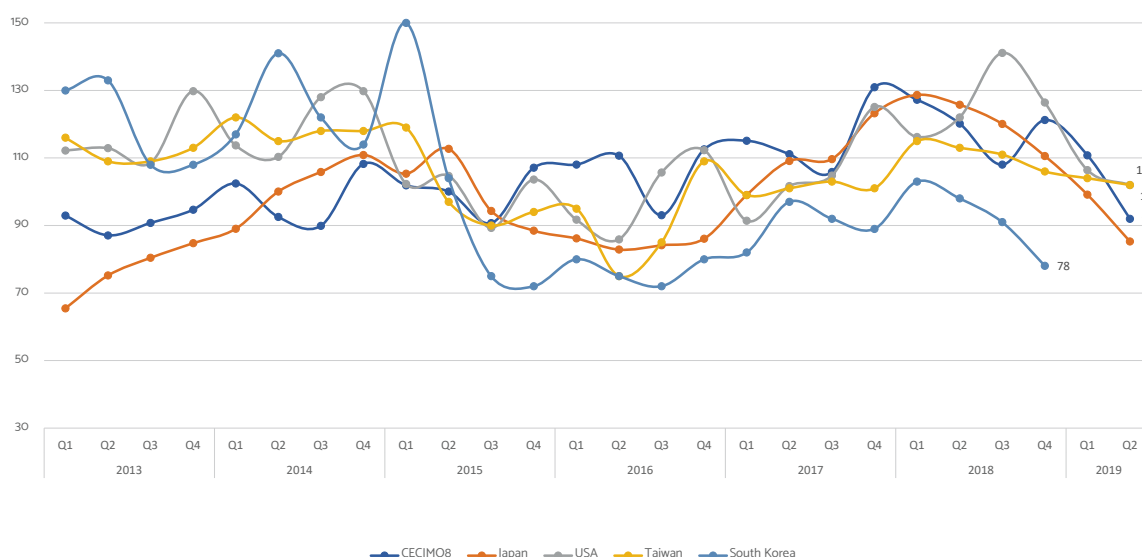


## Our competitors

- Total Japanese metal forming orders continue the decreasing trend started in Q4 2018. The yearly decrease, from Q2 2018 to Q2 2019, is -26%, due mostly to drops in domestic orders (-24%) and foreign orders (-28%).
- Metal cutting orders also experience a significant yearly decrease as well (-33%), dragged by a strong decrease in domestic orders (-36%).
- US domestic orders have gone down -16%, a further decrease from that registered in the previous quarter.
- Taiwanese orders, lastly, fall, as the previous quarter, -10%, pushed down by similar drops in domestic (-9%) and foreign (-10%) orders.

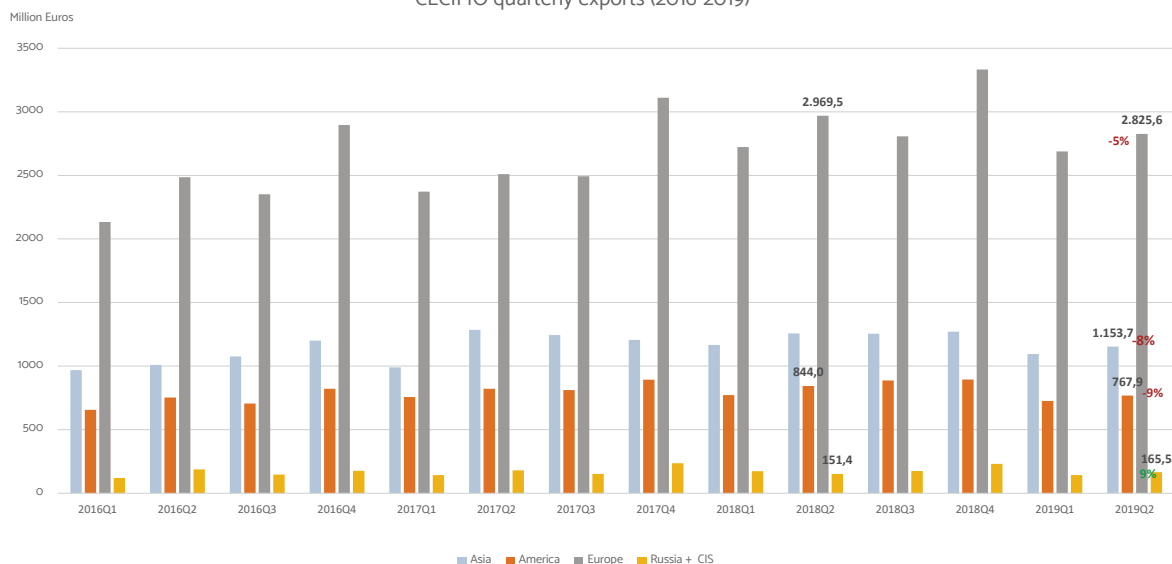
MT Orders (Index 100 = 2015)

CECIMO 8 vs Competitors Orders (2013-2019)



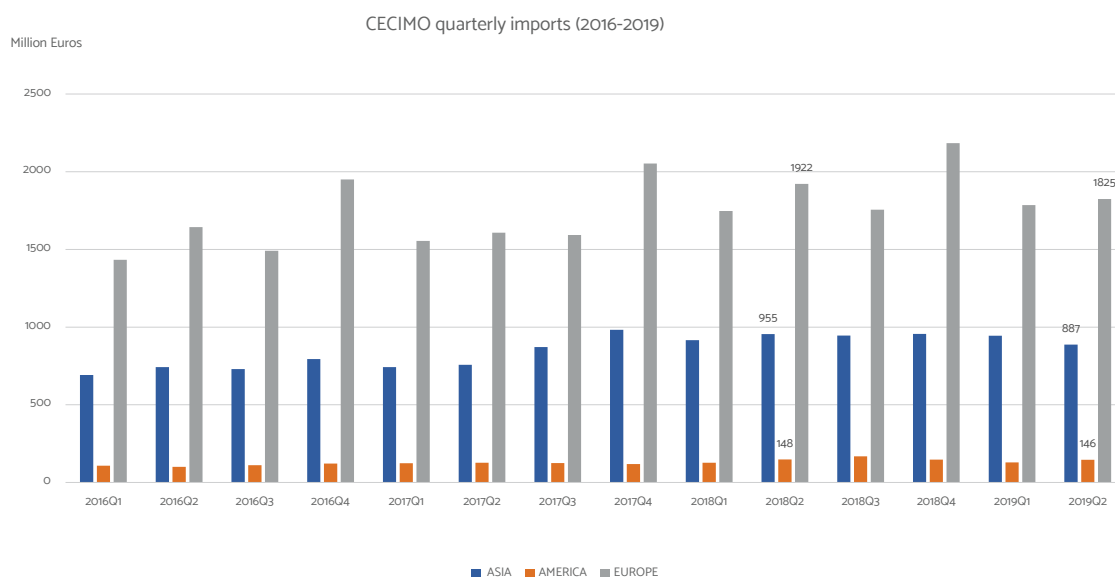
## 1.2 CECIMO Trade (m)

CECIMO quarterly exports (2016-2019)



### CECIMO quarterly exports in Q2 2019:

- Q2 2019 exports reached a volume of 5 billion euros, an increase of 5% from Q1 2019.
- It is nonetheless a -6% drop compared to Q2 2018 exports volume.
- Overall exports outside of the CECIMO area suffer a yearly decrease as well (-6%).
- Exports to key regional markets fall: Asia (-8%), America (-9%) and Europe (-5). The African market drops -1%.
- Conversely, exports to Russia and CIS countries rebound from the previous Q1 drop and register a 9% increase.



#### CECIMO quarterly imports in Q2 2019:

- Imports reached a volume of 2.68 billion euros in Q2 2019, thus remaining stagnant compared to the previous quarter.
- In yearly terms (Q2 2018 to Q2 2019), CECIMO imports drop 5,6%.
- In general, imports from CECIMO's regional markets decrease: Asia (-7%), America (-1%), Europe (-5%), Africa (-17%) as well as from other relevant international markets (-32%).
- Once again, imports from Russia and CIS partners seem to divert from the general trend, registering a positive (although small) growth rate of 2%.
- Sharper expansion of exports to Europe (+13%).

