

EURO: AS EXPECTED, GAINS AND COSTS

Ten years ago, eleven European countries, since joined by five others, gave up their national currencies to create the euro. This anniversary is the occasion to evaluate whether the promises regarding the euro were kept. Various studies undertaken on French exports indicate that the single currency indeed produced the expected microeconomic benefits of a reduction in the transaction costs and greater price transparency. However, the single currency policy has led to strong divergences of real interest rates between countries, whose effects have not been corrected for lack of suitable macroeconomic co-operation. Ten years after the creation of the euro, the bursting of the real estate bubble in certain countries of the zone and the consequences of the financial crisis point to the necessity of strongly counter cyclical macroeconomic policies in the monetary union.

■ Why the euro? A short reminder

The idea of the euro arose long before the 1990s. In 1969, the six heads of state and government of the European Community adopted, at the Hague Summit, the principle of an economic and monetary Union, then entrusted the drafting of the first report on the monetary union to the Werner committee. Also during the Sixties, theoretical tools for monetary zones were created. The seminal paper was that by Robert Mundell, published in 1961.¹ What should the fixed exchange system of Bretton Woods, which allows world imbalances to accumulate, be replaced with? Should all national currencies be flexible between each other, or are there zones in which foreign exchange rates can be fixed? The analysis of the microeconomic benefits and the macroeconomic risks associated with fixed exchanges within a zone makes it possible to derive the borders of an optimum currency area:

♦ Within a monetary zone, uncertainty on bilateral foreign exchange rates as well as currency exchange transaction costs (bank charges during exchanges of goods and services or movements of capital) disappear. An expansion in trade is expected within the zone, as well as an intensification of competition, leading to price convergence. The resulting welfare gains are all the more important as the potential for trade creation is important.

♦ Being a member of a monetary zone removes from each country its monetary independence. This has no consequences if the activity and price cycles are well correlated within the zone. However, the loss of the monetary tool can be a severe issue for countries affected by specific shocks due to its sector specialization, the direction of its trade or any particular social or political event. In this case, stabilization requires high international mobility of the production factors within the zone. Hence, the initial degree of integration can be considered as a prerequisite before economic union is enforced.

Consequently, the debate regarding the appropriateness of the creation of a European monetary union has divided economists. Were Eurozone countries integrated and similar enough before they adopted a single currency? Within the political sphere however, the benefits expected in terms of *coordination* and/or *credibility* were those that would especially retain the interest. The single currency was indeed expected to eliminate non-cooperative behaviours consisting, for example, in “competitive devaluations” resulting in exporting unemployment to neighbouring countries. In countries with an inflationary tradition, the banishment of devaluation was also expected to oblige private agents to contain their prices so as to preserve their competitiveness. Finally, the irreversible nature of monetary union was expected to improve the credibility of monetary policy within the region.

A last argument in favour of the single currency concerned the status of the euro and its capacity to compete against the dollar as an *international currency*. The idea – quite French, it should be said – was to put an end to the “exorbitant privilege” of the United States which consists in trading and issuing debt in its own currency. A more diplomatic element was added to this economic issue: the idea that Europe would finally be able to make its voice heard on the international scene by making of the euro a key currency within the international currency system. After ten years of operation, it seems that all the promises of the single currency – good or bad – have, at least partially, come true.

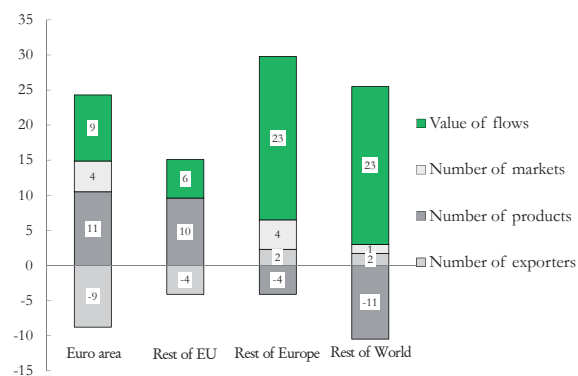
■ Substantial microeconomic gains

At the microeconomic level, the euro seems to be the natural complement of the single European market (even though the perimeters of one and the other are different). Economic research has long since sought the reflection of the expected gains from the single currency in the increase of trade within the zone. However, in reality, the question does not arise in these terms: it is not trade in itself that produces welfare gains, but the greater diversity of products accessible to consumers and producers as well as their lower prices. The single currency, because it facilitates access to the markets of the zone and reinforces competition between companies, must favour this diversity of products and the moderation of prices. From this point of view, several recent analyzes of French exports have provided new evidence. International trade data at the firm level have been used to perform a two-dimension comparison exercise – time (before and after the introduction of the euro) and space (the euro zone compared to a control group)². Trade data at the firm-level are provided by French customs at the product-level, with about 9,000 NC8 manufactured product categories. The evolution of French exports to the Eurozone, the rest of the EU 15, the rest of Europe and the rest of the world during the period 1998-2003, is decomposed into various components (graph 1):

