



European Association of the Machine Tool Industries

Where manufacturing begins

CECIMO Statistical Toolbox

March 2015 Edition

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Introduction

(Glossary at the end of the document)

The Organisation for Economic Co-operation and Development (OECD) has sharply upgraded its 2015-2016 economic forecasts for the euro area, going against several forecast downgrades by international organisations in 2014. The region should benefit from low oil prices, monetary stimulus and euro depreciation, a combination offering the chance to outstrip stagnation. The euro area is projected to grow at a rate of 1.4% in 2015 and 2% in 2016, which is 3 percentage points more than in the November forecast. Despite the increased momentum in the euro area, the recovery is still awaited in the other advanced economies.

The domestic demand in Europe has been weak since the start of the crisis. Together with abnormally low inflation and interest rates, they create a growing risk of financial instability by causing higher risk-taking by financial institutions and investors. The favourable global condition and open-ended action by the European Central Bank will help the economy to get back to somewhat stronger growth rates. On the other hand, European policymakers need a more balanced policy approach, making full use of fiscal and structural reforms to ensure sustainable growth.

Increasing investment will be one of the key elements of a cyclical recovery in the euro area and is necessary to raise productivity in the medium term. The Juncker Plan provides an important opportunity to catalyse private investment using public support within the current fiscal constraints. By acting together, EU countries can have a greater impact on the demand and take forward investment projects with high returns. However, to ensure the viability and effectiveness of the investment plan, reforms to market regulations and cross-border regulatory frameworks are

required. Further regulation convergence across member states and economic sectors would give a major boost to trade and foreign direct investments (FDI).

Favourable economic conditions clearly reflect on the European machine tool sector's performance. The new order intake increased of 18% and 15% in quarter to quarter and year to year comparison respectively. On the other hand, growth is originating from foreign markets rather than from domestic consumption, an additional proof of the weakness of investment in Europe. Low investment in manufacturing, sometimes not even covering depreciation, can have long-lasting and irreversible effects on the competitiveness of the industry in Europe.

The actions to increase investment should be more targeted than simply abundant financial support. The uptake of modern technologies has to be accompanied with suitable skills to introduce the technological change at company level. Today, the European machine tool industry sees the shortage of skills as one of the most important constraints to the business. Together with technology, skills mix needed changes and Europe has to transform its educational system accordingly. This only will ensure that the extensive investment plan proposed has its maximum effect.



1.1 CECIMO orders

The weak euro and the good performance of CECIMO 8's main export markets drove the CECIMO 8 total orders index to growth in the fourth quarter of 2014. The index increased 18% compared with the previous quarter. In year-to-year comparison, the total orders index increased 15%.

The CECIMO 8 foreign orders index increased 16% compared to the previous quarter and 18% compared to the fourth quarter of 2013. The aftermath of the successful IMTS exhibition partially explains those good results. The domestic orders index gained 36% and 11% compared to the levels of the previous quarter and the period of a year ago respectively.

The orders declined in Austria and the Czech Republic. Spain's and Switzerland's indexes were stable. Germany, Italy, France and the United Kingdom recorded increases in total new orders of machine tools.



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1.2 Peter Meier's forecast

Overall situation:

Compared to the third quarter, the indicators of the fourth quarter of 2014 have little changed. After a turbulent year, the economy now seems to return to calmer waters. The Ifo Institute of Munich is of the same opinion, even if last November, it had reported that the global economic climate had sharply deteriorated. What to make of that? It is worth taking a closer look.

In fact, there are increasing signs that the current industry cycle will soon reach its peak:

- The Business Confidence indicator of the OECD in the US and in the major Asian markets fell back in the last few months. In Europe however, it remained stable up to January, but turned down in February.
- The purchasing managers' indices (PMI 's) show a similar picture : The economic performance in the euro zone is growing. In Japan, it remains stable. It falls back in the US and in emerging countries.
- In most countries, the industrial production is still growing while the dynamics weaken considerably.

Decreasing dynamics in industrial production mean that the demand for capital goods will decline gradually. In early cyclical industries, the decline is already noticeable. Late cyclical industries (like machine tools) will be affected in the coming months. In Europe and the US, the growing consumption will dampen the decline, while the strong growth trend has a balancing effect in emerging markets. Accordingly, the expected decline in the demand for capital goods should be moderate. In addition, industry cycles are short, so a long-lasting dent is unlikely.

Business Confidence:

For more than a year, the OECD Business Confidence Indicator for Europe held a relatively high level of 100.6. In February 2015 the Indicator turned down (thin dotted blue line). In Q4 2014, new orders for machine tools rose to a level of 154 (thin black line).

CECIMO 8 Forecast:

New orders in Q4 2014 were above expectations. The latest economic indicators didn't change the forecast significantly – a sign, that we have reached now a relatively stable economic situation after the turbulent year 2014. The looming downturn of the industrial cycle will have a negative effect on the demand of machine tools in 2015. The forecast line shows the expected trend of the quarterly values. Compared with 2014, we expect a decline of the order volume of about 2% in 2015. For the first half of 2016, the forecast points to an upturn of the demand.

2.1 GDP

The seasonally adjusted GDP rose by 0.3% in the euro area (EA18) and by 0.4% in the EU28 during the fourth quarter of 2014, compared with the previous quarter, according to a second estimate published by Eurostat (the statistical office of the European Union). In the third quarter of 2014, the GDP grew by 0.2% in the euro area and by 0.3% in the EU28.

In the fourth quarter of 2014 compared with the same quarter of the previous year, the seasonally adjusted GDP rose by 0.9% in the euro area and by 1.3% in the EU28, after +0.8% and +1.2% respectively in the previous quarter.

Among Member States for which data are available for the fourth quarter of 2014, Estonia and Sweden (both +1.1%), Hungary (+0.9%), Germany, Spain and Poland (all +0.7%) recorded the highest growth compared with the previous quarter. Cyprus (-0.7%), Greece (-0.4%), Austria and Finland (both -0.2%) registered decreases.

During the fourth quarter of 2014, the GDP in the United States increased by 0.5% compared with the previous quarter (after +1.2% in the third quarter of 2014). Compared with the same quarter of the previous year, the GDP grew by 2.4% (after +2.7% in the previous quarter).

Over the whole year 2014, the GDP rose by 0.9% in the euro area and by 1.3% in the EU28, compared to -0.5% and 0.0% in 2013. In the United States, the GDP grew by 2.4% in 2014 and by 2.2% in 2013.

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2.2 Interest rates – EURIBOR

The average 3-month Euribor recorded 0.05% and 12-month Euribor 0.26% in February. Compared to January, the average 3-month Euribor decreased of 1 and 12-month Euribor of 4 percentage points.

The recent actions of the European Central Bank (ECB) will only increase the downward pressure on interest rates. On 9 March 2015, the ECB started purchasing euro-denominated public sector securities in the secondary market. The monthly purchases of public and private sector securities will amount to €60 billion. That will increase the money available in the economy and bring the price of money, e.g. interest, further down.

See [glossary for definitions](#)

2.3 Industrial production index

In January 2015 compared with December 2014, seasonally adjusted industrial production fell by 0.1% in the euro area and remained stable in the EU28, according to estimates from Eurostat. In December 2014, industrial production rose by 0.3% and 0.4% respectively.

The decrease of 0.1% in industrial production in the euro area is due to the production of durable consumer goods falling by 2.2% and the production of intermediate goods by 0.5%, while the production of capital goods and the production of non-durable consumer goods both increased by 0.1% and the production of energy by 0.9%. Industrial production remained stable in the EU28 as the production of energy rose by 0.6% and the production of intermediate goods and the production of non-durable consumer goods were both stable, while the production of capital goods fell by 0.3% and the production of durable consumer goods by 1.7%.

Among Member States for which data are available, the largest decreases in industrial production were registered in Croatia (-4.0%), Latvia (-3.1%), Finland (-2.5%) and Lithuania (-2.3%), and the highest increases in Malta (+6.1%), Hungary (+4.3%) and Bulgaria (+2.0%).