#### Main export markets in Q2 2019:

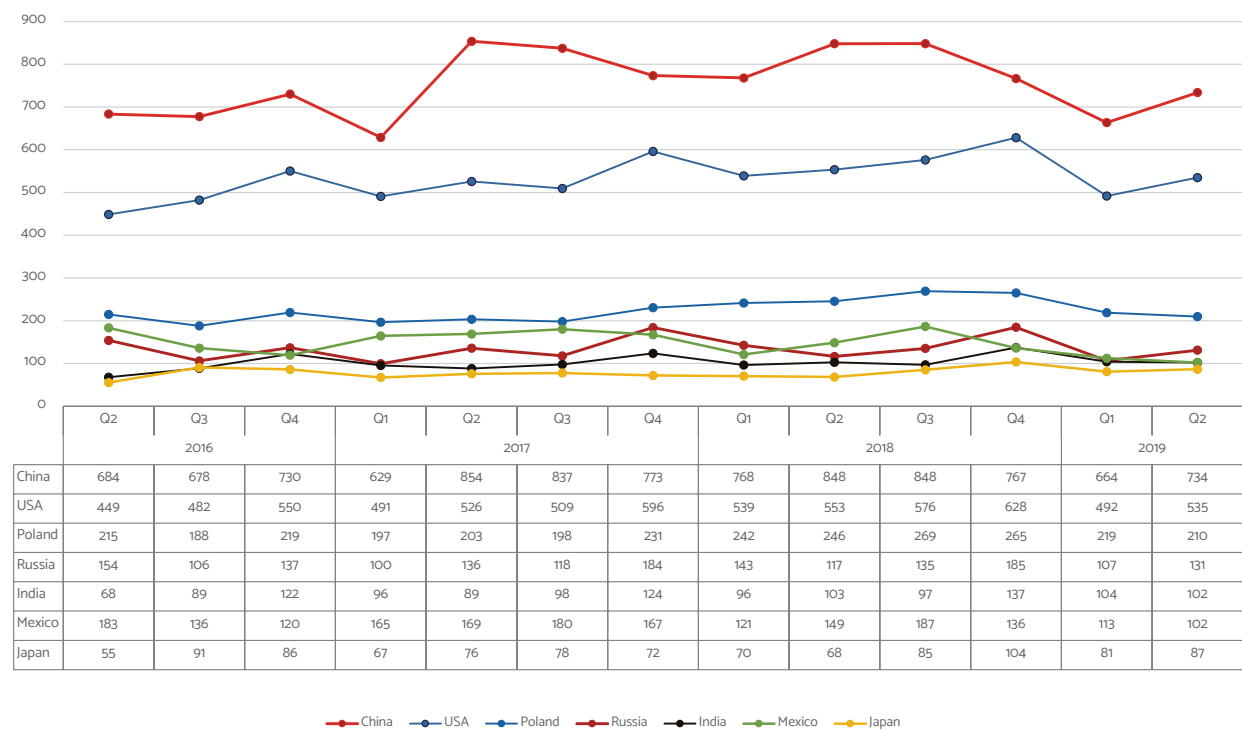
- More than 46% of CECIMO's total exports go outside of the CECIMO area.
- China remains CECIMO's top export market in Q2 2019. Exports to the Chinese market in this period were worth 733 million euros, a 10,6% increase compared to Q1 2019.
- Considering the yearly change, CECIMO exports to China have decreased more than 13% in Q2 2019 compared to Q2 2018.
- Exports to the United States market, CECIMO's second international sales destination (534 million euros total worth), follow a similar trend: they increase 8,8% in Q2 2019 compared to Q1 2019, but register a 3,4% drop if compared to data from Q2 2018.
- Poland is CECIMO's third largest foreign market (209 million euros worth of exports volume in Q2 2019).
- Russia recovers a key position in CECIMO's foreign markets (4th destination overall; 131 million euros worth of exports). Exports have increased 22% on a quarterly basis and 12,7% on a yearly basis.



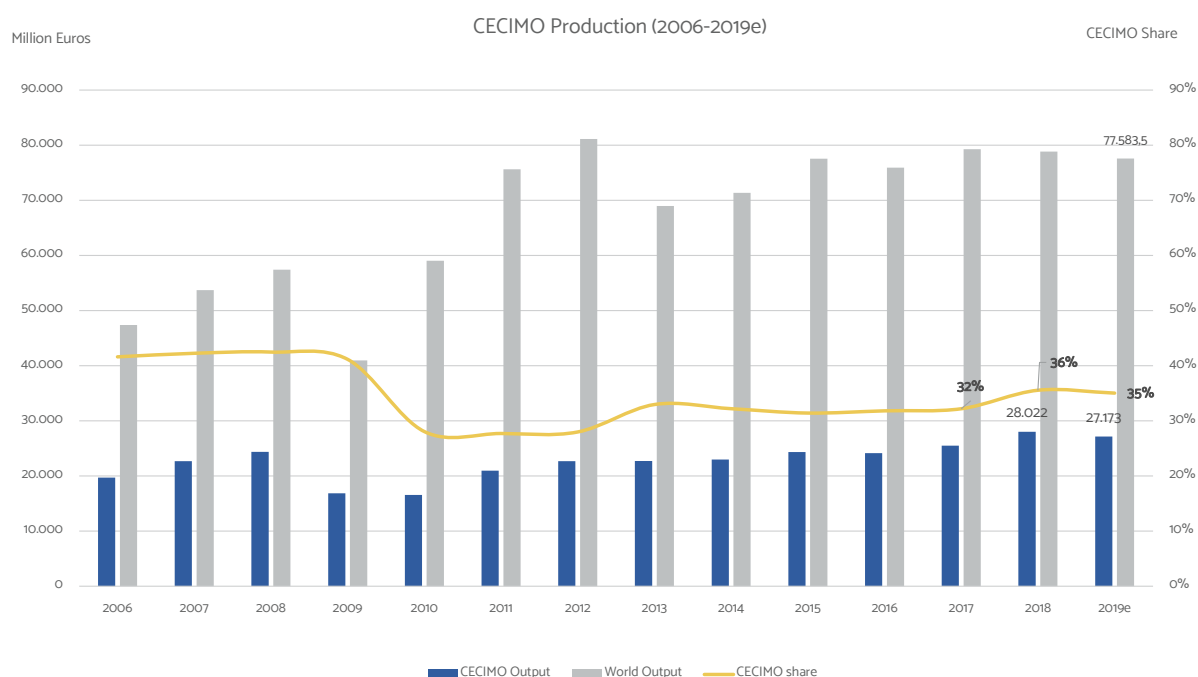
source: Eurostat, UN

### Main export destinations

2016-2019



# 1.3 Production (m)



The latest output data provided by CECIMO national associations show an upward revision of CECIMO output to 28 billion euros in 2018, while total world output remains at 79,6 billion euros (as registered in Q1 2019). In terms of share, CECIMO would represent, according to this data, 35% of total world output.

As to 2019, our estimations suggest that CECIMO production would decrease from the previous 28 billion euros to around 27 billion euros. World output however would decrease as well to 76,9 billion euros. CECIMO's share, given these estimates, would still represent 35% of total world output.

CECIMO production grew 9,8% in 2018, while recent estimates show that 2019 could be a down-year, with a -5,2% negative growth rate. Regarding world output, 2018 data shows a flat growth situation of 0,5%. 2019 estimates meanwhile suggest a contraction of world output by -3,4%.

# 2. Demand

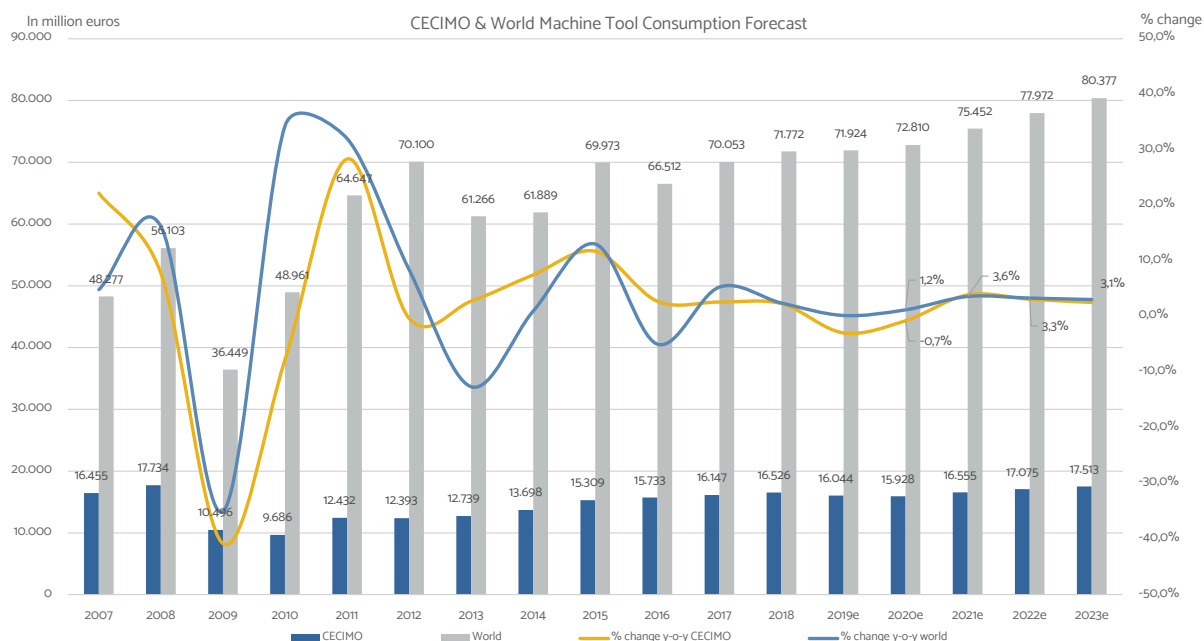
## 2.1 CECIMO Consumption (m)

### Oxford Economics Consumption Forecast

Recent data shows that CECIMO machine tool consumption for 2018 was 16.5 billion euros, which represents a 2,3% increase from 2017. World consumption grew 23%, reaching a total volume of 71.7 billion euros that same year.