- ✦ The variation of the number of export flows (extensive margin), which can be related to the number of exporters, destination markets or products exported by each individual firm;
- ✦ The variation of the mean value of exports for individual flows (intensive margin).³

Concerning exports to the Eurozone, the number of French exporters decreased by 8.8% between 1998 and 2003, the number

Graph 1 – Composition of growth in value of French manufacturing exports between 1998 and 2003 according to destination, in %



Source: A. Berthou and L. Fontagné (2008-a), *op. cit.*

of destination markets increased by 4.4%, and the average number of products exported by firm increased by 10.5%. This extensive evolution of French exports to the Eurozone has to be compared with a 9.4% increase in the average value of exports by individual flow. It thus appears that the increase in exports to the euro area has come primarily from an increase in the number of products exported by each firm on each market and from an increase in the value of exports for each individual flow.

Naturally, these changes are not only the result of the introduction of the euro. To isolate the effect from the single currency, it is necessary to resort to econometric analysis. A first estimation strategy (taking the rest of the world as a control group, and controlling for EU membership) reveals that the euro did increase the number of export flows towards Eurozone destinations: estimation results suggest a 6.5% permanent increase in the number of trade flows targeted to Eurozone destinations, as compared to non-Eurozone destinations. Conversely, the euro did not have any significant effect on the average value of individual flows.⁴ In other words, the euro made the extensive margin but not the intensive margin of French exports increase.

Secondly, the use of the individual dimension of the data on firms makes it possible to isolate the effect of the euro on the various components of this extensive margin.⁵ The econometric estimation reveals that the adoption of the single currency had no significant effect on the decision of new firms to export to Eurozone destinations. Though, results strongly confirm the intuition from descriptive statistics above, that incumbent exporters took the euro as an opportunity to export more product categories to Eurozone destinations. A weak but positive effect of the euro on the average value of exports by product-firm is found – for the 25% most productive firms – when the sample of exporters

2. The choice of the control group is a delicate point. Cf. L. Fontagné, T. Mayer & G. Ottaviano (2009), “Of Markets, Products and Prices: The Effects of the Euro on European Firms”, Rapport EFIGE, Bruegel Blueprint, January.

3. Cf. A. Berthou & L. Fontagné (2008-a), “The Euro and the Intensive and Extensive Margins of Trade: Evidence from French Firm Level Data”, *CEPII Working Paper*, no. 2008-06. This approach is extended to other European countries by R. Baldwin, V. DiNino, L. Fontagné, R. A. De Santis & D. Taglioni (2008), “Study on the Impact of the Euro on Trade and Foreign Direct Investment”, *European Economy, Economic papers* 321, May.

4. Results of a generalized least square estimation with random effects, with controls for market sizes, exchange rate volatility and the usual gravity variables (distance, common language). Cf. A. Berthou & L. Fontagné (2008-a), *op. cit.*

5. Cf. A. Berthou & L. Fontagné (2008-b), “The Euro Effects on the Firm and Product-Level Trade Margins: Evidence from France”, *CEPII Working Paper*, no. 2008-21, October.

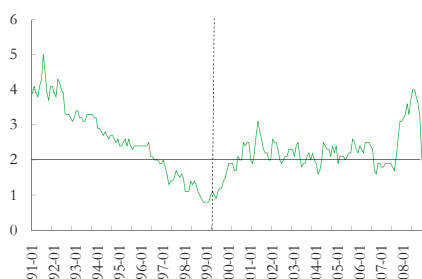
is restricted to firms with more than 20 employees. All of these results together suggest that the reduction in transaction costs and the greater price transparency allowed by the euro further increased the competitive pressure for Eurozone destinations.

This reinforcement of competition is observed in the export prices. An analysis relating to the data of French firms over the period 1995-2005 emphasizes two effects of euro introduction.⁶ First, for the same product, the export price level to the Eurozone is, on average, slightly lower than for other OECD markets (the maximum gap is 2%). Second, the euro reduced, within the zone, price discrimination across markets. Before 1999, the average dispersion of prices was 5% lower in the Eurozone as compared with other OECD markets; after the introduction of the euro, the difference in price discrimination between Eurozone and OECD markets almost reached 7%

