A Perspective on Monetary Integration: from view of the Euro

Hua Min Yu Huanjun Sun Yiran Lu Zhiming

Abstract:

After the introduction of the Euro in 2002, the economic performance in the Euro area is not satisfactory all the while. We examine some effects of monetary integration and give an economic explanation for this phenomenon. As a result of monetary integration, the Euro area's economy has been imposed adverse impact in three ways: firstly, an inflationary tendency arising from monetary integration; secondly, an effect of product differentiation and the decline of competitive advantage; thirdly, the rigidity of decision-making on the Euro exchange rate. On the basis of these effects analyzed above, we draw the conclusion hereafter: Monetary integration may result in considerable social costs, such as inflation, rigidity, and decline of competitiveness. We ought to be cautious about the possible monetary cooperation in East Asia.

On January 1, 1999, the euro was introduced for non-cash settlements, while on January 1, 2002 euro cash—banknotes and coins——was issued into circulation. Since March 1, 2002, it has been in circulation in 12 countries of the euro area as the only legal currency. Much as the great expectation was placed in the euro before its circulation, the economic performance in the euro zone has been roughly satisfactory since the adoption of the euro: slump economic growth, declining labor productivity, high unemployment rate, and inflation rate exceeding the standard for three consecutive years. Despite that its unsatisfactory economic performance was partly due to the slowdown of the global economy, the monetary integration is clearly attributed to the phenomena. This article tries to analyze the adverse impacts imposed by the monetary integration in three perspectives: firstly, an inflationary tendency arising from monetary integration; secondly, an effect of product differentiation and the decline of international competitive advantage; thirdly, the rigidity of organization brought about by the integration. Particularly, the first impact is an important factor resulting in the sluggish demand and labor productivity decline; the second one is the main reason for the set-up of the new trade barriers (product differentiation) in the euro area, by which the trade creation was largely traded off; as regards the third impact, it didn't lead to the rising status of the euro, on the contrary, it made the euro more rigid and less

internationally competitive.

