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# Sustainability in the Eurozone

Recent economic and political turmoil throughout the Eurozone has given rise to uncertainty regarding its outlook and sustainability. To investigate the medium and long-term strength of the Eurozone, it is important to consider whether countries have a sustainable economy in the long-run. In this evaluation of the economic stability and status quo of various member states, six topics - growth, debt, unemployment, interest rates, competitiveness and corruption – are covered in this article. After a brief introduction to the Eurozone and the selection of sustainability measures, the indicators will be evaluated for six countries, namely France, Germany, Greece, Ireland, Italy and Spain.

## PROFILE OF THE EUROZONE

The Eurozone is a group of countries using the Euro as their sole legal currency. It was created in January 1999 with 11 members initially (Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Portugal and Spain). Today there are a total of 19 members, as Cyprus, Estonia, Greece, Latvia, Lithuania, Malta, Slovakia and Slovenia have all joined since 1999.

In 1992, the member states of the European Community (EC) signed the Maastricht Treaty, thereby creating the European Union (EU). The Maastricht Treaty laid the foundations for the introduction of the euro, the creation of the Eurozone in 1999, and the formation of the European Central Bank (ECB). The ECB, based in Frankfurt, creates a uniform monetary policy that each member state must adopt with the primary objective of ensuring economic stability across the Eurozone.

The Maastricht Treaty also entails requirements for joining the Eurozone, known as 'convergence criteria'. These criteria are a set of macroeconomic indicators intended to ensure that the accession country is sufficiently prepared and the integration runs smoothly. Table 1 identifies the set of five macroeconomic indicators, outlining how they are measured, as well as their respective convergence criteria.

## MEASURING SUSTAINABILITY

To measure the sustainability of selected member states, we will investigate six economic indicators and two indices. These were selected following the European Economic Sustainability Index (EESI) developed by the European Policy Center, as well as the convergence criteria listed previously. The economic indicators include:

- GDP growth rate
- GDP per capita
- Debt level (% of GDP)
- Deficit/surplus ratio (% of GDP)
- Unemployment rate
- Long-term interest rate.

The two indices include:

- Global Competitiveness Index (GCI)
- Corruption Perception Index (CPI).

### GDP Growth Rate

The first indicator is the GDP growth rate capturing a state's short-term economic performance and its debt repayment capability. Figure 1 illustrates the GDP growth rate over time for France, Germany, Greece, Italy, Ireland and Spain between 2000 and 2017. The sharp fall in GDP growth rates during the financial crisis can be observed for all selected countries. Whereas the rate in Greece continued to decrease after 2009 and only started to recover after 2011, all other selected countries started to recover after 2009. The sharp and one-time increase in the GDP growth rate in Ireland in 2015 is particularly notable, as the rate reached 25.6%. However, France, Germany, Italy and Spain followed a similar pattern for most of the period under consideration. Greece and Ireland were the first to report negative growth rates (-0.3% in Greece and -3.9% in Ireland in 2008) due to the financial crisis, whereas the other countries reported negative rates in 2009 ranging from -5.5% in Greece to -2.9% in France. In contrast to Spain, Italy and Greece, France, Ireland and Germany quickly recovered and started reporting positive and increasing rates after the peak of the financial crisis. Ireland experienced a large increase in 2015, with a record growth rate of 25.6%. The growth rates of the other countries also increased, although not at such high levels. In 2017, the growth rate reached 4.9% for Ireland and Spain, followed by 2.2% in Germany and approximately 1.5% in France, Italy and Greece. Growth predictions for 2018 forecast relatively similar rates of 1.5% for Italy and 2.5% for Germany. The growth rate in France and Greece is expected to increase to approximately 2.1%. After 4.9% growth in Ireland and Spain in 2017, Spain is expected to experience a sharp decline to 2.8% and Ireland a minor decline to 4.5%. For 2019, the growth rate in all countries is expected to dip by approximately 0,4%.

