

## **The euro area: the impossible reform**

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### **1. Introduction**

The settlement of a monetary union between heterogeneous countries, both at structural and institutional levels, with no adjustment mechanism (no fiscal federalism, no political agreement to allow the ECB to guarantee the national public debts), except competitive wage deflation, could only lead to divergent evolutions with recurrent crisis. Reforms have been adopted in emergency to avoid a break up (European Stability Mechanism, Outright Monetary Transactions, Quantitative Easing) but remain unfinished (Banking Union) or maladjusted (Fiscal Treaty). The way of adjusting internal imbalances is still asymmetrical. Deficit countries alone are obliged to adjust. Wage deflation and restrictive policies have replaced exchange rate adjustments and competitive devaluations. In spite of a macroeconomic improvement in 2016-2017, unemployment remains high in the south Europe and income inequalities very wide. There is an increasing polarisation around the German block and a split between north and south Europe. Social tensions are rising. With the world slowdown even Germany is threatened with a recession.

Intra-European exchange rate misalignments have been huge since the launching of the euro. They have caused large transfers at the benefit of countries with an undervalued euro and at the expense of countries with an overvalued euro. The impact of exchange rate misalignments on growth has also been significant. The necessity of a deep institutional reform has been reaffirmed with several typical alternatives: a reaffirmation of a no bail-out clause for member state governments; the fiscal federalism; the mutualisation of public debt; the creation of a Euro Treasury. These alternatives raise serious problems and are hardly realistic in political terms. More hybrid proposals have been put forward: the CEPR one, very technocratic and not convincing; the IMK one, more pragmatic but difficult to implement; the proposal of complementary currencies with an European clearing union; a political union of some core countries ready to accept a major leap forward; a Green New Deal to finance the energetic transition; more modestly, a simple European unemployment insurance system. However the status quo could prevail with only marginal inflexion. If there are many losers, there are also winners (the German block and the European élite); the euro is a powerful instrument to liberalise the wage nexus. But this status quo remains fragile.

The paper is organized as follows. A first section gives estimation of the intra-European exchange rate misalignments using a FEER approach and of their impact in terms of transfers and growth. A second section recalls the main alternatives which have been proposed to introduce deep institutional reforms and underlines the difficulties they raise. A last section concludes.

## 2. Intra-European exchange rate misalignments and their impact in terms of transfers and growth

### 2.1 European disparities and exchange rate misalignments

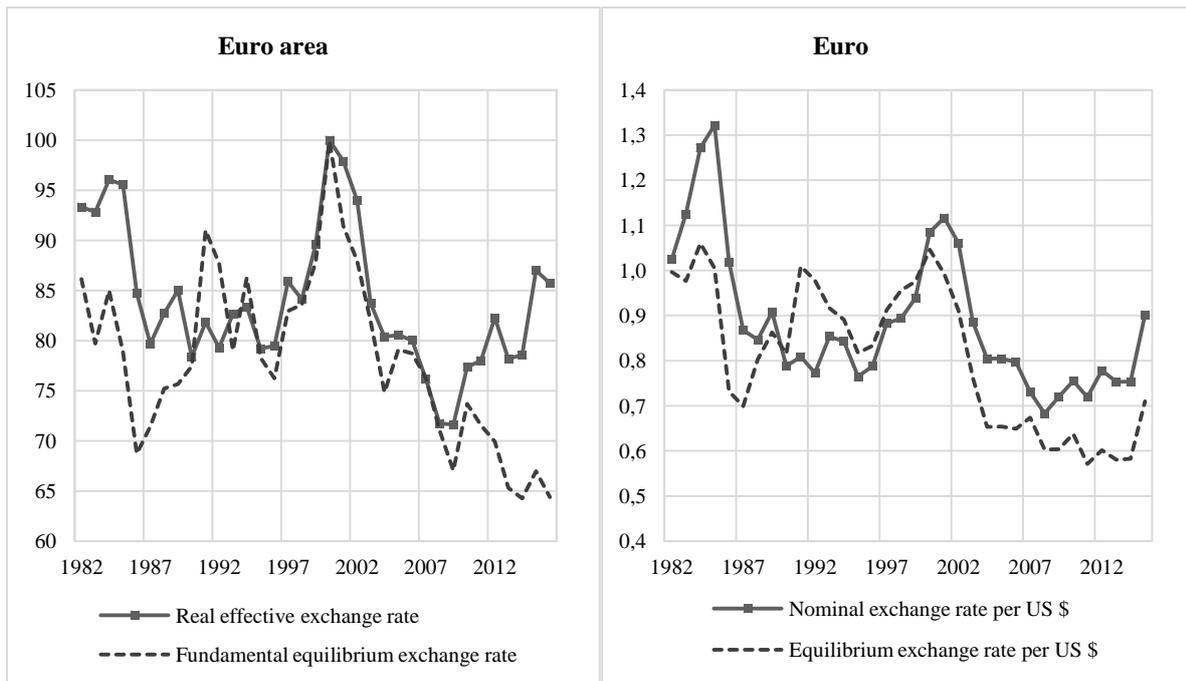
Intra-European exchange rate misalignments have been a key issue since the launching of the EMS in 1979. This question remains crucial even in the euro zone. Exchange rate equilibrium can be studied using two main approaches: the Behavioral Equilibrium Exchange Rate (BEER) which is an econometric approach (Clark and MacDonald, 1998); the Fundamental Equilibrium Exchange Rate (Williamson, 1983) and its more recent developments (Cline, 2008). The FEER has been preferred to the BEER, mainly because with the BEER there is no guarantee of the consistency of the estimation of the different equilibrium exchange rates at the world level and because the econometric method imposes that the exchange rate misalignments have an average value equal to zero over the sample period, which is a strong hypothesis. The FEER is defined as the level of exchange rate which allows the economy to reach the internal and external equilibrium at the same time. The internal equilibrium is defined as the full utilization of productive resources of one country without generating inflation pressures. The external equilibrium corresponds to a sustainable current account.

A two-step analysis has been implemented in order to estimate the exchange rate misalignments, first at the level of the main currencies (dollar, euro, yuan, yen, pound sterling), second at the level of the euro zone countries. For the main currencies the methodology used (Jeong et al., 2010) is a synthesis of previous works on the FEER (Jeong and Mazier, 2003) and of the Symmetric Matrix Inversion Method (SMIM) proposed by Cline (2008). A multinational model describing the foreign trade of the main countries and of the rest of the world is used to calculate the main currencies' equilibrium exchange rates.

For each country of the euro area an equilibrium exchange rate has been estimated using a simple national model of foreign trade. It has been shown that, for a relatively small country like the European ones, a national model gives results very close to the ones obtained with a multinational model where the studied country would be explicitly described (Jeong and Mazier, 2003; Duwicquet et al., 2018).

The following tables present the overvaluation ( $rc < 0$ ,  $e < 0$ ) or undervaluation ( $rc > 0$ ,  $e > 0$ ) for each "national euro" for the period 1982-2016 in real effective terms  $rc$  (table 1) and bilateral terms  $e$  against the dollar (table 2) where  $rc = (Rc - Rc^e) / Rc^e$  and  $e = (E - E^e) / E^e$ . The figure 1 shows the actual and equilibrium exchange rates of the euro in real effective terms and in bilateral terms against the dollar (basis 100 in 2000). At the level of the whole euro area exchange rate misalignments have remained limited since the launching of the euro and until the euro zone crisis of 2010. Since then, the euro has become increasingly undervalued, both in real effective terms and in bilateral term against the dollar, mainly driven by the widening current surplus of the euro zone.

Figure 1: Actual and equilibrium real effective exchange rates (basis 100 in 2000) and bilateral exchange rates against the dollar of the euro



Source: Duwicquet et al., 2018

On the opposite, misalignments for each “national euro” are important and quite different from what is observed for the euro itself. The relative position of each “national euro”, in terms of misalignments, is not permanent and can vary in the medium to long-run according to structural adjustments which affect each economy. The cases of Germany and France are interesting to examine first in that perspective. In the mid-1990s, the “euro-mark”, which was in fact the deutschmark at that time, was overvalued (nearly 7% in real effective terms, around 15% against the dollar) because of the consequences of the German reunification. It required a substantial transfer of resources from West to East Germany, induced a drift of unit costs and significantly reduced the German external surplus. At the official launching of the euro in 1999 the “euro-mark” was still slightly overvalued. This contrasted with the position of the global euro which, at that time, was close to equilibrium. Since the late 1990s, the German economy has realized a painful adjustment process by cost reducing and industrial restructuring with delocalization of activities. This strategy has significantly slowed down economic growth in Europe during this period but helped to rebuild new foundations for German competitiveness. As a consequence, since the mid-2000s, the “euro mark” has become undervalued (around 18% in real effective terms, around 35% against the dollar) while the euro, for the whole area, was pushed by the German surpluses and also became undervalued in the 2010s.

