cecimo

European Association of the Machine Tool Industries
and related Manufacturing Technologies

Economic & Statistical Toolbox

First Quarter 2020

IN THIS ISSUE

COVID-19 disrupts machine tool consumption and trade.

INDUSTRIAL ORDERS, both domestic and foreign, deteriorate further amid the pandemic.

EUROPEAN INDUTRIAL OUTPUT and production capacity slowdown significantly, while INVESTMENTS VOLUMES increase slightly on a yearly basis.

New data from the EUROPEAN COMMISSION FORECAST (Spring 2020 edition).

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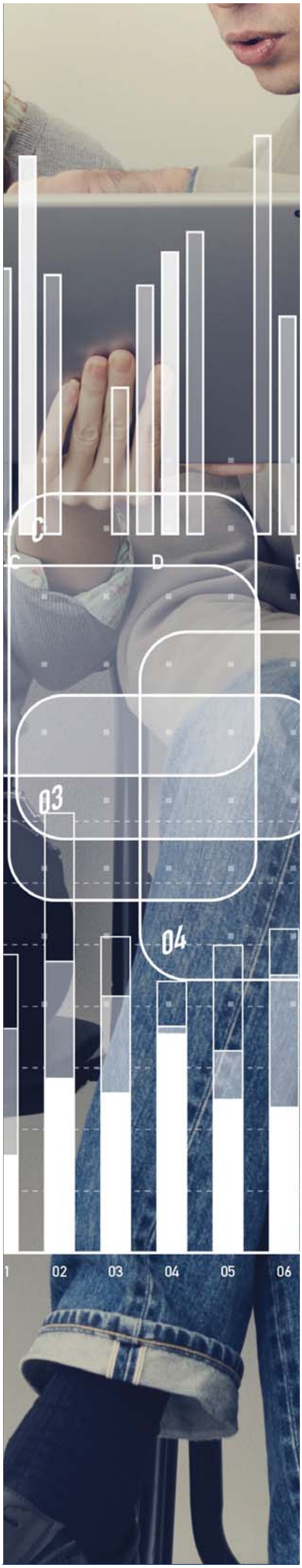

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Introduction

The first quarter of 2020 was marked by the impact of the coronavirus pandemic across the world. The current public health crisis has greatly disrupted business activity across various regions and has had sizeable social costs. For the machine tool industry, the effects of this crisis have been plentiful. In terms of order intake, CECIMO8 total orders have decreased by -29% in the first quarter of 2020 compared to Q1 2019. Domestic orders have also fallen by -34% over the same period, while foreign orders dropped by -30%. Japanese orders have also dropped significantly.

The latest data on machine tool trade shows a weakened international capital goods market. Machine tool exports drop by -26% on a yearly basis in Q1 2020. It is the fifth consecutive quarter with negative growth rates and the worst rate recorded in said period. Key regional markets witness sharp drops in CECIMO export flows. For instance, exports to Asia, the first continent hit by the COVID-19 outbreak, fell by -30% in Q1 2020 against Q1 2019.

Concerning production, following the latest submission of data by CECIMO's national association, overall machine tool production volumes have been revised. CECIMO turnover for 2019 nevertheless stands at 26,9 billion euros, as previously reported in the Q4 2019 edition of the CECIMO Economic and Statistical Toolbox.

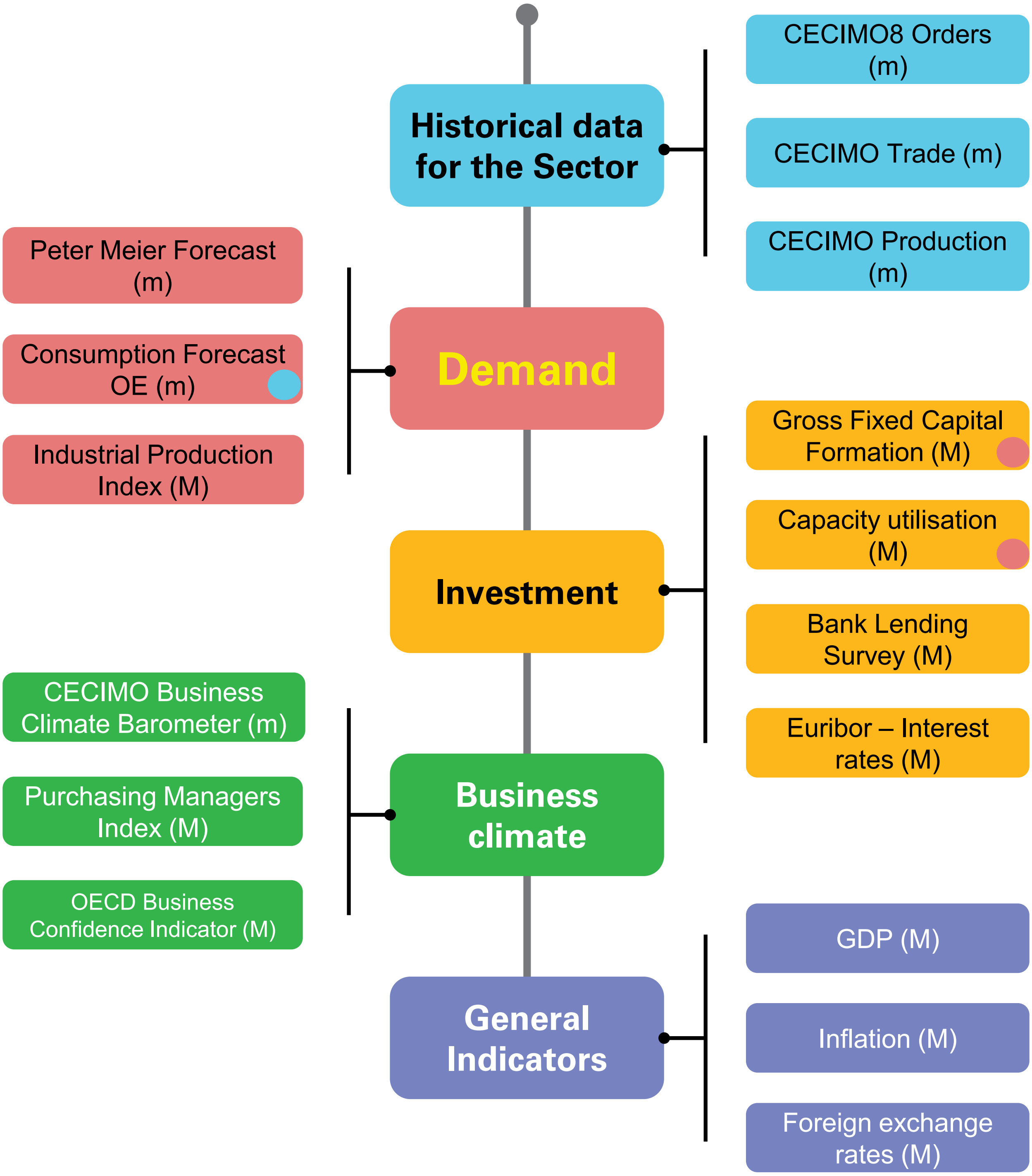
In terms of machine tool consumption, the latest forecast submitted by our partners at Oxford Economics shows a severely strained world machine tool market in 2020 due to the COVID-19 pandemic and the subsequent confinement policies put in place by national governments across the world. Furthermore, HPO Forecasting most recent report suggests that industrial demand will fall during 2020 and experience a partial recovery in the short term, only to decrease soon after. Manufacturer's market sentiment remains weak.

Investment:

- European (EU27 + UK) gross fixed capital formation (GFCF) increased by almost 2% in Q1 2020 compared to the same quarter in 2019.
- EU28 capacity utilization decreased by -4% on a year-on-year basis in Q1 2020.
- Bank lending trend show a clear upward impact of the coronavirus (COVID-19) pandemic on firms' loan demand, largely driven by emergency liquidity needs of companies.

Business climate:
As coronavirus spread across Asia, Europe and the Americas, disrupting normal business activities across these regions, corporate managers' confidence began to falter. March's OECD Business Climate Indicator score stood at 98,5, a reading which is clearly indicative of a pessimistic outlook on the economy. Key CECIMO countries score below the 100-point threshold. The European Commission expects Q2 2020 GDP to decrease by -14,2% on a year-on-year basis, with estimates suggesting the second half of 2020 will see further contractions in the European gross domestic product. An upturn in GDP is expected to take place by Q2 2021.

Toolbox Mind Map

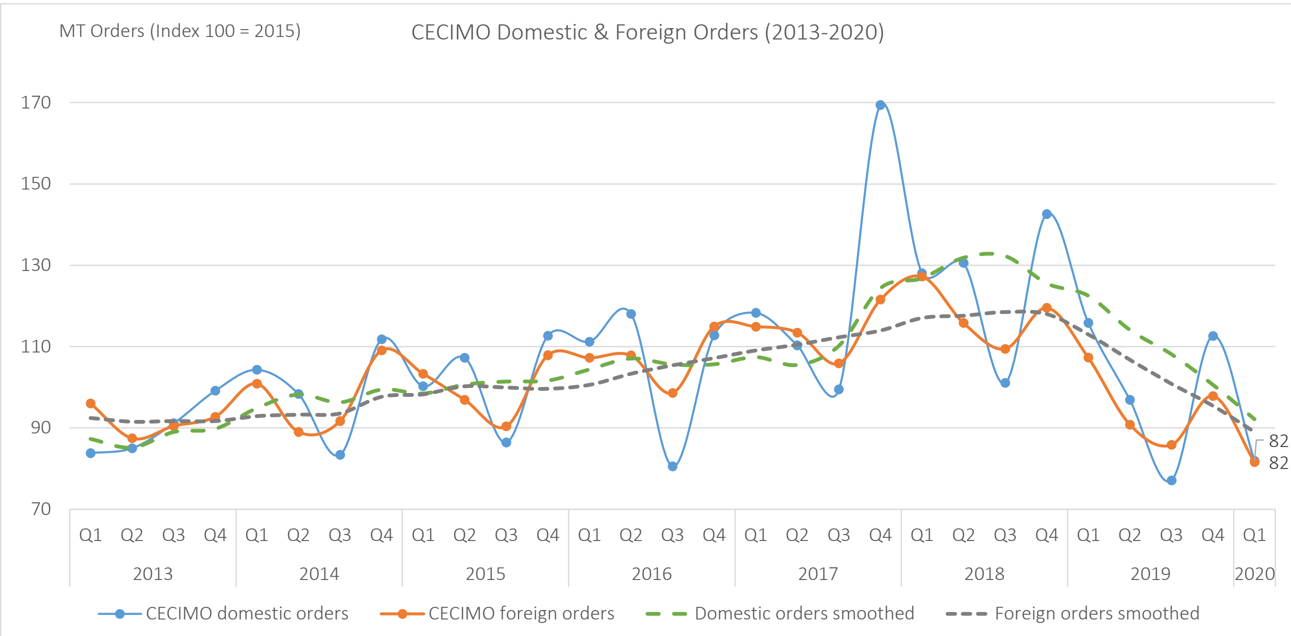


1. Historical Data for the Sector

1.1 Orders (m)

CECIMO8 total orders have decreased by -29% in the first quarter of 2020 compared to Q1 2019. Domestic orders fell by -34% over the same period, while foreign orders dropped by -30%.

This drastic tightening in order income takes place in the midst of the COVID-19 public health crisis and a long confinement period, both of which have severely disrupted industrial output and supply across Europe, North America, and Asia.



Breakdown per country

Total Orders:

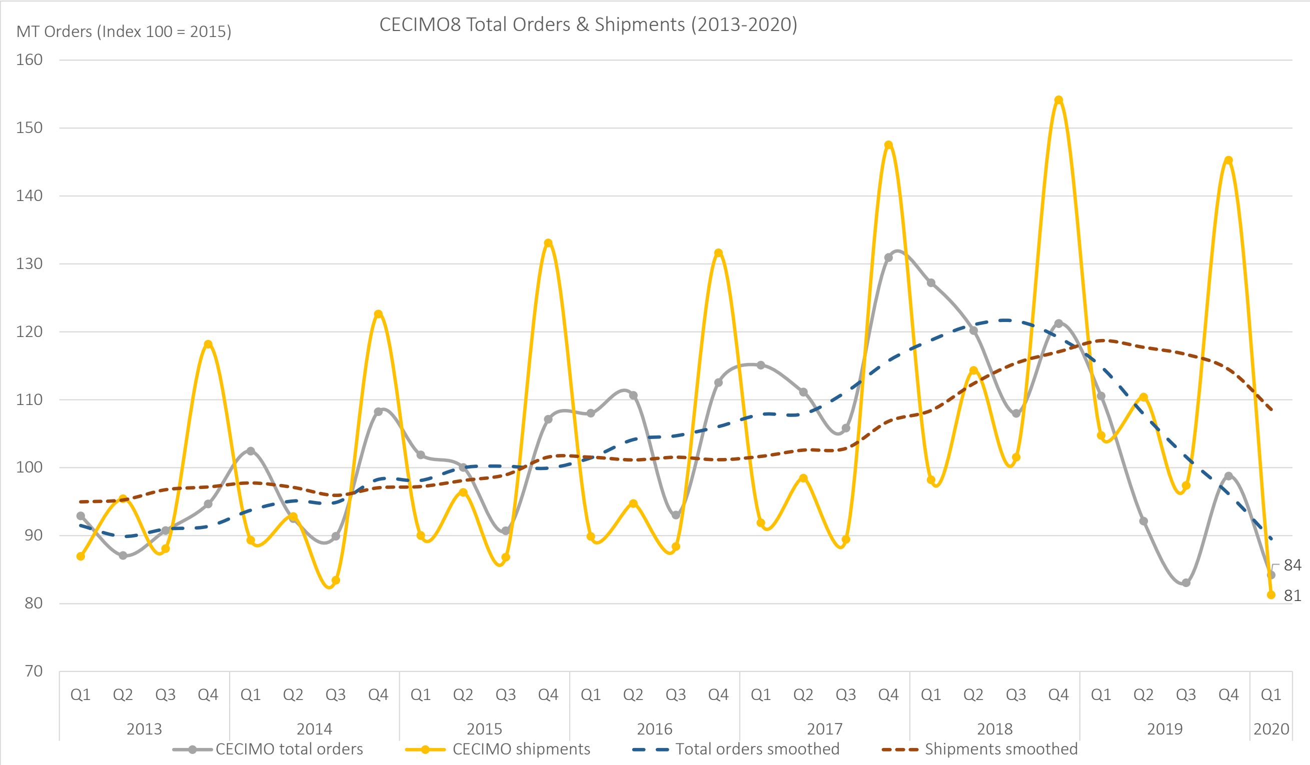
- German total orders drop by -25% in Q1 2020 on a yearly basis.
- Very significant decreases recorded in UK (-32%), Czech Republic (-37%) and Switzerland (-38%).
- Italian total orders fall by -10% while Austrian (-13%) and Spanish (-15%) orders decrease as well yet at a slightly faster pace.