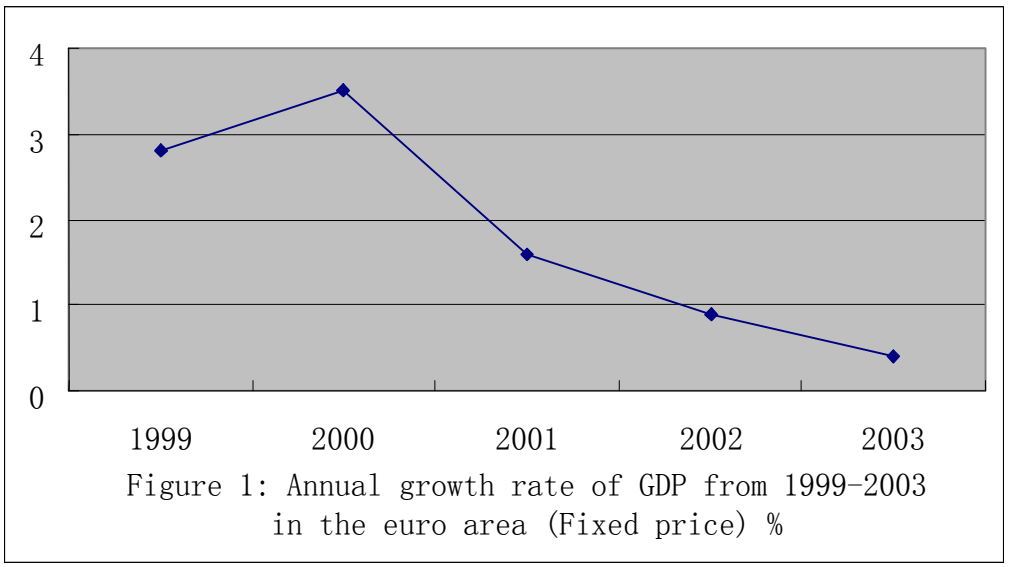


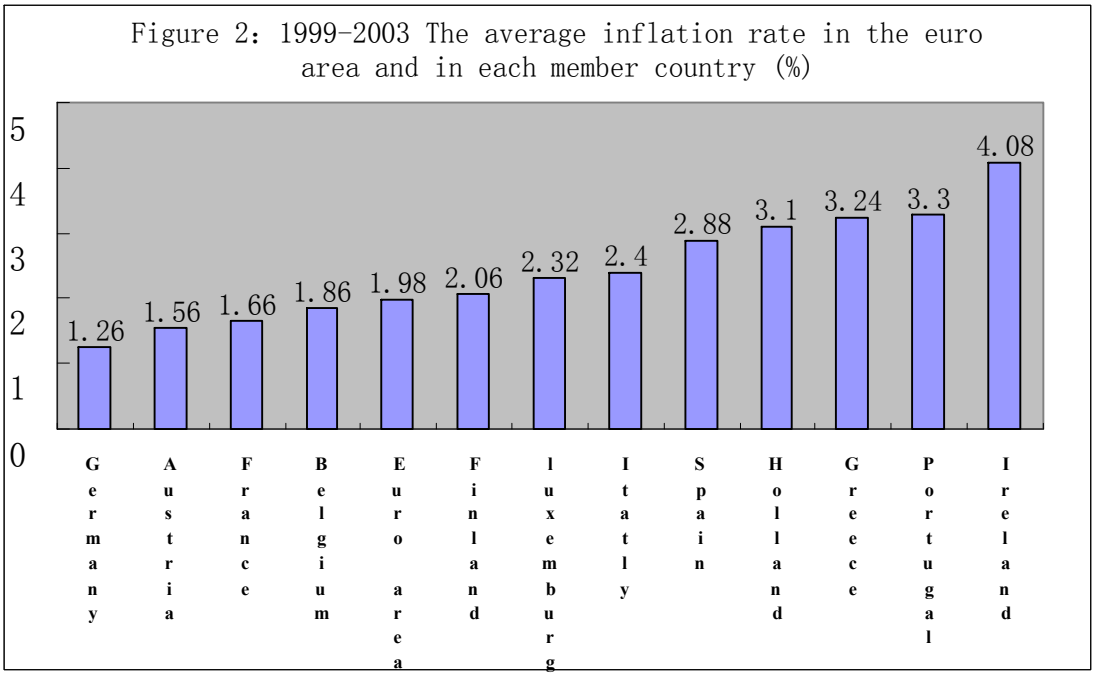
Figure 1: Annual growth rate of GDP from 1999-2003 in the euro area (Fixed price) %

Data source: IMF World Economic Outlook 2004

1. The Inflationary Effect Caused by Monetary Integration

The first effect produced by the euro's circulation is inflationary tendency. As is shown in the statistics, when Japan was suffering from the deflation, inflation took place in the Euro zone, where the growth rate of M2 rose year by year, 2.3, 5.5, 4.0, 4.6, 4.8, and 5.5 percent in 1994, 1995, 1996, 1997, 1998, and 1999 respectively, and a rate as high as 11% in 2001. [1]The rapid growth of M2 inevitably caused the increasingly severe inflationary tendency.

[1] IMF 《The World Economic Outlook: Trade and Finance (September, 2002)》(Chinese Edition), China Financial Publishing House, 2003, page 166



Annual Inflation Rate in Euro Area Countries (1999--2003) Unit: %

Country\Year	1999	2000	2001	2002	2003
Germany	0.6	1.4	1.9	1.3	1.1
France	0.6	1.8	1.8	1.9	2.2
Italy	1.7	2.6	2.3	2.6	2.8
Netherlands	2	2.3	5.1	3.9	2.2
Belgium	1.1	2.7	2.4	1.6	1.5
Luxembourg	1	3.2	2.7	2.1	2.6
Spain	2.4	2.5	2.6	3.9	3
Portugal	2.3	2.8	4.4	3.7	3.3
Greece	2.1	2.9	3.7	3.9	3.6
Finland	1.3	3	2.7	2	1.3
Ireland	2.5	5.2	4	4.7	4
Austria	0.5	2	2.3	1.7	1.3
Euro Area	1.1	2	2.4	2.3	2.1

Data from: IMF World Economic Outlook 2004

Now the issue lies in what on earth lead to the continuous growth of the money supply in Euro zone and its induced inflation rate that incessantly exceed the standard?