France is, for a large part, in an opposite situation. In the second half of the 1990s, the “euro-franc” was undervalued (around 15% in real effective terms and against the dollar). France took advantage of its long run strategy of competitive disinflation and of the German economic difficulties. This situation did not last. Since the mid-2000s, the “euro franc” became overvalued in real effective terms in contrast with a global euro close to its equilibrium value. This induced strong constraints on the French economy during this period and reflected structural problems of competitiveness which had remained unsolved since the

1990s. These problems had only been mitigated by the German transitory difficulties following the reunification and by the French disinflation strategy, which turned to be only a short term solution, without solving more structural handicaps.

Table 1: Undervaluation ( $rc > 0$ ) or overvaluation ( $rc < 0$ ) for each “national euro” in real effective terms (in %)

| Rc   | EUR   | FRA   | GER  | ITA   | SPA   | AUT  | FIN   | IRL  | NLD   | PRT   | GRC   |
|------|-------|-------|------|-------|-------|------|-------|------|-------|-------|-------|
| 1982 | 8.0   | -23.5 | 3.9  | -8.4  | 11.9  | 23.8 | -19.8 | -9.3 | -9.2  |       | 4.8   |
| 1983 | 15.2  | -13.9 | -1.3 | 0.3   | 34.4  | 21.4 | -23.5 | -5.4 | -11.7 | 6.5   | -5.7  |
| 1984 | 12.2  | -7.6  | 5.4  | -2.5  | 44.5  | 9.5  | -9.8  | -3.3 | -1.1  | 2.2   | -5.6  |
| 1985 | 19.1  | -23.0 | 0.3  | -11.9 | 24.6  | -4.2 | -21.5 | -3.4 | -9.1  | 20.4  | -38.8 |
| 1986 | 21.0  | -20.3 | 2.5  | -7.1  | 22.9  | -4.5 | -17.7 | -1.5 | -18.8 | 23.3  | 3.2   |
| 1987 | 11.0  | -25.9 | 1.4  | -6.7  | 23.5  |      | -19.2 | 0.2  | -18.1 | 20.5  | -2.2  |
| 1988 | 9.5   | -13.1 | 8.1  | -1.7  | 25.5  | 1.2  | -14.8 | 4.0  | -12.8 | 8.7   | 9.1   |
| 1989 | 11.7  | -9.0  | 9.7  | -7.6  | 9.4   | 6.5  | -24.6 | -1.4 | -8.2  | 19.2  | 10.2  |
| 1990 | 1.2   | -5.2  | 12.1 | -6.4  | 14.5  | 17.0 | -32.9 | 0.9  | -5.1  | 39.2  | 8.4   |
| 1991 | -10.6 | -2.8  | -0.4 | -5.6  | 16.2  | 22.5 | -55.6 | 8.8  | -2.9  | 40.8  | 33.6  |
| 1992 | -10.0 | 6.7   | 1.2  | -5.4  | 10.2  | 20.7 | -45.2 | 8.2  | -3.9  | 45.5  | 25.0  |
| 1993 | 4.5   | 6.2   | -4.0 | 10.1  | 7.2   | 10.4 | -13.2 | 9.2  | -6.7  | 26.5  | 16.4  |
| 1994 | -3.4  | 2.4   | -7.4 | 6.9   | 1.4   | 4.8  | -5.8  | -0.7 | -5.3  | 0.9   | 15.1  |
| 1995 | 1.2   | -0.7  | -7.5 | 8.2   | 9.6   | -1.5 | 5.1   | -1.7 | -7.5  | 3.8   | -0.1  |
| 1996 | 4.2   | 3.2   | -4.8 | 6.7   | -0.1  | -4.1 | 8.3   | -0.8 | -7.2  | -10.4 | -11.3 |
| 1997 | 3.5   | 12.9  | -1.6 | 5.4   | 1.1   | -6.1 | 20.1  | -1.5 | -3.5  | -18.5 | -8.2  |
| 1998 | 0.6   | 14.0  | -4.3 | 2.1   | 0.5   | 0.6  | 22.9  | -2.6 | -6.6  | -16.8 | -1.7  |
| 1999 | 2.0   | 19.2  | -7.3 | -1.5  | -5.0  | -2.0 | 21.6  | -0.3 | -3.3  | -21.4 | -7.2  |
| 2000 | 0.1   | 8.7   | -8.1 | -3.8  | -7.6  | 1.4  | 24.9  | -0.6 | -6.7  | -29.3 | -16.8 |
| 2001 | 6.8   | 6.8   | -2.9 | -3.1  | -7.9  | -7.1 | 25.3  | -4.0 | -9.5  | -36.1 | -17.4 |
| 2002 | 6.6   | 2.5   | 3.8  | -6.3  | -4.8  | 5.7  | 25.6  | -4.8 | -13.4 | -30.1 | -19.0 |
| 2003 | 2.2   | -2.9  | 1.3  | -8.5  | -3.2  | -0.4 | 15.2  | -3.6 | -7.7  | -26.1 | -9.1  |
| 2004 | 7.2   | -0.1  | 5.6  | -5.4  | -15.4 | -4.0 | 19.6  | -3.8 | -5.2  | -40.1 | 5.0   |
| 2005 | 1.9   | -4.6  | 5.3  | -4.1  | -20.3 | -2.2 | 7.8   | -4.8 | -5.7  | -46.1 | -7.6  |
| 2006 | 1.6   | -4.8  | 9.1  | -3.8  | -24.6 | 4.0  | 9.7   | -2.0 | -1.6  | -47.9 | -6.3  |
| 2007 | -0.2  | -6.0  | 13.1 | -0.7  | -26.4 | 11.3 | 15.5  | -0.9 | -1.5  | -34.5 | -5.2  |
| 2008 | 0.9   | -13.3 | 13.0 | -4.5  | -33.3 | 13.7 | 11.7  | -4.7 | -3.1  | -46.3 | -3.7  |
| 2009 | 6.6   | -8.3  | 13.9 | -2.9  | -10.2 | 3.0  | 0.2   | -0.7 | -2.7  | -34.4 | -8.5  |
| 2010 | 4.9   | -6.9  | 16.8 | -4.2  | -14.6 | 5.0  | 2.5   | -0.9 | 0.0   | -28.1 | -21.1 |
| 2011 | 8.6   | -10.1 | 16.8 | -5.8  | -22.9 | 2.6  | -5.9  | -2.5 | -1.2  | -19.6 | -53.1 |
| 2012 | 16.3  | -12.6 | 19.3 | -2.5  | -14.1 | 1.5  | -8.9  | -7.9 | -2.1  | -12.2 | -30.9 |
| 2013 | 18.0  | -5.0  | 18.7 | 1.5   | -3.6  | 2.2  | -7.2  | 1.4  | -0.9  | 6.8   | -20.3 |
| 2014 | 20.1  | -10.1 | 19.4 | 3.8   | -2.7  | -0.9 | -7.4  | 5.9  | -0.8  | 4.4   | -15.4 |
| 2015 | 26.1  | -8.2  | 18.7 | 2.4   | 6.1   | -2.3 | -6.7  | 12.8 | -3.9  | 8.6   | 1.9   |
| 2016 | 28.6  | -5.2  | 15.8 | 2.0   | 14.3  | -4.1 | -8.6  | 11.7 | -5.2  | 14.1  | -5.2  |

Source: authors' calculations

Spain and Italy are other interesting cases to examine. Following the devaluations that took place during the EMS crisis, the peseta and the lira were undervalued during the mid-1990s. But, like for the French franc, it did not last. After the launching of the euro, we observed an overvaluation of the “euro-peseta” and, to a lesser extent, of “euro-lira”. This overvaluation reflected large inequalities of competitiveness inside the euro area. Actually constraints were less important in the case of Italy than in the case of Spain, with the housing bubble during the

first half of the 2000s. The large overvaluation of the “euro peseta” (33% in 2008, in real effective terms) was largely related to insufficient productivity and weaknesses in R&D in a context of unsustainable economic growth (see tables 3 and 4 below). Portugal and Greece are another cases of southern European economies affected by the overvaluation of their currency since the second half of the 1990s. With a weak productivity, a peripheral localization and a specialization in low costs products, the Portuguese and Greek economies have had huge difficulties to invert this situation within the constraints of the euro area.