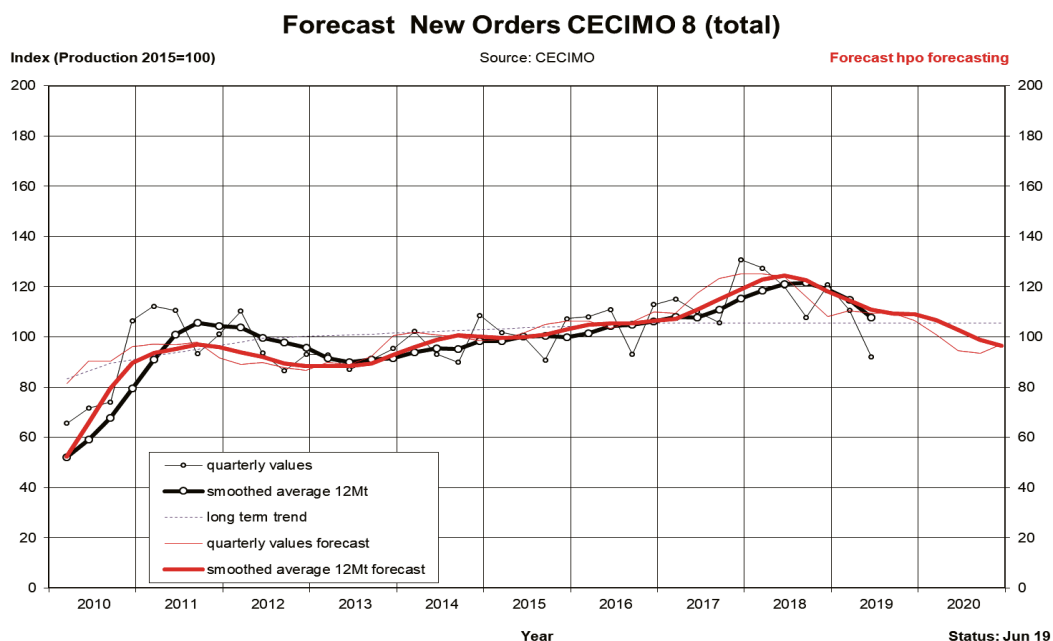
#### Forecast (Autumn 2019):

- According to Oxford Economics, 2019 estimates suggest a -2,9% negative growth rate compared to 2018, with a total consumption volume of 16 billion euros.
- From 2020 to 2023, CECIMO machine tool consumption will still register negative growth rates at first (2020, -0,1%), but should rebound strongly from 2021 onwards, with consecutive yearly increases (2021: 3,9%; 2022: 3,1%; 2023: 2,6%).
- World machine tool consumption for 2019 would reach 71.9 billion euros. This is a 22% increase compared to 2018.
- Moreover, machine tool consumption worldwide should follow a strong and steady upwards trend as of 2020, with growth rates consistently above 2,1%.



## 2.2 Peter Meier / HPO CECIMO8 Orders Forecast (m)

According to HPO Forecasting, order intake of the second quarter fell below the long-term trend. This means that CECIMO8 faces economic headwind in the short term. The smoothed 12mt average is still above the trend-line. However, HPO states that the 12mt average is expected to fall below the long-term trend by the beginning of 2020.



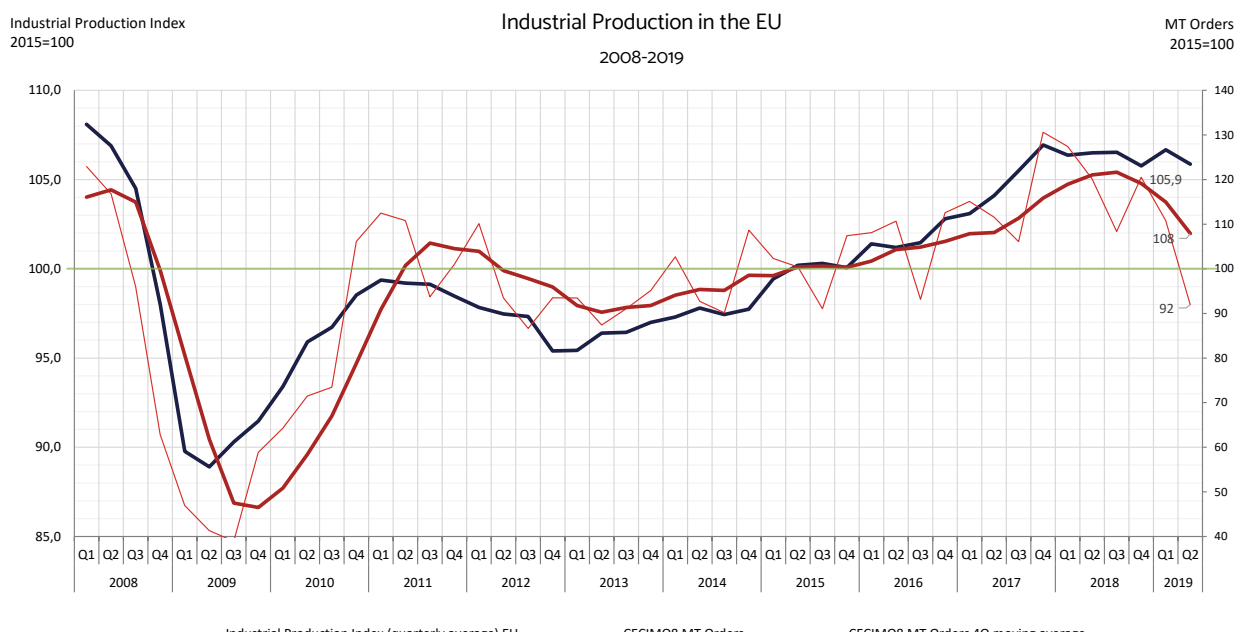
HPO states that the signs of an economic downturn are becoming ever clearer:

- OECD economies are showing negative growth rates.
- Demand for capital goods is in decline, while demand for services remain somewhat dynamic.
- Industrial production has already peaked in all regions, but with a few exceptions the level is still relatively high.
- Business confidence and expectations are slumping.
- Peak consumption momentum will arrive in the coming months, followed by a weakening of demand for consumer goods and services.
- In Europe and the US retail trade is likely to remain highly dynamic until around the end of the year. In Asia it has already fallen sharply and might continue to do so.
- Financial bubbles might burst after a period of expansive monetary policies.

## 2.3 Industrial Production Index (M)

In June 2019, last month of Q2, industrial production decreased by -1,4% compared to the previous month both in EU 28 and the Euro Area (EA19).

The industrial production index stands at an average quarterly figure of 105,9 in EU28 and at 104,9 points in the EA for the same period. Compared the previous quarter, industrial activity fell by -0,7% in Eu28 and by -0,8% in EA 19. A yearly comparison (Q2 2018-Q2 2019) shows also general decrease in European industrial production: -0,6% in EU 28 and -1,3% in EA19.

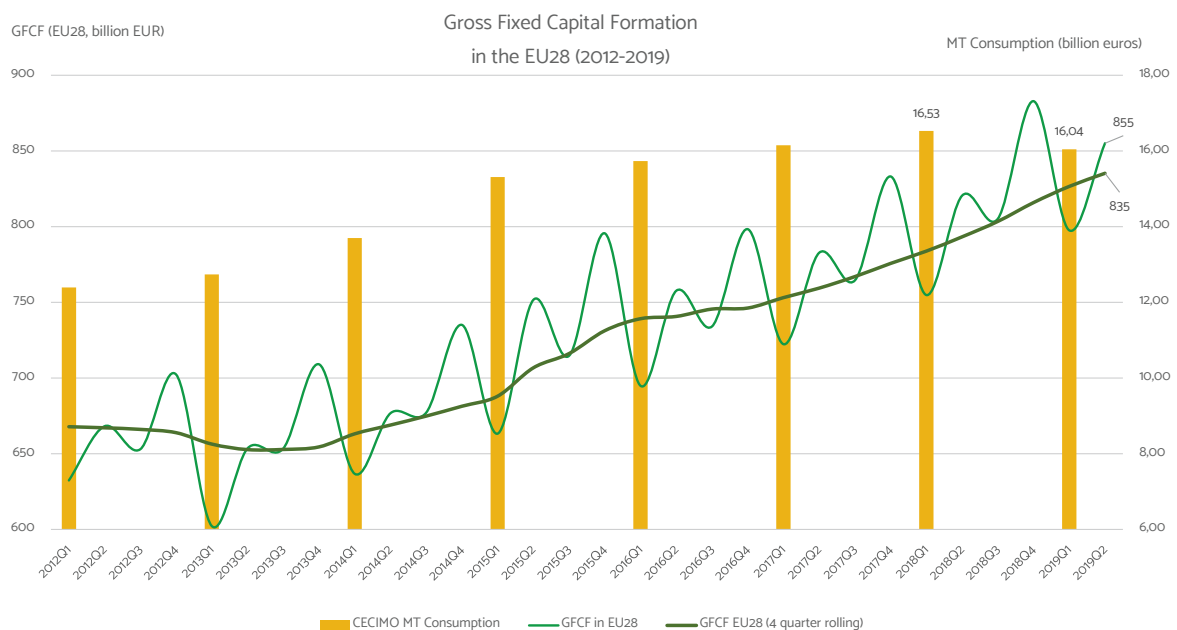


# 3. Investment

## 3.1 Gross Fixed Capital Formation (M)

Gross fixed capital formation grew 7% in Q2 2019 compared to the previous quarter. On a yearly basis, GFCF also increases, but at a slower pace (4%). The registered volume for GFCF in Q2 2019 is 855 billion euros.

According to the European Commission's new estimations, total investment in the European Union would increase 3,8% in 2019, while investments in equipment would grow 1,7%. It is a stronger forecast for general investment compared to previous estimates (2,1% GFCF growth for this year) and a slightly better one for investment in equipment (previously 1,5% growth for 2019).

