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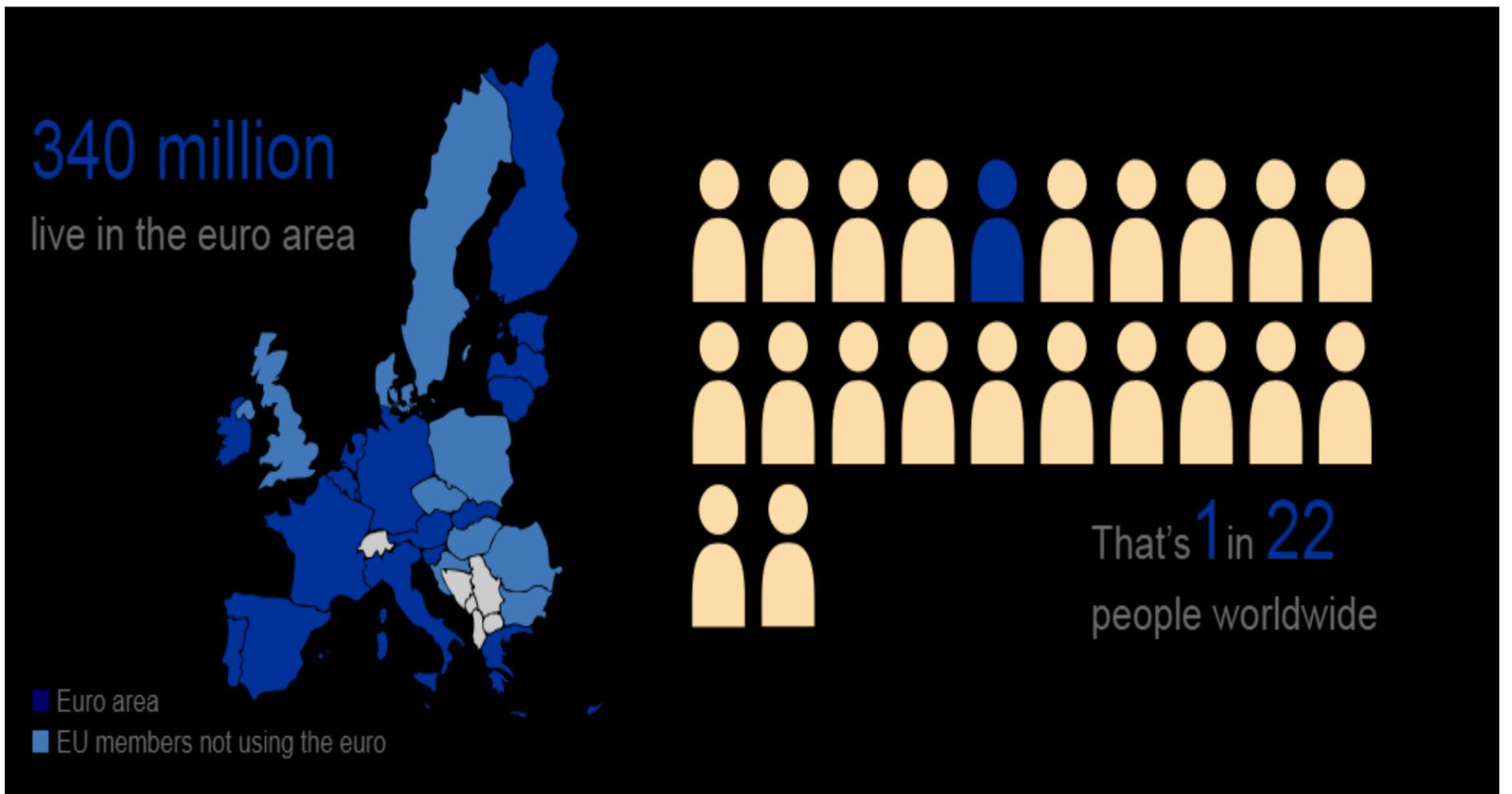
# How has the Euro performed?

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## THE 2017 EURO OPTIMALITY INDEX

<sup>1</sup>We thank Alessandro Venieri for the research assistance provided in the development of this project in 2018. The 2018 index and figures below are an update of the results of the research paper written by Juan Castañeda and Pedro Schwartz in 2017, “How Functional is the Eurozone? An Index of European Economic Integration through the Single Currency”, published in *Economic Affairs* (October, p. 365-372).