Table 2: Undervaluation ( $e > 0$ ) or overvaluation ( $e < 0$ ) for each “national euro” in nominal terms against the dollar (in %)

| e    | EUR   | FRA   | GER   | ITA   | SPA   | AUT   | FIN   | IRL   | NLD   | PRT   | GRC   |
|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1982 | 2.8   | -29.2 | 1.5   | -12.9 | 9.6   | 25.3  | -28.7 | -11.4 | -12.9 | 0.0   | 3.0   |
| 1983 | 14.1  | -10.4 | 3.2   | 4.5   | 42.8  | 31.2  | -26.6 | -1.2  | -7.9  | 14.2  | -1.3  |
| 1984 | 18.2  | 2.9   | 17.2  | 8.0   | 61.1  | 23.5  | -2.6  | 5.4   | 12.0  | 14.2  | 5.4   |
| 1985 | 27.4  | -8.9  | 16.6  | 2.5   | 43.1  | 14.4  | -11.7 | 10.5  | 7.7   | 43.6  | -29.2 |
| 1986 | 33.2  | 0.6   | 24.3  | 14.4  | 47.5  | 20.6  | -1.5  | 15.2  | 0.6   | 52.8  | 28.9  |
| 1987 | 21.6  | -12.5 | 17.2  | 8.7   | 42.9  | 0.0   | -7.8  | 12.8  | -6.2  | 44.0  | 15.0  |
| 1988 | 5.3   | -13.9 | 9.3   | -1.3  | 29.9  | 3.4   | -18.5 | 2.6   | -15.8 | 13.0  | 12.1  |
| 1989 | 5.1   | -10.6 | 9.7   | -9.2  | 10.5  | 8.8   | -31.5 | -5.6  | -10.9 | 26.5  | 12.6  |
| 1990 | -3.4  | -10.0 | 9.4   | -11.3 | 12.5  | 17.3  | -42.0 | -3.4  | -11.5 | 47.7  | 5.8   |
| 1991 | -22.1 | -20.2 | -17.1 | -23.5 | 0.9   | 8.5   | -77.6 | -2.1  | -23.1 | 33.1  | 21.9  |
| 1992 | -23.6 | -11.5 | -17.1 | -25.1 | -7.9  | 4.3   | -68.7 | -5.9  | -26.3 | 36.6  | 9.5   |
| 1993 | -7.1  | -2.4  | -14.2 | 1.5   | -1.1  | 3.5   | -25.7 | 1.1   | -18.4 | 24.8  | 10.0  |
| 1994 | -5.5  | -1.1  | -11.7 | 3.8   | -2.4  | 1.5   | -10.1 | -4.0  | -11.3 | -3.5  | 13.5  |
| 1995 | -6.6  | -8.0  | -15.8 | 1.9   | 4.1   | -9.4  | -2.0  | -9.5  | -17.4 | -2.4  | -7.5  |
| 1996 | -5.6  | -3.9  | -13.5 | -0.5  | -7.4  | -12.6 | 0.8   | -8.6  | -17.1 | -20.5 | -21.3 |
| 1997 | -3.4  | 9.8   | -7.4  | 0.7   | -3.4  | -12.2 | 17.5  | -6.5  | -9.2  | -28.9 | -14.9 |
| 1998 | -6.7  | 9.3   | -11.9 | -4.7  | -6.1  | -6.2  | 19.6  | -8.8  | -15.5 | -29.0 | -9.1  |
| 1999 | -3.8  | 17.4  | -13.2 | -6.5  | -10.7 | -6.9  | 20.0  | -5.0  | -9.1  | -33.4 | -13.4 |
| 2000 | 3.6   | 14.0  | -5.6  | -0.6  | -5.5  | 5.8   | 34.1  | 3.2   | -5.1  | -36.4 | -16.8 |
| 2001 | 11.8  | 16.9  | 5.0   | 5.2   | 0.3   | 1.5   | 38.2  | 2.2   | -3.2  | -38.2 | -11.9 |
| 2002 | 15.2  | 15.6  | 16.7  | 5.6   | 7.9   | 21.1  | 42.6  | 3.9   | -4.4  | -25.3 | -9.7  |
| 2003 | 15.1  | 11.8  | 17.0  | 5.8   | 11.8  | 15.8  | 34.2  | 7.8   | 5.2   | -18.7 | 5.0   |
| 2004 | 20.8  | 17.8  | 23.8  | 11.5  | -0.2  | 14.4  | 40.8  | 9.9   | 11.7  | -33.5 | 24.6  |
| 2005 | 20.7  | 15.1  | 26.7  | 16.0  | -4.0  | 18.9  | 31.0  | 11.9  | 13.6  | -41.1 | 12.2  |
| 2006 | 20.5  | 14.8  | 31.6  | 16.5  | -10.0 | 27.9  | 33.9  | 15.4  | 19.1  | -45.2 | 13.8  |
| 2007 | 8.1   | 1.9   | 25.0  | 8.2   | -24.4 | 25.4  | 28.5  | 7.0   | 7.4   | -36.9 | 3.0   |
| 2008 | 12.4  | -3.7  | 27.9  | 7.2   | -30.0 | 31.9  | 26.8  | 3.9   | 7.8   | -47.4 | 8.5   |
| 2009 | 17.6  | 4.0   | 30.2  | 10.8  | 1.3   | 19.5  | 13.8  | 8.6   | 9.7   | -29.3 | 4.8   |
| 2010 | 16.9  | 6.0   | 33.9  | 9.5   | -4.2  | 22.0  | 17.0  | 9.3   | 13.5  | -21.4 | -10.2 |
| 2011 | 23.1  | 6.5   | 37.9  | 12.0  | -9.9  | 24.5  | 10.8  | 10.6  | 16.7  | -4.9  | -43.8 |
| 2012 | 25.8  | 2.5   | 39.0  | 14.3  | 0.5   | 23.0  | 4.3   | 1.8   | 14.6  | 4.7   | -18.7 |
| 2013 | 26.0  | 10.5  | 37.2  | 17.9  | 12.9  | 23.0  | 4.9   | 11.9  | 15.0  | 28.2  | -7.2  |
| 2014 | 25.8  | 3.2   | 36.6  | 19.2  | 12.8  | 17.6  | 2.9   | 15.5  | 13.9  | 24.2  | -2.8  |
| 2015 | 23.9  | 1.3   | 30.8  | 12.5  | 20.2  | 12.5  | -2.3  | 20.2  | 6.4   | 26.4  | 12.8  |
| 2016 | 26.1  | 5.9   | 28.2  | 12.8  | 31.9  | 11.6  | -4.2  | 19.4  | 6.0   | 35.0  | 5.4   |

Source: authors' calculations

Ireland is an illustration of a catch up strategy which has been more successful, at least until the beginning of the 2000s. Until this period, the exchange rate has remained close to its

equilibrium. But, since 2002, the Irish economic growth has become more unbalanced with the housing bubble, although the overvaluation of the “Irish euro” remained rather limited. This illustrates the fact that small opened economies generally suffer less of exchange rate misalignments, as it can be understood from the equation giving the misalignment where the trade openness ratio plays a key role. The Portuguese economy, small but less opened, shows that this general rule suffers of exception in cases of larger unbalances due to structural weaknesses and of smaller degree of openness. After the financial crisis Ireland has realised painful adjustments through wage deflation and the Irish euro has become again undervalued.

Netherlands, Austria and Finland, three small opened northern and alpine European economies are the last cases to be examined. Netherlands and Austria have kept their exchange rates close to equilibrium during most of the period, although the Austrian and Dutch currencies were slightly overvalued during the second half of the 1990s and the beginning of the 2000s, due to stronger connections with Germany. On the contrary, the Finnish mark was more undervalued during the second half of the 1990s (around 20% in real effective terms), thanks to a large devaluation after the crisis of 1991-1992. This undervaluation has been progressively reduced and has disappeared in the 2010s, facing the difficulties of Nokia and of the Russian crisis. But the overvaluation remained limited thanks to structural adjustments and increasing R&D effort.

Beyond estimates of exchange rate misalignments of the global euro, important disparities are observed between “national euros”. The euro misalignments do not represent a pertinent indicator for each national euro. The misalignments are often more important for each individual euro area member than for the whole euro area. These exchange rates misalignments reflect divergent economic strategy (housing bubble in Spain and Ireland or wage deflation in Germany) but also structural heterogeneity between the north (Germany, Netherlands, Belgium, Austria, Finland) and the south (France, Italy, Spain, Portugal, Greece) of Europe. First, the northern Europe is more specialized in manufacturing (around 20% of total value added) while the southern Europe is increasingly specialized in non tradable goods (housing, trade, tourism) with a decreasing share of manufacturing sector (from 16% in 2000 to 13% of total value added in 2010). Second, the rate of innovation is significantly smaller in the south than in the north. The share of R&D in GDP is 1.5% instead of 2.6% in the north. Similarly, the number of patents registered by inhabitants is three times smaller in the south than in the north (table 3). Last, the active population is clearly less qualified in the south (table 4).