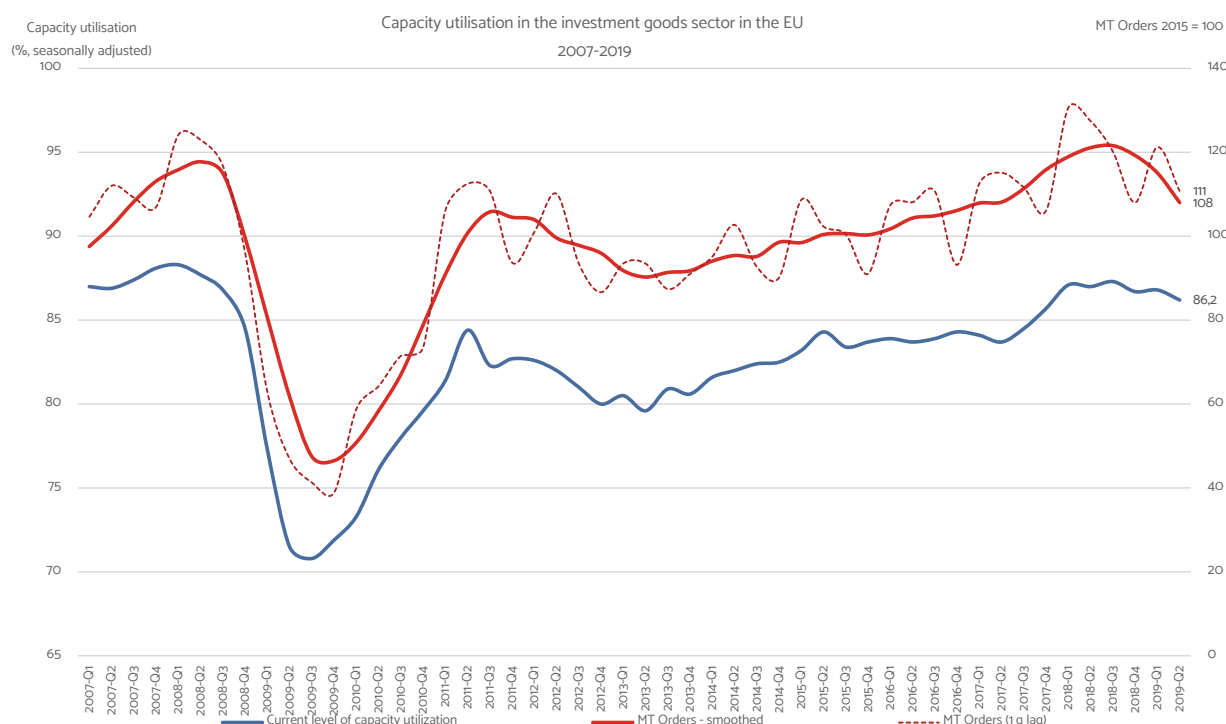


## 3.2 Capacity Utilisation in the Investment Goods Sector (M)

For the second quarter of 2019, capacity utilisation levels in the European Union stands at 86,2%. This is a -0,7% decrease compared to the previous quarter and a -1% drop on a yearly basis.

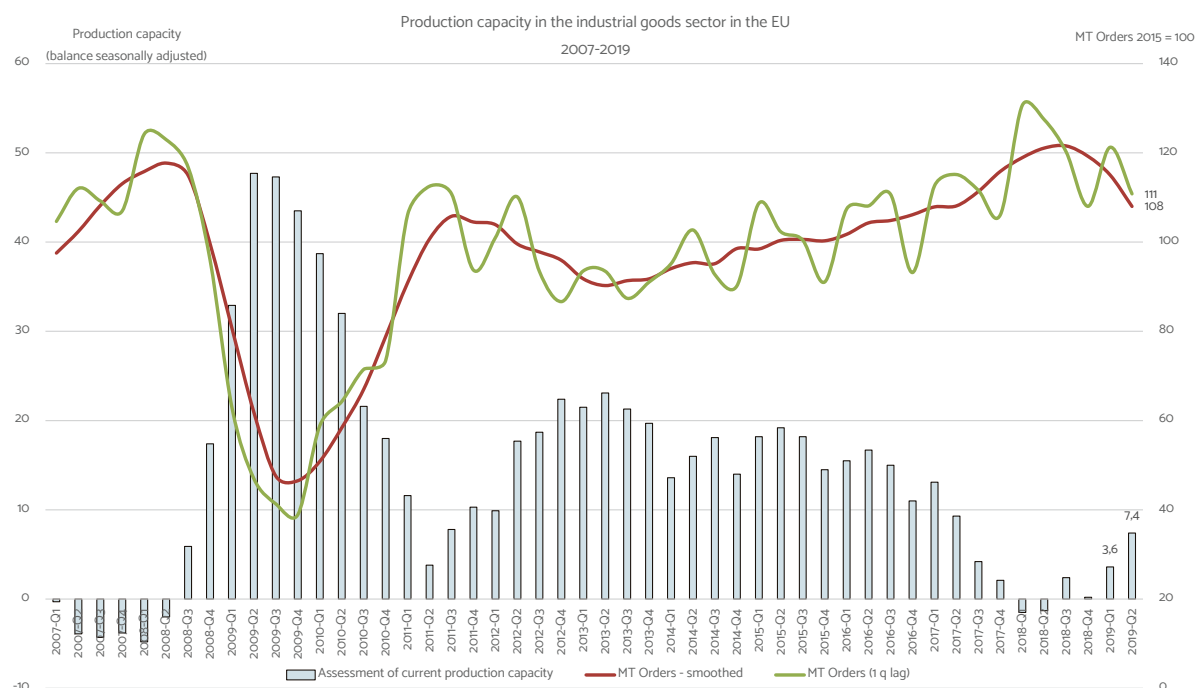
This is consistent with the downward trend European capacity utilisation has registered. Since the second quarter of 2018, the levels of capacity utilisation have decreased slowly, averaging -0,2%. Considering year on year percent changes, capacity utilisation grows at a positive but decreasing rates until Q1 2019, when it eventually becomes stagnant (0%), and ultimately decreases -1% in Q2-2019, as mentioned.

Production capacity increased 7,4% in Q2 2019, as opposed to 3,6% in Q1-2019.



## Capacity Utilisation (% of total capacity)

	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019
Austria	89,4	88,3	89,6	85,8	87,8
Czech Republic	91,3	88,5	89,8	87,8	85,5
France	88,9	89,5	89,2	89,0	88,3
Germany	88,8	91,1	88,9	89,9	89,5
Italy	79,9	79,1	79,8	79,9	78,7
Spain	87,7	86,7	85,5	86,4	87,5
United Kingdom	87,7	84,4	85,8	82,6	81,2



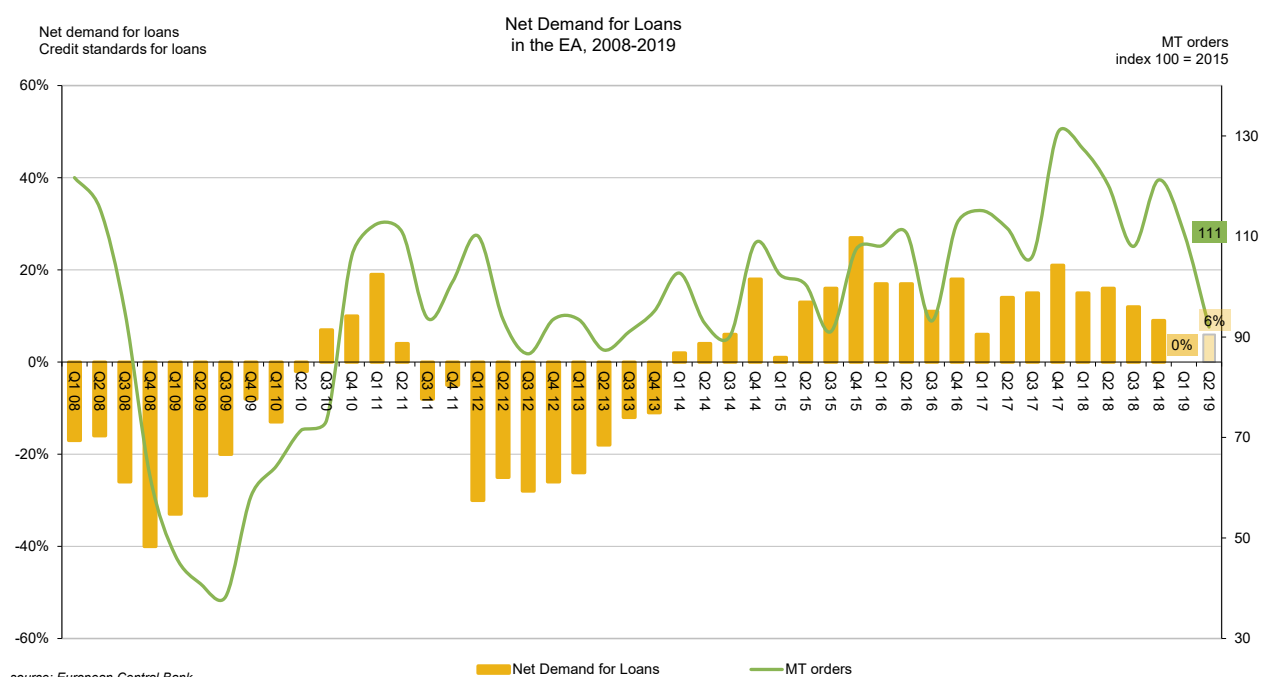
## Production Capacity (balance in %)

	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019
Austria	-3,6	-2,6	-3	0	6,1
Czech Republic	12,8	14,9	12,7	11,2	27,4
France	-11,3	-9,6	-16,8	-13,3	-11,4
Germany	-5,6	0,1	-1,3	1,5	9,6
Italy	18,5	17,2	19,9	19,2	20,7
Spain	7,8	6,4	12,9	4,4	0,4
United Kingdom	2,8	10	-3,2	23,9	14