In January 2015 compared with January 2014, industrial production increased by 1.2% in the euro area and by 1.5% in the EU28. The increase of industrial production in the euro area is due to the production of energy rising by 2.9%, the production of non-durable consumer goods by 2.7%, the production of durable consumer goods by 2.5%, the production of capital goods by 1.4% and the production of intermediate goods by 0.7%. In the EU28, the increase is due to the production of durable consumer goods rising by 2.9%, the production of non-durable consumer goods by 2.3%, the production of capital goods by 1.8%, the production of energy by 1.3% and the production of intermediate goods by 1.2%.

In yearly comparison, the highest increases in industrial production were registered in Ireland (+8.8%), Malta (+8.1%) and Hungary (+7.8%), and the largest decreases in Croatia (-4.9%), Finland (-4.2%) and Latvia (-3.5%).

See [glossary for definitions](#)

2.5 Capacity utilisation in the investment goods sector

In the European manufacturing sector, the estimated rate of capacity utilisation increased to 83.0% in the first quarter of 2015 (0.9 point higher than in November). Capacity utilization in the euro area averaged 81.02 percent from 1985 to 2015, reaching an all-time high of 85.30 percent in the fourth quarter of 1989 and a record low of 69.60 percent in the third quarter of 2009.

At the same time, the share of managers assessing their current production capacity as 'more than sufficient' (in view of current order books and demand expectations) increased slightly and managers' export volume expectations were revised downwards.

See [glossary for definitions](#)

2.7 Foreign exchange rates

The effective exchange rate of the euro weakened further in March, a trend that had begun back in May 2014. It continued notably in the run-up to the ECB's Governing Council January 2015 meeting, reflecting market expectations of impending

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monetary policy decisions. Overall, in early March the effective exchange rate of the euro stood around 10% below the level recorded one year earlier.

Regarding bilateral exchange rate developments, the average euro exchange rate depreciated against the Japanese yen by 2.6%, against the US dollar by 2.7% and against the Swiss franc by 4.0% in February compared to the previous month.

3.1 OECD Business Confidence Indicator (BCI) for Europe

Business confidence indicators (BCIs), designed to anticipate turning points in economic activity relative to trend, point to a loss in growth momentum in the OECD area as whole. The growth is below its historical average and declining in India and Brazil. A stable growth momentum, but still below historical average, is anticipated in China and South-Korea. The growth is slowing in the United States and Russia. The BCI of Japan suggests stable growth.

The BCIs of the euro area and broader Europe point to stable growth momentum. In Germany, France and Spain, the BCI confirms stable growth above historical average. The outlook for Italy has also improved, with the BCI now showing tentative signs of a positive change in momentum. The BCI of the United Kingdom indicates its growth gathering speed.

See [glossary](#) for definitions

3.2 Purchasing Managers' Index (PMI)

The global manufacturing activity accelerated in February to 52.0 from January's 51.7. The Chinese factory gauge climbed to a seven-month high of 50.7, just a day after the European or Chinese central bank decided to support the economy with its second cut to benchmark interest rates in three months. The Institute for Supply Management report on manufacturing for the U.S. showed a slight slowdown in momentum, easing to 52.9 in February from 53.5. The February PMI for India dipped to a five-month low in but at 52.9, it still pointed to solid growth in the sector.

The PMI pointed to a modest pace of growth in the euro area's manufacturing. The index for the region as whole recorded 51.0 in February, unchanged from January. But while German manufacturing growth gained pace and Italian factory activity increased for the first time in five months, the downturn in France worsened in February. Among non-euro countries, British manufacturing growth hit a seven-month high, adding to signs that the UK economy has started on a stronger footing driven by domestic demand.

"Coming months will hopefully see all countries' manufacturing sectors pick up speed, as business and consumer confidence is buoyed by ECB stimulus. The recent fall in the euro should also provide a noticeable stimulant to export sales. [---] Spain is also enjoying impressive export-led manufacturing gains, boding well for another quarter of robust economic growth in the first quarter. Germany, the Netherlands and Italy are meanwhile only managing to eke out mediocre rates of expansion, though in the case of Italy it is encouraging to see that growth is at least picking up, fuelled by rising exports. The sluggishness of manufacturing in Germany remains a particular concern," commented Markit.
See [glossary](#) for definitions

4 MT-IX

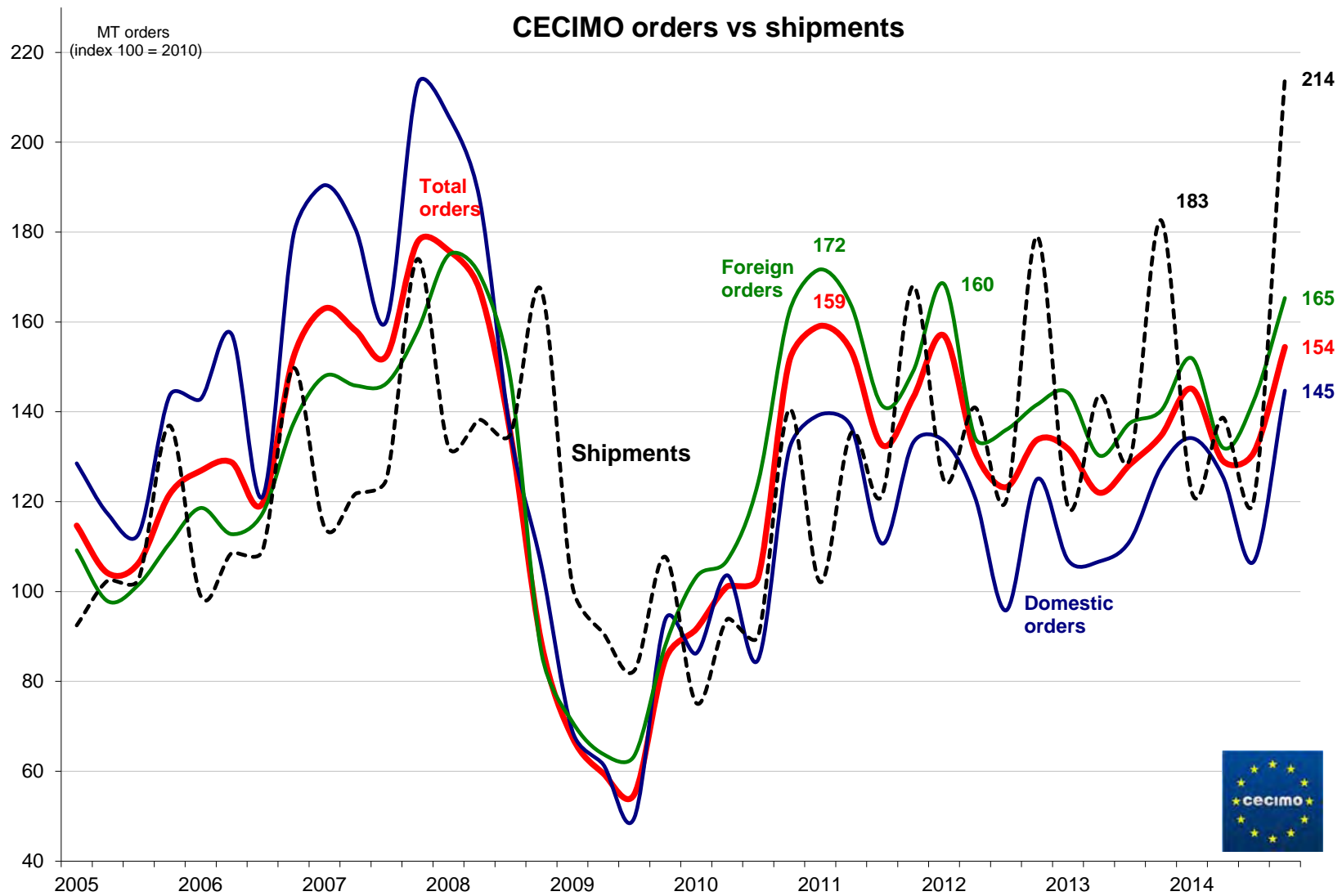
In February, the MT-IX increased 4.0%. The index gained 8 points compared to January's value, and posted at 210 points in February 2014.

The market value of machine tool companies decreased in Brazil. The machine tool builders in Europe, Japan, South-Korea and Taiwan showed growing market capitalisation. Machine tool companies from the United States booked more varied results.