Table 3: R&D in % of GDP and number of patents registered (per millions of inhabitants)

|      | R&D   |       | Patents |       |
|------|-------|-------|---------|-------|
|      | North | South | North   | South |
| 1998 | 2.17  | 1.40  | 64.16   | 19.44 |
| 2009 | 2.65  | 1.64  | 67.26   | 20.90 |

Source: OECD, 2010

Table 4: Structure of the working age population by level of education

|      | North                                      |                    | South                                      |                    |
|------|--|--------------------|--|--------------------|
| In % | Below the second cycle of secondary school | Superior education | Below the second cycle of secondary school | Superior education |
| 1999 | 26   | 23                 | 52   | 17                 |
| 2008 | 18   | 27                 | 40   | 23                 |

Source: OECD, 2010

The proponents of the single currency hoped that a process of economic convergence would take place through more sustained growth promoted by lower interest rates, a reduction in transactions costs, the stimulation of competition, the expansion of intra-European trade and deeper financial integration. Right from the start, on the other hand, numerous economists considered that a monetary union among countries displaying great structural heterogeneity and with no adjustment mechanism except internal devaluation through wage deflation could only lead to divergent development and a polarisation of economic activity on the most competitive bloc.

In fact, a convergence of inflation rates and interest rates did take place. At the beginning of the 2000s the debt securities of Greece, Spain or Portugal seemed to be equivalent to German debt securities. This led to an investment boom, with capital flowing in from northern Europe, including massive speculation in Spanish and Irish real estate. Growth was slower in Germany, held back by wage adjustments under the Schröder reforms of the early 2000s. This apparent convergence disguised important imbalances. There was a wide divergence in unit labour costs with, in relative terms, big increases in Spain, Ireland, Greece and Italy and falls in Austria, Finland and, above all, Germany. Current account imbalances widened enormously, with deficits in the South in contrast to surpluses in the North. But these current account disequilibria were regarded as a secondary matter in the monetary union where the overall current account was close to balance. Rather, the key issue for governance in the euro zone was seen as public finance. Here things seemed to be going well. European countries had reduced their public sector deficits; Germany returned to balance in 2007 while Spain, Portugal and Ireland were regarded as models of budgetary rigour in complete conformity to the Maastricht norms.

On the eve of the financial crisis of 2008 the wide disequilibria due to heterogeneity appeared to be hidden. They were characterised by an undervalued euro for countries in the German block and an overvalued euro for the countries of southern Europe (including France) while for the euro zone as a whole the euro was close to its equilibrium value. The case of Italy is less clear as there is no evidence of overvaluation. This can be related to the strong divide between north Italy (with rather competitive small and medium firms) and south Italy (clearly less developed). These exchange rate misalignments are meaningful at the intra-European level if we recognize the existence of an equilibrium current account related to structural specificities of each member of the Euro Area. This kind of concept has been considered in

discussions on the extended Stability Pact which included other criteria than the public deficit and debt. These maladjusted exchange rates reflected the structural heterogeneity between northern and southern Europe with France in several respects in an intermediate position.

## 2.2 Exchange rate misalignments and implicit transfers

These misalignments of real exchange rates among the countries of the euro zone generated a gain or a loss in terms of cost competitiveness. They were the source of important transfers at the expense of the export sector and of the domestic firms competing with imported products in case of an overvalued exchange rate and to the advantage of the same sector in case of an undervaluation. In a monetary union, an equivalent transfer associated to the exchange rate misalignment can be computed. We present only the case of a bilateral exchange rate. A more complex model with a monetary union with two countries and the rest of the world can be found in Duwicquet et al., 2012.

$$\frac{Ep^*}{p} = (1+e) \cdot \frac{E_e p^*}{p} \quad (1)$$

With  $E$  observed bilateral exchange rate,  $E_e$  equilibrium bilateral nominal exchange rate,  $e$  bilateral misalignment,  $p$  domestic prices,  $p^*$  foreign prices. In case of overvaluation ( $e < 0$ ), we observe a lower price competitiveness and in case of undervaluation ( $e > 0$ ), we observe a higher price competitiveness. The equivalent transfer  $T$ , associated to the misalignment and which is, in fact, an additional unit cost, positive or negative, can be obtained by equalizing the actual level of competitiveness,  $Ep^*/p$ , and the equilibrium level of competitiveness, corrected by the unit transfer  $T$ ,  $Ep^*/p = E_e p^*/p(1+T)$ . We obtain:

$$E_e p^*/p(1+T) = Ep^*/p = (1+e)E_e p^*/p \quad (2)$$

$$1+T = 1/1+e \quad (3)$$

In case of overvaluation ( $e < 0$ ), we have a negative transfer which corresponds to an additional unit cost. The country suffers of a loss of competitiveness. In case of undervaluation ( $e > 0$ ), we have a positive transfer which corresponds to a reduction of the unit cost. This reduction improves the competitiveness of the country. In level, *ex ante*, in a case of overvaluation, the transfers represent an additional cost for exports ( $T.pxX$ ) and, in a symmetric way, an additional cost for local producers in competition with imported products ( $T.pmM$ ). For the overvalued country, the total transfer in percent of GDP is equal to  $T^*(pxX + pmM)/pY$ . In practice, an important share of imports corresponds to products which are not in competition with domestic products (raw materials, goods not locally produced). This share depends of the characteristics of the international specialization of each country. For simplicity, we suppose in the evaluation of these implicit transfers that only half of the imports is in competition with domestic products. This gives a total transfer in percent of GDP equal to  $T^*(pxX + 0.5pmM)/pY$ . In order to give a numeric illustration, an overvaluation de 10% ( $e = -0.1$  and  $T = 1/9$ ) combined with a degree of openness de 30% ( $(pxX + 0.5pmM)/pY = 0.3$ ) gives a transfer (an additional cost) of 3.3% of GDP ( $1/9 * 0.3 = 0.033$ ).

Taking into account the exchange rate misalignments previously estimated for each European country and their degree of openness, the implicit transfers generated by these misalignments can be computed for the whole period (table 5). The undervaluation of the euro for the northern European countries has led ex ante to important reductions of costs (around 10% of GDP in average at the middle of the 2000s). The southern European countries on the contrary have suffered of large increases of costs due to the overvaluation of the euro for them. Although less touched, France has also endured increased costs (around 5% of GDP in average at the middle of the 2000s). It must be recall that these transfers generated by the exchange rate misalignments are ex ante transfers. In order to appreciate the ex post impact, a model describing explicitly the intra and extra-European exchanges would be necessary.

Table 5: Implicit transfers due to exchange rate misalignments (in % of GDP)

| Average variations of the costs linked to exchange rate misalignments (in % of GDP) for each period (when >0 additional costs, <0 reduction of costs) |           |           |           |
|---|-----------|-----------|-----------|
|   | 2000-2004 | 2005-2008 | 2009-2011 |
| Germany   | -4.2      | -11.2     | -12.1     |
| Netherlands   | -3.7      | -8.0      | -9.3      |
| Austria   | -6.8      | -10.1     | -8.7      |
| Ireland   | -3.7      | 5.7       | -6.3      |
| Finland   | -12.0     | -7.5      | -2.0      |
| Italy   | -2.0      | -1.4      | -0.6      |
| France  | -3.6      | 4.3       | 5.1       |
| Spain   | 4.1       | 31.9      | 5.7       |
| Greece  | 2.6       | 12.9      | 9.2       |
| Portugal  | 14.6      | 29.8      | 13.9      |

Source: Duwicquet et al., 2012

### 2.3 Exchange rate misalignments and growth

Exchange rate misalignments reflect internal and external disequilibria. The question of their impact on economic activity is another issue which has been highly debated. Traditionally a lasting undervaluation sustains exports and reduces imports thanks to a better price competitiveness. It leads to transfers in favour of the tradable sector that can improve its profit and its investment and generates a virtuous circle. Growth is led by the net exports. Higher investment in the sectors exposed to the international competition can improve the productivity and the quality of the products that enhances the non-price competitiveness. This favourable dynamics can allow a progressive revaluation of the currency and an extinction of the initial undervaluation. However this virtuous circle is not secured. It assumes that the firms don't take advantage of the undervaluation to increase more their prices, inducing a higher inflation and a loss of the original advantage of price competitiveness. It assumes also that firms are not content with their initial favourable position and make effort to upgrade their products and the quality of their specialization.