Table 1

**Macroeconomic Indicators and their Respective Convergence Criteria**

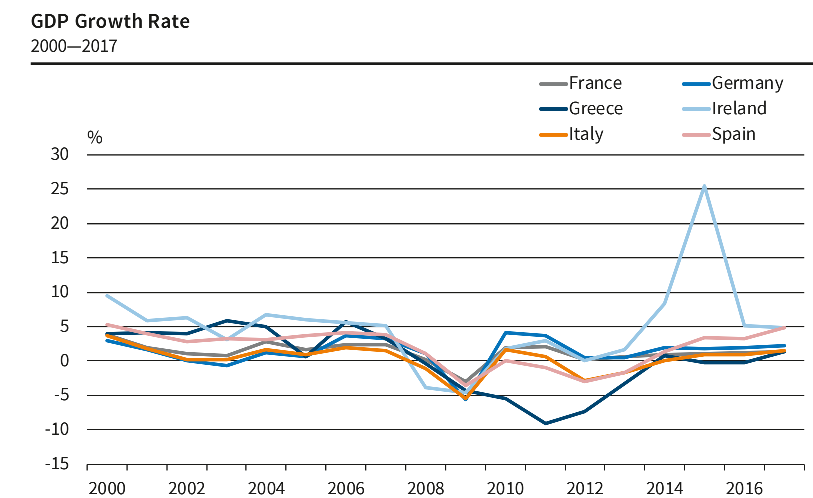
| Macroeconomic Goal | Price Stability | Sound Public Finances | Sustainable Public Finances | Durability of Convergence | Exchange Rate Stability |
|---|---|---|---|---|---|
| Measurement Indicator | Consumer Price Inflation Index | Government Deficit as a % of GDP | Government Debt as a % of GDP | Long-term Interest Rate | Deviation from Central Rate |
| Convergence Criteria | Not more than 1.5 %-points above the rate of the three best performing member states | Reference value: not more than 3% | Reference value: not more than 60% | Not more than 2 %-points above the rate of the three best performing members states | Participation in ERM II for at least 2 years without severe tensions |

Source: European Commission (2018).

Figure 1

**GDP Growth Rate**

2000—2017

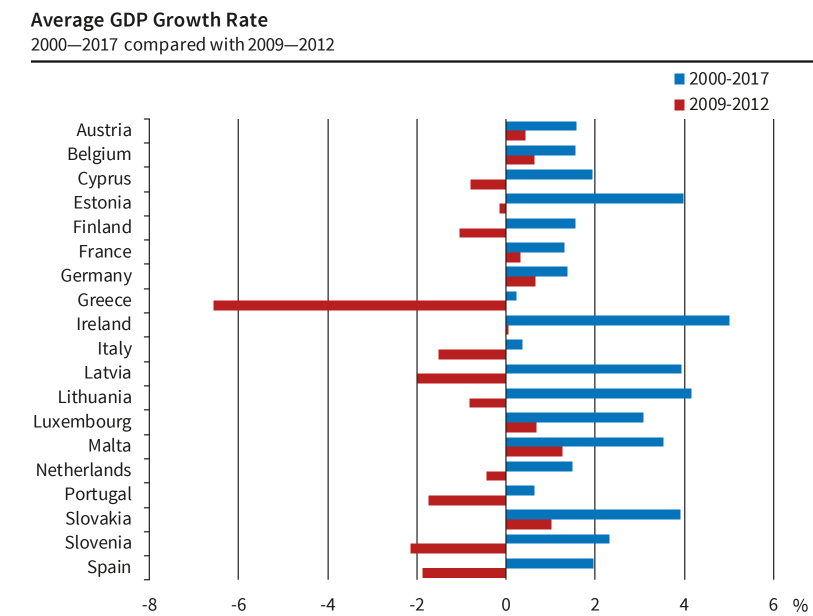



Source: World Bank DataBank World Development Indicators (2018). © ifo Institute

Figure 2

**Average GDP Growth Rate**

2000—2017 compared with 2009—2012




Source: World Bank DataBank World Development Indicators (2018). © ifo Institute

Comparing the average growth rate of the whole period (2000–2017, blue bars) with the average during the financial crisis (2009–2012, red bars) reveals that while all countries report positive average growth rates between 2000 and 2017, the variations in growth rate are profound (see Figure 2). While Ireland reports an average of 5%, Greece, Italy and Portugal exhibit average rates of 0.2%, 0.4% and 0.6% respectively. In Greece, this largely results from the financial crisis, during which it reported an average growth rate of -6.6%. Looking closer at the financial crisis, it had a clear negative impact on the growth rates of the Eurozone countries. Negative average rates were reported by Cyprus, Estonia, Finland, Italy Latvia, Lithuania, the Netherlands, Portugal, Slovenia, Spain and notably by Greece, where the average rate was -6.6% during the financial crisis. In contrast, Malta reported the highest growth rate of 1.3% during the years 2009–2012.