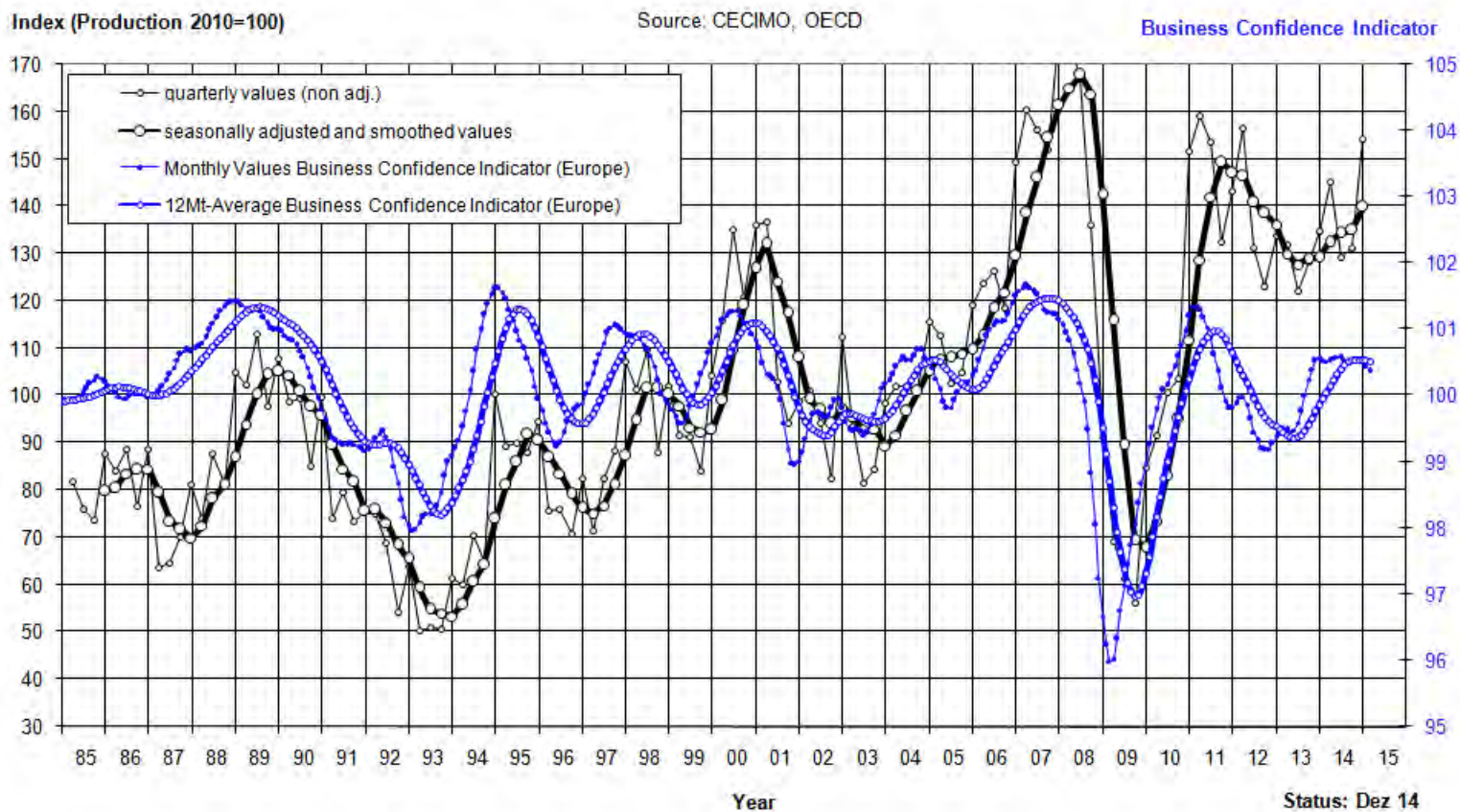
See [glossary](#) for definitions

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Comparison Index CECIMO 8 with Business Confidence Indicator (Europe)



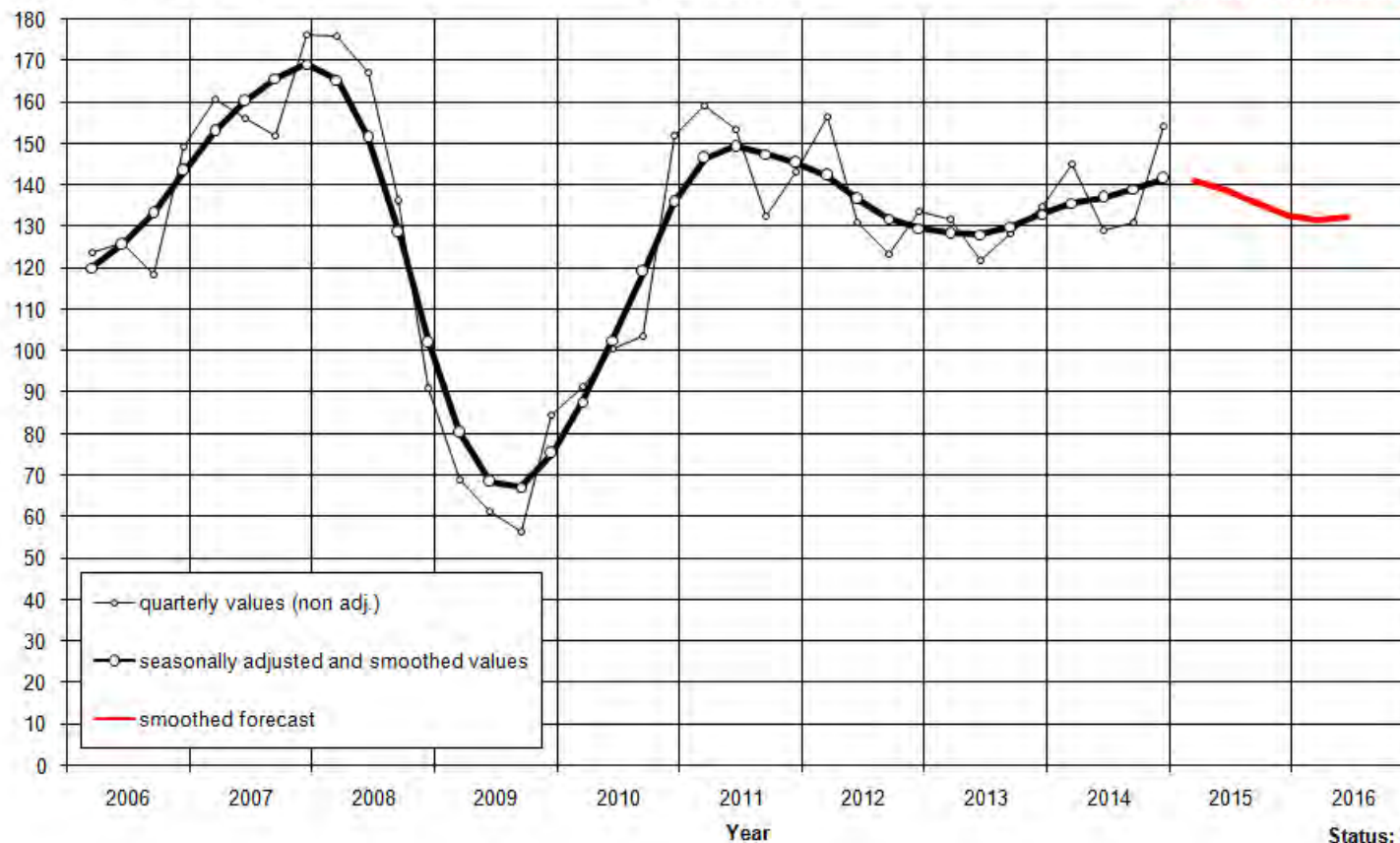
Forecast New Orders CECIMO 8 (total)