Conversely a lasting overvaluation has the opposite effects. It reduces exports and fosters imports at the detriment of domestic producers. The export sectors suffer from negative transfers and reduced profits that limit their investments. A vicious circle follows with

deterioration of productivity and of non-price competitiveness that strengthens the initial overvaluation, unless a devaluation interrupts this sequence. However this vicious circle can be mitigated or even reversed. The overvaluation reduces the imported inflation, which improves the price competitiveness. A stronger competition from foreign producers encourages firms to increase their productivity and to enhance their non-price competitiveness. Bresser-Pereira, among others, has emphasized the need for a competitive exchange rate to sustain the development of the manufacturing sector (Bresser-Pereira, 2010; Bresser-Pereira et al., 2014).

Furthermore, this relation between exchange rate misalignments and growth is non linear. For many reasons exchange rate misalignments may have a decreasing impact on growth and foreign trade. There are limits to the improvement of foreign trade due to undervaluation. Exports cannot increase without limits due to supply side and many imports cannot be reduced due to problems of non substitutability. The international division of labour with the global value chains holds trade in tight constraints. Perverse effects can appear with induced inflation and change in the relative prices. High undervaluation may even have negative effects on growth. Symmetrically, there are limits to the imports' increase due to overvaluation. Exports can become less sensible to larger loss of competitiveness. This non linearity depends of the structural characteristics of each country, especially in terms of specialization, and can be studied in more details.

Without pretending to treat this question in its entirety, an illustration can be given. A non linear relation between exchange rate misalignments and growth has been estimated, based on exchange rate misalignments and on panel data for developed and emerging countries (Aflouk and Mazier, 2013). A Panel Smooth Transition Regression (PSTR) associated to the real exchange rate misalignments with a threshold effect has been used in complement to traditional explanatory variables used in the literature on growth (equation 4). In complement the GMM dynamic form is also provided (equation 5).

$$Y_{it} = \mu_i + \alpha y_{it-1} + \alpha'_i X_{it} + \beta'_0 rc_{it} + \beta'_1 rc_{it} g(rc_{it}; \gamma, c) + \varepsilon_{it} \quad (4)$$

$$Y_{it} = \alpha y_{it-1} + \beta X_{it} + \delta rc_{it} + \mu_i + v_t + \varepsilon_{it} \quad (5)$$

Where,  $Y_{it}$  represents the growth rate of real GDP per capita,  $y_{it-1}$  is the lagged logarithm of real GDP per capita,  $rc_{it}$  is the real effective exchange rate misalignment,  $g(rc_{it}; \gamma, c)$  is the transition function associated to the transition variable  $rc_{it}$ , to a threshold parameter  $c$ . The parameter  $\gamma$  determines the slope of the transition function.  $X_{it} = (X_{it}^1, \dots, X_{it}^k)$  is the matrix representing a vector of contemporaneous and lagged values of growth determinants,  $\mu_i$  is the vector of country fixed effects,  $v_t$  is the specific temporal effect and  $\varepsilon_{it}$  is an error term. The explaining variables are a measure of human capital stock (the human development index,  $HDI$ ), the inflation rate calculated from the consumer price index, the investment rate ( $I/Y$ ), the government expenditures ( $GOV$ ), the degree of openness to trade ( $OPEN$ ) and the foreign direct investment ( $FDI$ ).

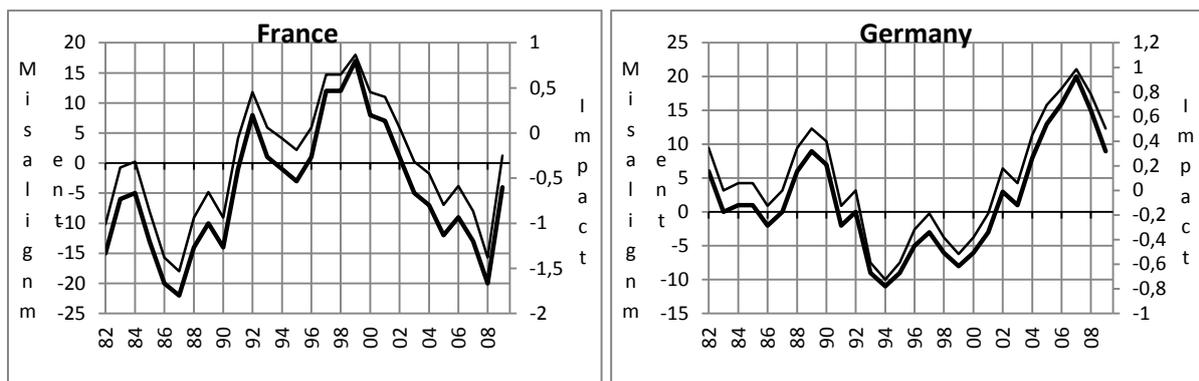
Table 6 gives the main results for developed countries. The undervaluation has a significant and positive impact on growth with a coefficient of 0.08, even beyond the threshold of 9% due to non linear effects. The figure 2 which represents the exchange rate misalignments for European countries and their impact on growth illustrates the significance of these effects. According to this relation, the negative impact of the overvaluation of the euro franc on the French rate of growth was around -1% at the end of the 2000s while the positive impact on the German growth of the undervaluation of the German euro was around 1%. Similarly, the negative impact on growth of the overvaluation of the euro for Spain and Portugal at the end of the 2000s was around -2/-3%.

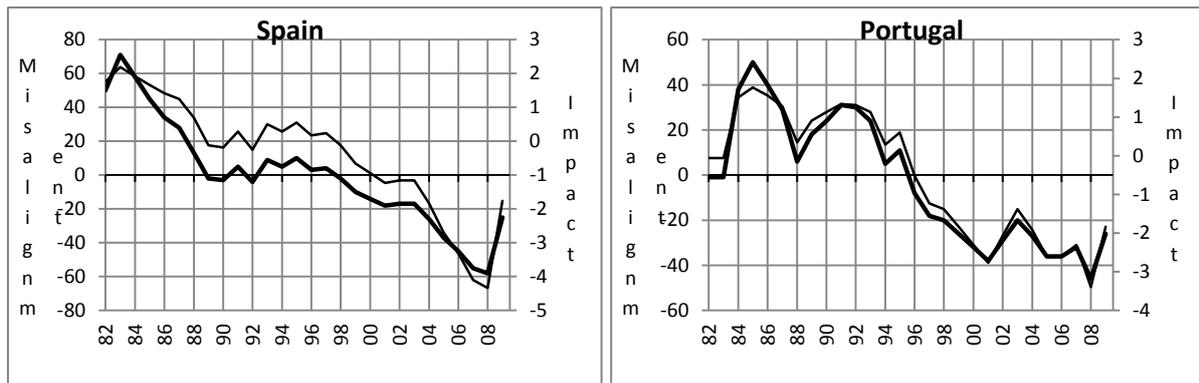
Table 6: Growth determining variables: PSTR and GMM for developed countries

| Variable                                 | PSTR         |               | GMM          |               |
|--|--------------|---------------|--------------|---------------|
|  | <i>Coeff</i> | <i>T-Stat</i> | <i>Coeff</i> | <i>T-Stat</i> |
| Initial GDP per capita (log)             | -0.048       | -6.954        | -0.43        | -19.53        |
| Inflation                                | -0.228       | -5.422        | -0.23        | -3.53         |
| Investment (% of GDP)                    | 0.466        | 8.137         | 1.38         | 15.15         |
| HDI                                      | 0.002        | 1.218         | 0.06         | 11.36         |
| Trade openness (% of GDP)                | -0.036       | -1.337        | 0.08         | 1.93          |
| FDI (% of GDP)                           | 0.158        | 4.844         | 0.06         | 2.05          |
| Real exchange rate misalignment          | 0.076        | 5.325         | 0.04         | 2.66          |
| Real exchange rate misalignment * $G(.)$ | -0.048       | -1.988        |              |               |
| $c$                                      |              | 0.090         |              |               |
| $\gamma$                                 |              | 5.000         |              |               |

Source: Aflouk and Mazier (2013)

Figure 2: Exchange rate misalignments and impact on growth in %





The impact of ERM on growth is calculated based on the following transition function  $g(rc_{it}; \hat{\gamma}, \hat{c}) = [1 + \exp(-5(rc_{it} - 0.09))]^{-1}$ .  
Source: Aflouk and Mazier (2013)

To sum up, intra-European exchange rate misalignments have been important and have reflected the structural heterogeneity of the euro zone and the effects of asymmetric shocks. They induced important implicit transfers between the European countries and had significant impact on their growth. Without appropriate adjustment mechanisms they contributed to create huge and unsustainable imbalances, as it has been illustrated by the euro crisis of 2010. Successive reforms have been implemented in emergency but have not been brought to an end. The necessity of a deep reform of the European institutional framework remains.