Domestic Orders:

- Domestic orders income decreases by -14% in Austria, -22% in Germany, and -24% in UK.
- Swiss, Italian, and Czech domestic orders suffer considerable setbacks, as demand falls by -37% in Switzerland, -41% in Italy and -42% in the Czech Republic.
- Spanish domestic orders go down by -5%.

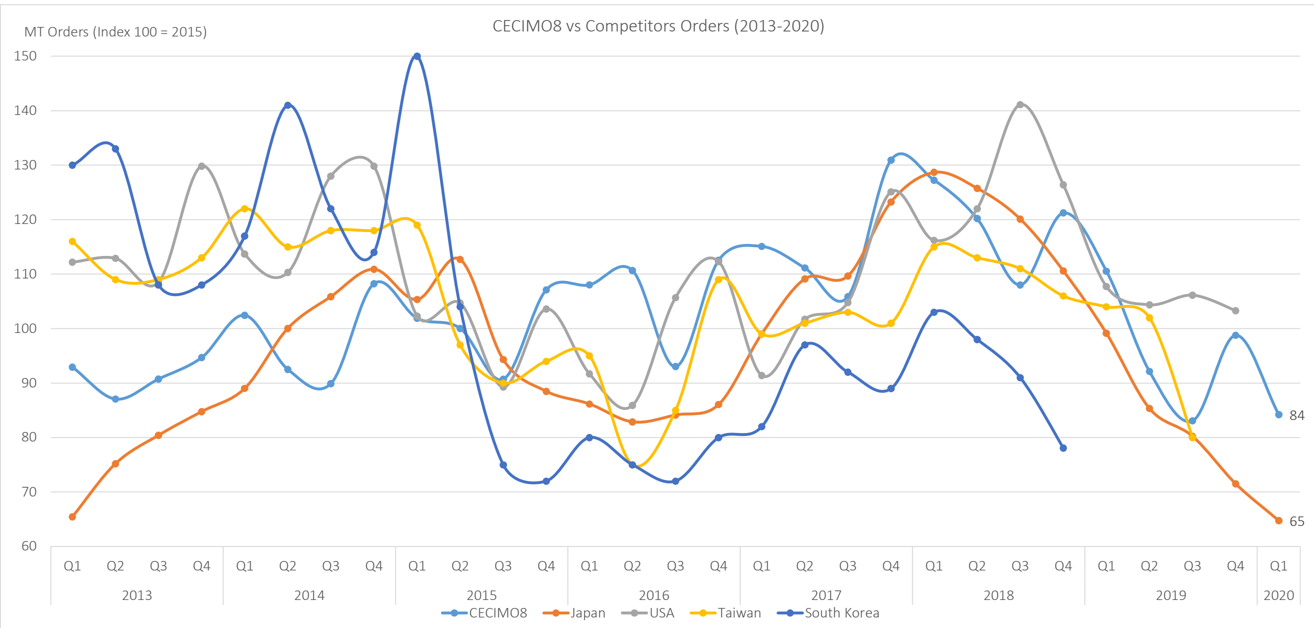
Foreign Orders:

- Significant yearly decreases in Austria (-13%), Spain (-16%) and Germany (-27%).
- Major yearly order income drops registered in the Czech Republic (-34%), United Kingdom (-37%) and Switzerland (-39%) register major yearly order income drop.
- Italian foreign orders drop by -4%.



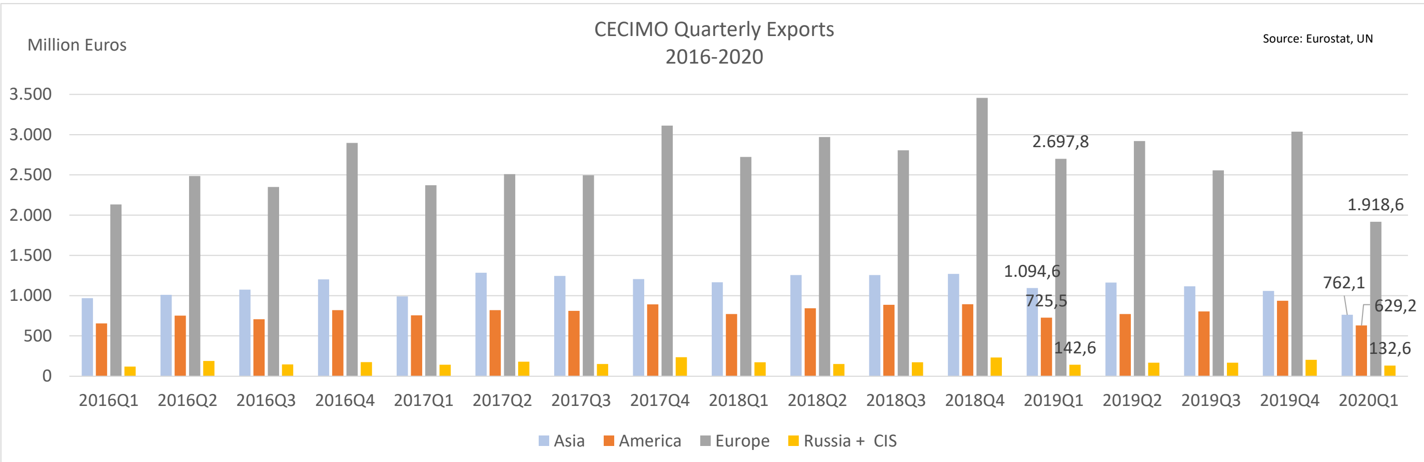
Our competitors:

- Japanese metal forming order intake continues its downward trend in Q1 2020, registering major yearly drops. Foreign orders decreased by -35% while Domestic orders rollback by -23%. Total Japanese metal forming orders contract by -31%.
- For Japanese metal cutting companies, new incoming orders suffer very significant setbacks at all levels: foreign orders go down by -38% against Q1 2019 and domestic orders decrease by -33%. Total orders fall by -35% in this negative juncture.



1.2 CECIMO Trade (m)

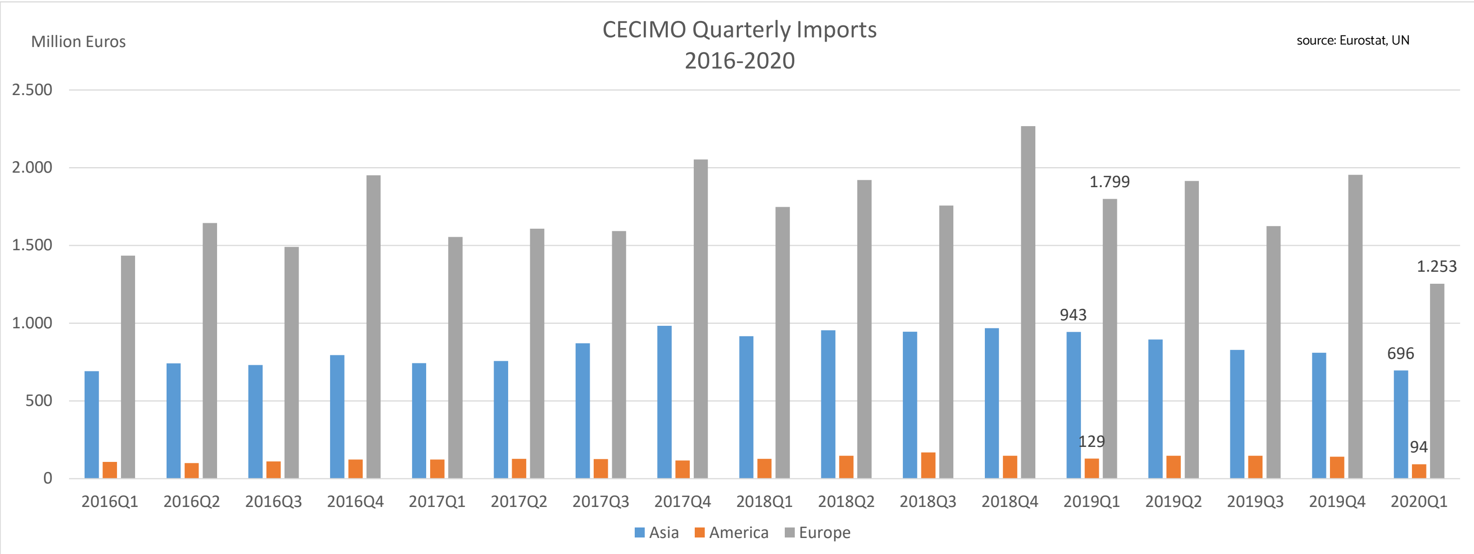
CECIMO machine tool exports and imports continue record notable drops in Q1 2020, as international trade in investment goods, already sluggish, worsened due to the COVID-19 global pandemic.



CECIMO quarterly exports in Q1 2020 compared to Q1 2019:

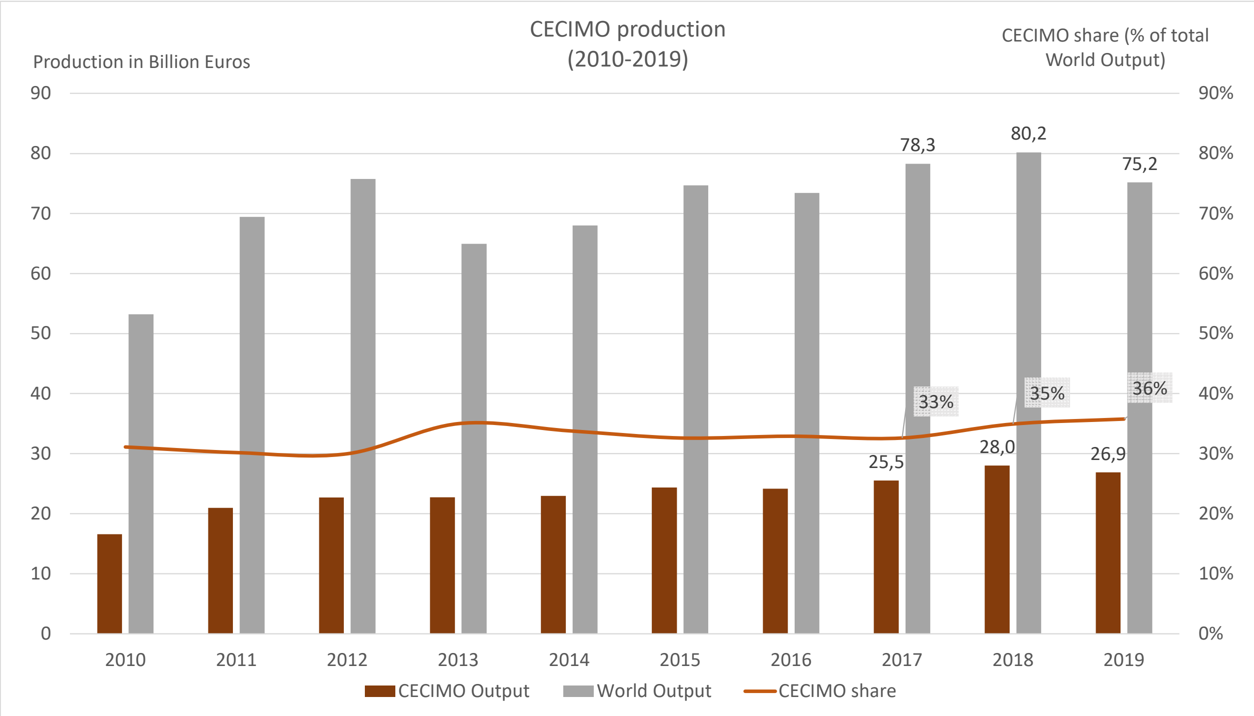
- 3,6 billion euros in world machine tool exports for CECIMO in Q1 2020.
- The latter figures would represent a -26% year on year drop export flows for this type of good, which clearly indicates a further deterioration of CECIMO exports, especially if compared to Q4 2019's -10% yearly drop.
- Machine tool exports to foreign (non-CECIMO) markets drop by -25% on a yearly basis.
- Very sharp drops were recorded throughout key regional markets. Exports to Asia, the first hit by the COVID-19 pandemic, fell by -30% in Q1 2020 against Q1 2019, while those that flowed to the broader European dropped by a similar rate (-29%). Exports to the Americas fall at a slower pace (-13%).
- Further drops were recorded in the Russia-CIS area (-7%) and Africa (-17%). Exports to other countries drop by -24%.