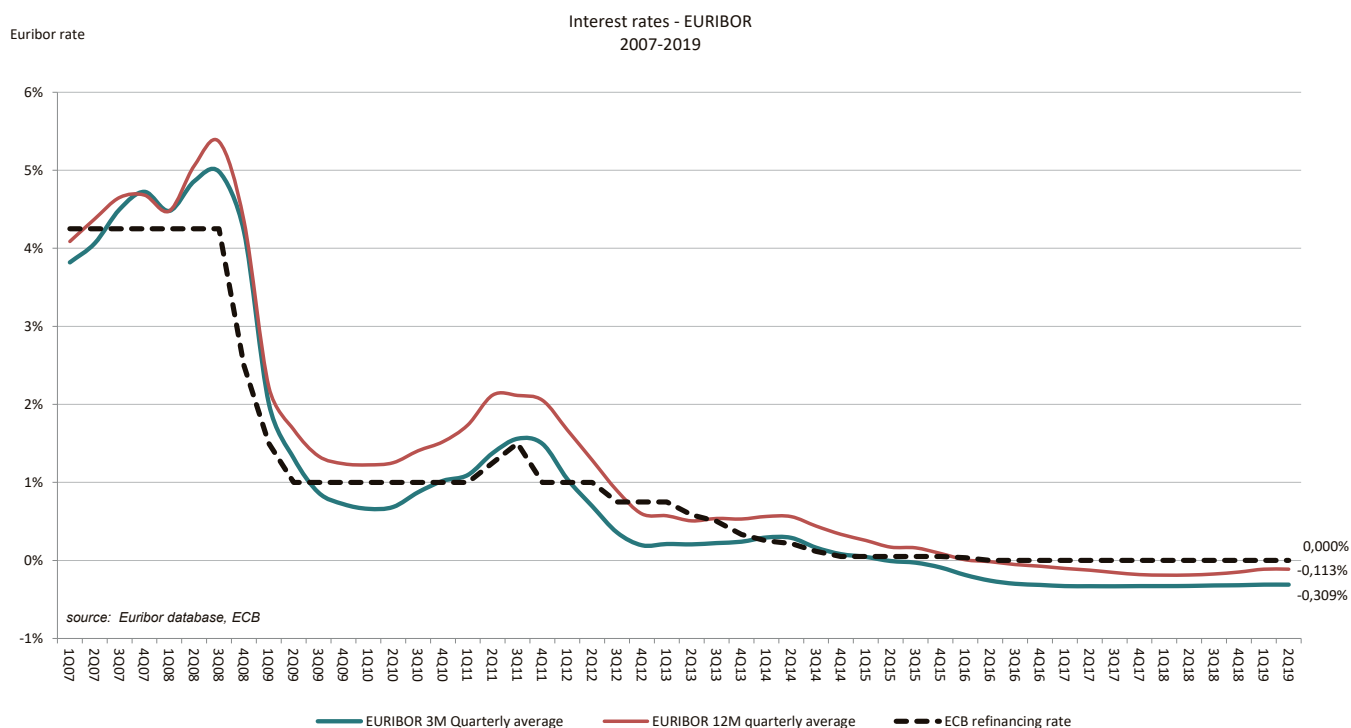
### 3.3 Bank Lending Survey (M)

- Net demand for loans to enterprises increased 6% in Q2 2019 after a flat 0% rate in the previous quarter.
- Credit tightens however in Q2 2019 with a 5% rate. A positive percentage means that financial conditions are still restrictive for companies.
- CECIMO MT Orders have a 50% correlation with net demands for loans as of Q2 2019. Credit seems to tighten in this period and net demands increase. The financial markets is willing to support new investments, but it is becoming more selective.



## 3.4 Euribor - Interest Rates (M)

- Euribor 3-month Quarterly average for Q2 2019 stands at -0,310% while the 12-month average reaches -0,113% in this period.
- ECB refinancing rates, as previous quarters, remains at 0,00%.
- ECB monetary policy is consistent with the institutions commitment to strengthening the euro and guaranteeing stable financial conditions for companies in the Euro area.



# 4. Business Climate

## 4.1 CECIMO Business Climate Barometer (m)

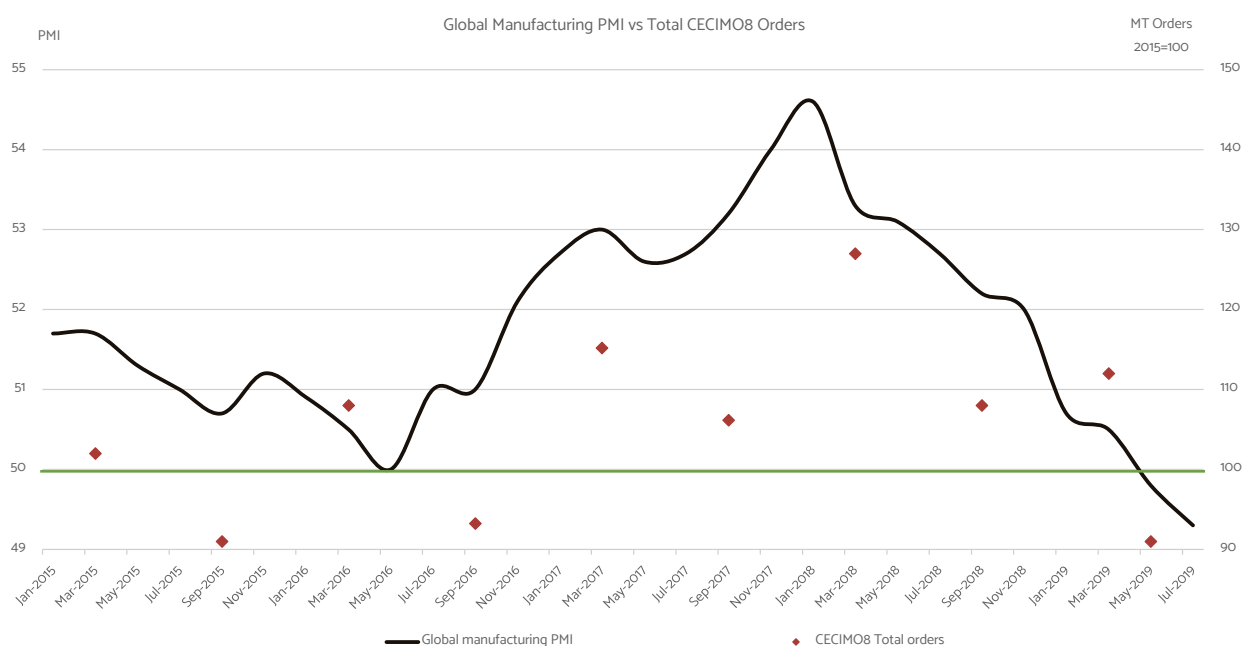
The Business Climate Barometer is a quarterly survey that assesses CECIMO-based companies' current business sentiment and expectations for the next quarter.

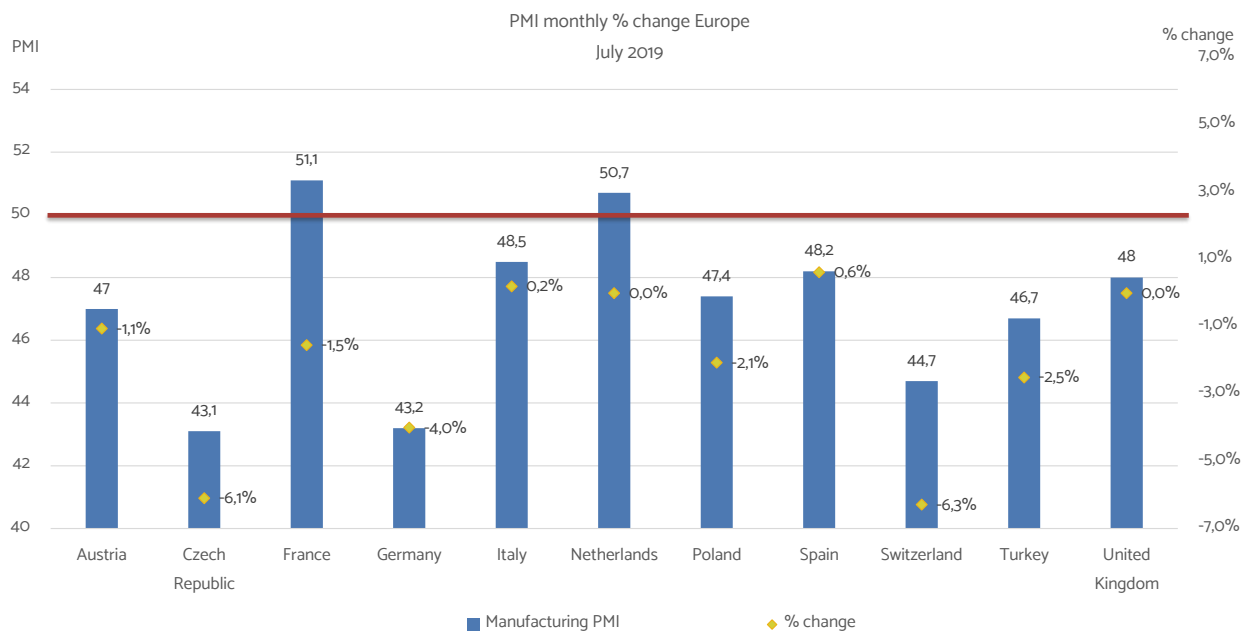
**By decision of CECIMO's Economic Chairman, this Barometer will not be published in this edition of the Statistical Toolbox.**

CECIMO Economic Department will thoroughly review the methodology behind the barometer in order to guarantee that the information and conclusions it provides are meaningful and relevant for CECIMO members.

## 4.2 Purchasing Managers Index (M)

- Global manufacturing PMI remains below the 50-point threshold in July (49,3) and August (49,5). July marked one of the lowest points in the series for this business sentiment index since 2012.
- This takes place in a period of strong decreases in domestic, foreign and total orders for CECIMO countries, as discussed above.