### GDP per Capita

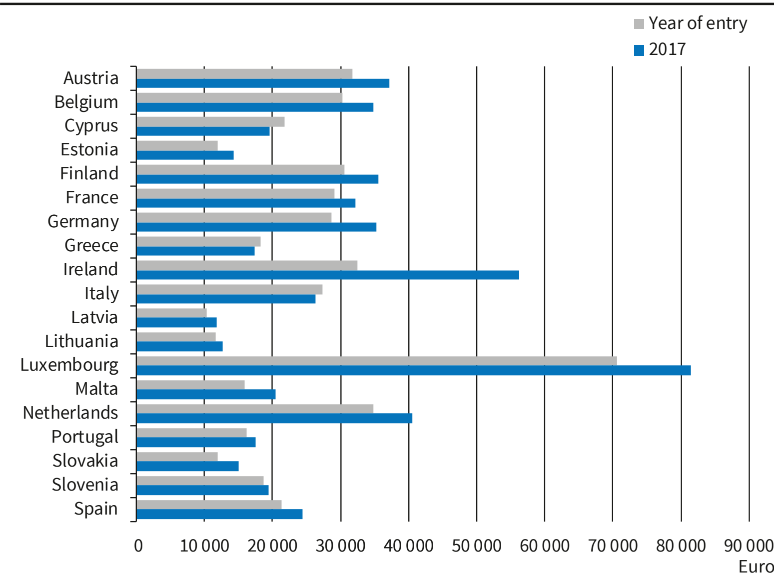
Figure 3 illustrates the comparison of the real GDP per capita in the year of entry with the real GDP per capita reported in 2017. In almost all Eurozone countries the real GDP per capita was higher in 2017 than in the country-specific year of entry to the Eurozone. However, in Cyprus, Greece and Italy the standard of living as measured by GDP per capita has declined since entering the Eurozone. The largest positive change in GDP per capita over time was recorded in Ireland with the figure totalling 23,775.03 euros, while the smallest difference was found in Slovenia (746.72 euros).

### Debt Deficit/Surplus

A short-term indicator for the performance of public finance is the government's net borrowing necessity capturing the difference between expenditure and revenues. Figure 4 illustrates the deficit/surplus as a share of GDP in France, Germany, Greece, Ireland, Italy and Spain between 2000 and 2017. Before the financial crisis, Ireland and Spain report a partial surplus. The

Figure 3

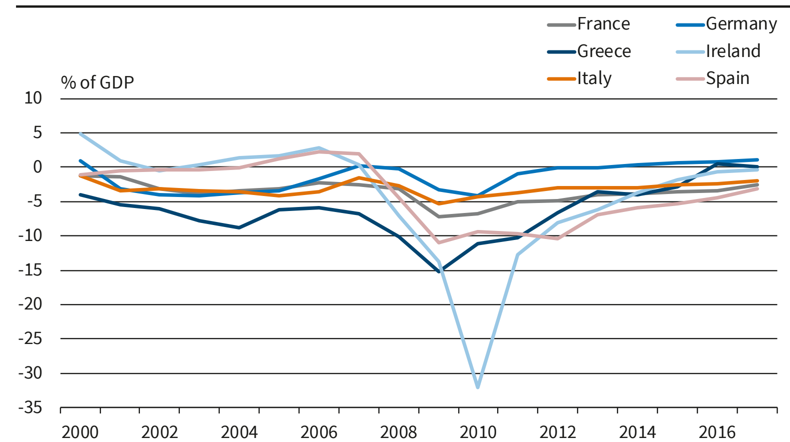
**GDP per Capita**
Year of entry and 2017




Source: Worldbank Databank (2018). © ifo Institute

Figure 4

**Deficit and Surplus**
2000—2017




Source: International Monetary Fund; World Economic Outlook Database (2018). © ifo Institute

financial crisis had a positive impact on the net borrowing necessity, especially in Ireland in 2010, which turned from a surplus country into a deficit country. After 2010, countries started to recover and deficits expressed as a % of GDP diminished, but only Germany (in 2014) and Greece (in 2016) achieved a balanced budget.

## Debt Level

The debt level indicator reports the total government debt level as a percentage of GDP, indicating the medium- to long-term situation of the public finances. Before the financial crisis, Belgium, Greece and Italy all recorded debt levels above the 100% threshold of GDP. The largest debt level was reported in Greece in 2008 (109.4%). Due to the financial crisis, the debt levels of Ireland, Portugal and Cyprus also exceeded the 100% threshold. The lowest debt levels throughout the whole period are associated with Estonia, where the largest debt level reached 10.7% of GDP in 2014.