CECIMO quarterly imports in Q1 2020 compared to Q1 2019:



- 2 billion euros worth of CECIMO world machine tool imports in Q1 2020.
- CECIMO world imports decrease by -29% against Q1 2020. It is the fourth consecutive quarter of negative growth in machine tool supply and the largest drop recorded over the course of a year.
- Imports from key supplying regional markets plunge in Q1 2020 on a yearly basis. MT supply from Asia (-26%), the Americas (-27%) and Europe (-30%) have all registered strong decreases.
- Machine tool supply from Africa also falls considerably (-28%), while imports from other sets of countries drop by more than 40%.
- Machine tool imports from Russian and CIS countries increase on a yearly basis for the second consecutive quarter at a strong pace, almost doubling Q1 2019’s figures.

1.3 Production (m)



Following the submission of the latest figures by CECIMO's national associations (May 2020), CECIMO total machine tool output has been adjusted slightly downwards. It now stands a volume of 26,9 billion euros.

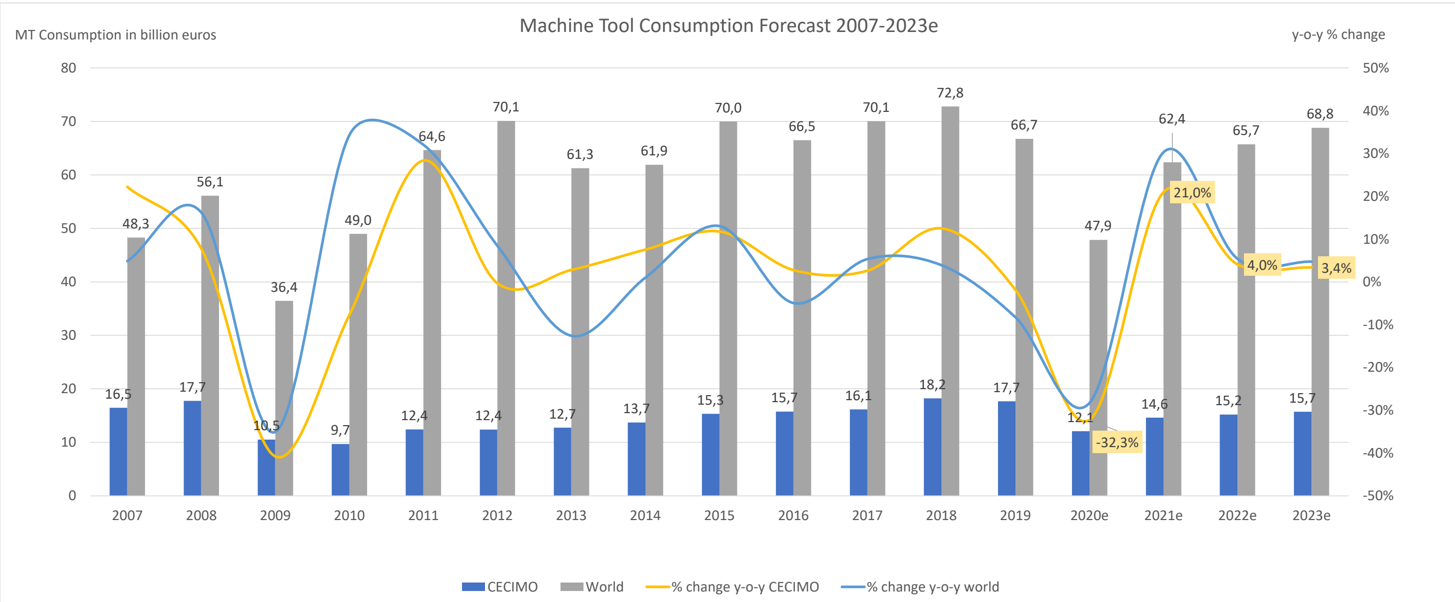
CECIMO's total production decreased by -4% in 2019 against 2018 levels.

2. Demand

2.1 CECIMO Consumption (m)
Oxford Economics Consumption Forecast

CECIMO Machine Tool consumption volumes have been adjusted once more.

Considering the new available data for 2019, total machine tool consumptions stands now at 17,7 billion euros, marginally below December 2019's volumes (17,8 billion euros). This would mean a yearly decrease of -2,2% (against 2018 volumes).



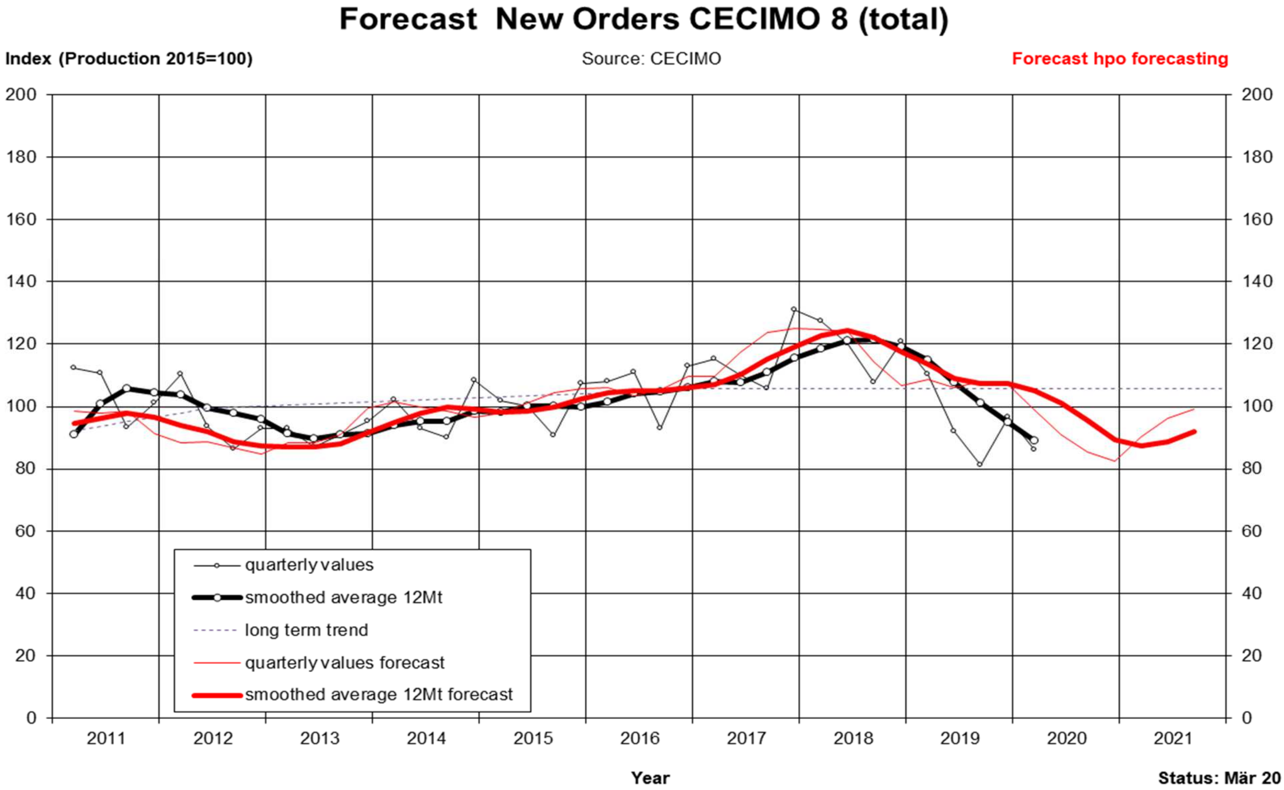
Oxford Economics' Spring 2020 forecast shows a heavily strained world machine tool market due to the COVID-19 pandemic and the subsequent confinement policies put in place by national governments across the world.

For the European market, Oxford Economics 2020 estimates outline a deep decline in machine tool consumption, calculated at -25,8% (-32,3% if we consider CECIMO's 2019 total consumption figures).

This contraction in machine tool demand is concurrent with the deep production and supply chain shortages the current pandemic has caused to key MT buying sectors, such as aerospace, the automotive industry or electrical engineering, as their investment prospect are on the downside. For instance, European automotive investments in machine tool equipment are projected to go down by more than -10% in 2020 alone.

The European machine tool industry, however, will potentially register a partial upturn by 2021, as confinement rules loosen. Consumption estimates show a strong rebound in European MT consumption, with a +19,6% yearly growth rate.

2.2 Peter Meier / HPO CECIMO8 Orders Forecast (m)



New orders declined in the first quarter of 2020, sending the 12mt average further down.

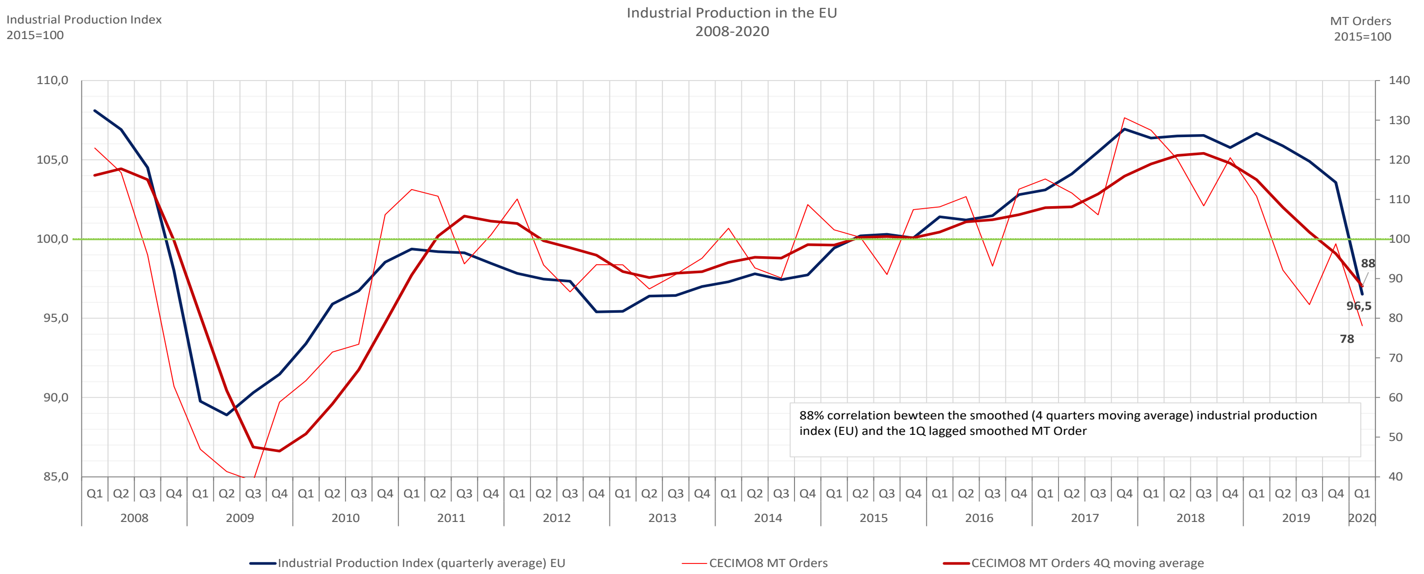
The outlook for 2020 has worsened, as the market sentiment among manufacturers deteriorate. Once the impact of COVID-19 wears off, HPO estimate a return to its previously outlined path driven by the major economic cycles.

- The measures to contain COVID-19 led to a severe fall in consumption.
- In China, which is about two months ahead of Europe in the COVID-19 crisis, retail sales in April are 7.5% below the previous year's figures. Sales are solid in relative terms (e.g. compared to other OECD countries), by they are nevertheless low.
- Retails sale hypothesis: The middle- and long-term outlook is not changed by the short-term distortions around COVID-19. HPO expects a partial short-term recovery in retail sales (catch-up effects of the shutdown), yet consumption will slowly decline again.

Concerning the capital goods industry, which has had a lacklustre performance since 2019, the low point will now be reached earlier than originally expected. Consumer-related sectors, in particular, may experience a partial recovery in the short-term before the values decrease again.

Furthermore, order income in other industries will probably remain at a low level for a protracted period.

2.3 Industrial Production Index (M)



Source: Eurostat + CECIMO

Industrial production in the EU (current composition; EU28 data unavailable) fell by -10% in Q1 2020 against Q1 2019. Eurozone industrial activity, in the meantime, decreased by -11% on the same basis.

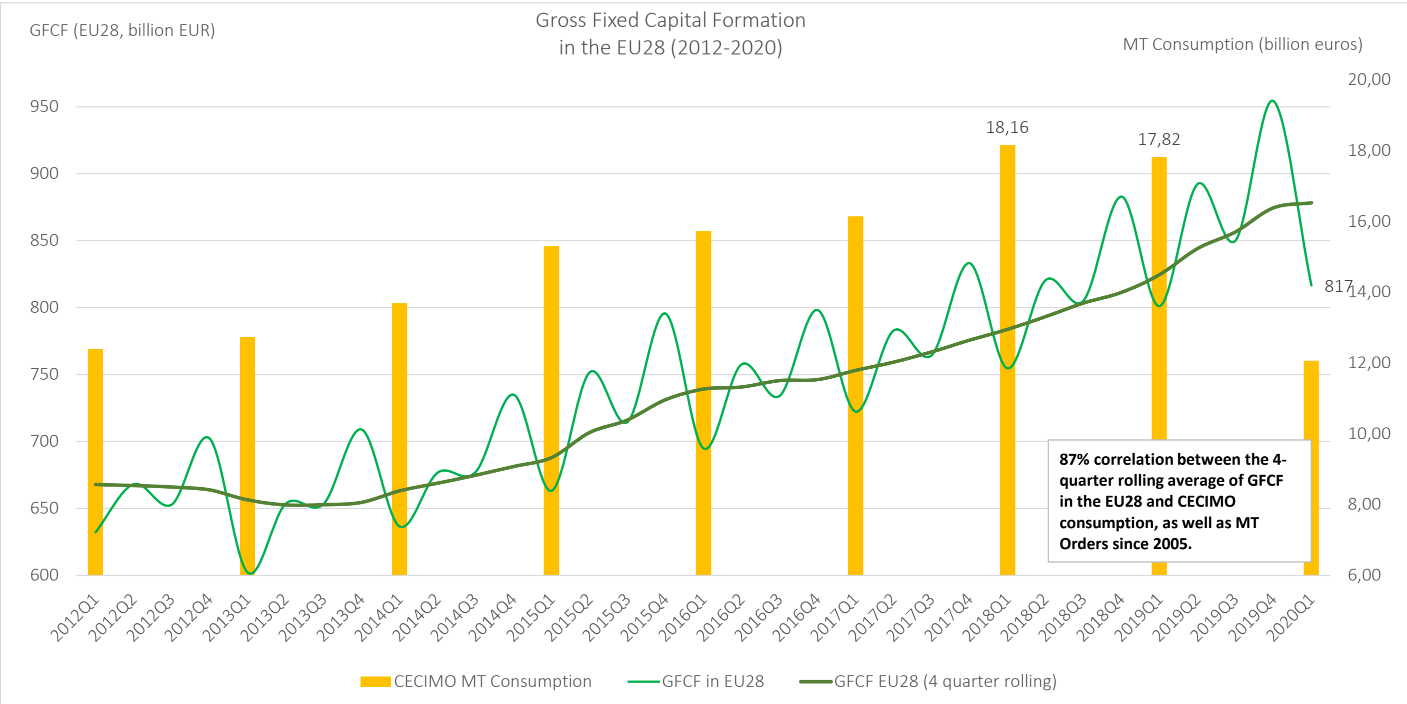
In terms of index values, EU27's industrial production index is 96,5 in Q1 2020 (as opposed to 103,6 in Q4 2019). Concerning the Eurozone, the index sits at 94,3, well below Q4 2019's 102,1 index.