Macroeconomic divergence

The ECB initially interpreted its main price stability goal as “a positive rate of inflation but below 2% per year in the medium term”. This goal later became an inflation rate below, but close to, 2% over the medium term”. This was achieved for the Eurozone as a whole, if the inflationary thrust of the first half of 2008, which is linked to the increase in world energy and raw material prices (Graph 2), is not considered. In Italy, a country with an inflationary tradition, prices have subsided, confirming the expected gain from the monetary union. However, other countries – Greece, Spain and Ireland – experienced distinctly higher than average inflation (Table 1). These variations are not explained entirely by economic catch up: as regards purchasing power parity, the GDP per capita of Ireland has exceeded that of the Eurozone since 1998.⁷ It is rather necessary to see in it one of the expected consequences of the single currency: with only one interest rate for the entire zone, it is impossible to simultaneously fight inflation in all the Member States

Graph 2 – Eurozone inflation rates
Jan. 1991 – Dec. 2008, in %



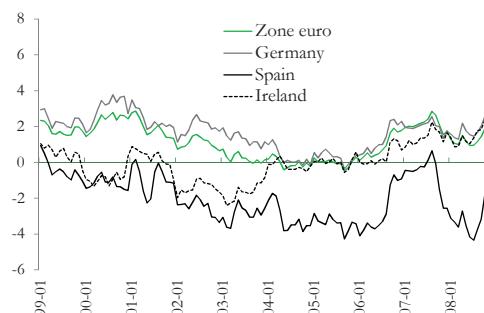
* Year-on-year variation in the consumer price index.
Source: Eurostat.

Table 1 – Average inflation rates – 1999 – 2008, in %

Greece	3.3
Spain	3.2
Ireland	3.0
Portugal	2.9
Luxembourg	2.8
Italy	2.4
Netherlands	2.4
Belgium	2.2
Euro zone	2.2
France	1.9
Austria	1.9
Germany	1.7

A single nominal short term interest rate means indeed that the most inflationary countries have the lowest real interest rates (Graph 3). These low rates encourage households and companies to get into debt in order to consume and invest, which reinforces the increasing pressure on demand, and therefore on prices.

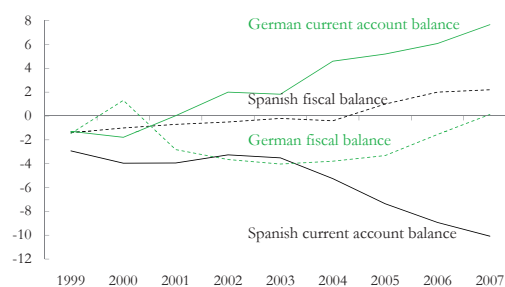
Graph 3 – Real three month interest rates, in %*



*Three-month interbank rate minus year-on-year consumer-price variation.
Source: Author's calculations from ECB data.

Thus, the single monetary policy proved to be destabilizing for the most inflationary countries some of which had significant real estate bubbles. These countries would have needed more restrictive fiscal policies than those required by the stability and growth pact. In Spain, for example, even though the public budget balance regularly improved, the continuous increase in the current account deficit revealed insufficient private saving, which called for a more restrictive policy (Graph 4). Conversely, Germany infringed the stability pact several times, but this did not prevent it from recording increasing external surpluses.⁸

Graph 4 – Fiscal and external current balances, in % of GNP



Source: Author's calculations from OECD data.

Overall, the single monetary policy indeed caused macroeconomic divergences within the Eurozone, but more active fiscal policies, coupled with tougher regulations with regard to credit or to a correcting taxation in some countries, would have made it possible to attenuate these divergences.

6. J. Martin & I. Méjean (2008), “Trade Prices and the Euro”, *CEPII Working Paper*, no. 2008-29, December. Also see L. Fontagné et al (2009), *op. cit.* note

7. In a catch up economy, the increase in salaries related to productivity gains causes an increase in prices due to the low productivity gains in the part of the economy sheltered from international competition (Balassa-Samuels effect).

8. In this spirit, *La Lettre du CEPII*: “The Stability pact: two objectives, two rules” (no. 224, June 2003) recommended that fiscal policy should be undertaken with reference to an external current-account target, discussed in the Broad Economic Policy Guidelines (begg) set by the ECOFIN Council.