Figure 5 compares debt levels in 2017 with debt levels in the year of accession of the Eurozone countries. The comparison shows that debt levels are clearly higher in 2017 than in the year of accession for all countries except for Belgium and Latvia, where the debt level was 5.6%-points (3.7%-points) smaller in 2017 than in 2000. The largest increase is related to Greece, where the difference is 177.8%-points of GDP. Italy (95.4%-points), Cyprus (95.4%-points), Portugal (75.3%-points) also report large debt level differences. In France, the debt level was 38.3%-points higher in 2017 than in 2000, while Germany's debt level was only 5.3%-points higher compared to 2000. In Ireland, the debt level was 32.5%-points higher. In Spain, the difference between 2000 and 2017 reached 40.4%-points.

## Long-term Interest Rate

An additional indicator of stability is the long-term interest rate of government bonds reflecting borrowing risk. We will present Maastricht criterion bond yields, since these are the long-term interest rates used as a convergence criteria for the Eurozone. Before the financial crisis, the country-specific long-term interest rates were only exposed to low fluctuations. The lowest long-term interest rate was recorded in Luxembourg in 2005 (2.41%). The largest interest rate before the crisis years was reported in Lithuania in 2001 (8.15%). Due to the financial crisis, the interest rates in several countries increased, but most dramatically in Greece and Portugal. After 2012, the interest rates fell to very low levels except for Greece and Portugal, where the lowest interest rate was recorded in Luxembourg with 0.25% in 2016.

As seen in Figure 6, the time trends in the long-term interest rates in France, Germany, Greece, Ireland, Italy and Spain show how the interest rates diverged after the beginning of the financial crisis. In France and Germany, the rates decreased, whereas they increased in Greece, Ireland, Italy and Spain. The highest interest rate was reported in Greece in 2012 where it reached 22.5%. After 2012, a negative trend in interest rates emerged in all four countries where the financial crisis increased interest rates.

## Unemployment rate

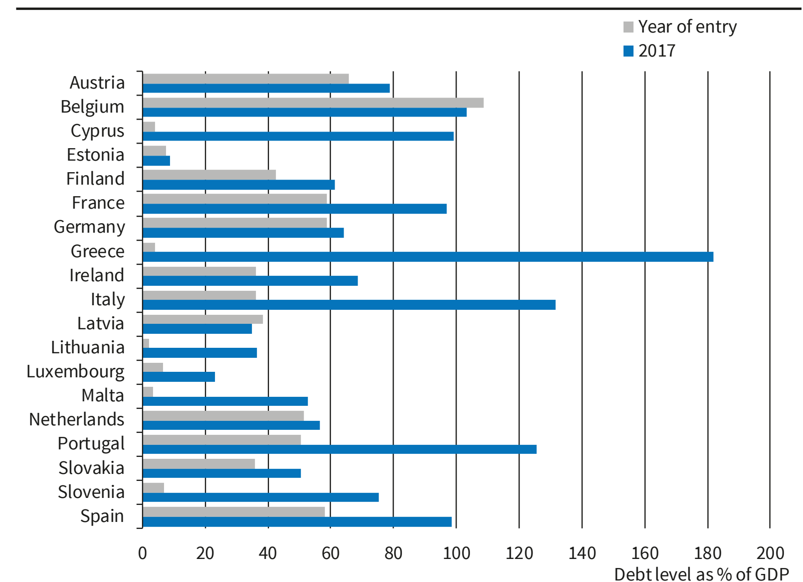
The unemployment rate reflects the economic situation by focusing on the number of unemployed people as a percentage of the labour force. The impact of the financial crisis is also apparent for this indicator, as the unemployment rate increased in most of the Eurozone countries during the years of crisis, but especially in Greece and Spain. Before the financial crisis, a negative general trend in unemployment in most of the Eurozone countries can be detected, with Luxembourg reporting the lowest unemployment rate over the pre-crisis period. Unemployment has been decreasing since 2013.

Figure 7 compares the unemployment rates of France, Germany, Greece, Ireland, Italy and Spain between 2000 and 2017.The impact of the financial crisis can also be identified for this indicator. A particularly high increase was reported in Spain and Greece, with the unemployment rate reaching 26.10% in Spain and 27.48% in Greece in 2013. Italy was less strongly affected as the highest unemployment was recorded in 2014 with 12.64%. In France, the unemployment rate was relatively stable and only increased slightly after 2008. Remarkably, the unemployment rate in Germany followed a negative trend after 2005.