It is the first time since Q1 2015 that both industrial production indexes fall below the 100-point threshold.

EU 28 (y-o-y % change)	Mar 2019/ Mar 2018	Apr 2019/ Apr 2018	May 2019/ May 2018	June 2019/ June 2018	Jul 2019/ Jul 2018	Aug 2019 / Aug 2018	Sep 2019/ Sep 2018	Oct 2019/ Oct 2018	Nov 2019/ Nov 2018	Dec 2019 / Dec 2018	Jan 2020/ Jan 2019	Feb 2020/ Feb 2019	March 2020/ March 2019
Total industrial production	**0,4%**	**-0,1%**	**-0,1%**	**-1,8%**	**-1,3%**	**-2,0%**	**-1,2%**	**-1,7%**	**-1,3%**	**-3,9%**	**1,5%**	**-1,3%**	**-11,8%**
Capital goods	1,5%	-1,6%	-0,8%	-3,2%	-2,3%	-2,9%	-1,0%	-2,8%	-2,1%	-0,6%	-2,0%	-3,1%	-20,0%
Durable consumer goods	0,1%	0,2%	0,8%	-0,8%	1,8%	0,1%	0,8%	1,7%	1,9%	-0,9%	2,6%	1,5%	-21,7%
Intermediate goods	0,8%	-0,1%	-1,5%	-3,0%	-2,3%	-2,7%	-3,3%	-3,0%	-2,3%	-4,9%	-1,5%	-0,2%	-10,1%
Energy	-6,2%	-0,6%	1,4%	0,3%	-1,5%	-2,9%	-2,5%	-2,6%	-1,5%	-3,0%	-5,8%	-1,7%	-6,4%
Non-durable consumer goods	1,7%	2,8%	2,9%	1,2%	1,7%	0,0%	2,4%	2,7%	1,8%	0,9%	1,3%	0,5%	-0,3%

3. Investment

3.1 Gross Fixed Capital Formation (M)



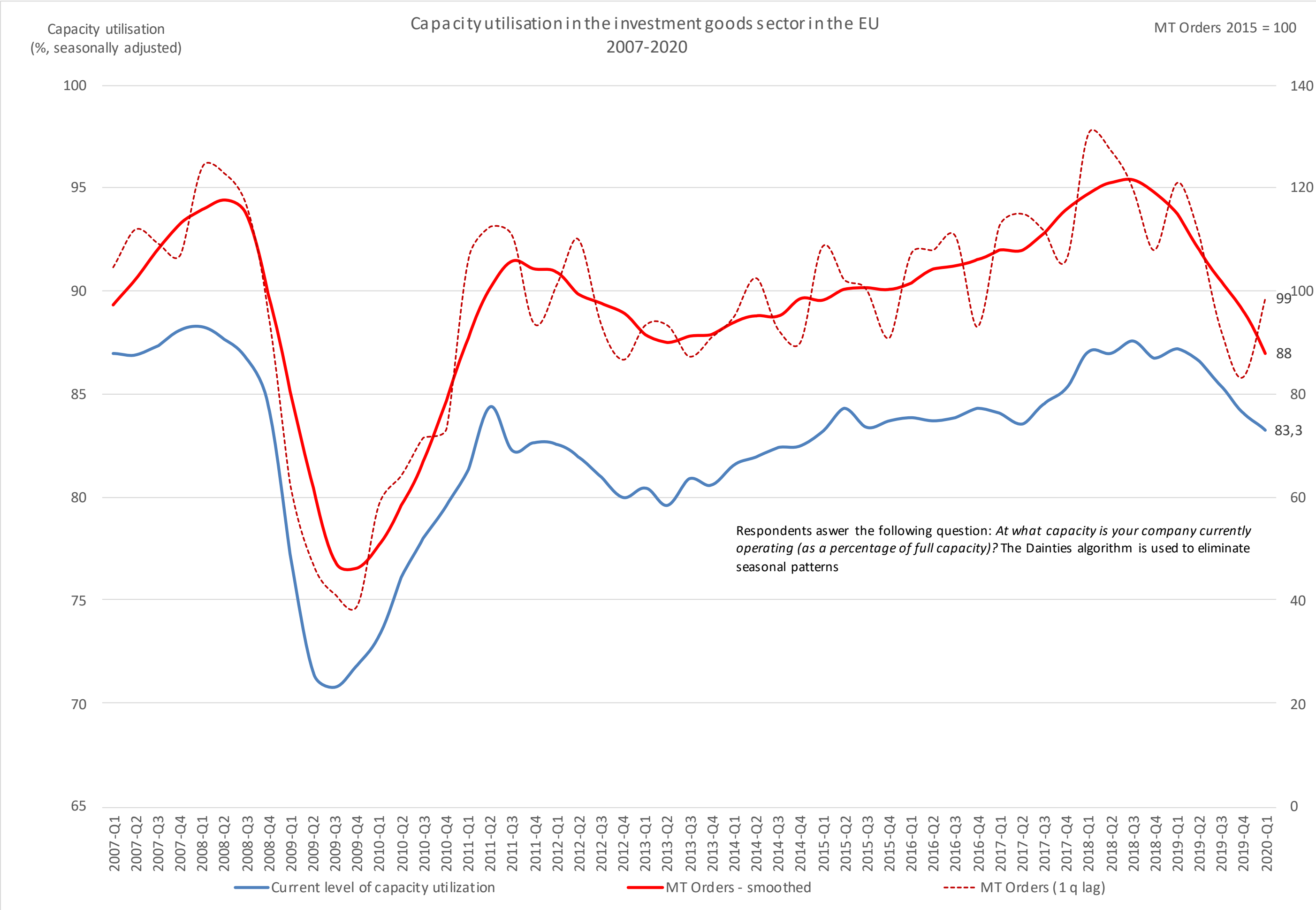
European (EU27 + UK) gross fixed capital formation (GFCF) increased by almost 2% in Q1 2020 compared to the same quarter in 2019. As to the absolute investment volumes, GFCF in CECIMO countries dropped to 817 billion euros from an otherwise strong Q4 2014, wherein capital expenditure peaked at more than 950 billion euros.

The quarterly change in trend (as the -14,4% Q1 2020 drop shows) is due in great part to a deteriorated business environment in Europe, especially in the manufacturing, and the overall economic impact of the COVID-19 public health crisis.

3.2 Capacity Utilisation in the Investment Goods Sector (M)

According to the latest results of the European business survey on investments, EU28 capacity utilization decreased by -4% on a year-on-year basis in Q1 2020. The current rate of capacity utilization in the European Union is 83%. The latest figures suggest that operating rate in Europe is still entangled in a downward spiral.

Data for Q2 2020 would ascertain the previous assumption. As economic activity in Europe withdraws due to isolation measures, European operating rate would plummet by -24% in the second quarter of the current year, sitting at 66%. An update will be available in the next iteration of our Economic and Statistical Toolbox.

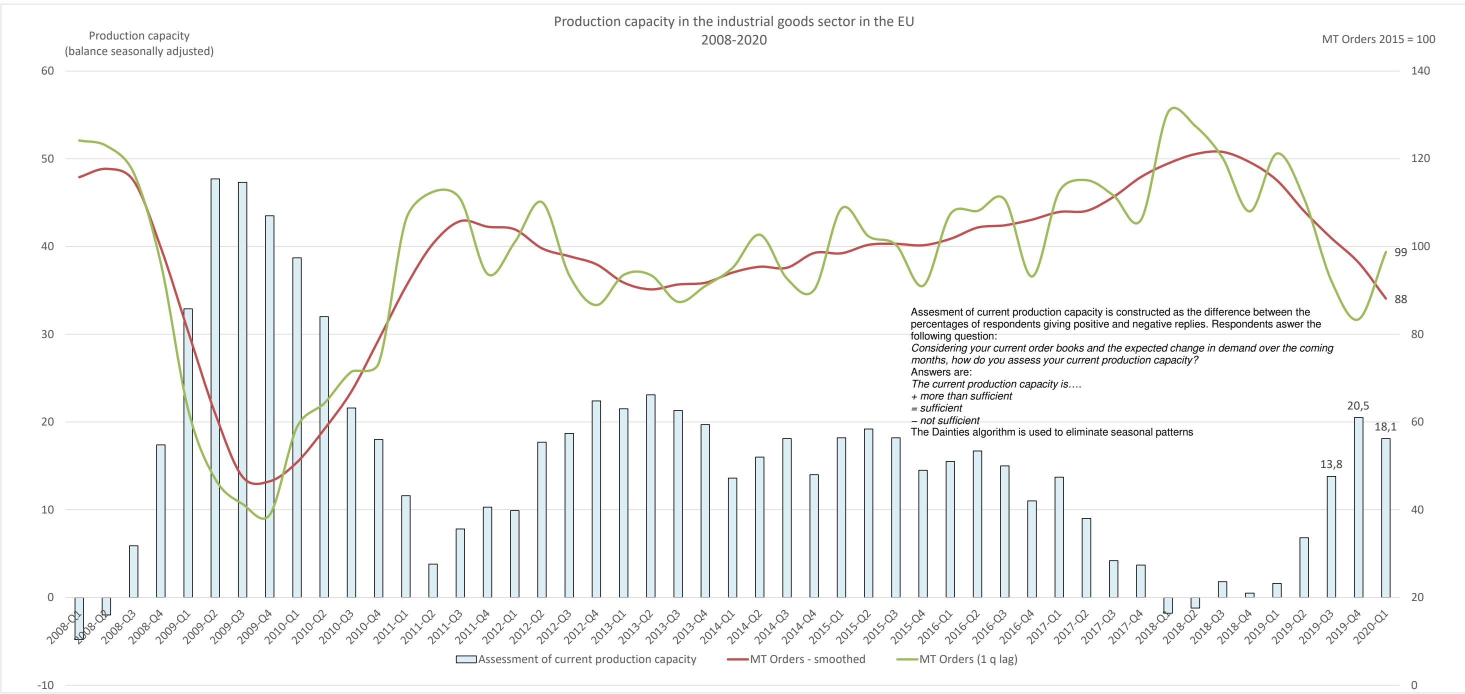


Capacity Utilisation (% of total capacity)

	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020
Austria	85,8	87,8	87,3	86,2	85,4
Czech Republic	87,8	85,5	85,4	86,9	86,9
France	89,0	88,3	87,3	85,7	84
Germany	89,9	89,5	87,9	85,5	85,5
Italy	79,9	78,7	77,8	77,9	76,9
Spain	86,4	87,5	87,5	87,9	85,4
United Kingdom	82,6	81,2	80,0	82,9	82,9

Production Capacity (balance in %)

	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020
Austria	0	6,1	11,7	22,5	18,7
Czech Republic	11,2	27,4	27	28,9	33,5
France	-13,3	-11,4	-4,7	-4	-1,1
Germany	1,5	9,6	22,1	33	25,7
Italy	19,2	20,7	24,6	25,5	27,6
Spain	4,4	0,4	-2,1	13,2	7,8
United Kingdom	23,9	14	25,7	41,2	0,3