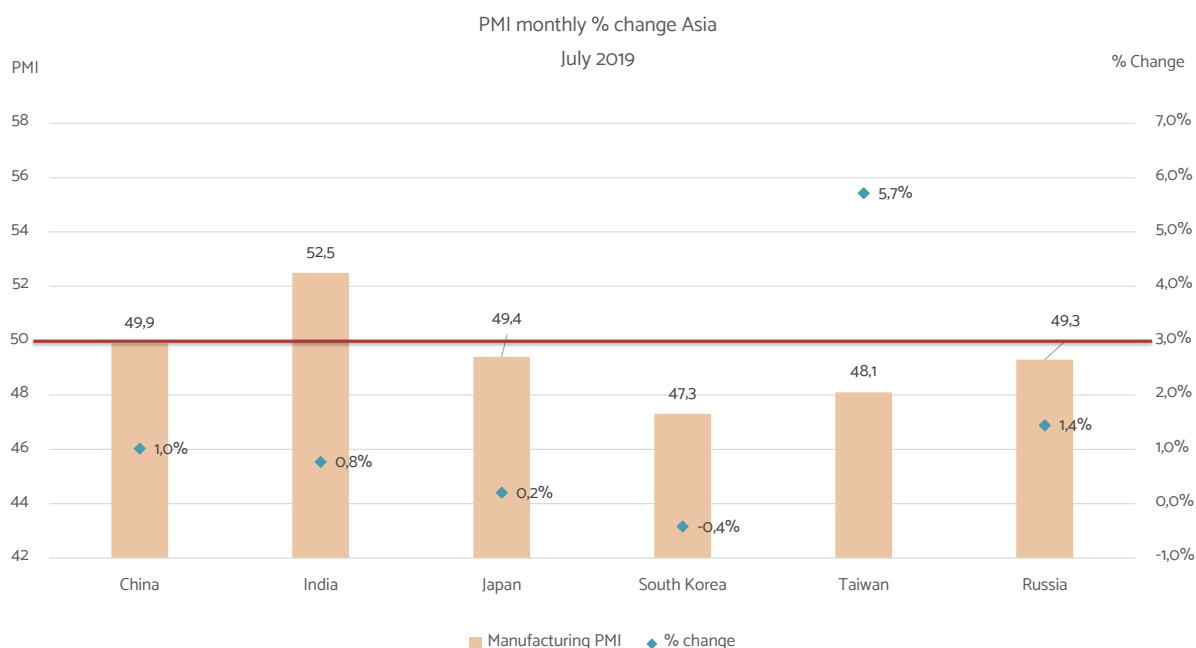


- Business confidence keeps decreasing the Eurozone countries. Eurozone PMI stands at 46,5 in July 2019. It is a decrease against May's PMI (47,7). The index remains below the 50-point threshold since Q1 2019 and seems to be locked in a downward trend, which means that business confidence is slowly eroding in Europe.

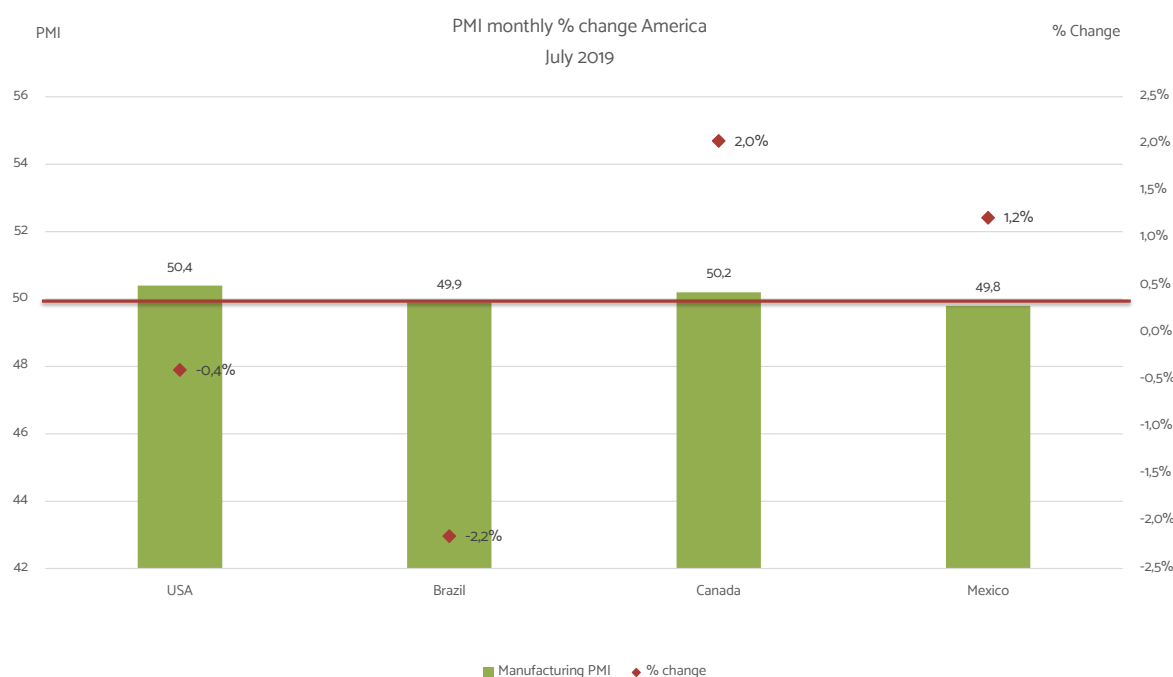
- In the UK, manufacturing PMI for July 2019 is 48 points, slightly stronger the one from the Eurozone, but nonetheless below the no-change line of 50 points.

- Switzerland registers one of the lowest PMIs for European countries in July, with 44,7 points. Compared to May 2019, which registered a comparatively strong 48,6 PMI, Swiss business confidence decreased.

- These drops in business expectations and confidence are consistent with the decrease in MT builders' orders.



- PMI in **China** sits just below the threshold in July 2019 (49,9) after the no-change value recorded in May 2019 (50,2). There are uncertainties as to the performance of the Chinese economy as the trade war with the United States continues.
- **India** PMI for July 2019 is 52,5, above the threshold. Indian business confidence however appears to be deteriorating. From May to July, business confidence dropped -0,4%, after months of stagnant and negative growth.
- **Japanese** PMI slowly decreases as well. In May 2019 the registered value was 49,8 while the index dropped to 49,4 in July 2019. This continues a downward trend in overall business confidence for the Japanese manufactures and it the first quarter in which business confidence is clearly below the 50-point threshold.
- **South Korean** PMI for July 2019 is 47,3. It is one point below the registered value for May 2019 (48,4) and the lowest score registered in the past two years. It is important to note that South Korean PMI has been consistently below the 50-point mark since March 2018.
- **Taiwanese** PMI remains somewhat stagnant. In July 2019, the country's PMI stood at 48,1 points, the lowest registered value since January 2019 (47,5). Taiwanese manufactures and businesses struggle to recover their confidence in the economy, as PMI has not registered a 50 (or higher) value since September 2018.
- Regarding **Russian** manufacturers and businesses, their confidence in the economic environment lies below the 50-point mark this quarter: 49,8 in May 2019 and 49,3 in July 2019. Compared to the previous, when PMI reached a value of 52,8 (March), Q2 2019 economic environment seems weaker.

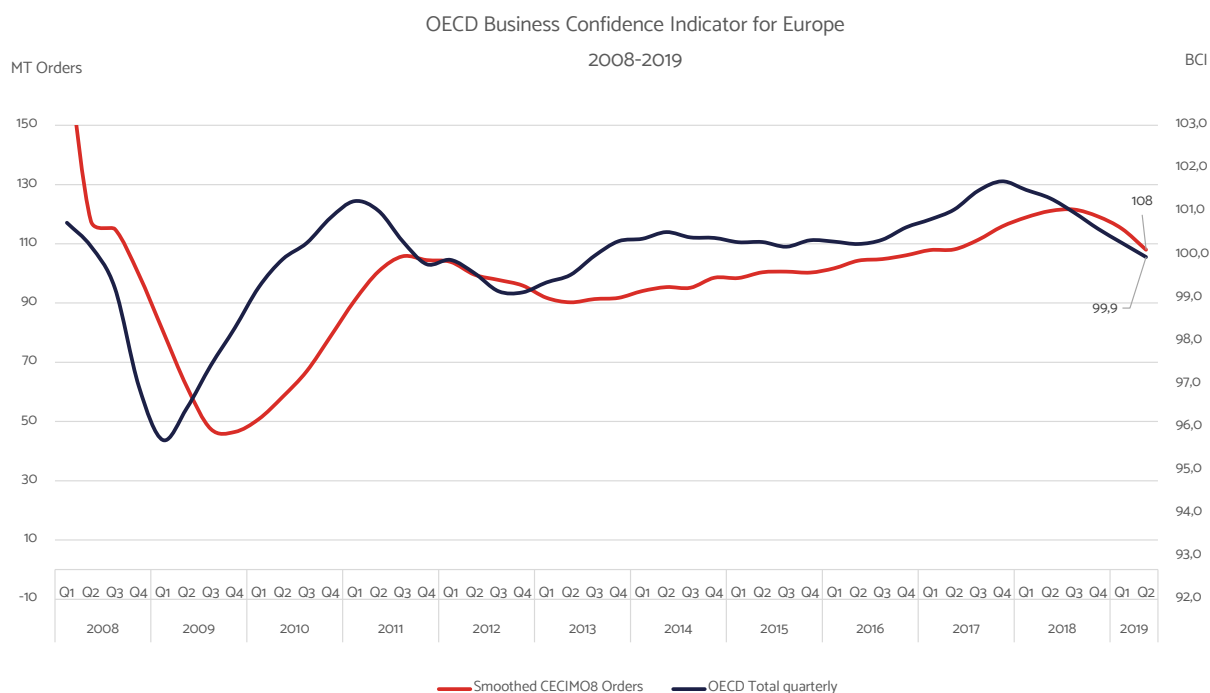


- PMI values in the **United States** are clearly above the 50-point threshold, but business confidence has decreased over the successive periods. PMI for May's was 50,5 while that of July 2019 was 50,4. This is the result of consecutive periods of negative growth between Q1 and Q2 2019. Although businesses are more confident than their European counterparts, their trust in the economy and manufacturing has dwindled. Since May 2018, with a high point of 56,4 PMI, the index values have consistently decreased to that registered in July 2019.
- As for **Brazil**, PMI is stagnant. In July 2019, PMI stood at 49,9. It is the first time in more than two year that Brazilian PMI is below albeit slightly below the threshold (the last time was March 2017, 49,6 PMI). So far in 2019, Brazilian PMI has either experienced flat growth (Q1 2019) or decreased (-2,6% on average in Q2 2019).
- **Canadian** PMI in July was 50,2, one point higher than May's 49,1. Canadian manufacturers confidence follows a similar trend than that of US: confidence is strong in general terms, with index values clearly above the mentioned threshold since mid-2016, but it grows weaker. 2019 has been especially negative for businesses as growth rates are negative (-4,1% in Q1 and -3,7% in Q2).
- Lastly, PMI in **Mexico** moves between values close to the threshold. For instance, PMI was 49,8 in July and 50 in May. A similar trend was seen between January and March. Manufacturer's confidence does not improve.