quarterly values (non adj.) and HP-smoothed values

Source: CECIMO

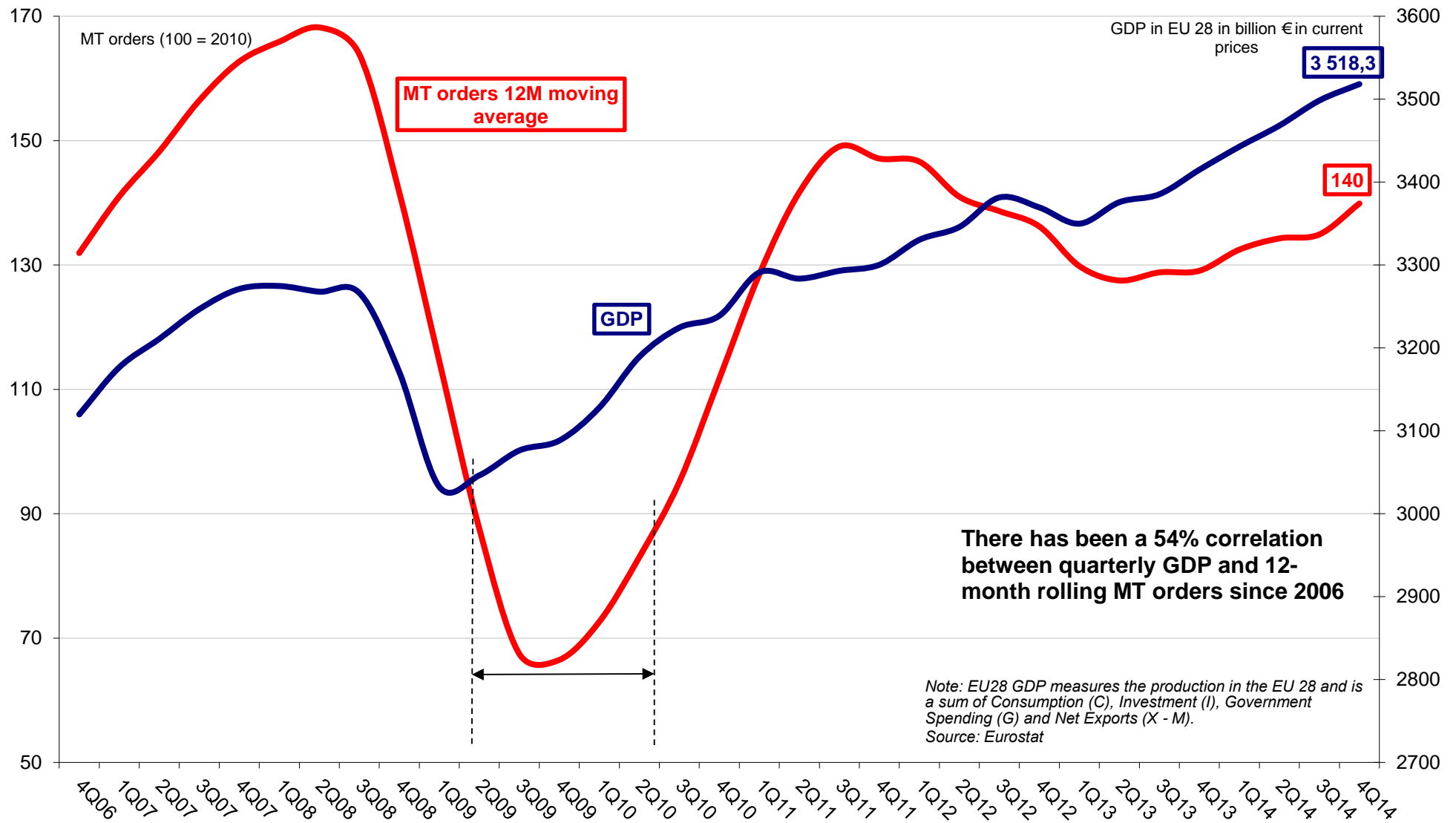
Forecast USP Consulting

Index (Production 2010=100)