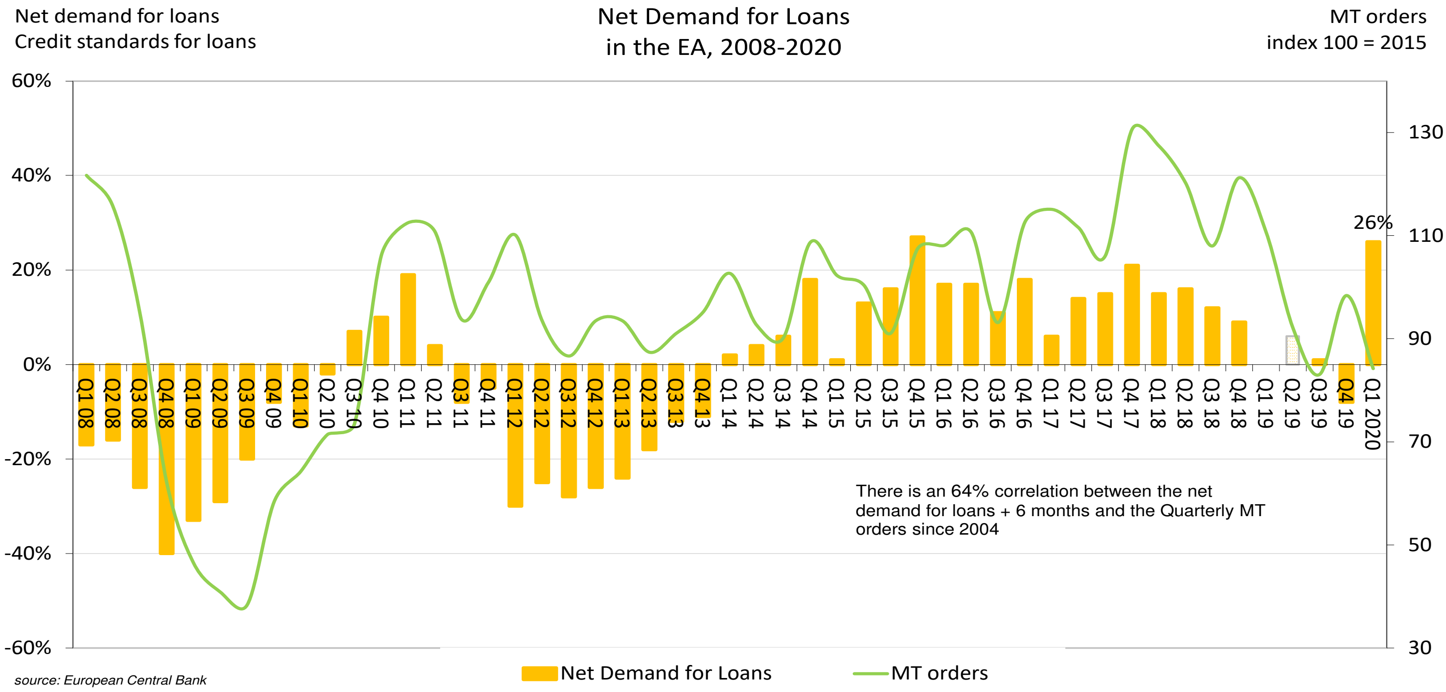


3.3 Bank Lending Survey (M)

The latest Eurozone bank lending survey results show a clear upward impact of the coronavirus (COVID-19) pandemic on firms' loan demand, largely driven by emergency liquidity needs of companies.

Credit standards for loans to enterprises tightened in the first quarter of 2020 (the recorded net percentage was 4%, compared to Q4 2019's 1%).

Banks, like many other European businesses, are surrounded by significant uncertainty. At this stage, they are not able to fully assess the economic effects of the coronavirus pandemic.



The net tightening of credit standards was broadly similar for loans to SMEs (4%) and large firms (3%).

- Credit standards on loans to enterprises tightened in Germany, Spain, and Italy in Q1 2020, and have remained unchanged in France.
- Liquidity support measures and loan guarantees by governments only had a limited impact in the first quarter, as measures were still evolving and could not yet be fully assessed by banks.
- The ECB expects a considerable net easing of credit standards for firms in the second quarter of 2020, as financial support measure come into effect.

The overall terms and conditions for new loans to enterprises tighten (+9% in Q1 2020, 0% in Q4 2019), as margin on average loans to firms -especially riskier loans- begin to widen due to the adverse economic environment and sentiments.

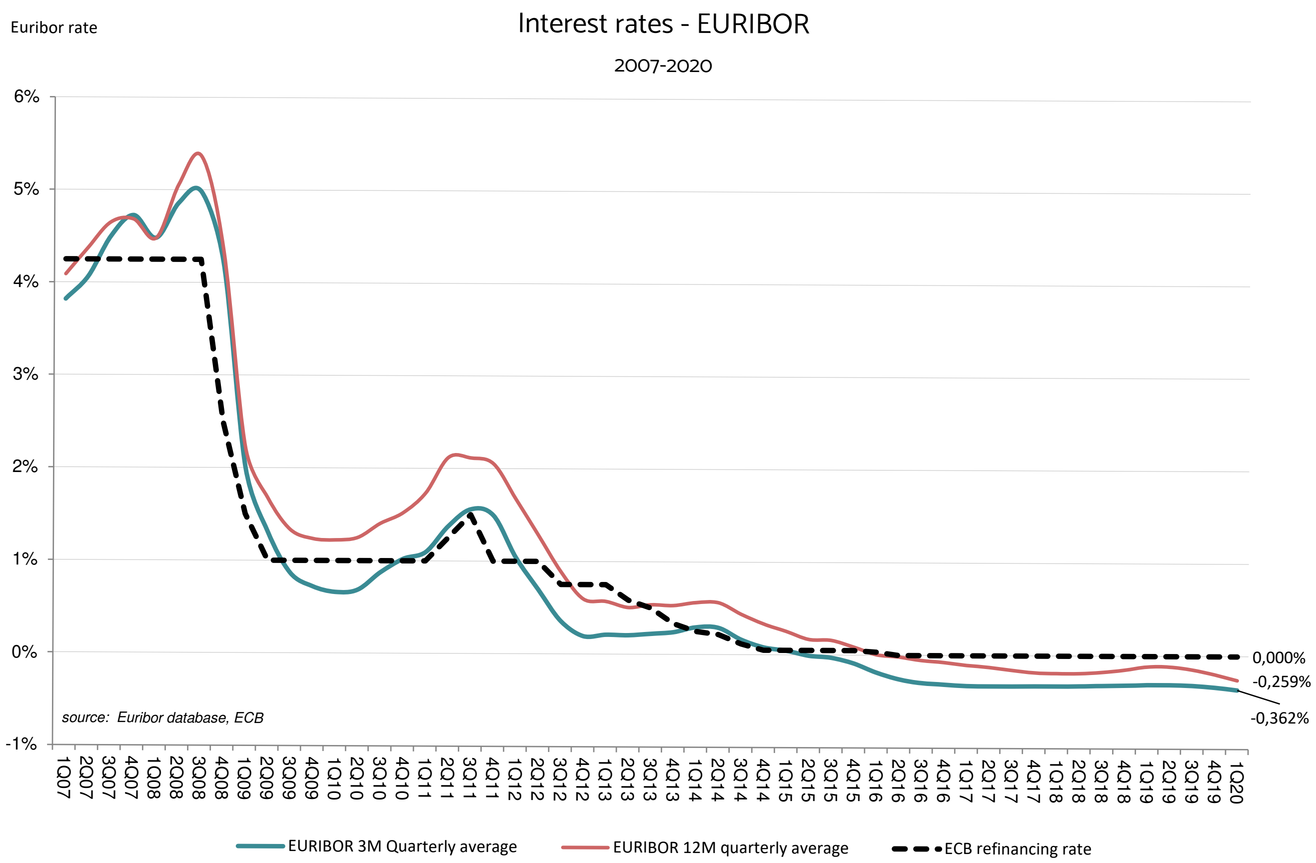
The rejection rate for loans to euro area enterprises continued to increase (with a net percentage of 9%, similar to that of the previous quarter). The net rejection rate increased in Germany and Spain, while it remained unchanged in France and declined in Italy.

Net demand for loans increases notably in Q1 2020, surging 26%. This is indicative of firm's emergency need for liquidity to cover payments during the low activity lockdown period. Loan demand was higher for large firms (a net percentage of 27%) than for SMEs (19%).

Loan demand is driven by the need to finance inventories and working capital. Conversely, fixed investment financing has had a very limited contribution to the overall business demand for loans, which would be consistent with the drop in GFCF previously commented on.

3.4 Euribor - Interest Rates (M)

As of Q1 2020, the ECB refinancing rate remains unchanged at 0,00%. The EURIBOR 3-month average is -0,362%, while the 12-month average stands at -0,259%



In March 2020, the European Central Bank (ECB) launched the so-called Pandemic Emergency Purchase Programme (PEPP), consisting of an envelope of €750 billion. It is a new, temporary asset purchase programme of private and public sector securities which aims to contain the financial and monetary shock of the coronavirus pandemic. Purchases conducted by the ECB under this scheme will run until the end of 2020.

This programme will allow for the purchase of assets from the corporate sector, guaranteeing a certain degree of liquidity for eligible companies under favourable conditions.

This is but one of the many programmes European institutions have laid out to support European businesses in this trying time.

4. Business Climate

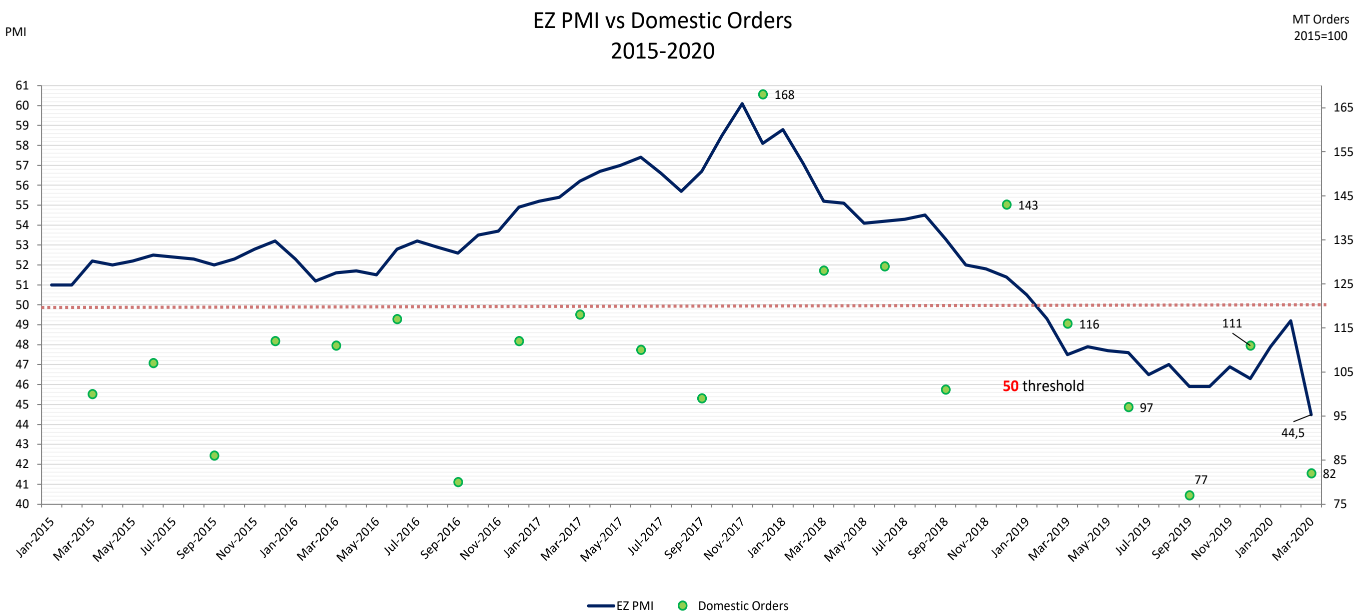
4.1 CECIMO Business Climate Barometer (m)

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

The Business Climate Barometer will not be published in this edition of the Statistical Toolbox, as it is under review.

4.2 Purchasing Managers Index (M)

Global manufacturing PMI



Global Manufacturing PMI stood at 47,6 points in March 2020 (end of Q1), clearly below the 50-point threshold. Business expectations are clearly negative and would indicate a looming economic contraction.

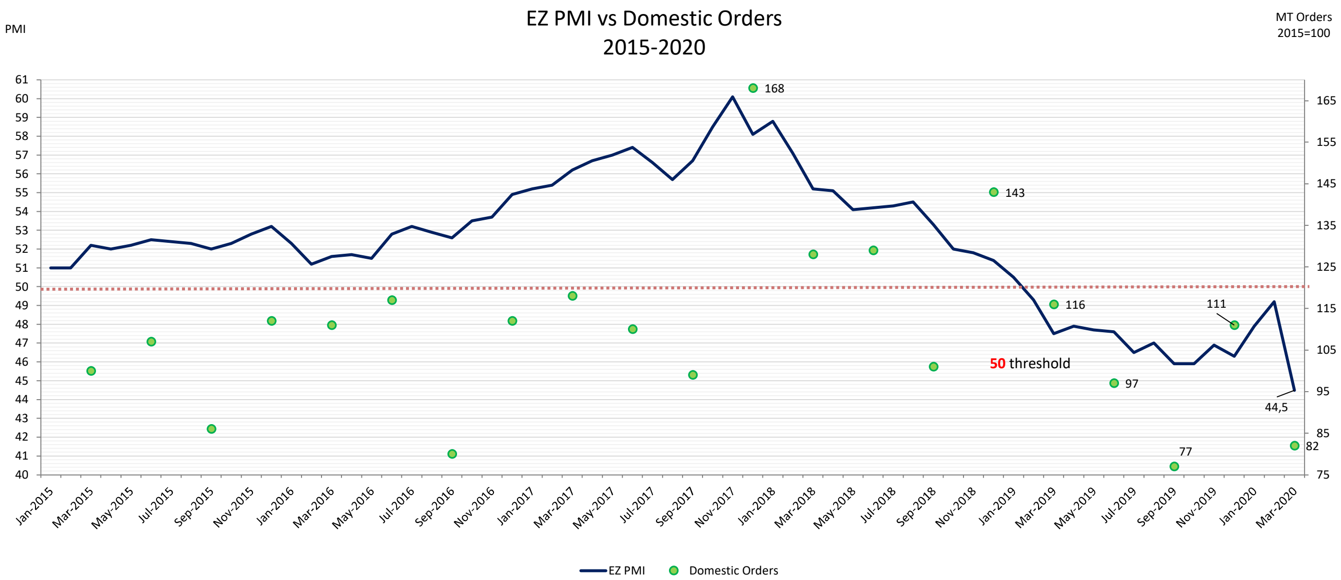
The outbreak of COVID-19 has caused a deep disruption across the global manufacturing sector. March's PMI fell sharply as intakes of new orders contracted at the fastest pace since March 2009. The impact also resonated through supply chains. Transportation disruptions, increased border restrictions and company closures all contributed to one of the steepest increases in average vendor lead times in the survey history. Labour markets have also suffered significant pressure, as companies have been forced to cut staff.