## 4.3 OECD Business Confidence Indicator (M)

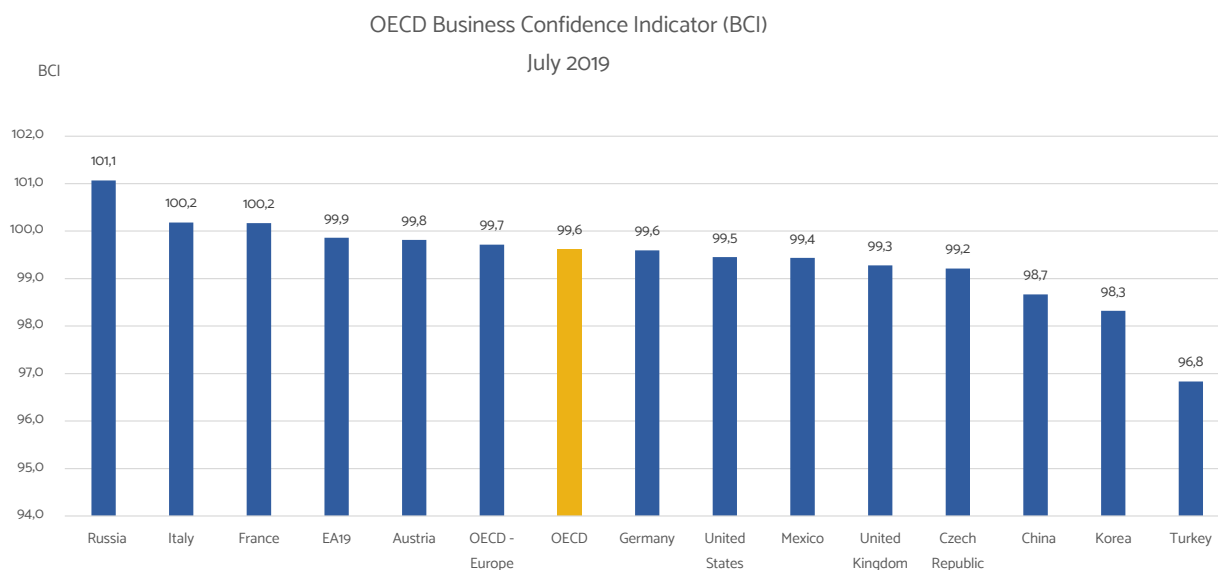
In July 2019, at the end of Q2 2019, the OECD Business Confidence Indicator decreased to 99,3 points (a -0,17% drop compared to June's 99,8 BCI). It continues a downward trend that started in May 2019 and lasts to this date (three consecutive months of negative growth).

On a quarterly basis, OECD BCI correlates with CECIMO8 MT Orders moving average by 93%. Thus, new decreases in MT orders intake might take place along with a further loss of business confidence in developed countries.



Commentary on the retrieved data for July 2019:

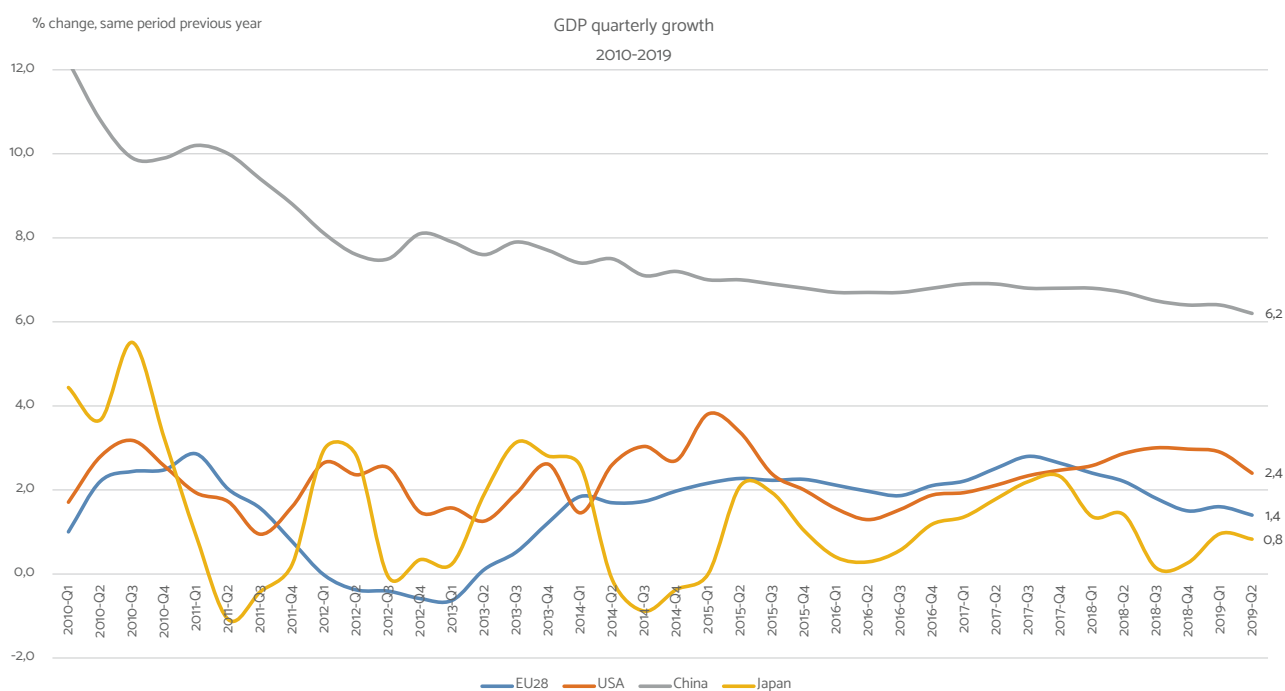
- The OECD average is below the 100-point threshold (99,6).
- At the end of Q2 2019, Russia has the highest business confidence of the OECD group, with a 101,1 BCI.
- Other countries with above-average BCI are France and Italy (100,2 points each).
- The Euro zone has a 99,9 BCI, slightly above the OECD average.
- Key countries like China (99,6), Germany (99,6) are in line with the OECD average, while the United States register a 99,5 BCI.
- Turkey, as in the previous quarter, records a 96,8 BCI, the lowest score of the selected countries.



# 5. General Indicators

## 5.1 GDP (M)

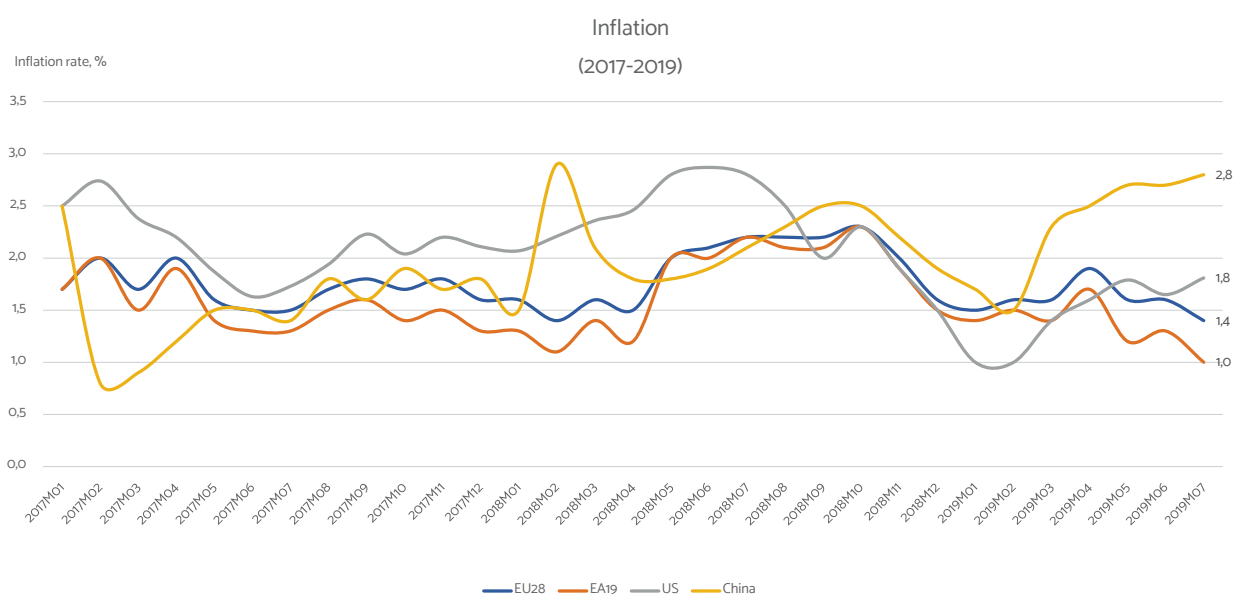
- Quarterly GDP grew 1,6% in EU28 countries.
- US GDP increased 2,4% this quarters.
- GDP growth in Japan for Q2 was 0,8%, nearing flat growth scenario.
- Chinese GDP grew 6,2%.
  - Q2 2019 GDP growth rates have decreased compared to those of the previous quarter.