### 3. The impossible reform

Several typical alternative structures have been suggested: a reaffirmation of the no bail-out clause for member state governments; the fiscal federalism; the model of European budgetary integration with public debt centralised at European level; the creation of a Euro Treasury. These alternatives raise serious problems and/or are hardly realistic in political terms. It reflects the lack of solidarity and trust between European countries. The euro zone members have the same currency but their national public debts are not equivalent. There is no political agreement to allow the ECB to guarantee the national public debts, nor for permanent transfers between countries. The large political divergences between European countries add up in favour of the status quo.

Facing this risk, more hybrid proposals have been put forward. The first one by the CEPR (Benassy-Quéré et al., 2018), rather technocratic, is based on new rules and institutions: a simple public expenditure rule, the possibility of sovereign debt restructuring and a more credible no bail out rule, a euro area fund to help countries facing large shocks, the creation of a synthetic euro area safe asset, a reform of the governance. Analysed in detail these proposals are not convincing. The second proposal by IMK (Watt and Waztka, 2018) is an attempt to find a pragmatic compromise between unconditional support by ECB and national fiscal policy and strict conditionality on risk-sharing measures. It implies to have symmetrical and counter-cyclical policies in all member states and to increase mutual trust between all the

actors. However the difficulty of implementation of the IMK proposal cannot be ignored. A third scenario could be considered, a “New Political Union” gathering the countries ready to accept political and fiscal union (Piketty et al., 2018), which would be also rather unlikely. Last the proposal of a complementary currency has always partisans. In this context the minimalist compromise remains the more likely scenario.

### **3.1 Unconvincing or unlikely alternatives**

#### *A return to the no bail-out clause*

In this regime the original principles of the monetary union are restored and completed. States preserve or recover their budgetary sovereignty at the national level but reassert the no bail-out clause. States are no longer constrained by inappropriate rules such as the limit of 3% of GDP for the deficit or 60% of GDP for the debt, but are subjected to the discipline of the markets. There is no solidarity between States. In the event of over-indebtedness and default on the debt of a State the investors (that is, essentially, the banks) suffer a loss. In theory this is made easier because States are protected from bank failures by the Banking Union. To reduce the risk of crisis the banks have to cover their purchases of government debt with more of their own capital. Government bonds are no longer regarded as risk free from the point of view of prudential supervision. Experience shows, however, that investors do not always assess accurately the solidity of States. To avoid large-scale panics the European Stability Mechanism could be activated and the debt rescheduled by means of a strictly controlled adjustment plan.

This model has resonated to some extent in Germany (Fuest et al., 2016). In theory it gives autonomy back to the States while retaining the possibility of a stabilisation role for the EU in the event of an asymmetric shock, at least while the State concerned was regarded as solvent. It avoids both the ex ante and ex post co-ordinations and controls which function very badly.

But there are many difficulties. The possibility of a crisis of over-indebtedness leading to debt restructuring inhibits a State’s capacity to use budgetary policy to respond to an asymmetric shock. We come up against the basic problem posed by the functioning of the euro zone. To avoid costly, difficult to control, dislocations, general patterns of convergence in tax regimes and public expenditure would be necessary. The budgetary autonomy which is supposedly recovered would be a trap. Government bonds would lose their status as risk-free asset which is one of the pillars of the financial system and the functioning of the financial system would be impaired. There is a risk that crises in the public finances could be amplified. This regime rests partly on the Banking Union which is unfinished. The failure of a very big bank would be difficult to manage and the resolution fund does not have sufficient resources. Lastly, in the event of a restructuring of its debt the size of the State concerned could raise a problem. The limits of market-based regulation would appear if a large State such as Italy were affected.

#### *The model of fiscal federalism*

In this model a stabilisation function is introduced at the level of the euro zone by establishing a federal budget financed by new taxes (a tax on financial transactions, a carbon tax) or by moving some taxes from national to euro zone level in order to avoid a ruinous race to the bottom (taxes on interest on savings and on dividends, taxes on corporate profits). In the very probable case of difficulties in establishing such a fiscal base, a simple borrowing capacity would be introduced for crisis periods. In both cases transfers or investments could be undertaken to assist States affected by negative shocks.

As for the previous regime budgetary sovereignty would be restored to member States with no constraining European rules but this would be matched by a reassertion of the no bail-out principle. Consequently, there is a possibility of debt restructuring in cases of over-indebtedness. This is what can be observed in the US, where the States of the union and cities are responsible for their own debts and where the federal government does not impose rules. Chapter 9 of the bankruptcy code provides the framework for debt restructuring of cities, counties, townships and school districts and of public agencies (case of Jefferson County, Alabama in 2011, Detroit in 2013). But States cannot access chapter 9. In the event of a negative shock, as well as the stabilisation effects linked to the working of the federal budget, there may be transfers or loans from the federal budget, accompanied by sanctions and direct budgetary control (New York in 1975, Columbia in 1996). More recently, however, a debt restructuring procedure has been carried out in Puerto Rico together with controls over its budget.

Transposing this American model into the European context would involve several problems which would be difficult to overcome. The size of the federal system is large in the US, which contributes to explain its efficiency. In 2015 the federal expenditures represented around 25% of the US GDP, which were split between 25% for health care, 24% for social security, 16% for defence, 16% for non defence discretionary expenditures (like education, justice or research), 13% for non mandatory expenditures (like food coupons) and 6% for the interests paid. The establishment of such a federal budget is hardly probable in the euro zone because of the absence of any spirit of solidarity among euro zone countries and the scale of the changes which it would require. A less ambitious solution would involve opting for a mechanism where there were no permanent transfers across States (States being net contributors or net beneficiaries according to the changing circumstances) and where, over the long run, accumulated transfers would be close to zero. Several studies, of which the first go back to the early 1990s (Italianner and Pisani-Ferry, 1992) have shown that a common system of unemployment insurance at the European level would meet this objective and achieve a certain macroeconomic stabilisation at a limited cost (Benassy-Quéré et al., 2016). It would be limited to periods of crisis and based on changes in the unemployment rate rather than its level. To illustrate the possible order of magnitude one can point to the American unemployment insurance system which supported some 0.4% of GDP each year between 2008 and 2011. But the successful introduction of even such a relatively modest mechanism would presuppose that a minimal harmonisation of labour markets had been achieved in order to avoid the same shock having opposite effects in different countries. Now the labour markets are very heterogeneous and even a minimal harmonisation would take time. And the

more successful countries fear having to contribute more than the countries with a weaker performance.

Finally, the no bail-out principle would raise the same problems as in the previous regime. The American model, combining a federal budget with a no bail-out principle cannot be transposed to the euro zone. In the US the federal debt represents 100% of GDP, that of the states and municipalities about 30%. In the euro zone there is neither a federal budget nor European debt and all public debt is at the national level. To reassert the no bail-out principle for member States would be a destabilising factor and a constraint on national budgetary policies.

### ***A Model of European Budgetary Integration***

This model draws lessons from the problems raised by the two models considered above. It starts from the observation that the principle that each State is individually responsible for its debt leads to an increased risk of crises of public debt even for countries regarded to begin with as solvent. To make it possible for the euro zone to function a mutualisation of at least part of the debt would be introduced. Mutualisation could take different forms.

The most natural form would be a European fund for the redemption of public debt, issuing long-term debt instruments (Eurobonds) and mutualising national debts above the threshold of 60% of GDP. Debts below that threshold would remain the responsibility of the member States because it would be too costly to mutualise the whole of the debt. However the market value of the public debt which would not be covered by the Eurobonds could decline or, even, collapse. The banks would therefore be unable to use it as collateral for refinancing at the ECB which could be at the source of a financial crisis. Another solution which is sometimes put forward, to mutualise debts below the 60% threshold and leave debts above that level to the member States, seems to be less realistic because it would leave the most indebted States under market pressure. The ESM could play the role of redemption fund and organise the exchange of national debt for the European debt it would issue. This would require a substantial increase in its capital to allow it to carry out operations not in its original mandate.