Business confidence slumped given the record low quantity of purchase. Future output remained very low, close levels seen during the 2008-2009 global financial crisis.

Manufacturing production continued to fall at a substantial pace in March. Only China, out of the countries covered by the survey, reported an increase in output, albeit a moderate one.

New order intakes and exports contracted at the steepest pace since early-2009.

Eurozone PMI

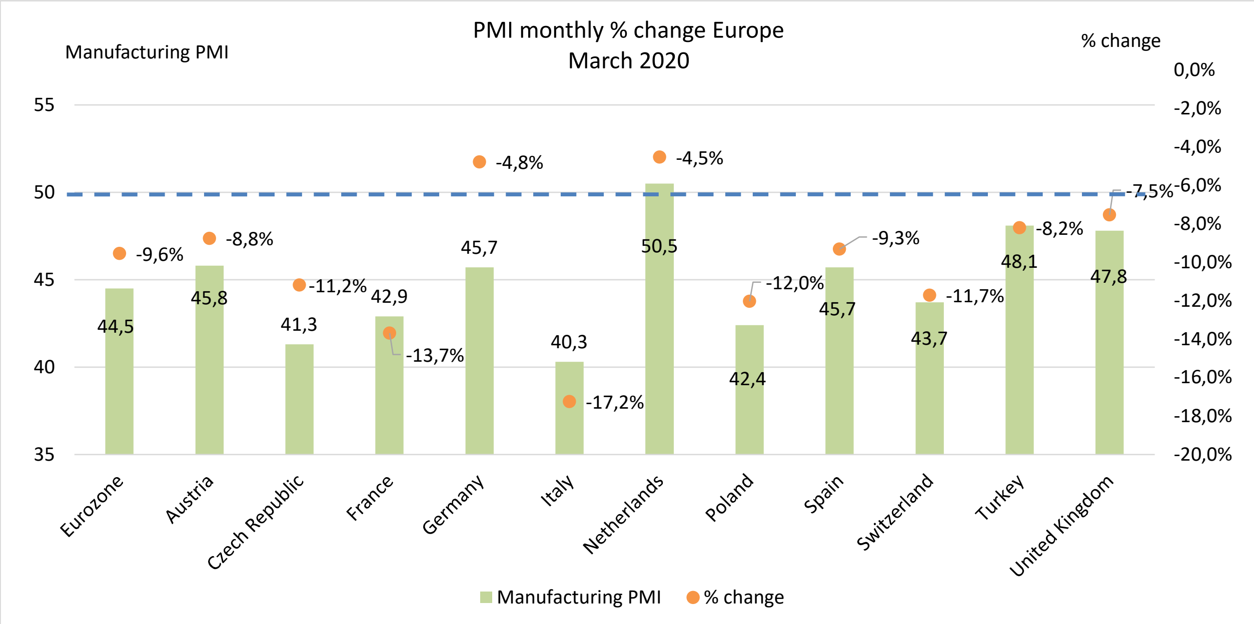


The Eurozone's Manufacturing PMI was revised lower to 44.5 in March 2020, below February's one-year high of 49.2. Here too the business confidence as to the general economic environment in Europe remains weak.

The latest reading pointed to the steepest month of contraction in the manufacturing sector since July 2012 as governments across Europe take action to contain the spread of coronavirus.

Output, new orders and purchasing have all fallen sharply, while job cuts were made, and supply-side constraints quickly intensified.

Considering individual Eurozone countries, Italy has seen the sharpest deterioration in manufacturing activity during Q1 2020, followed by other key countries, such as France, Germany, Spain, and Austria. The Netherlands was the only country that recorded a marginal increase in output.



Austria

Austrian Manufacturing PMI fell to 45,8 in March, after recording a 50,2 in February. Like output, new orders across Austrian manufacturing recorded a very significant decrease. The decline in production, in the meantime, has also to led job cut at the fastest pace since 2009. Sharp drop in export sales have also been registered, reflecting the international nature of the pandemic.

Business confidence is low, as manufacturing companies fear protracted disruptions to production, supply and investment.

Czech Republic

Czech Republic Manufacturing PMI fell to 41,3 in March 2020 from 46,5 in February. The end of quarter reading pointed to the steepest contraction in factory activity since the series began, in the midst of factory closures and a decline capital goods demand. New orders, output and employment dropped at the fastest pace since the 2008-2009 global financial crisis.

Germany

Germany Manufacturing PMI was revised lower to 45.4 in March of 2020. This latest reading would mean the 15th straight month of contraction in factory activity, worsened by the coronavirus pandemic. Both output and new orders fell the most since April of 2009, driven by growing weakness in international demand and increased supply-chain disruption.

Spain

Manufacturing PMI in Spain fell to 45,7 in March 2020 from 50,4 in February. This former reading pointed to the biggest contraction in factory activity since Q2 2013. Manufacturing output fell at the sharpest rate since mid-2012. New industrial work fell at the highest rate in more than 7 years, while exports contracted at a pace not seen in more than 11 years (i.e. 2008-2009 crisis). In this juncture, Spanish industrialists' confidence remains very low.

France

France Manufacturing PMI declined to 43,2 in March 2020 from 49,8 in February. It is the second straight month of contraction in factory activity and the sharpest one since January 2013. This supply-side pullback takes place in the middle of nationwide lockdown aimed at containing the spread of the coronavirus pandemic. Drops in production and industrial order intake are the steepest recorded since Q1 2009. Exports also declined, due to a significantly softer global demand, particularly from China and Germany.

Italy

Italy Manufacturing PM fell to a record low of 40.3 in March 2020, after recording 48,7 points in February, amid COVID-19 shutdowns. Production contracted at the sharpest rate in nearly 23 years, whilst the decline in order intake and exports was the quickest since Q1 2009. Lockdown measures implemented in Italy have had a strong negative impact in industrialists' business confidence.

Switzerland

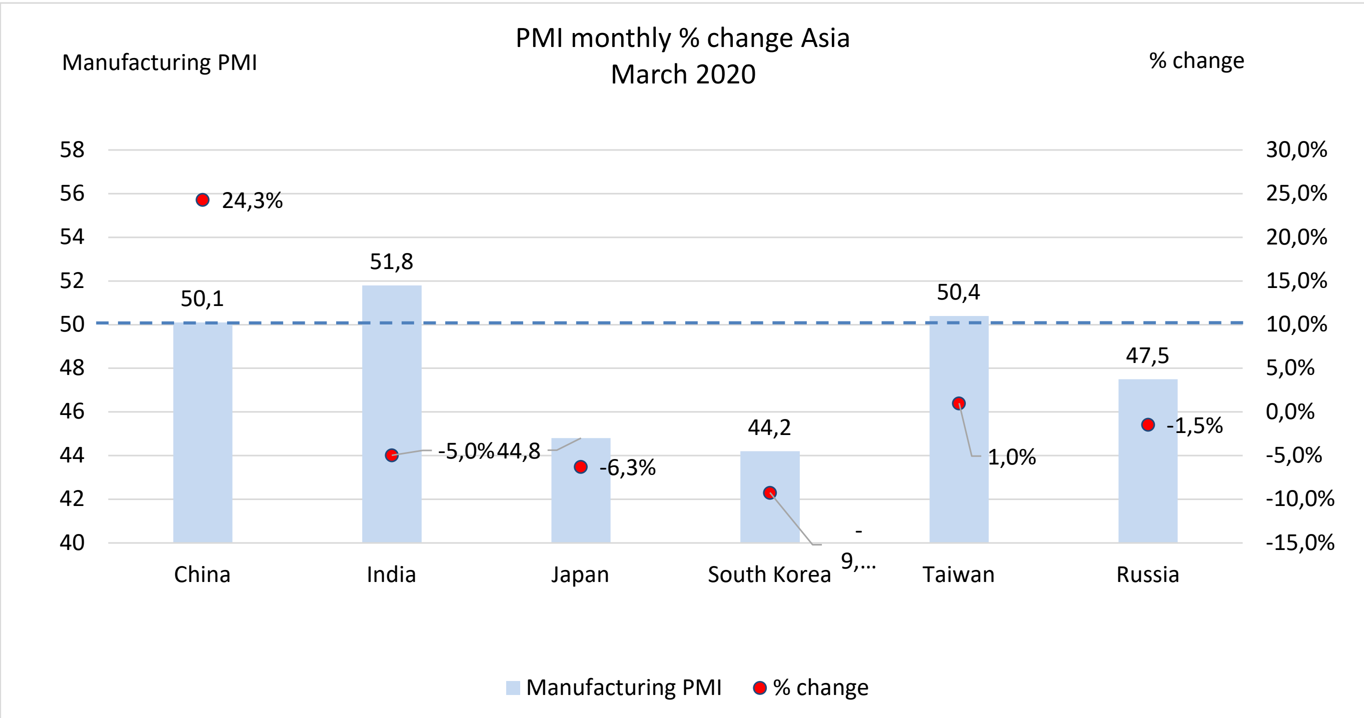
Manufacturing PMI in Switzerland dropped to 43.7 in March 2020, reaching its lowest level since July 2009. Output, new orders, employment level, purchasing volumes and sales stocks have all declined significantly during the pandemic.

Turkey

Turkey Manufacturing PMI fell to 48,1 in March of 2020 from 52,4 in February, indicating the biggest contraction in factory activity in seven months. Difficulties in manufacturing output and order intake, like in other countries, were attributed to COVID-19. In terms of production, it softened for the first time in five months, while new export orders also softened during the current quarter.

United Kingdom

UK Manufacturing PMI was revised lower to 47.8 in March 2020, clearly below February's final reading of 51.7. Output contracted at the fastest rate since mid-2012 and new orders declined sharply, as the coronavirus pandemic has led to a weaker domestic and foreign demand. Furthermore, employment fell at a pace similar to that of mid-2009, with workforce restructuring and short time working schemes put in place. Manufacturing companies experience shortages as distribution channels and transportation suffer disruptions.



China

Manufacturing PMI for the Chinese economy jumped to 50,1 in March 2020 from a February's record low of 40,3. This would indicate that an overall stabilization of business conditions has taken place.

Output has risen slightly as firms take up their activities following widespread shutdowns and transport controls. However, machinery demand remains fragile, with new orders and exports still slumping. Moreover, Chinese manufacturing supply chains are still heavily constrained.

Industrialists sentiment as to the economic environment has nevertheless improved, since many firms look forward to a pickup in demand for investment goods once the pandemic situation improves in foreign markets, namely Europe and North America.

India

India Manufacturing PMI declined to a four-month low of 51,8 in March 2020 from 54,5 in the previous month. Output and new orders rose at a softer pace, while exports fell the most since September 2013 amid lockdown measures. Supply chains have also been severely affected by the pandemic.

Japan

Japan Manufacturing PMI was revised lower to 44,2 in March 2020, below February's final 47,8. March's reading, clearly negative, is a depiction of the general contraction the coronavirus crisis has caused in Japanese manufacturing. It is the sharpest PMI drop since April 2009. Japanese industrial output has fallen the most since the Fukushima tsunami in 2011 and new orders intake (foreign and domestic) has gone down significantly.

Japanese industrialists share a negative outlook on the economy's near-term and future performance.

South Korea

South Korean Manufacturing PMI fell to 44,2 in March 2020 from 48,7 in the previous month.

Manufacturing business conditions have worsened the most since the beginning of 2009 due to the COVID-19 pandemic. Output has decreased at a substantial rate, the fastest since the global financial crisis, while the significant supply disruptions have been registered, as containment measures affect the overall movement of goods, services and workers. Demand strains have also been recorded, as a decreasing order income shows. Like their Japanese counterparts, South Korean industrialists generally show a pessimistic outlook on the performance of their national economy.

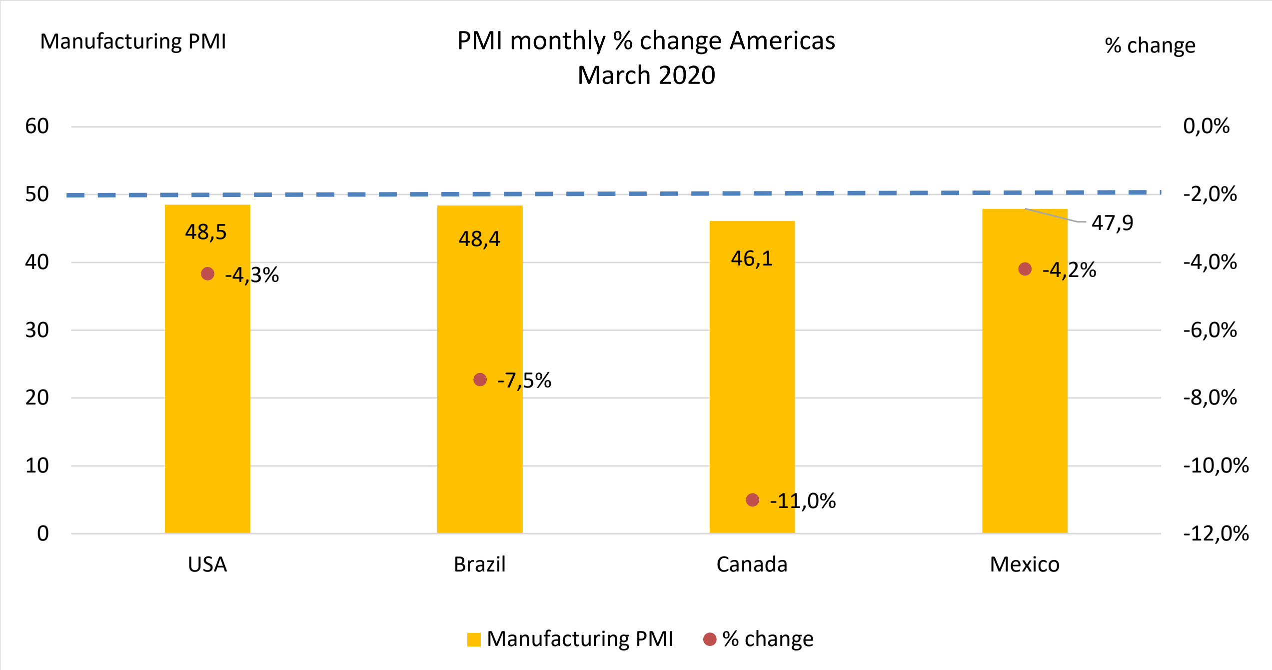
Taiwan

Taiwan Manufacturing increased slightly to 50,4 in March 2020 from 49,9 in the previous month.