Source: European Central Bank

## THE EUROZONE

In 1999 eleven Member States (MSs) of the European Union gave up their monetary sovereignty in order to adopt a single currency, the Euro. Today, nineteen countries belong to what has become the “Eurozone”, and its membership is likely to increase in the future. One of the aims of the Euro was to bring the economies of its members closer together: the hope was that, by sharing the same currency and the same monetary policy, the MSs’ economies would become more

homogeneous and similar to each other, making it less likely to suffer from asymmetric crises and thus easier to run a single monetary policy. What we have done is to assess (1) the performance of the Euro and (2) to what extent it has enhanced further integration across the MSs.

## THE TASK AND THE METHOD

Are today the economies of the Eurozone countries more homogeneous than in 1999? We have collected 10 differ-

ent economic indicators per country to measure how homogeneous or asymmetric the Eurozone MSs economies are, and calculated an overall index of economic dispersion. We have calculated the standard deviation of the real GDP growth, unemployment rates, HICP inflation, unit labour costs, real exchange rates, public deficit and public debt ratios to the GDP, changes in broad money growth, credit to the private sector as a ratio of the GDP and current account balances as a ratio of the GDP. This index can be interpreted as a measure of macroeconomic dispersion and thus of the asymmetries existing within the Eurozone. Such an index may well serve to track how integrated the Eurozone has become since its inception in 1999, and so to measure the 'optimality' of the Eurozone since then, especially after the Global Financial Crisis and the Euro Crisis. We have split up the overall index

into four different sub-indices:

- (1) The cycle-synchronicity index, which takes into account changes in real GDP and in unemployment rate;
- (2) The public finance index, for public deficit and government debt;
- (3) The competitiveness index, which accounts for changes in inflation, unit labour costs and real exchange rates;
- (4) The monetary index, for changes in money growth, credit to the private sector and the current account balance.

The Eurozone has strengthened the macroeconomic and fiscal surveillance of its members with the approval of the 'Macroeconomic Imbalance Procedure' and the so-called "Fiscal Compact". With our index we compile the information provided by the indicators included in the MIP and the Fiscal Compact, adding asymmetries in monetary growth and real exchange rates.