However that may be, the mutualisation of debts would help to bring down the cost of the debt and to reduce the risk of default by the most indebted countries. There would be a transfer to the disadvantage of the less indebted countries linked to the difference in interest rates and the collective management of risks. With the diffusion of Eurobonds as substitutes for national ones, the banks which hold the bulk of national bonds would be protected against the tensions which could come from the most fragile countries.

But to counterbalance the mutualisation of debts there would have to be substantial control over national budgets to avoid the risks of slippage in countries which are insufficiently disciplined in their public finances. Two contrasting methods can be envisaged. The first would rely on the greater budgetary discipline imposed by some independent body such as the European Fiscal Board, created by the Commission in 2005, whose role might be extended. On the basis of its diagnosis (favourable periods permitting budgetary surpluses, unfavourable ones allowing wider deficits) it would fix binding limits to the overall position of national

budgets. The second method would be based on democratic progress with the establishment of a parliament of the euro zone which would determine broad budgetary guidelines for the euro zone as a whole and the allocation of corresponding targets to individual countries. The comparative strength of different countries within this euro zone parliament (23% for Germany, 50% for France, Italy and Spain if they formed a bloc, 27% for the others) allows some commentators to hope that a majority less inclined towards austerity might emerge. It's far from obvious that this would happen. In any case, whether the procedure is technocratic or more democratic, it would establish tutelary supervision over the broad structure of national budgetary policy. The importance of that problem should not be underestimated. Further, there is the reluctance (or even the straight refusal) of the Germans to accept the largest part of the costs of this mutualisation. All this explains why nothing has come of this idea which was put forward at the beginning of the 2010s, in spite of the way it could make the monetary union more viable.

Beyond these observations, two basic problems would remain unresolved: macroeconomic stabilisation and the heterogeneity and unequal competitiveness of member States or, in other words, the persistence of misaligned real exchange rates.

The problem of stabilisation would arise since, because of the budgetary rules to be introduced, the highly indebted countries would have no more room for manoeuvre in the case of a negative shock. In theory the solution would involve a federal budget. This would be difficult unless it took the form, as discussed above, of a small budget making temporary transfers to stabilise economic activity but required to balance these out over the cycle, or the form of a European unemployment indemnity which, as we have seen would be equally difficult to organise. Another mechanism which has been suggested is the creation of national adjustment accounts to smooth out public expenditure over the cycle (Benassy-Quéré et al., 2016). In a period of crisis certain expenditures could be taken out of the calculation of the deficit and transferred to the adjustment account. They would be taken back into the budget calculation when things had returned to normal. The ECB would play a central role in the functioning of this technocratic arrangement in order to avoid it becoming a basis for excessive budgetary autonomy at member State level.

The persistence of misaligned intra-European real exchange rates, illustrated by current account surpluses in Germany and deficits in France, is more problematic, even though they have been reduced. In 2016 the euro remained under-valued for Germany and over-valued for France. In the framework of a monetary union there is no mechanism which can respond in a satisfactory way. If wage deflation in the south of Europe is rejected and wage increases in Germany are difficult to bring about then there only remain reductions in taxes and other charges such as the CICE (Crédit d'impôt pour la compétitivité et l'emploi; tax credit for competitiveness and employment) which have a high budgetary cost and thus cannot deal with the problem. Industrial policies aimed at improving non-price competitiveness could also contribute to the response to the problem. They ought to be used but are difficult to design and to implement and only make a difference in the long term.

European budgetary integration would amount to a considerable leap forward. The mutualisation of national debts might be used to avoid the need for a federal budget. Member States would no longer be threatened by the no bail-out principle but the counterpart for this would be a loss of autonomy in national budgetary policies which would be controlled by an independent European institution or a euro zone parliament. This would be a difficult hurdle to clear and beyond it two problems would remain. For stabilisation purposes some substitute for a federal budget would have to be introduced and it is not obvious how this could be done. Nor would a mutualisation of debts resolve the problem of misaligned real exchange rates among European countries and the structural imbalances linked to the heterogeneity of the euro zone.

### *The creation of an Euro-Treasury*

The creation of a Euro-Treasury (Bibow, 2016) is based on the distinction between current expenditures and investment expenditures. In the national budgets the current expenditures should be balanced. The investment expenditures (around 3-4% of the GDP) would be financed by indebtedness through a specific account managed by the Euro-Treasury. This one would get into debt and would issue euro-bonds. It would reverse investment grants to national governments in line with member states' GDP shares (or with the ECB's capital key). The same structure would be used to calculate their interest payment bonds. The Euro-Treasury would raise taxes to meet the interest service on the common debt. The national debts in % of GDP would decrease tendentially while the common European debt would rise and could cap at 60% of GDP at medium-long term.

The idea of the Euro-Treasury is attractive. It allows the funding of the public investment expenditures which have suffered long lasting erosion in the past and a progressive increase of a genuine European debt without mutualising the existent national public debts and without intra-European transfers. It creates a counterpart at the fiscal level to the ECB which, in case of crisis, would have with this European debt the possibility to act as a lender of last resort in a less controversial manner than with the current national public debts.

But it raises several difficulties which make the project not very operational. First, it is based on a fiscal rule, the "true golden rule for public finance": current expenditures in equilibrium, public investment expenditures financed by government debt, as they can improve the productive potential and the future fiscal income. This rule has an objective basis in spite of the difficulty of definition of the notion of public investment. In practice it is far from being accepted at the European level, especially in Germany. It would lead to a permanent public deficit around 3-4% of GDP.

Second, the public investment expenditures would be financed by a European debt but would always be managed at the national level, which is well adapted for practical reasons. The problem of the control of these expenditures would none the less exist, as in the case of mutualisation of the national debt. Which institution would be in charge of this control beyond the national governments, a technocratic institution as a European Fiscal Council or a parliament of the euro zone?

### 3.2 Looking for operational compromises

The alternative architectures for the euro zone considered above raise a multiplicity of problems and/or are hardly realistic in political terms. More pragmatic proposals of varying kinds have been put forward.

#### *Reconcile market discipline and a limited solidarity*

The proposal coming from the 14 French and German economists (Benassy-Quéré et al., 2018) wants to be constructive and tries to reconcile risk sharing and market discipline with a very limited form of solidarity (Sterdyniak, 2018). First, the current fiscal rules are too complex and would be replaced by a simple one: the growth of public expenditures must not exceed the long term GDP growth and must allow a reduction of the public debt. This rule would be in practice imprecise and would be very controversial. More worrying, if the public expenditures are considered as excessive (we will see below by who), the surplus of expenditures would be financed at a higher cost by the markets and the associate bonds would be downgraded.

Second, the public debts would be risky and could be restructured according to the principle of no bail out. Banks would take variable risks according to the countries. In this framework the Banking Union would be completed to make a firewall between bank risks and public debts. A system of deposit insurance would be created but the banks' assets would be diversified according to the public bonds of the different States. The insurance premium paid by the banks would depend on the specific country risks. Restructuring of public debts would be possible in case of necessity under the control of the European Stability Mechanism (ESM). This would encourage the financial markets to impose risk premium and would favoured the speculation on public securities.

Third, a Fund would be created to help euro zone's countries in the event of crisis with the usual strict conditionality (fiscal rules, European semester). Transfers would be temporary. The contributions of the member states to the Funds would be so much higher than the country is more instable and has been using the Funds. In other words it would be the countries the most in difficulty in the past which would more contribute to the Funds and finance the countries now in difficulty. The countries in better economic situation would less contribute. A strange conception of the solidarity.

Fourth, a synthetic safe asset without risk would be proposed to investors as an alternative to national public debts considered as potentially risky. It would be a basket of public debts of the different States whose only the most secured segments would be kept. In practice, the German bonds would occupy a central place in this synthetic asset. Such a framework would only accentuate the financial disparity of the euro zone and would offer a new field for the speculation.

Last, the supervision of the national fiscal policies would be ensured by an independent European commissioner. The president of the Euro-group, Finance minister of the euro zone, would have the decision-making power.

On the whole this CEPR proposal is a new flight forward with the reaffirmation of the principle of no bail out, a strengthening of the financial markets, a risk of more financial instability and insufficient accompanying measures (the European Fund). The technocratic control would be reinforced.

### *A coherent and practical framework*

The second proposal, made by IMK (Watt and Watzka, 2018), is an attempt to find a pragmatic compromise between unconditional support by ECB and national fiscal policy (which stabilises but may favour moral hazard) and strict conditionality on risk-sharing measures (which limits moral hazard but may be destabilizing through financial markets). It implies to have symmetrical and counter-cyclical policies in all member states and to increase mutual trust between all the actors. Unconditional and unbureaucratic support can be given for small interventions to avoid self-fuelling crisis. More conditionality would be introduced in case of greatest support but intervention would also be exerted on surplus countries. Based on these principles, three levels of action can be distinguished.