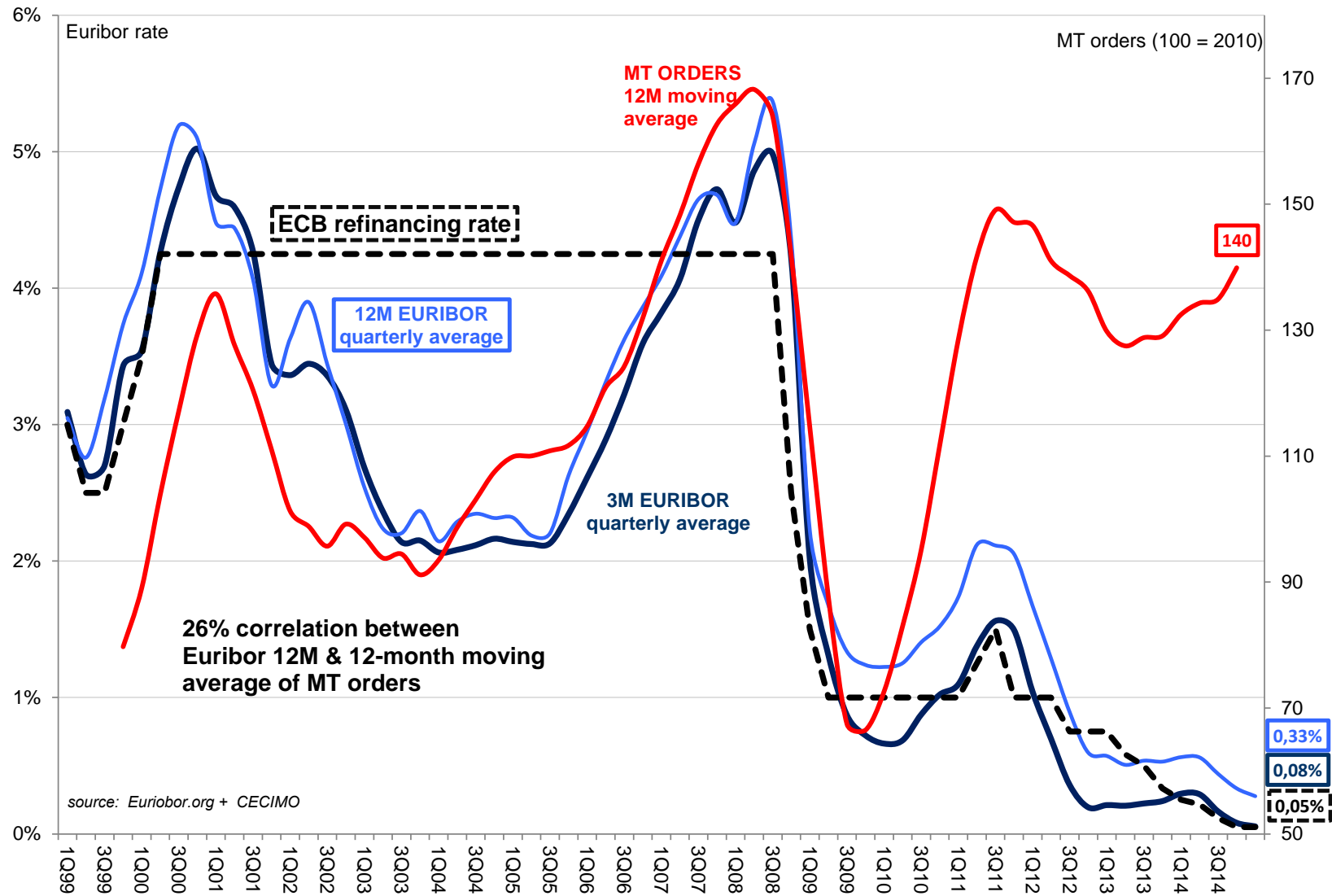
2.1 GDP

see commentary



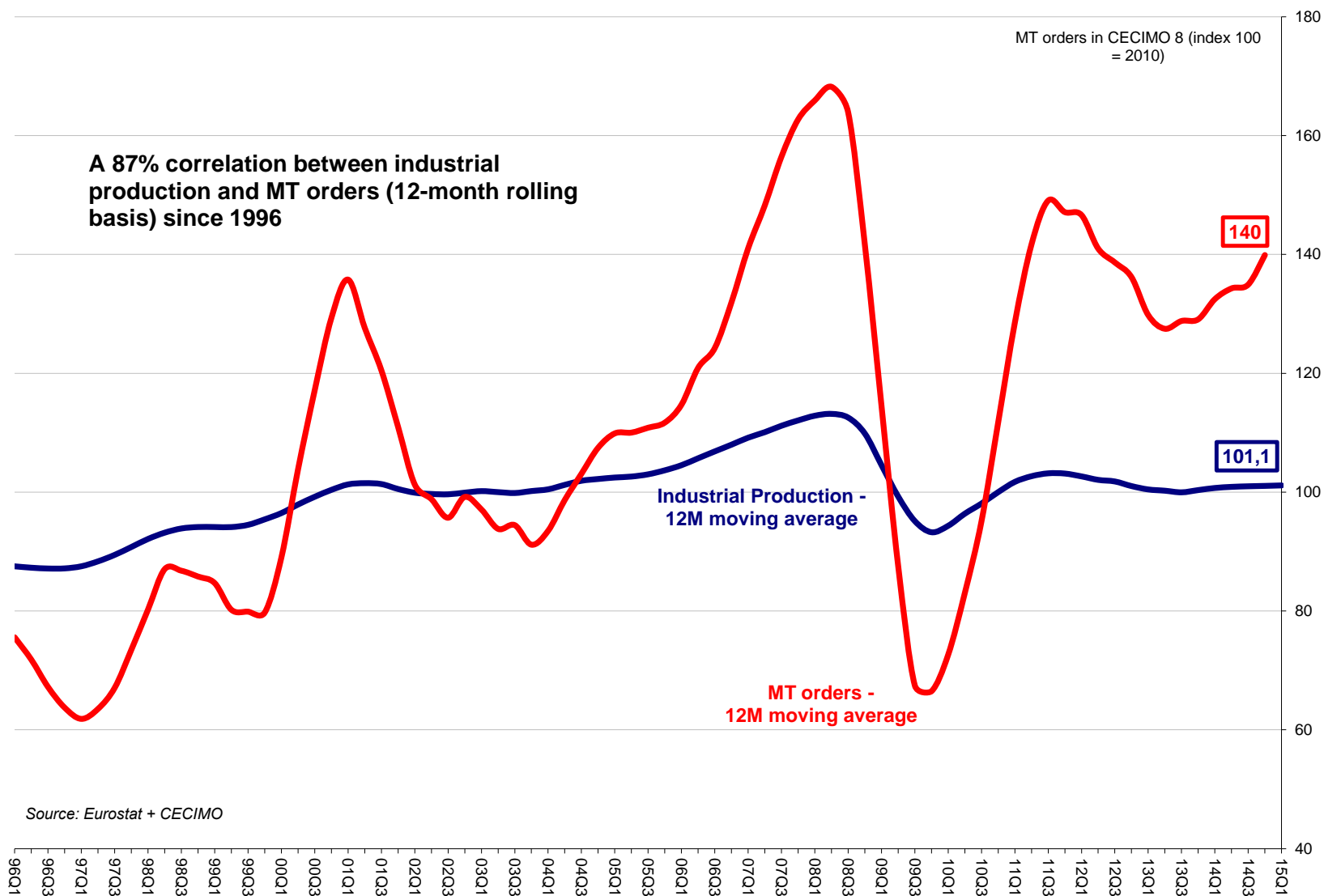
2.2 Interest rates - EURIBOR

see commentary [----](#)



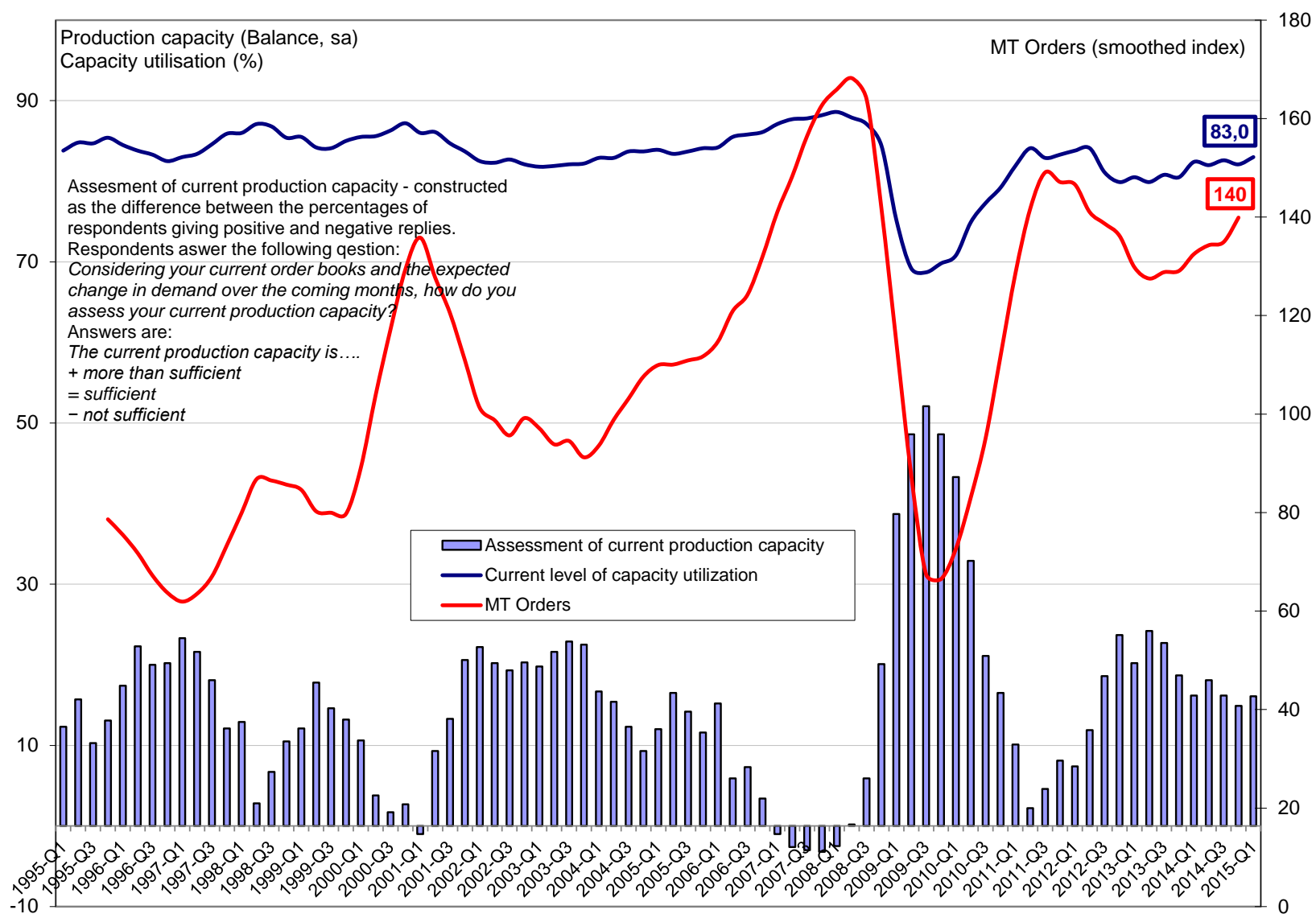
2.3 Industrial production index

see commentary [→](#)