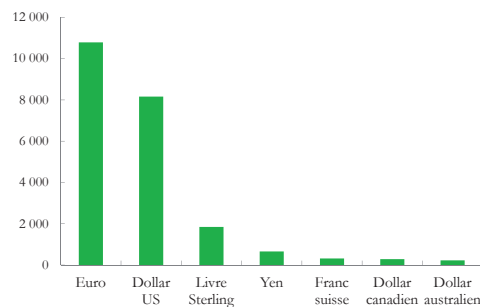
This cost of the single currency or, more precisely, of national policies unsuited to the single currency, must be weighed against the improvement in coordination produced by the euro. Since 1999, the Eurozone has experienced several major world shocks: the bursting of the internet bubble, the September 11th attacks, increases in oil price and, since 2007, the global financial and economic crisis. The euro area so far went through these tests as a monetary group and the reactivity of the ECB to the liquidity crisis of autumn 2008 was particularly noticed. The fall of the pound sterling and other European currencies since summer 2008 suggests that things might have been very different in the absence of a single currency. Nevertheless, the single currency did not prevent large spreads in sovereign debt rates within the zone. At the end of December 2008, the ten-year public bond rate was 5.2% in Greece, against only 2.9% in Germany; one year earlier, the spread was only of 0.3 points. The very rapid increase in public debt with the crisis has indeed caused fear of sovereign defaults for certain countries of the Eurozone, the Member States having committed, by the Maastricht treaty, not to bail each other out, while the independence of the central bank ordered the ECB not to monetise the debt of a Member State. This situation constitutes an important test of credibility, both of the “no bail out” rule and of the “no monetisation” rule, these two rules being able to be circumvented in practice.

4

■ The Euro as an international currency

Did the euro emerge as an international currency likely to compete with the dollar? The answer is negative if one considers the means-of-payment and unit-of-account functions: the dollar remains the vehicle currency at the world level (only 14% of transactions on the exchange markets do not use the dollar); oil and raw materials quotations are still given in dollars; and few currencies in the world (outside of Europe) have chosen the euro as an anchor currency. As a store of value, on the other hand, the emergence of the euro has been remarkable: the international bond market in euro from now on exceeds the market in dollars (Graph 5). This bipolarisation of the international currency system appeared problematic when investors decided to diversify their portfolios out of the dollar at the beginning of the financial crisis, which caused a huge appreciation of the euro against the US dollar.

Graph 5 – International bond amounts outstanding, by issuing currency (Sept. 2008), in USD billion



Source: BIS, Quarterly report, December 2008.

However, let us not forget that the internationalization of the euro, at the beginning, caused a depreciation of the single currency when, over the period 1999-2000, many European companies issued bonds in euro in order to acquire U.S. companies. An international currency is thus not necessarily a strong currency even though, conversely, a structurally weak currency has little chance of being selected as an international store of value.

Thus, one cannot really say that European exporters were victims of the internationalization of the euro, even though that may have been the case for a time in 2008. Nevertheless, they suffered from the pro-cyclical character of the fluctuations of the euro: the euro depreciated when the demand was vigorous (1999-2000) and appreciated during the activity deceleration (2002-2003, 2008). This pro-cyclical character of the euro is related to the ECB mandate, centred on prices while that of the US Federal Reserve (Fed) is more balanced between price and growth objectives. It is also linked to a difference in philosophy concerning the handling of interest rates, the ECB having proved to be more careful than the Fed, possibly by fear of a too rapid credit expansion...

Overall, the euro has indeed contributed to improve the integration of the European market over the last ten years, confirming the microeconomic benefits predicted by the theory. The macroeconomic balance is more mixed, partly due to a policy coordination excessively focused on the stability pact, to the detriment of business-cycle management. This narrow mandate of the ECB has contributed to the pro-cyclical fluctuations of the euro. In these times of worldwide economic crisis through, the single currency provides Eurozone members with a relative macroeconomic stability, which is valuable for all economic agents.

Agnès Bénassy-Quéré, Antoine Berthou & Lionel Fontagné
beatrice.postec@cepii.fr

LA LETTRE DU CEPII

© CEPII, PARIS, 2008
EDITORIAL OFFICES
Centre d'études prospectives
et d'informations internationales,
9, rue Georges-Pitard
75015 Paris.
Tél. : 33 (0)1 53 68 55 14
Fax : 33 (0)1 53 68 55 03

PUBLISHER:
Agnès Bénassy-Quéré
Director of CEPII

CHIEF EDITOR:
Agnès Chevallier

DTP:
Laure Boivin

DIFFUSION:
La Documentation française.

SUBSCRIPTION only to the
original, French version
(11 issues per year)
France 49,50 €VAT
Europe 51,20 €VAT
DOM-TOM (NET, econ. air mail)
50,20 €NET
Other countries (NET, econ. air
mail) 51,20 €HT
Please send your orders to:

La Documentation française,
124, rue Henri Barbusse
93308 Aubervilliers Cedex
Tél. : 01 40 15 70 00

WEB site: www.cepii.fr
ISSN 0243-1947

CCP n° 1462 AD
4th Quarter 2008
December 2008

Imp. La Documentation Française
Imprimé en France
par les Journaux officiels

*The CEPII is entirely responsible for
the Lettre du CEPII and its on-line,
English translation. The opinions
expressed are those of the authors.*