First, the Banking Union must be completed. Beside the Single Supervision Mechanism and the Single Resolution Mechanism, an area-wide deposit insurance mechanism must be created, irrespectively of which member state the bank is located in. This lack of any national compartment is crucial. It would require a fiscal back-stop to support unconditionally the Deposit Insurance Fund and this could be done through the ESM.

The lender of last resort function of the ECB needs to be strengthened. Instead of only accepting government debt of sufficient rating according to private agencies, ECB could accept all government debt considered as sustainable in a fundamentals-based analysis. In order to reduce the risk of abuse, a preventive approach should be implemented. Conditionality could be introduced on the basis of politically legitimated decision.

Second, symmetric macroeconomic policies should be implemented to prevent imbalances and insure against macroeconomic risk. The CEPR proposal based on an expenditure rule with a debt target is supported in spite of its limits. Collective support measures are also needed in the prolongation of the Juncker Plan and the European Investment Stabilisation Function but the amounts remain too limited and the procedure too complex. Cross border automatic stabilisation would be necessary but technical and political obstacles are numerous. Among the set of proposals, the European unemployment insurance system is the most well known working as a reinsurance scheme for national systems but concrete implementation remains an open question. More broadly the necessity to move to the euro area level with an enlarged budget and a borrowing capacity is underlined but the political obstacles are huge.

Third, institutional reforms should help to improve coordination mechanisms in order to promote convergence and more symmetric evolutions. The emphasis is put on soft

coordination mechanisms: creation of an Advisory board for macroeconomic convergence at the national levels; enlargement of the Macroeconomic dialogue and of the Macroeconomic Imbalance Procedure at the European level; elaboration, within the framework of the single monetary policy, of a broad macroeconomic policy mix including fiscal, wage and price developments.

On the whole, the IMK proposal is an elaborated attempt to find a compromise between all the constraints which exist within the European monetary union. However the difficulties of implementation of the IMK proposal itself cannot be ignored in most of the fields. The euro area deposit insurance mechanism and the new form of lender of last resort function would face political obstacles. The soft coordination would be requisite but appears hardly manageable.

### *The temptation of a “New Political Union”*

The recent appeal of Piketty et al. (2018) for a new democratic Treaty is in the federalist perspective, but with some specificity. He is in favour of a European budget of around 4% of the GDP which would be discussed and voted by an assembly gathering the countries ready to participate and composed for 80% of members of the national parliaments. The resources of this budget would be based on some new taxes on large companies, on the higher incomes and wealth and on CO<sup>2</sup> emission. Half of the resources would be reversed to the national states to finance public investments, 25% would be devoted to education and the other 25% to environment and migration policies. Last, in order to make the project more “acceptable” by the public opinion, transfers between member states could not be above 0.1% of GDP.

This project seems attractive but suffers from weaknesses. An increased taxation of financial assets and of profit, although desirable, could lead to capital flights and outsourcing in the European countries staying outside this new Union. Retaliation could be necessary in case of too large capital flights. If there is no transfer between members of the new Union, the project would lose relevance. Disparities between countries would remain, especially in terms of exchange rate misalignments (at the advantage of Germany currently). In this Union divergent evolutions would remain due to the structural heterogeneity. The adjustments would only be possible through real devaluations (in practice through wage deflation, as the coordination of the wage policies, although preferable, is difficult to implement) or through labour mobility (which has a more limited impact and raise other problems). Structural change with an improvement of the non-price competitiveness of the southern European countries would be a better track but is a long term and complex strategy. Last, within the new Union the relations between the central bank of the union (to be created) and the national public debts would not be fundamentally different from what they are within the euro zone. The Italian public bonds could hardly be considered as equivalent to German ones. The existence of a majority in favour of such a project is far from being evident.

### *An ultimate spare wheel, a complementary currency*

The previous assessment has underlined how difficult it is to find a practicable answer to the current weaknesses of the euro zone. An ultimate spare wheel, the creation of a fiscal

complementary currency, has always some partisans (Théret and Coutrot, 2018). The idea is simple and has been defended since a long time, especially in the Greek case (Papadimitriou et al., 2014; 2016). The euro would be kept as a common currency but would be completed by a national parallel currency under the form of Treasury bills of a small amount (5 to 50 euros), with a limited duration, but renewable. This mean of payment, designated as euro-peseta or euro-lira, would be backed as other public debt by the future tax revenues. It would be kept at parity with the euro, without being freely convertible on an exchange market. In that sense it would not be a true currency. But it could be used by the State to pay civil servants' wages, social transfers and public procurement. Reciprocally the State would accept these bills in payment of taxes at the same parity and without restriction. This guarantee is a key issue to allow the social acceptance of this complementary currency. According to its advocates, it would reduce the austerity policy and help to implement recovery policy by stimulating the demand side. Due to the non convertibility of this complementary currency, the producers of local goods would be advantaged by comparing with the foreign producers which would be reticent to accept this new currency. A self-centred recovery could be developed. All this would help to reduce the public debt, directly because the State would become less dependent from the financial markets to finance its expenditures, indirectly as the recovery would increase the GDP and reduce the debt ratio.

In practice, the positive effects seem to be overestimated by the advocates of the complementary currency. The self-centred recovery could be limited as it would be quite difficult to favour the producers of local goods. The firms would be reluctant to accept to be paid in this parallel currency as it would be difficult to use it after for other purchases. The positive loop stimulating the activity would exist but could be limited and reduced to the simple return effect on the taxes which would be paid with the complementary currency. The question of the social acceptability of this new (but non convertible) currency is not sufficiently discussed by its advocates.

### *A minimalist compromise*

The solution of a minimalist compromise at the European level seems the most likely. A budget of the euro zone has been accepted but is reduced to a simple line in the EU budget which would itself suffer of strong constraints. The achievement of the Banking Union is considered as a priority but the system of insurance deposit would only be managed at the national level, for lack of sufficient solidarity. Likewise, the Resolution funds would remain with an insufficient endowment, but the possibility of a complementary support by the ESM remains in discussion. The transformation of the ESM in a European Monetary Fund able to intervene in case of crisis of some countries, including in a preventive way or in managing debt restructuring, is more unlikely. The competition policy would remain the core of the EU with a race to the bottom in matter of taxation and the retention of the unanimity rule which is paralytic. Progress could be considered in some more limited fields, a harmonized definition of the consolidated tax base for the corporate income tax, some progress in the taxation of the GAFA, a European fund for investments in the breaking technologies and some forms of control of foreign investments in the EU. This compromise would be fragile in case of economic turnaround.

The Multiannual Financial Framework for the EU for 2021-2027 presented by the European Commission (2018) is revealing the existing constraints. “Do more with less” is the master word. The targets have been multiplied with less resource. New fields of intervention have appeared (border management, defence, migration policy, neighbourhood cooperation) with limited institutional basis. Debates on the euro zone governance don’t appear. Without surprise the common agricultural policy and the cohesion policy which represent each around 36% of the total of the budget are the main potential sources of budget savings to finance the redeployment of the expenditures.

#### **4. Conclusion**

The euro zone could survive with marginal ameliorations (reduced version of a Green New Deal to stimulate the investments for energetic transition, mini budget of the euro zone reduced to a simple line of a skimpy EU budget, at best a modest version of an European unemployment insurance system) but would remain in a poor shape. A recovery policy through public expenditures and wages would be welcome in surplus countries like Germany which are confronted to the world slowdown but they face strong resistance. The general framework would remain unchanged. The belonging to a monetary union where the single currency is a foreign currency for each country implies the continuation of liberal adjustment policy. National budgetary policies remain under strict control. National public debts exert strong constraints as there is no room for manoeuvre like in the US with the possibility of intervention of the FED or like in Japan where the outstanding public debt (more than 200% of GDP) is held by domestic agents, mainly the Central Bank and public financial institutions that reverse to the State the interests they receive.

In spite of its weaknesses the euro zone system could resist as, if there are losers (southern European countries, unemployed persons, precarious jobs even in the Northern countries), there are also winners, the German block and the European élite. The public debt appears as an efficient weapon to question the social model which was at the heart of many (but not all) European countries. The pension system and the health system are particularly concerned in southern countries like France or Italy. They can be at the source of large public expenditures cuts, reducing the public system to a minimum while opening the rest to private financing for people who can afford it. This project has a relative consistency but can meet resistance that potentially can lead to a burst of the monetary regime.

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