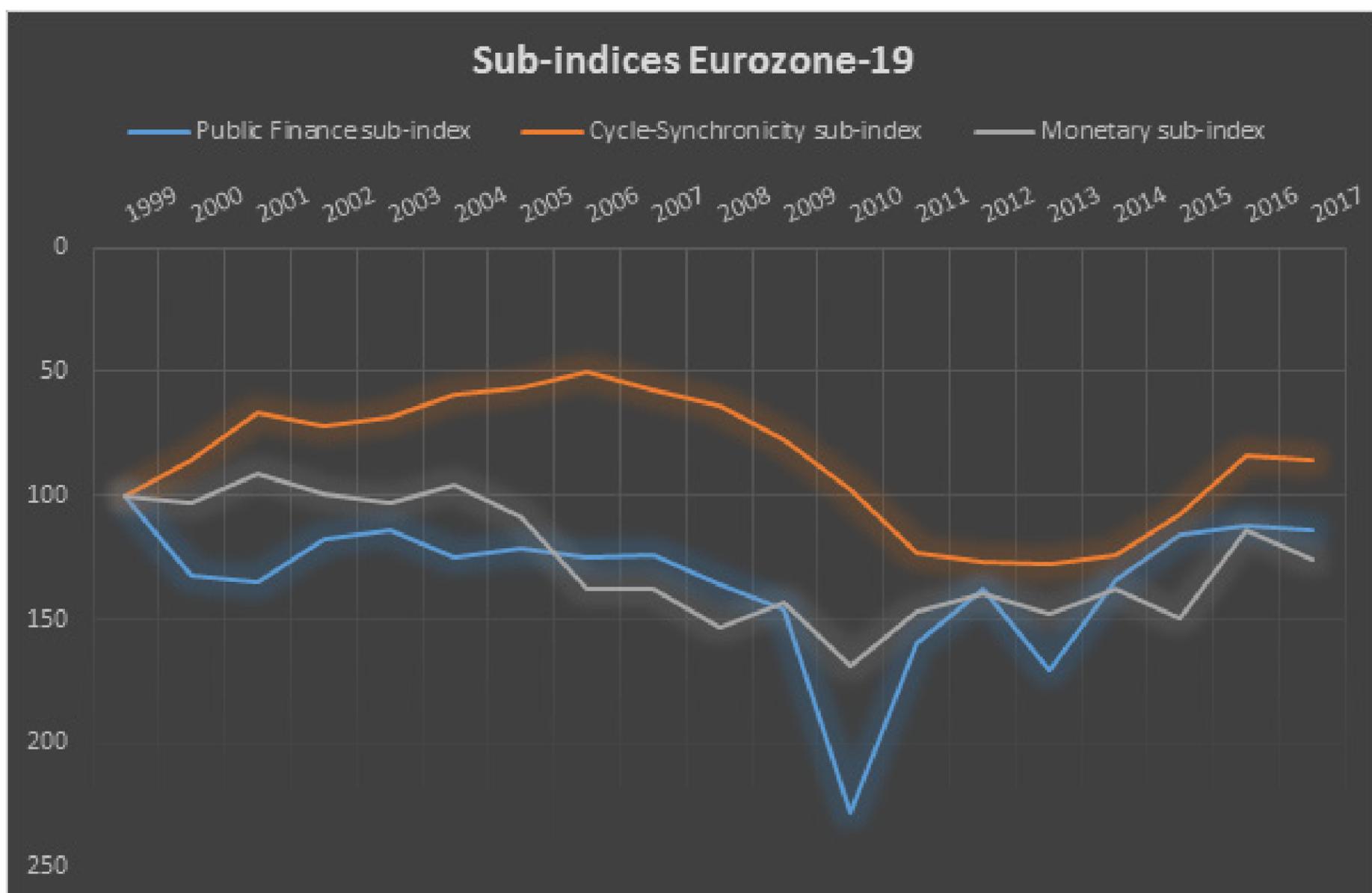


Figure 1: Indices of macroeconomic dispersion in the Eurozone-19

## WHAT THE INDICES SHOW

What the indices tell us is that, overall, the economies of the Eurozone MSs are today less homogeneous than in 1999, signalling therefore a failure of the single currency project to bring about a more integrated and harmonized economic area.

### 1999 – 2006: THE GOOD YEARS

Even more significantly, the increase in Eurozone internal asymmetries began as soon

as the single currency was launched, with an accumulated 86% deterioration in the overall index from 1999 to 2006, indeed under an expansionary phase of the cycle (see Figure 3 below).