In addition to the time trends in the selected countries for the period 2000-2017, Figure 8 illustrates the country-specific deviation (in %) from the average unemployment rate in the years 2000 and 2017 focusing on these six Eurozone countries. The average unemployment rate in 2000 for France, Germany, Greece, Ireland, Italy and Spain was 9.45%. In 2017, the average unemployment rate for these selected countries was 11.87%.

Figure 5

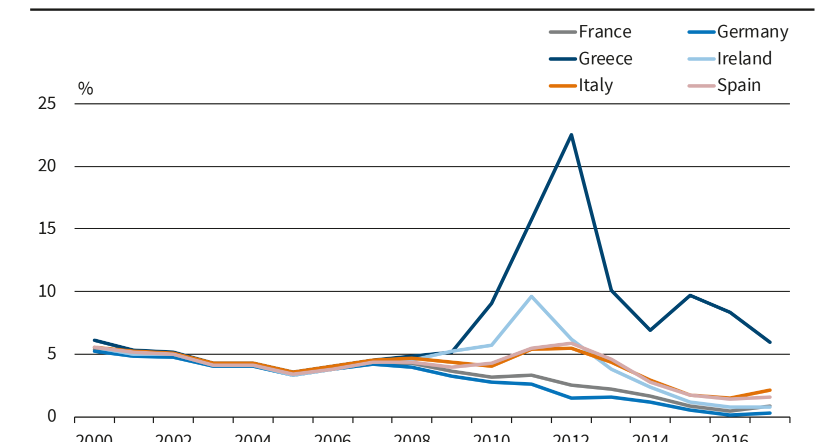
**Debt Level**
Year of entry and 2017




Source: International Monetary Fund; World Economic Outlook Database (2018). © ifo Institute

Figure 6

**Long-term Interest Rate**
2000—2017




Source: Eurostat (2018). © ifo Institute

## Global Competitiveness Index

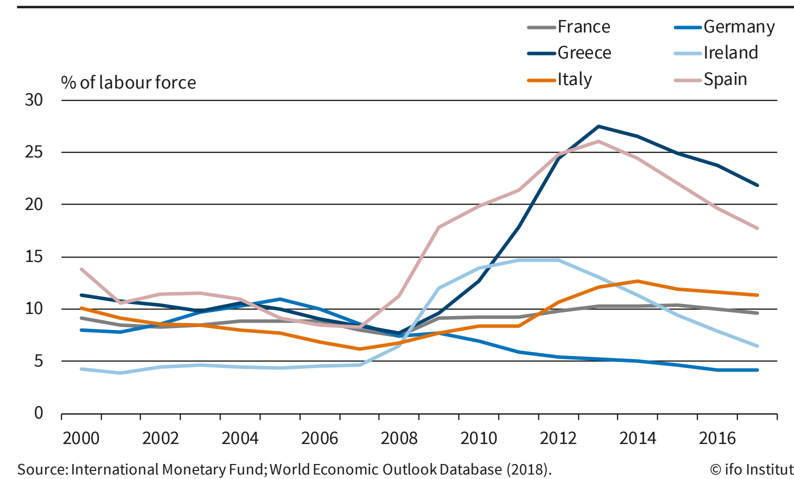
The Global Competitiveness Index (GCI) developed by the World Economic Forum measures competitiveness and future economic prosperity by analysing microeconomic and macroeconomic factors such as institutions and policies. The index ranges from 1 to 7 where 7 is the best score.[1] As competitiveness is closely related to country-specific productivity, the GCI serves as an indicator of the Eurozone's sustainability.

[1] http://reports.weforum.org/global-competitiveness-index-2017-2018/introduction/

Figure 7

**Unemployment Rate**

2000—2017




Source: International Monetary Fund; World Economic Outlook Database (2018). © ifo Institute

The most recent GCI of 2017/2018 for the Eurozone countries ranges from 4.0 in Greece to 5.7 in Germany and the Netherlands. France and Ireland each achieved a score of 5.2, while the index for Italy is 4.5 and 4.7 for Spain. By comparison, Switzerland ranks first with a score of 5.9.

When comparing the indices over time little change is observed. The GCI increased for almost all Eurozone countries slightly over time. Figure 9 gives an overview of the performance of the Eurozone countries with respect to the GCI.

### Corruption Perception Index

Another Index that serves as an indicator of the Eurozone's sustainability is the Corruption Perception Index (CPI) published by Transparency International. It indexes public-sector corruption according to surveys from experts and businesses. Hence, the index approximates the efficiency of the public sector on a scale from 0 to 100 where corruption decreases with an increasing index. The index analyses the corruption in 180 countries.