## 5.2 Inflation (M)

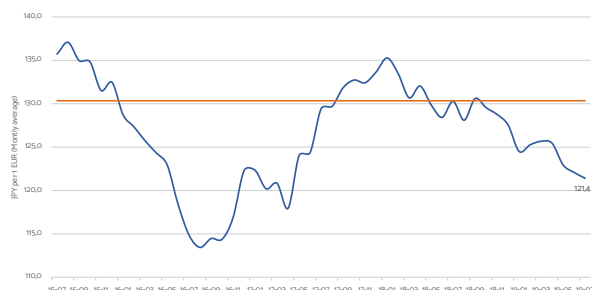
- In July 2019, the inflation rate in EU28 was 1,4%, while Euro zone inflation 1%.
- Inflation in the US was 1,8%, consistent with the previous months.



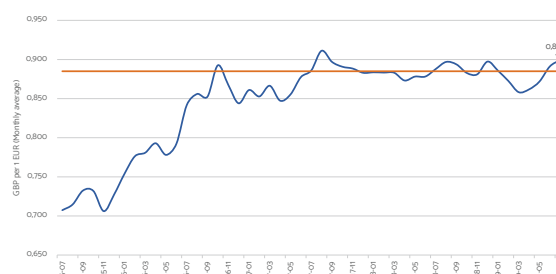
Monthly inflation rate for CECIMO countries (2019)

	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19
United Kingdom	1,8	1,8	1,8	2	1,9	2,0	2,1
Austria	1,7	1,4	1,7	1,7	1,7	1,6	1,4
France	1,4	1,6	1,3	1,5	1,1	1,4	1,3
Germany	1,7	1,7	1,4	2,1	1,3	1,5	1,1
Spain	1,0	1,1	1,3	1,6	0,9	0,6	0,6
Switzerland	0,7	0,7	0,7	1,1	0,5	0,7	0,4
Italy	0,9	1,1	1,1	1,1	0,9	0,8	0,3

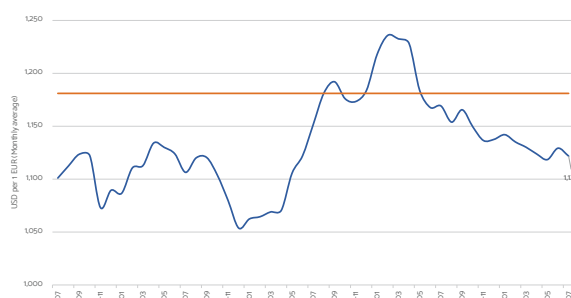
## 5.3 Foreign Exchange Rates (M)



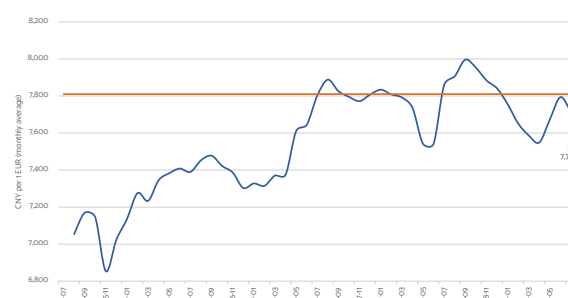
The Japanese Yen continues to strengthen against the euro after briefly pricing out in Spring 2019. The Yen-Euro ratio is almost 9 points below the 2018 average as of Q2 2019.



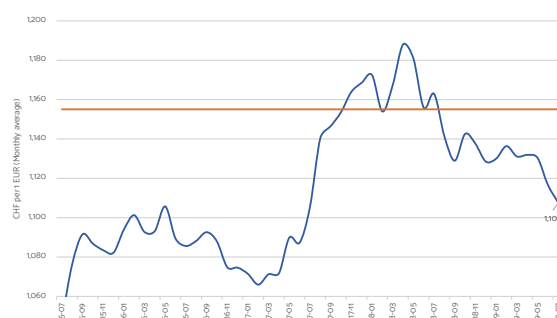
The British Pound has progressed around the 2018 average (0,88 per Euro). In July, however, it recovered ground and neared the 0,90 mark (similar to that of July 2018).



US Dollar follows the previous trend, gaining value against the Euro. July nevertheless has slightly deviated from this, as the Dollar's relative price hikes, but the overall trends ensues.



The Chinese Yuan's price increase in Spring 2019, fueled by a heavy increase of US tariffs, is followed in July by a slight strengthening of the Yuan. The Chinese currency currently stands below the 2018 average and well above the 7.00 threshold.



The Swiss Franc weakens against the Euro and sinks deeper away from the 2018 average, which confirms last quarter's expectations. Poor economic performance in the EU and weak business confidence are to blame.



# Glossary <sup>i</sup>

## 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.

## 2.3 Industrial Production Index

The objective of the production index is to measure changes in the volume of output at close and regular intervals, normally monthly. It provides a measure of the volume trend in value added over a given reference period. The production index is a theoretical measure that must be approximated by practical measures. Value added at basic prices can be calculated from turnover (excluding VAT and other similar deductible taxes directly linked to turnover), plus capitalised production, plus other operating income plus or minus the changes in stocks, minus the purchases of goods and services, minus taxes on products which are linked to turnover but not deductible plus any subsidies on products received. Industrial production is compiled as a fixed base year Laspeyres type volume-index.

Base period: Year 2010 = 100.

Source: Eurostat.

## 3.1 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.

## 3.2 Capacity Utilisation 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](http://ec.europa.eu/economy_finance/db_indicators/surveys/documents/userguide_en.pdf)

### 3.3 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>

### 3.4 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.

### 4.2 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>

### 4.3 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>

# Geographical Information

## **CECIMO countries**

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

## **Euro area (EA) / Eurozone (EZ)**

The euro area (EA19), also called the Eurozone, consists of 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.

# Other Symbols and Acronyms

## **M / m (Toolbox headings)**

M = Macro-economic. non-caps (m) = microeconomic.

## **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







# cecimo

European Association of the Machine Tool Industries  
and related Manufacturing Technologies

## Member Associations

### CREDITS

CECIMO  
Economic and Statistical  
Toolbox

Publisher  
Filip Geerts

Author  
José Díaz

Copyediting & Production  
Giorgia Zia



[www.cecimo.eu](http://www.cecimo.eu)

Avenue Louise 66,  
1050 Brussels, Belgium  
Tel: +32 (0)2 502 70 90

Austria: Metaltechnology Austria  
Association of Metaltechnology  
Industries  
[www.metalltechnischeindustrie.at](http://www.metalltechnischeindustrie.at)

Belgium: AGORIA  
Federatie van de Technologische  
Industrie  
[www.agoria.be](http://www.agoria.be)

Czech Republic: SST  
Svazu Strojírenské Technologie  
[www.sst.cz](http://www.sst.cz)

Danish Manufacturing Industries  
Cooperation  
A part of the Confederation of Danish  
Industry  
[www.isa.di.dk](http://www.isa.di.dk)

Finland: Technology Industries of  
Finland  
[www.teknologiateollisuus.fi](http://www.teknologiateollisuus.fi)

France: SYMOP  
Syndicat des Entreprises de  
Technologies de Production  
[www.symop.com/fr](http://www.symop.com/fr)

Germany: VDW  
Verein Deutscher  
Werkzeugmaschinenfabriken e.V.  
[www.vdw.de](http://www.vdw.de)

Italy: UCIMU  
Associazione dei costruttori  
Italiani di macchine utensili robot e  
automazione  
[www.ucimu.it](http://www.ucimu.it)

Netherlands: FPT-VIMAG  
Federatie Productie Technologie /  
Sectie VIMAG  
[www.fpt-vimag.nl](http://www.fpt-vimag.nl)

Portugal: AIMMAP  
Associação dos Industriais  
Metalúrgicos, Metalomecânicos e  
Afins de Portugal  
[www.aimmap.pt](http://www.aimmap.pt)

Spain: AFM - Advanced  
Manufacturing Technologies  
Asociación española de fabricantes  
de máquinas-herramienta,  
accesorios, componentes y  
herramientas  
[www.afm.es](http://www.afm.es)

Sweden: SVMF  
Machine and Tool Association of  
Sweden  
[www.svmf.se](http://www.svmf.se)

Switzerland: SWISSMEM  
Die Schweizer Maschinen-, Elektro-  
und Metall-Industrie  
[www.swissmem.ch](http://www.swissmem.ch)

Turkey: MIB  
Makina Imalatçileri Birliği  
[www.mib.org.tr](http://www.mib.org.tr)

United Kingdom: MTA  
The Manufacturing Technologies  
Association  
[www.mta.org.uk](http://www.mta.org.uk)

# EMO

EMO® is a registered  
trademark of CECIMO

**cecimo** is the European Association representing the common interests of the Machine Tool Industries and related manufacturing technologies globally and at EU level. We bring together 15 National Associations of machine tool builders, which represent approximately 1500 industrial enterprises in Europe (EU + EFTA + Turkey), over 80% of which are SMEs. CECIMO covers more than 98% of total machine tool production in Europe and more than one third worldwide. 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.