The sub-index that seems to be the main responsible for this increased macroeconomic dispersion is the competitiveness index, which suffered a continuous deterioration since 1999 (see Figure 2 below). It is also remarkable to observe how monetary asymmetries also increased before the crisis (2004 – 2007). Only the cycle synchronicity-

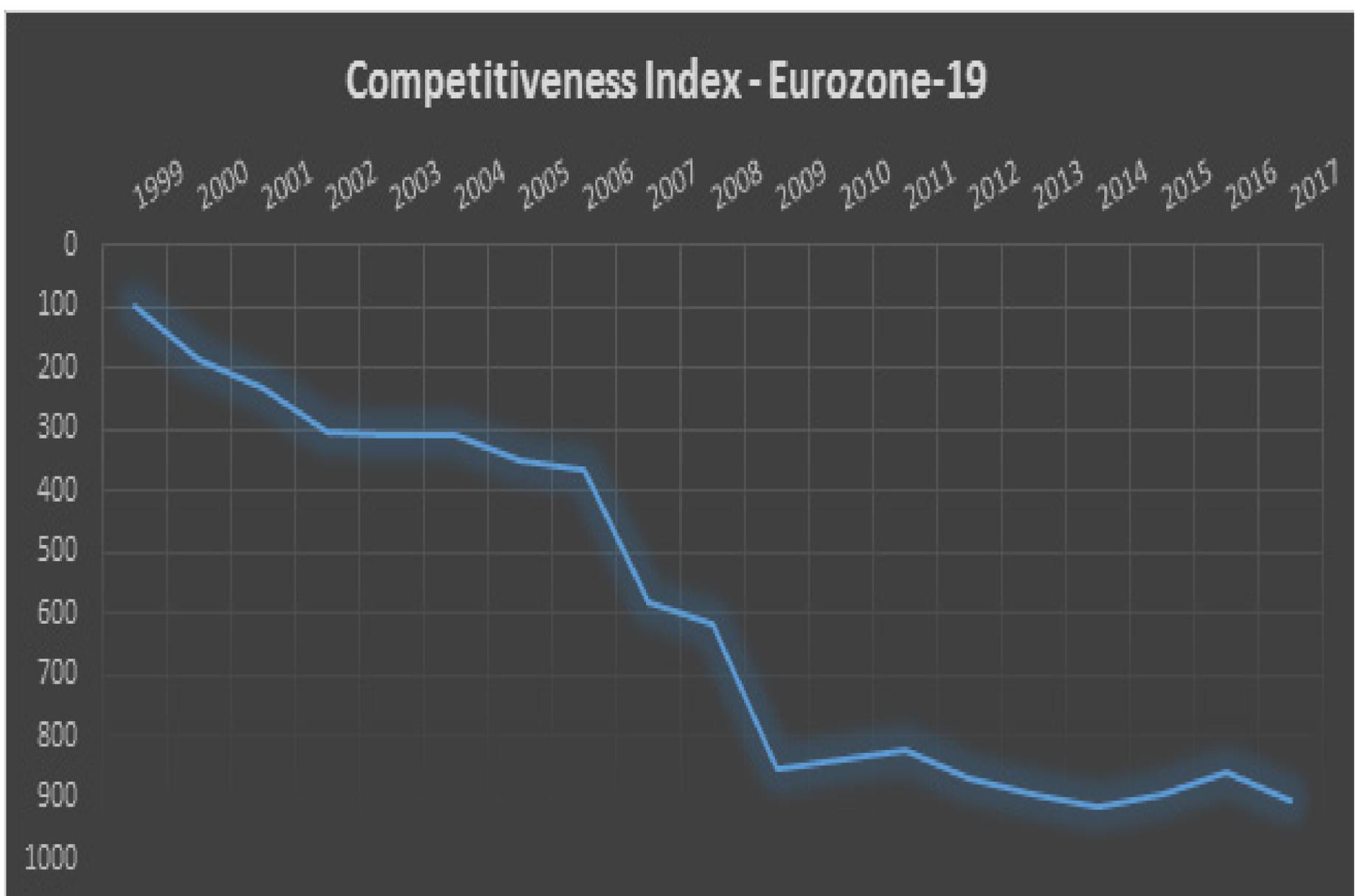
ty index responded as expected, as the dispersion in GDP growth and unemployment rates decreased across the MSs (see Figure 1 below).