Output contracted sharply due to a severe drop in domestic and foreign machinery. In terms manufacturing supply and provisioning, manufacturing firms' activities have been greatly affected by shipping restrictions, especially from China. In this scenario, business confidence remains low and is expected to worsen, since recent forecasts estimate manufacturing output will continue to decrease.

Russia

Russia Manufacturing PMI declined to 47,5 in March 2020 from 48,2 in the previous month. It is the eleventh straight month of PMI contraction in Russian manufacturing and the sharpest one since December 2019.Output and new orders intake have all decreased at the fastest rate since Q4 2019. This would indicate the coronavirus pandemic has deteriorated a downward trend that started to loom by late 2019. Russian manufacturing managers' sentiment is low, in line with the broad industrial juncture.



United States
US Manufacturing PMI was revised down to 48,5 in March of 2020, below February's 50,7 mark. March's reading shows the worst contraction in US manufacturing since mid-2009, caused by weakened domestic and foreign demand conditions following the coronavirus outbreak. Output contracted solidly, while new machinery orders fell at a similar pace last seen in June of 2009. US manufacturing companies have also recorded a solid downturn in exports. Fears of prolonged containment measures and transportation controls have seriously hindered business confidence.

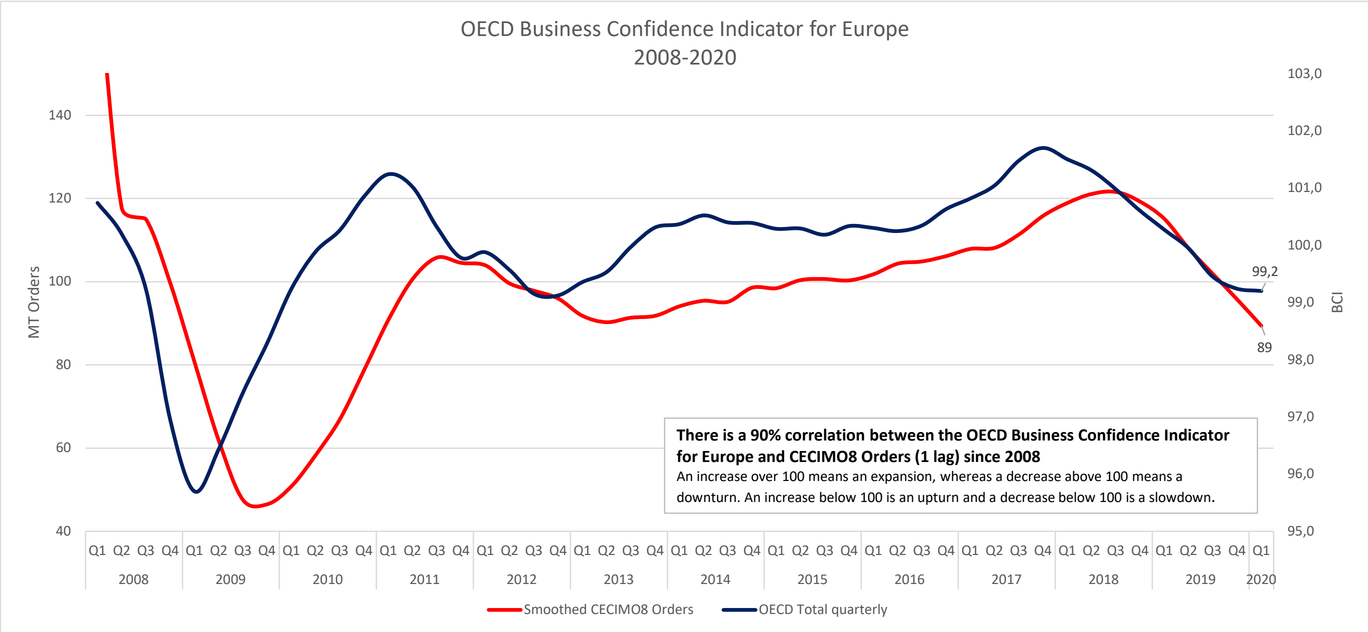
Canada
Canada's Manufacturing PMI fell to 46,1 in March 2020 from 51,8 in February. This late quarter reading points to perhaps the steepest contraction in factory activity, driven by the coronavirus public health crisis. Output has dropped sharply in this scenario, amid a decreasing operating rate and low machinery demand. Furthermore, new orders and exports have both recorded significant decreases.

Mexico
Mexican Manufacturing PMI declined to 46,9 in March 2020 from 50 in the previous month. March has seen the sharpest contraction in Mexican manufacturing on record. Output fell at the fastest rate since Q4 2019, pushed down by a sluggish demand for investment goods and by declining exports.

Brazil
Manufacturing PMI in Brazil dropped to 48,4 in March 2020 from 52,3 in February. Brazilian manufacturing activity has recorded its steepest contraction since February 2007. Industrial production in this country has declined due to a generally weak demand for machinery goods and lockdown measures. Order income and exports have also gone down, given the international shutdowns and delayed backlog work.

4.3 OECD Business Confidence Indicator (M)

According to OECD's business climate data, March's Business Climate Indicator score at 98,5. The current reading is worse than the 99,3 registered in February 2020 (a -0,80% monthly drop). On average, Q1 2020's OECD BCI was 99,2, a further decrease from Q4 2019's 99,5.

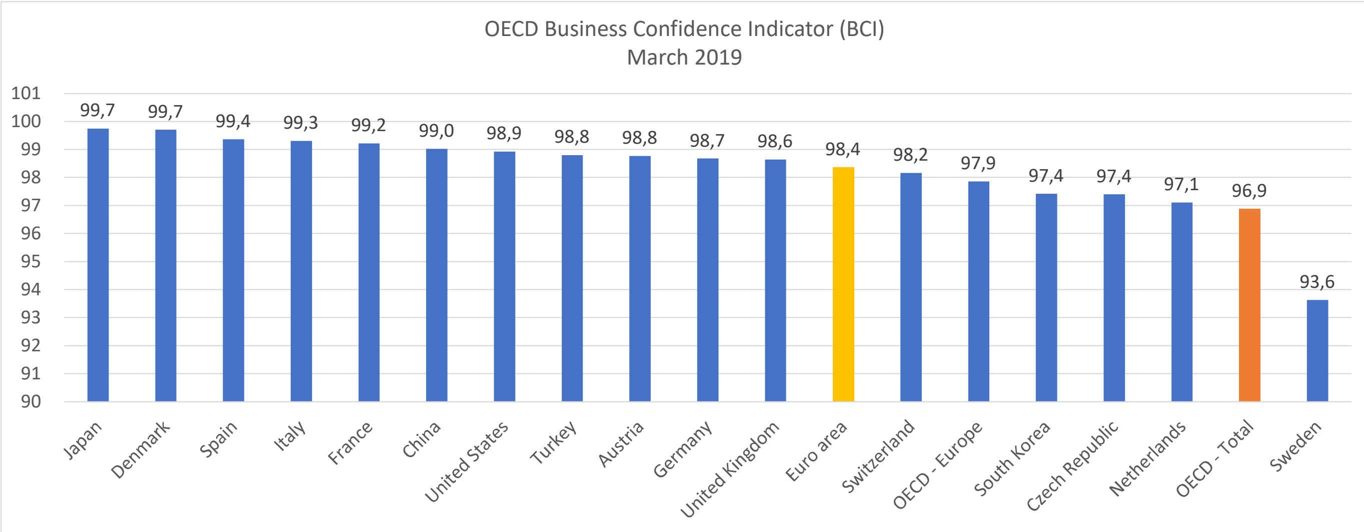


Q1 2020 readings are clearly below the 100-point threshold, which serves as a benchmark to determine business managers' confidence in the overall economy: when the marker is above 100, the outlook on the economic performance is positive (i.e. economic expansion is considered a possibility), while scores below said limit are deemed indicative of a negative economic scenario.

As coronavirus spread across Asia, Europe and the Americas, disrupting normal business activities across these regions, corporate managers' confidence began to falter.

A generally weakened international business sentiment can be seen in the following country or region-specific data:

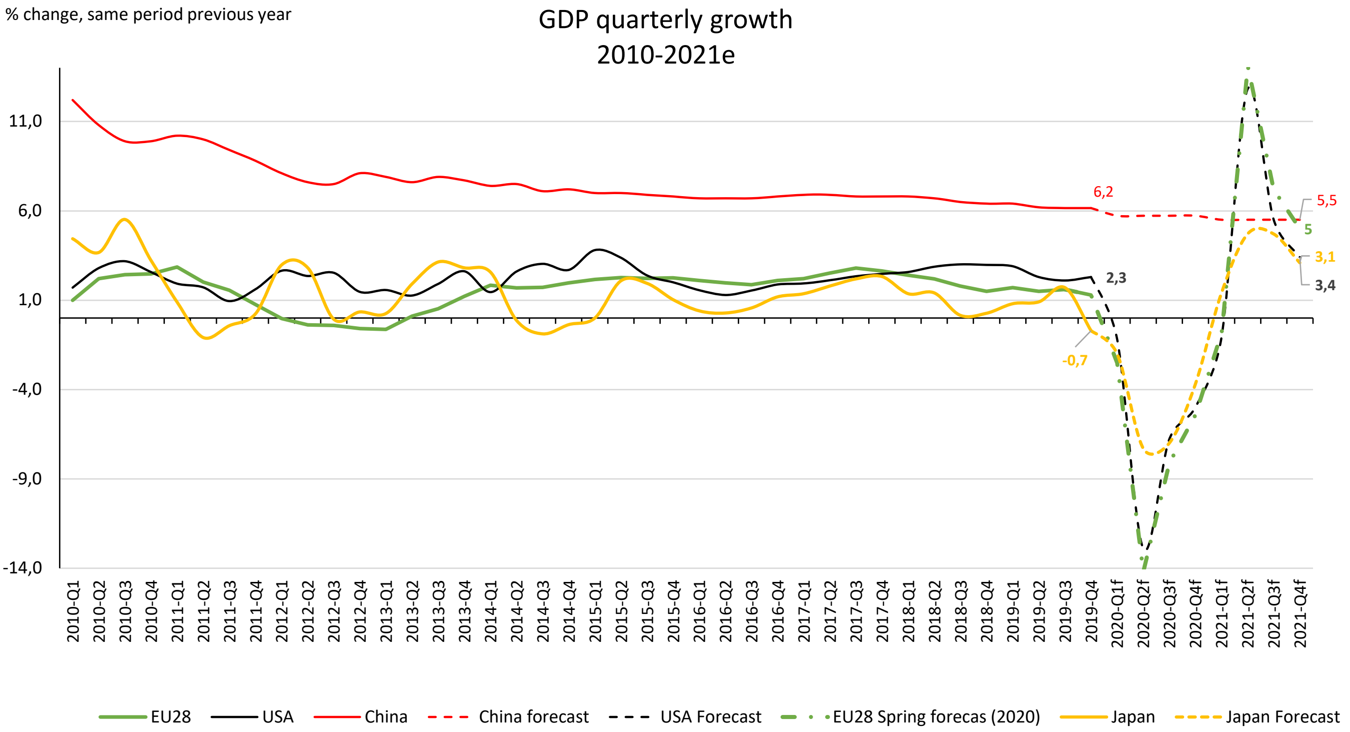
- Eurozone BCI stood at 98,4 in March, as the above chart shows. OCDE Europe's reading was 97,9.
- Concerning the business climate in key CECIMO countries, overall business confidence is slightly better than the OECD European average yet bellow the score of 100: Spain (99,4), Italy (99,3) France (99,2), Austria (98,8), Germany (98,7), and UK (98,6).
- Other CECIMO countries are below the OECD Europe average: Czech Republic (97,4). Netherlands (97,1) and Sweden (93,6), the latter being the worst score recorded.
- China (99) and the United States (98,9) both report below-100 readings. Although better than the average, firm managers in both countries share a pessimistic view of the economy during Q1 2020.



OECD Business Confidence Indicator (BCI)
March 2019
101
100
99
98
97
96
95
94
93
92
91
90
99,7
99,7
99,4
99,3
99,2
99,0
98,9
98,8
98,8
98,7
98,6
98,4
98,2
97,9
97,4
97,4
97,1
96,9
93,6
Japan
Denmark
Spain
Italy
France
China
United States
Turkey
Austria
Germany
United Kingdom
Euro area
Switzerland
OECD - Europe
South Korea
Czech Republic
Netherlands
OECD - Total
Sweden

5. General Indicators

5.1 GDP (M)



Year-on-year quarterly GDP growth in Q1 2020:

- EU28 GDP decreased -2,5% on a yearly basis (against Q1 2019) in Q1 2020.
- US GDP fell by -1,2% over the same period.
- Japanese GDP shrunk by -0,7% in Q1 2020 compared to Q1 2019.
- Chinese GDP is expected to grow at 5,7% over the course of 2020, according to the latest figures provided by OECD.