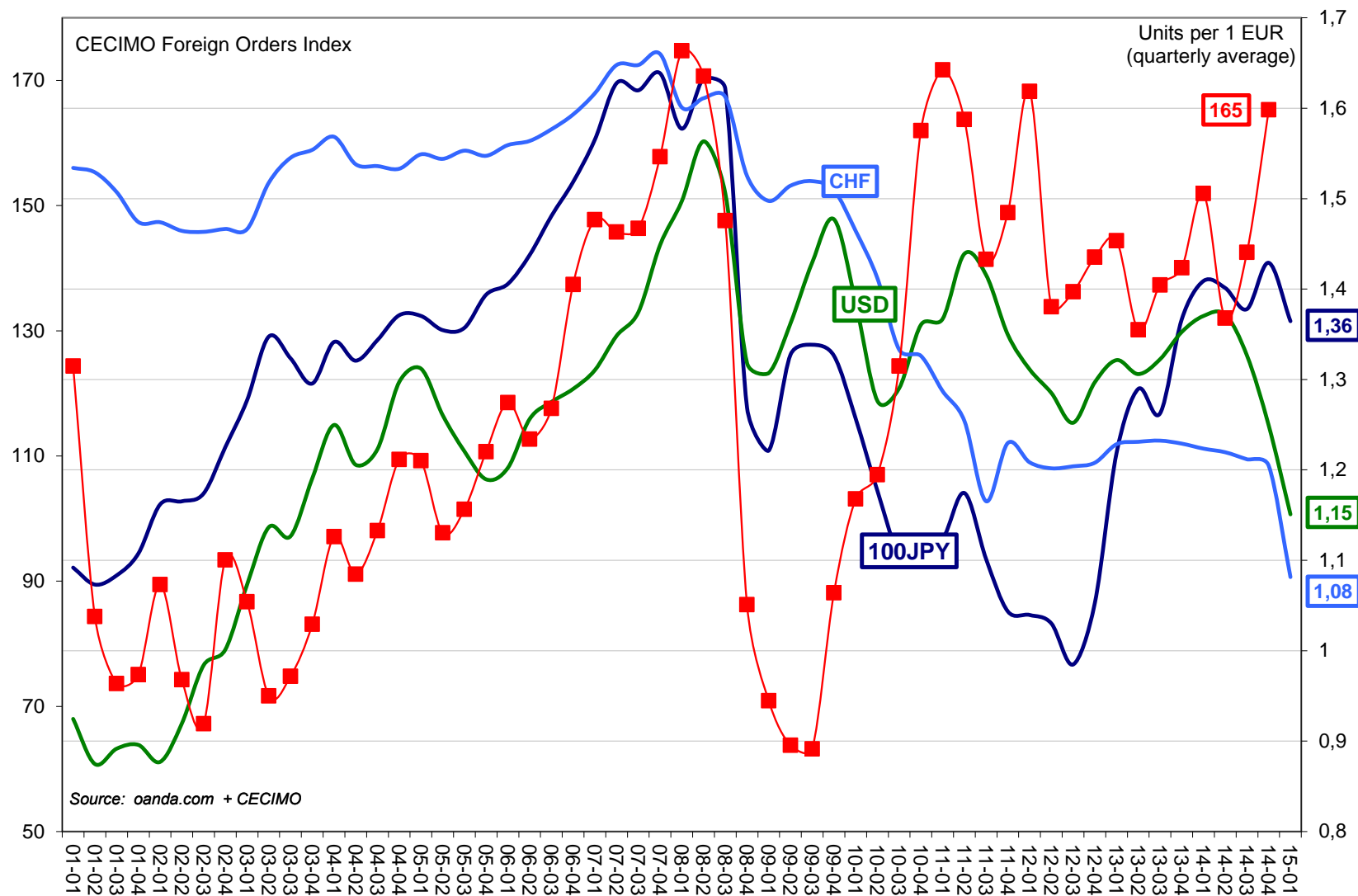
2.5 Capacity utilisation in the industrial good sector

see commentary [----](#)



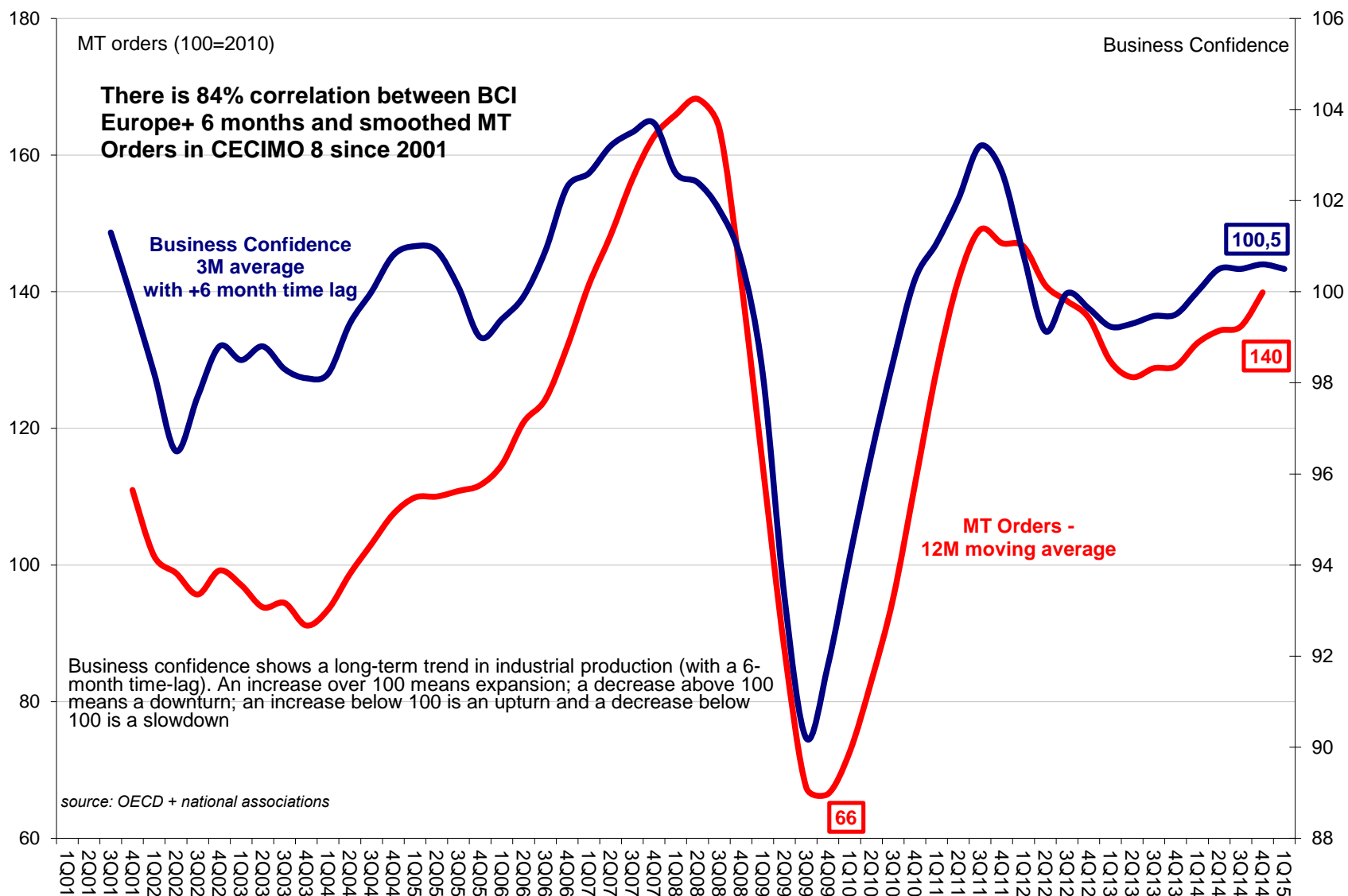
2.7 Foreign exchange rates

see commentary [---->](#)