## 2007 – 2014: THE CRISIS YEARS

The data also tell us something more about the consequences of the global financial crisis of 2007-2008 and the Euro crisis afterwards, which acted as an amplifier of the divergence of the economies of the Eurozone. We have disaggregated the results for the original 12

Eurozone MSs in order to see whether the pattern is different when we remove the “newcomers” from the picture, since these ones are assumed to show more diversity. Comparing the trajectory of the two sets of countries (see Figure 3 above), it is clear that for the Eurozone-12 the performance was more positive (symmetric) than that of the Eurozone-19, as we would expect. Even so, the overall index shows that there has been a deterioration in the degree of economic dispersion among the original Euro MSs, with a trend that had already

Figure 2: Competitiveness dispersion in the Eurozone-19



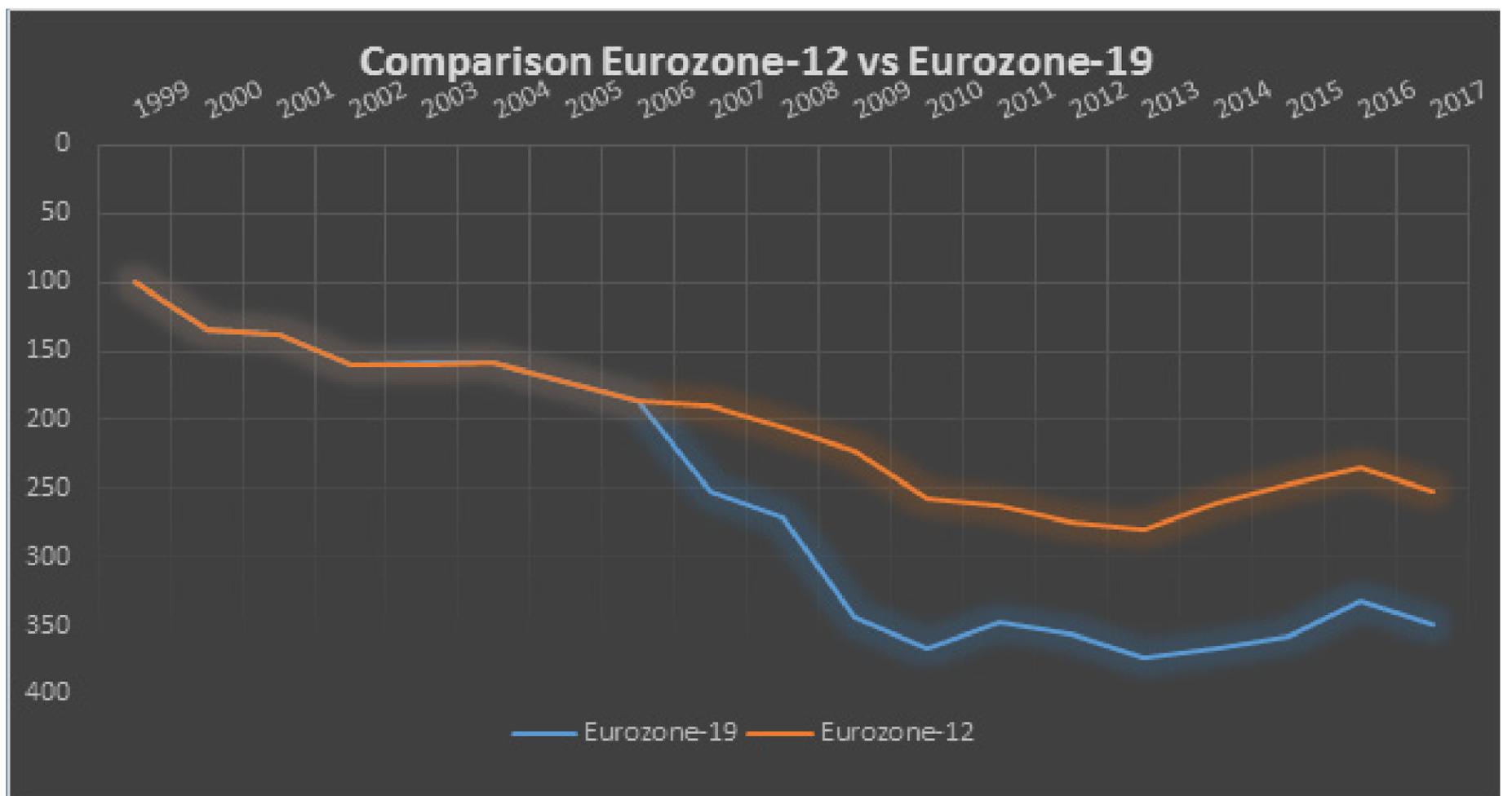


Figure 3: Comparison of overall performance of the Eurozone-12 and Eurozone-19

started in 1999 and which became more pronounced during the recent crises. If we further dissect the Competitiveness sub-index and look at its components, the dispersion has accentuated the most during the past 18 years in the areas of unit labour costs and real exchange rates, reflecting a pattern that is much more evident for the Eurozone-19.

### 2014 - : THE RECOVERY YEARS

Since 2015 the indices have shown a slight recovery (see Table 1 below), with an improvement of all the four sub-indices. The new fiscal measures adopt-

ed, along with the adjustment in costs and prices in those MSs mostly affected by the crises, seem to have been effective. In addition, the programme of Quantitative Easing by the ECB, which began in 2014, has also helped, by reducing monetary growth dispersion across MSs.

### 2017: ACCENTUATION OF MACROECONOMIC ASYMMETRIES

However, this positive trend has been reversed in 2017, due to a deterioration in the competitiveness and monetary dispersion indices. This raises fresh concerns about the stability of the Eurozone, since it shows

that creating a momentum which will return macroeconomic stability and integration to something like pre-crisis levels is not an easy task even in times of economic growth. It also shows that the changes introduced in the euro architecture during the crisis have not been as effective as hoped.

## **SUMMARY AND POLICY IMPLICATIONS**

**T**he Euro is still a quite recent phenomenon and these results should be treated with caution, but they offer valuable information for assessing the trends and macroeconomic asymmetries which are building up within the Eurozone; and which will affect the performance of the Eurozone and even its survival as a monetary union as it stands. What the indices reveal is that the adoption of the single currency has not increased macroeconomic convergence among the MSs. This is bad news for

the Eurozone MSs as (1) it makes asymmetric crises more likely, posing a threat to the overall stability of the Eurozone; and (2) it makes it more and more difficult to design monetary policies to fit all MSs. The dispersion in competitiveness needs in particular to be urgently addressed, since it is the main culprit for the widening divergence of the past 19 years. What the competitiveness sub-index reveals is that MSs' markets do not function as efficiently as needed in a common monetary area, where shocks could be addressed by changes in costs and prices rather than through output losses and increased unemployment. Despite the recent efforts made at the Eurozone level, in the form of more fiscal powers given to EU bodies and more stringent rules approved at the supranational EU level, it does not seem to be enough to reverse the trend and establish a path for a steadily convergence in the years to come.



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