The actual CPI of 2017 for Eurozone countries ranges from 85 in Finland to 48 in Greece. Accordingly, Finland achieved the third best place in the ranking, whereas Greece only reached rank 59. Germany reached rank 12 with an index of 81, versus Ireland's index of 74, ranking it 19th. France achieved a score of 70 and ranks 23rd. Spain ranks 42nd and records an index of 57. Italy only reaches the rank of 54 with an index of 50. The country with the highest score is New Zealand with 89 points.

Like its GCI index, both the score and the ranking of the Eurozone countries is relatively constant over time. Figure 10 gives an overview of the scores achieved by Eurozone countries in 2017.

## TRUST IN EU INSTITUTIONS

### The Standard Eurobarometer

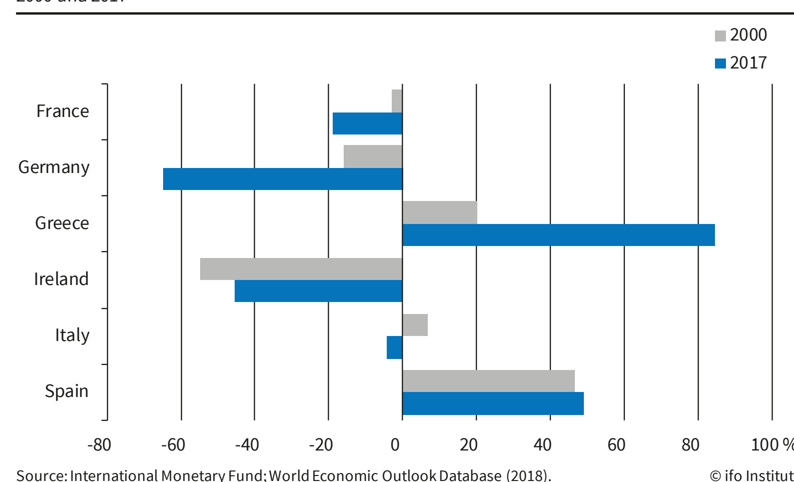
The Standard Eurobarometer survey is conducted on behalf of the European Commission and carried out every year in spring and autumn. EU citizens are interviewed to understand and compare trends within EU member states. The survey covers topics like citizens' perception of the current European political and economic climate, as well as future expectations about the economy. Among other things, a set of questions analyses how people perceive political institutions at national and European level.

This section compares some results of the Standard Eurobarometer survey across Eurozone countries from 2000 to 2017. The focus is on the European Central Bank. A specific question was designed to shed light on whether EU citizens trust this institutional bodiy.[2] In answering this question the respondents could choose between the options tend to trust, tend not trust or don't know.

Figure 8

**Deviation from Average Unemployment Rate**

2000 and 2017




Source: International Monetary Fund; World Economic Outlook Database (2018). © ifo Institute

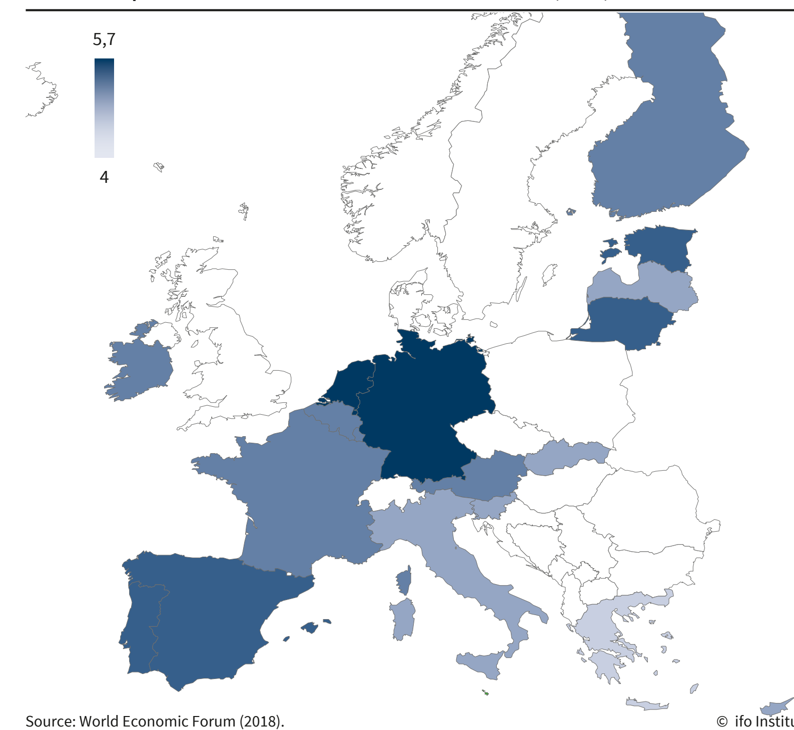
[2] The original question is: "And, [for each of the institutional bodies], please tell me if you tend to trust it or tend not to trust it?"