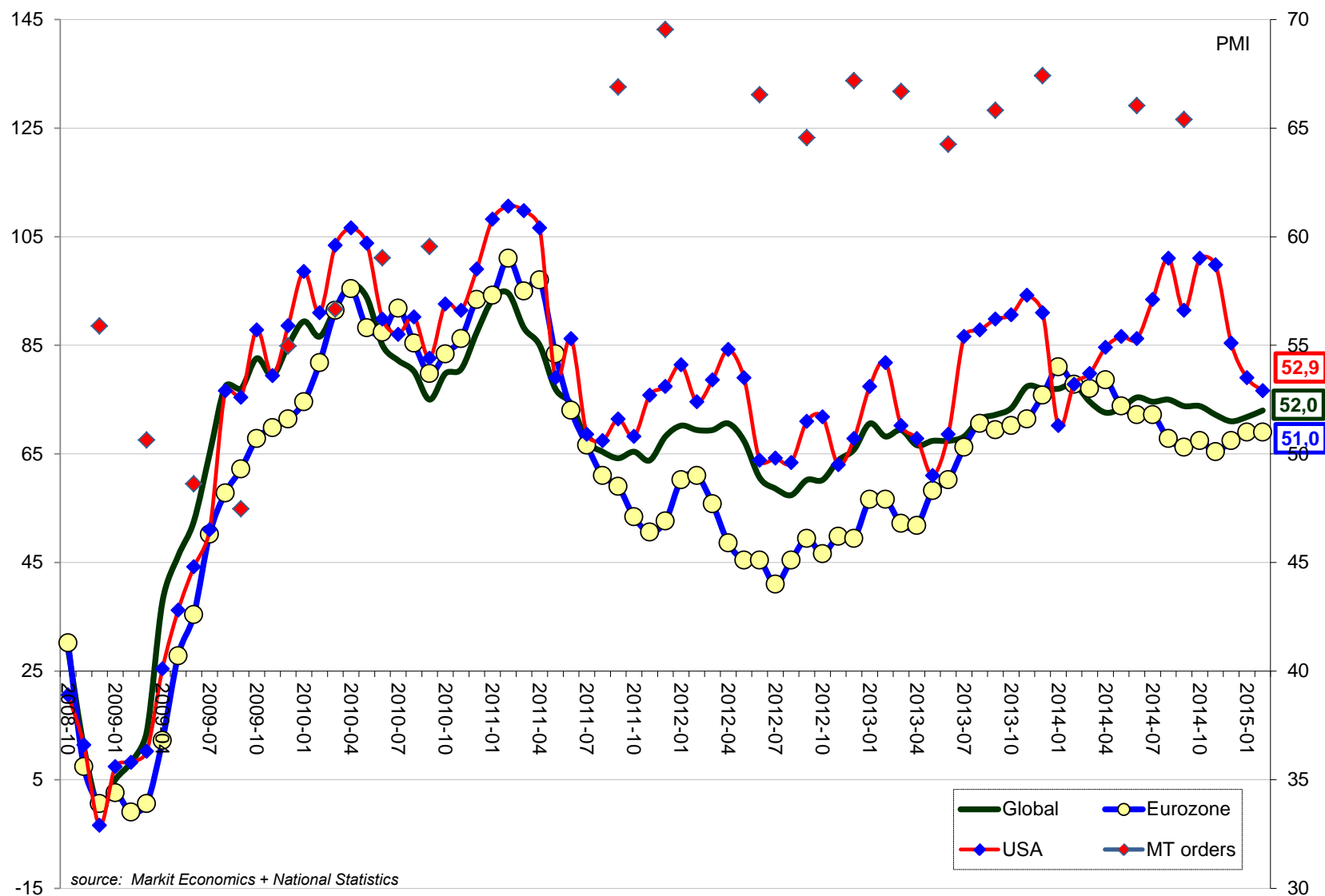
3.1 OECD Business Confidence Indicator (BCI) for Europe

see commentary [---->](#)



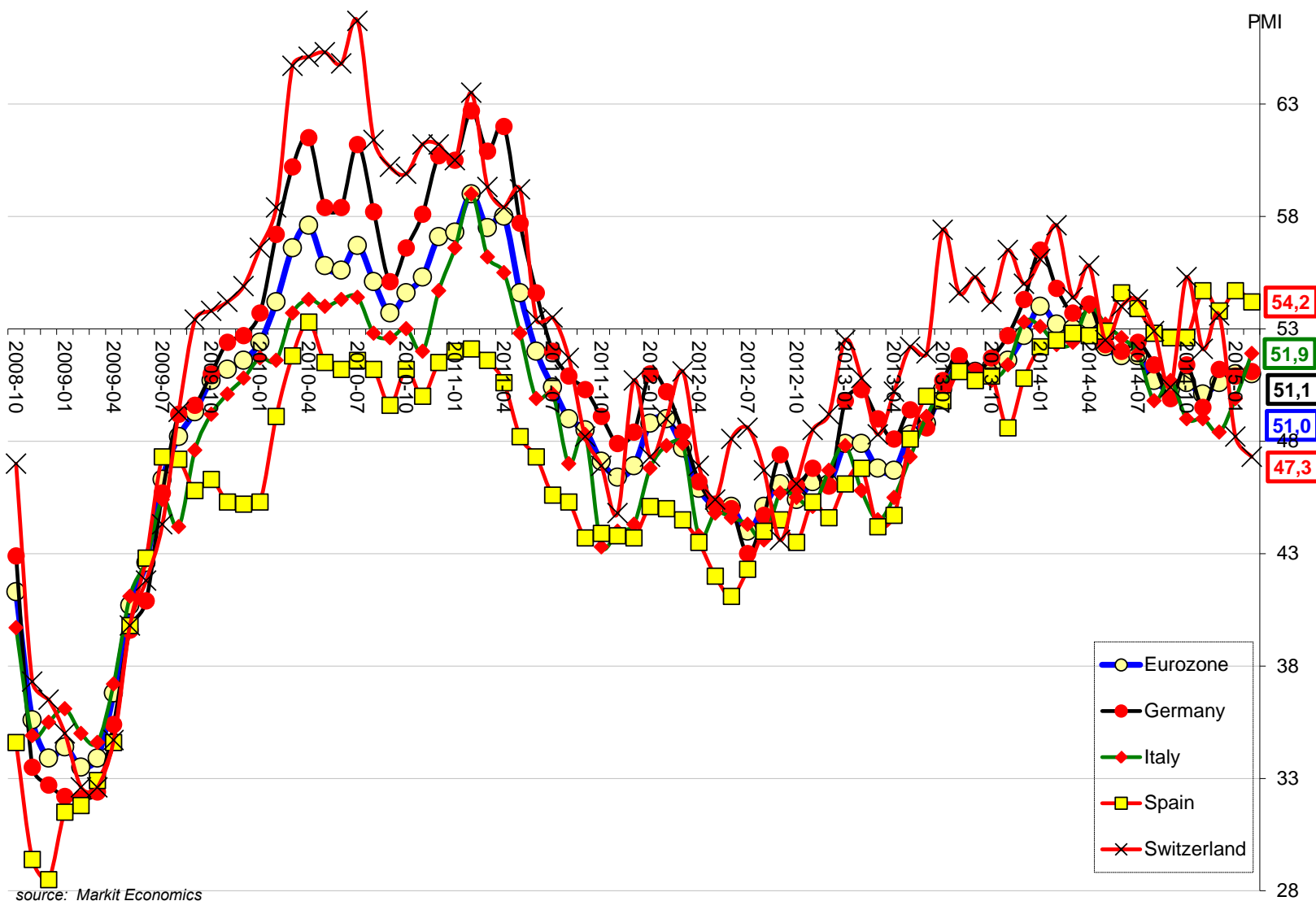
3.2 Purchasing Managers' Index (PMI) - Global

see commentary [---->](#)



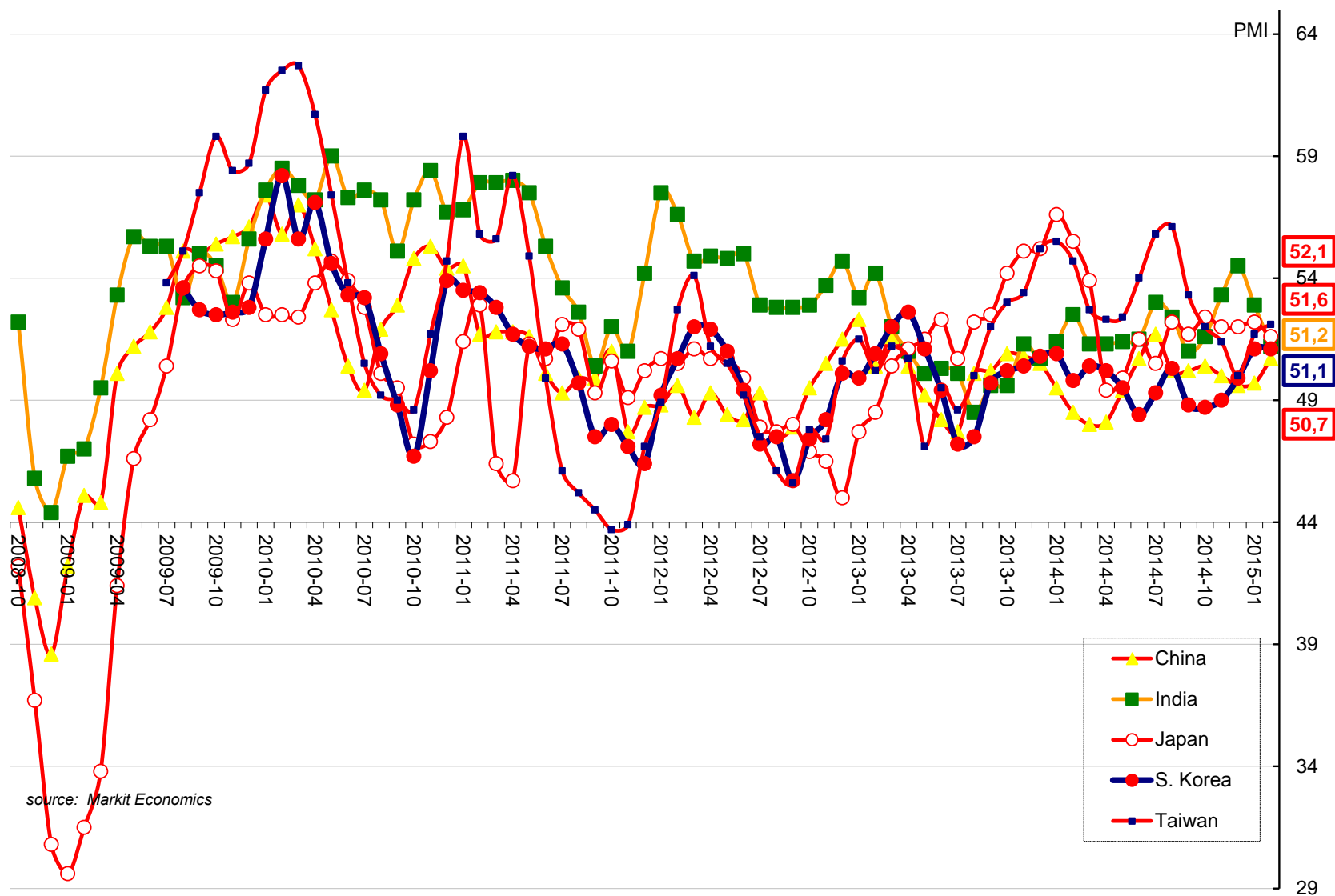
3.2 Purchasing Managers' Index (PMI) - Europe