European Commission Spring 2020 Forecast (May 2020):

- EU 28 GDP will fall sharply in Q2 2020, recording a -14,2% yearly decrease. During the second half of 2020 (Q3 and Q4), the European Commission expects EU28 GDP to continue recording negative growth rates, albeit improving on the second quarters figures (Q3 2020, -8,1% GDP growth; Q4 2020 -5,4%).
- The overall economic activity of EU28 will recover in 2021, although Q1 2021 will still show a decreasing GDP (by -0,8%). By Q2 2021, EU28 GDP will grow by +14,1%, as all economic sectors resume activities. GDP growth would stabilize gradually yet showing relatively strong growth rates well into the year (Q3 2021, 7,2%; Q4 2021, 5%).

- US GDP will follow a similar trend to that of Europe. The coronavirus-driven downturn, however, will be less severe than in Europe. US GDP will drop by -12,9% in Q2 2020 on a yearly basis. As of the second half of 2020, the downturn would continue, but with slowly improving performance of GDP.

- By 2021, the recovery will be clearly visible, but not as strong as in Europe. The US economy will rebound by +12,8% in Q2 2021. H2 2021 will continue to see a booming economic activity, but not as dynamic as EU28's economic performance (Q3 2021, +5,5%; Q4 2021 +3,4%).

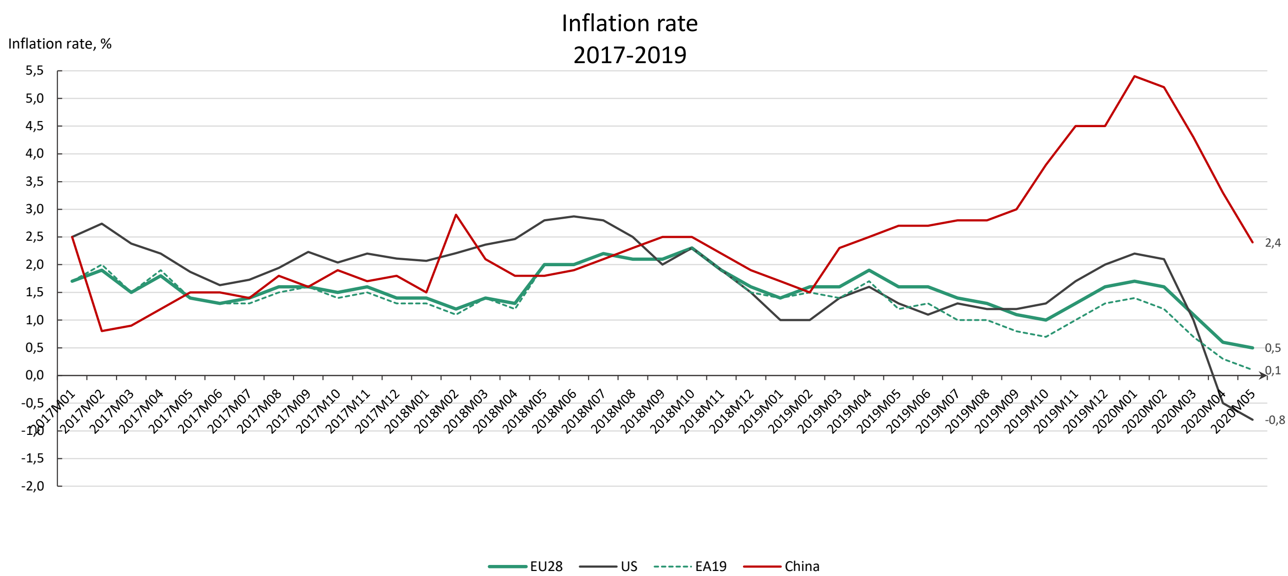
- Chinese GDP is expected to grow by 5,7% in 2020 and by 5,5% throughout 2021. Estimates on the Chinese economy has been adjusted downwards on various occasions, probably indicating a rather negative outlook as to the country's economic vigour.

- Japanese GDP will endure a deep downturn in 2020 (-5% average negative growth). However, Japan's overall economic activity should go increase by +3,5% (average) in 2021.

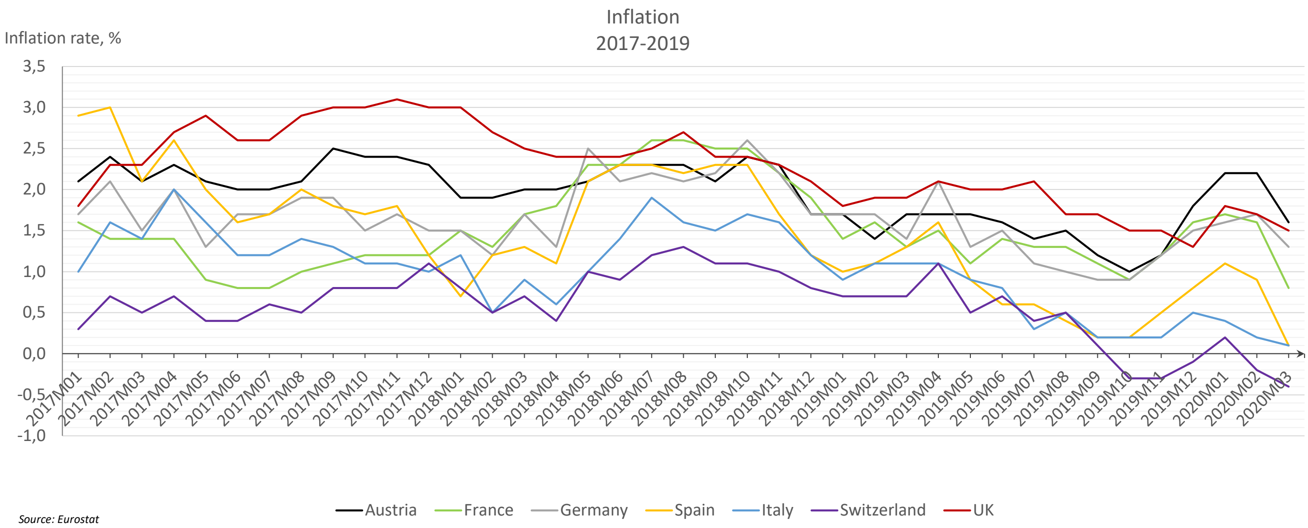
5.2 Inflation (M)

Quarterly inflation data (Q1 2020):

- EU28: 1,6%
- Euro area: 1,1%
- United States: 1,8%
- China: 5%



The lowest three-month inflation rates among CECIMO countries was recorded in Switzerland (-0,1%) and Italy (0,2%), while Czech Republic (3,7%) saw the highest quarterly metrics for this indicator.



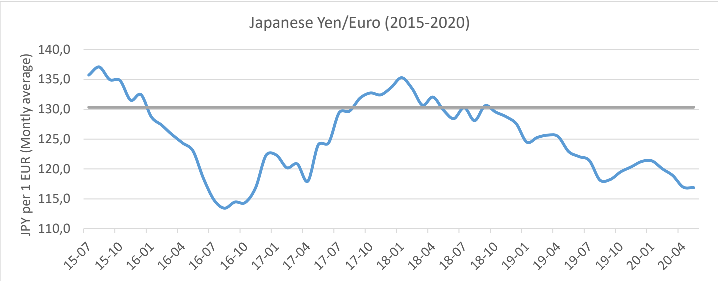
Source: Eurostat

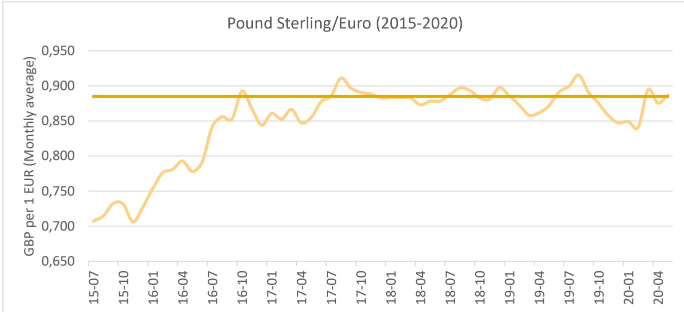
	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20
United Kingdom	1,8	1,9	1,9	2,1	2	2	2,1	1,7	1,7	1,5	1,5	1,3	1,8	1,7	1,5
Austria	1,7	1,4	1,7	1,7	1,7	1,6	1,4	1,5	1,2	1	1,2	1,8	2,2	2,2	1,6
France	1,4	1,6	1,3	1,5	1,1	1,4	1,3	1,3	1,1	0,9	1,2	1,6	1,7	1,6	0,8
Germany	1,7	1,7	1,4	2,1	1,3	1,5	1,1	1	0,9	0,9	1,2	1,5	1,6	1,7	1,3
Spain	1	1,1	1,3	1,6	0,9	0,6	0,6	0,4	0,2	0,2	0,5	0,8	1,1	0,9	0,1
Switzerland	0,9	1,1	1,1	1,1	0,9	0,8	0,3	0,5	0,1	-0,3	-0,3	-0,1	0,2	-0,2	-0,4
Italy	0,7	0,7	0,7	1,1	0,5	0,7	0,4	0,5	0,2	0,2	0,2	0,5	0,4	0,2	0,1

Industrial output collapse has led to a deflation cycle in China that began in January 2020, coinciding with the Chinese government's decision to lockdown key regions in order to contain the spread of the new coronavirus.

EU and US inflation rates continue their downward trend but fall more sharply from February 2020 onwards. This trend is likely to continue in Q2 2020 and even well into the second half of 2020, since manufacturing companies have yet to fully take up their activities.

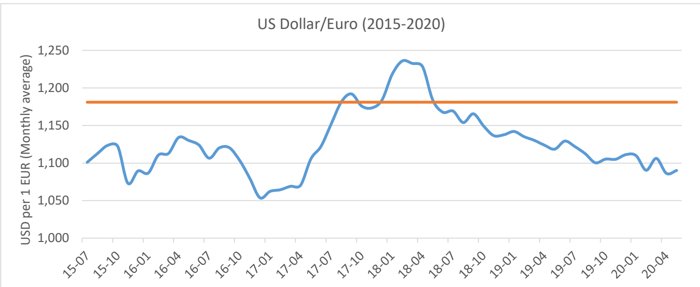
5.3 Foreign Exchange Rates (M)





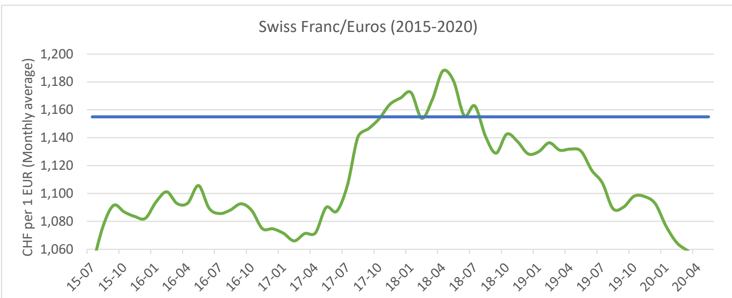
The Japanese yen strengthens against the euro Q1 2020, as the exchange ratio between the two 120,1 yen per euro. The Japanese currency has become an anti-risk option for European traders and firm managers during the current coronavirus-drive international economic slowdown, mainly due to the relative stability of its value in forex markets.

In Q1 2020, Pound Sterling was traded 0,862 pence per Euro, following the trend last reported in the last iteration of CECIMO's Economic and Statistical Toolbox. While the British pound is avoiding deeper losses, Pound Sterling and the Euro are both struggling to sustain much of a recovery. Traders are starting to consider the British Pound as a risk-correlated currency.



The US greenback recorded a 1,1 units per Euro average exchange ratio in Q1 2020. The US Dollar continued to make gains against the euro as global sentiment remained fragile and the coronavirus pandemic worsened, especially following the early implementation of harsh containment policies in European countries, virtually stopping the private sector.

The Chinese Yuan is traded, on average, 7,6 units per 1 euro in the first quarter of 2020, marginally below the 2018 yearly average. The Chinese currency is weakening in forex markets, given the notable disruptions the coronavirus pandemic has caused to the Chinese economy fundamental indicators, namely GDP, retails sales and industrial output.



The Swiss franc edges closer to parity with the euro. Q1 2020 average trading ratio was 1,06 franc per euro. The Swiss central bank maintains its interest rate at -0,75% until the end of 2021, however, given its concerns about the high value of the Swiss currency in foreign exchange markets, the deflationary risks the Swiss economy faces and the sluggish performance of domestic companies.

Glossary [i]

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´ aquisitions, less disposals, of fixed tangible or intangible assets. This covers in particular machinery and equipment, vehicles, dwellings and other buildings. The GFCF is a key determinant of both aggregate demand and supply.

Source: Eurostat and ECB.

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

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 indictors in the CLI include orders and inventories changes, financial market indicators, business confidence surveys and data on key sectors and trend in the main trade partners.

The standardised BCIs represent only the manufacturing sector. It is based on companies' assessment of production, orders, stocks and its current position and expectations. BCI shows a long-term trend in industrial production (with a 6-month time-lag). An increase over 100 means expansion; a decrease above 100 means a downturn; an increase below 100 is an upturn and a decrease below 100 is a slowdown. http://stats.oecd.org/mei/default.asp?lang=e&subject=5

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

Austria: Metaltechnology Austria
Association of Metaltechnology Industries
www.metalltechnischeindustrie.at

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

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

Danish Manufacturing Industries Cooperation
A part of the Confederation of Danish Industry
www.isa.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.ftp-vimag.nl

Portugal: AIMMAP
Associacâo 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: SVMF
Machine and Tool Association of Sweden
www.svmf.se

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

Turkey: MIB
Makina Imalatcilari Birligi
www.mib.org.tr

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

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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.