Figure 9

**Global Competitiveness Index Across Eurozone Countries (2017)**




Source: World Economic Forum (2018). © ifo Institute

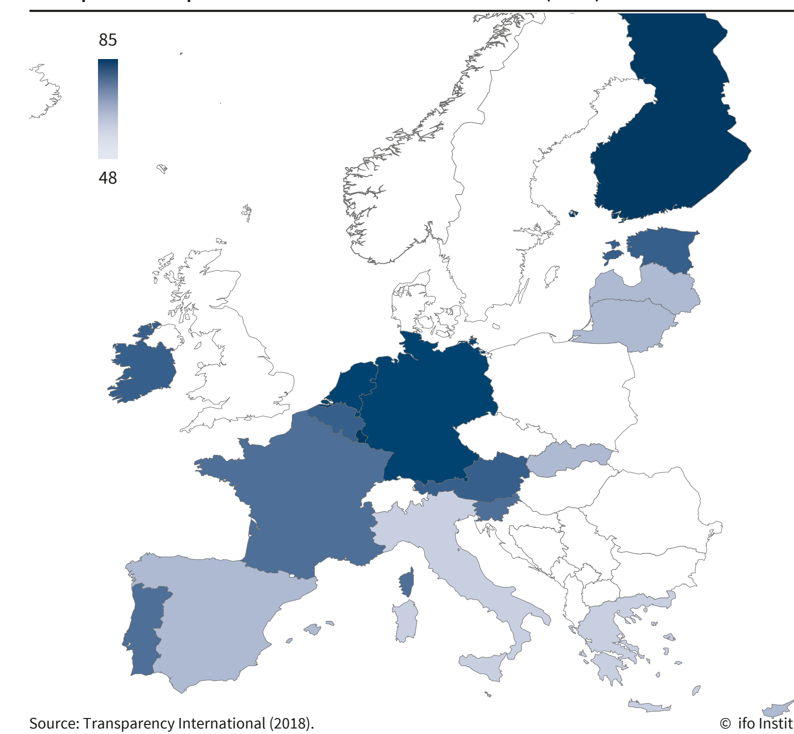
Figure 11 shows the overall sentiment of EU citizens towards the European Central Bank since 2000[3]. In the beginning and mid-2000s, the majority of respondents (40–50%) indicated their trust in the European Central Bank, while 20–30% did not and another 20-30% were undecided. However, as of 2007, confidence in the ECB has gradually declined. The year 2011 marks a turning point as of which most respondents said they tended not to trust the ECB, while the share of those tending to trust the ECB fell below 40%. In addition, the number of undecided respondents ("Don't know" answers) has declined since 2003.

Figure 12 compares the results from the autumn 2017 survey across Eurozone member states. When looking at the Eurozone average, 44% of respondents tended not to trust the European Central Bank, while nearly as many (39%) did and 17% were undecided. Confidence in the ECB was highest in Finland and the Netherlands, where over 60% of respondents indicated their trust in the ECB, followed by Luxembourg (54%), Belgium and Lithuania (both 52%).

The level of confidence plunged to by far its lowest level in Greece, where only 21% of respondents tended to trust the ECB, while 75% did not. Even in the UK, outside the Eurozone, more people had confidence in the ECB (29%). It is striking that respondents from major economies tended to have little confidence in the ECB, as the percentage of those who do not trust the ECB was above the EU average in 2017. In Estonia and Malta over 30% of respondents were undecided. This number was much lower in Greece and Belgium by comparison, suggesting that most of the Greeks and Belgians interviewed formed opinions about the ECB.