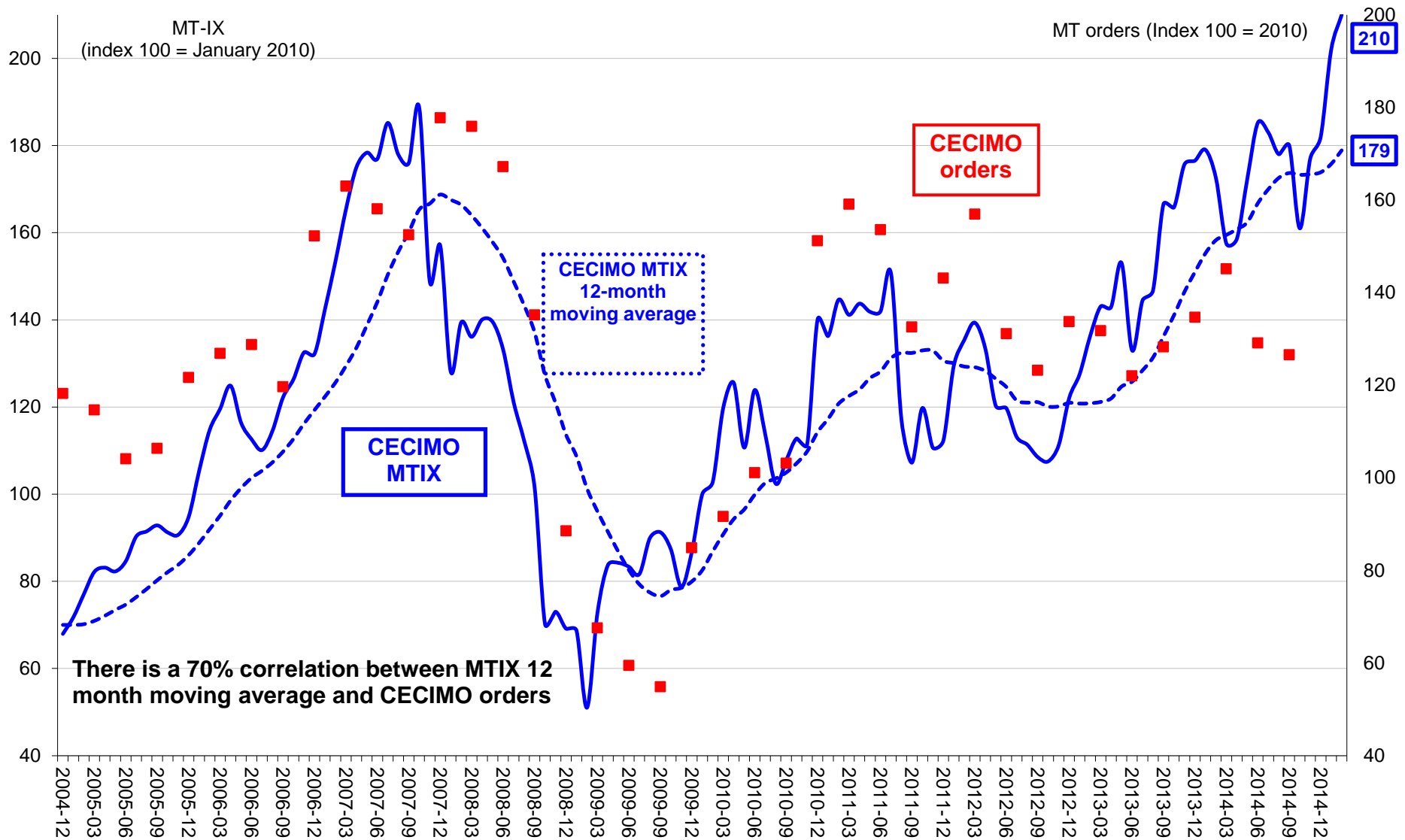
see commentary [----](#)



3.2 Purchasing Managers' Index (PMI) - Asia

see commentary [---->](#)





2.2 Interest rates - Euribor

Euribor® (Euro Interbank Offered Rate) is the rate at which euro interbank term deposits are being offered by one prime bank to another within the EMU zone.

<http://www.euribor-ebf.eu/>

2.3 Industrial production index

The objective of the production index is to measure changes in the volume of output at close and regular intervals, normally monthly. It provides a measure of the volume trend in value added over a given reference period. The production index is a theoretical measure that must be approximated by practical measures. Value added at basic prices can be calculated from turnover (excluding VAT and other similar deductible taxes directly linked to turnover), plus capitalised production, plus other operating income plus or minus the changes in stocks, minus the purchases of goods and services, minus taxes on products which are linked to turnover but not deductible plus any subsidies on products received. The division of production in construction between building construction and civil engineering is based on the classification of types of construction (CC). Statistical population: Production: sections B, C, D of NACE (D353 excluded); Base period: Year 2005 = 100.

http://epp.eurostat.ec.europa.eu/cache/ITY_SDDS/EN/is_esms.htm

2.5 Capacity utilisation in the investment good 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

3.1 OECD Business Confidence Indicator (BCI) for Europe

The Composite leading indicators (CLI), which BCI is part of, comprises a set of component series selected from a wide range of key short-term economic indicators to ensure that the indicators will still be suitable when changes in economic structures occur in future. While theory says that a turning point in the CLI signals a turning point in the reference series, such turning points, in reality, are determined by a complicated process. Therefore, one often needs to wait for several periods to draw a more definite conclusion. A useful way to exploit the information in CLIs is to take their year-on-year growth rate.

The standardised BCIs represent only the manufacturing sector. BCI shows a long-term trend in industrial production (with a 6-month time-lag). An increase over 100 means expansion; a decrease above 100 means a downturn; an increase below 100 is an upturn and a decrease below 100 is a slowdown.

<http://stats.oecd.org/mei/default.asp?lang=e&subject=5>

3.2 Purchasing Managers' Index (PMI)

The Global Report on Manufacturing is compiled by Markit based on the results of surveys covering 9,000 purchasing executives in 30 countries. Together these countries account for an estimated 86% of global manufacturing output. Questions are asked about real events and are not opinion based. Data are presented in the form of diffusion indices, where an index reading above 50.0 indicates an increase in the variable since the previous month and below 50.0 a decrease.

<http://www.markiteconomics.com/Survey/Page.mvc/AboutPMIData>

4 MT-IX

MTIX is an index based on the capitalization of 23 leading, publicly listed machine tool producing companies. The capitalization of the companies included is weighted by the share of machine tool turnover in total revenues. The total capitalization calculated in that way is weighted then by an estimated share of the European companies in the world total output in 2005.