Figure 10

**Corruption Perception Index Across Eurozone Countries (2017)**



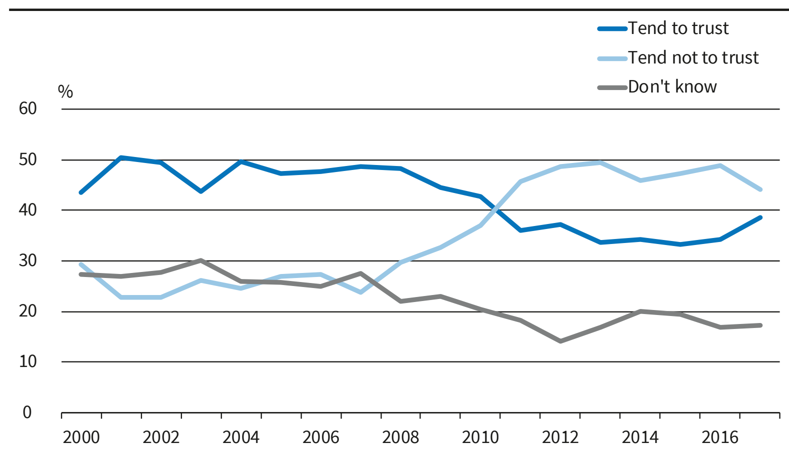

Source: Transparency International (2018). © ifo Institute

[3] The figure reports results of the autumn survey, except for 2005, for which the results of the spring survey are shown.

Figure 11

**Average Confidence of Eurozone Countries in the European Central Bank Over Time**

2000—2017

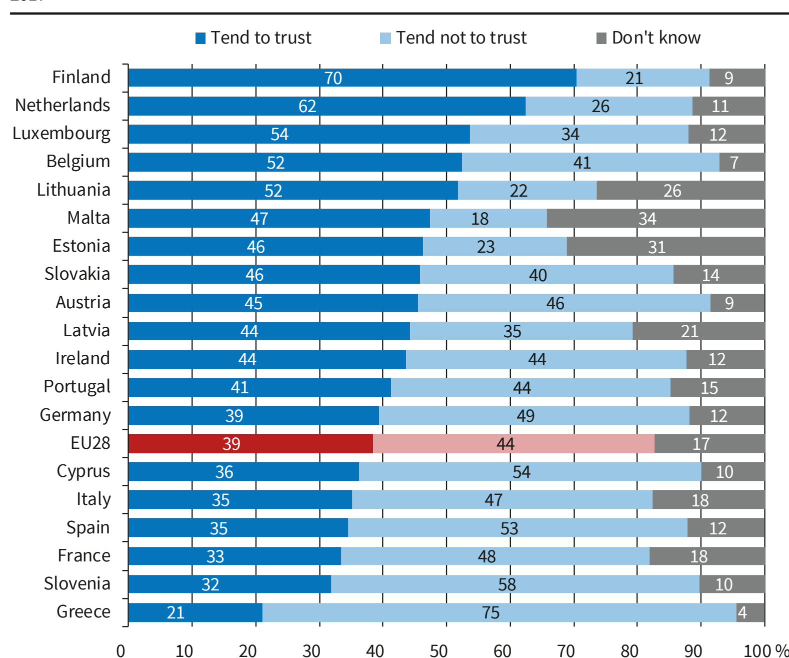



Source: Eurobarometer (2018). © ifo Institute

Figure 12

**Confidence in the European Central Bank by Eurozone Country**

2017




Source: Eurobarometer (2018). © ifo Institute

## CONCLUSION

To investigate the medium and long-term strength of the Eurozone, this article evaluated the economic performance of selected major euro area member states (France, Germany, Greece, Ireland, Italy and Spain) in six basic areas - growth, debt, unemployment, interest rates, competitiveness and corruption. While the two indices that measure the institutional environment do not show much variation across time, the economic indicators clearly indicate that the overall performance of euro area member countries since the euro's introduction has been quite diverse. Countries like France and Germany have achieved fairly high overall growth rates, while Germany is currently even more successful, especially in terms of unemployment levels. Ireland, even although severely hit by the financial crisis, managed an impressive catch-up in economic terms. To a lesser extent this is still true for countries such as Spain. Unfortunately, some countries have not been able to improve their standard of living since 2000. This is the case for the crisis-shaken Greece where the employment situation even deteriorated significantly, but it is equally the case for Italy, which achieved very meagre growth rates over most of the period considered. For almost all countries, the debt levels increased considerably following the financial crisis with most worrying increases in the countries heavily affected by the crisis. The general economic situation of each country also relates to the perceptions that citizens have of European institutions. Unsurprisingly, Greece displays the lowest confidence in the ECB among the countries studied, with Italy, Spain and France also expressing trust levels below the EU average.

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