1. 1 The policy effect of unified currency

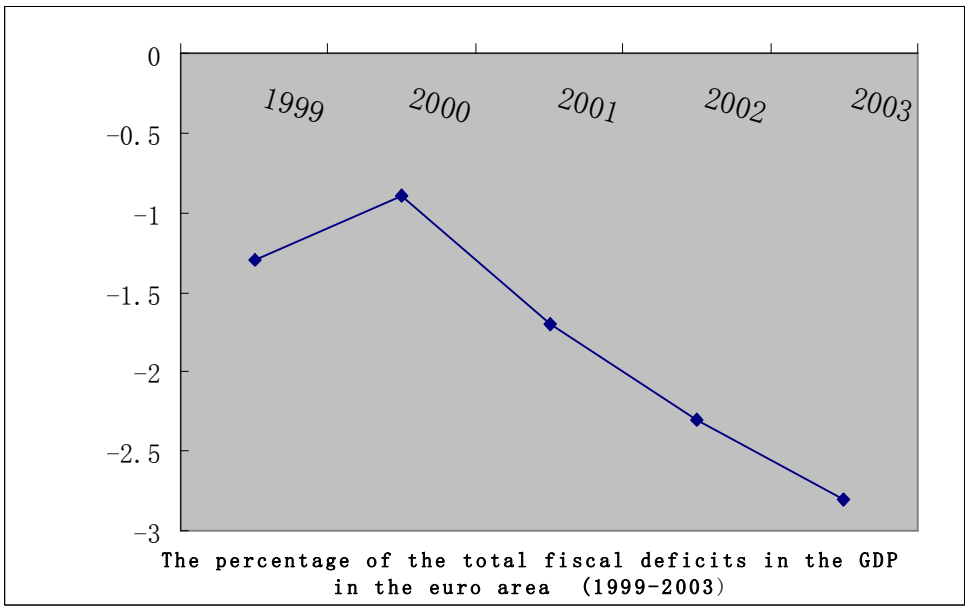
The ultimate objective of European Central Bank (ECB) is to maintain currency stability in Euro area by keeping the growth rate of Harmonized Index of Consumer Price less than 2 percent. However, this goal was soon challenged by the fiscal policies adopted by the member states in the interest of their own governments and the ECB was obliged to increase the money supply, which could easily cause inflation, though the ECB has strong independence on the institution design.

As we all know, the implementation of the single currency deprived the individual member state of its sovereignty over monetary policy. Consequently, the task to modulate the economic impacts by member state certainly relies on fiscal policy. But as early as 1997, the Euro member states, with a view to preventing the countries from the abuse of fiscal policy, they signed the “Stability and Growth Pact”, which enforces each member state to have a public-sector deficit no higher than 3 percent of its GDP, or it will be fined as high as 0.5 percent of its GDP.

Table 2: The Percentage of the National Fiscal Revenues and Expenses in the Gross Domestic Products in Euro Area Countries (1999-2003) Unit: %

Country\Year	1999	2000	2001	2002	2003
Germany	-1.5	-1.3	-2.8	-3.5	-4
France	-1.8	-1.4	-1.4	-3.2	-4.1
Italy	-1.7	-0.6	-2.6	-2.3	-2.4
Netherlands	0.7	2.2	0	-1.6	-3.2
Belgium	-0.4	0.1	0.5	0	0.2
Luxembourg	3.5	6.4	6.2	2.4	-1
Spain	-1.2	-0.8	-0.3	0.1	0.3
Portugal	-2.8	-2.9	-4.4	-2.7	-2.8
Greece	-1.8	-2	-1.4	-1.2	-2.7
Finland	2.2	7.1	5.2	4.3	2.1
Ireland	2.4	4.4	0.9	-0.2	-0.3
Austria	-2.4	-1.6	0.1	-0.4	-1.2
Euro area	-1.3	-0.9	-1.7	-2.3	-2.8

Data from: IMF World Economic Outlook 2004



On the other hand, before the establishment of Euro-area, in order to successfully participate in the Euro-area, each member state really made heroic efforts to satisfy the financial requirements ruled by the treaty, though almost every member state was faced with a serious stagnation of coexistence of low productivity and high unemployment rate.

However, after the monetary unification and the euro's official circulation, things began to change. The euro zone countries happened to implement comparatively strong expansionary fiscal policies to get rid of the pessimistic state of low productivity and high unemployment rate, and the fiscal deficits of quite a few countries even reached beyond what the Treaty permits. Faced with such status, the ECB had to carry out the expansionary monetary policy to meet the member states' needs of stimulating economic growth, so that the euro zone wouldn't break down resulting from the countries' fiscal policies in their own national interests, which can be illustrated by the significantly increasing inflation variance among the member states. (See Figure 4)

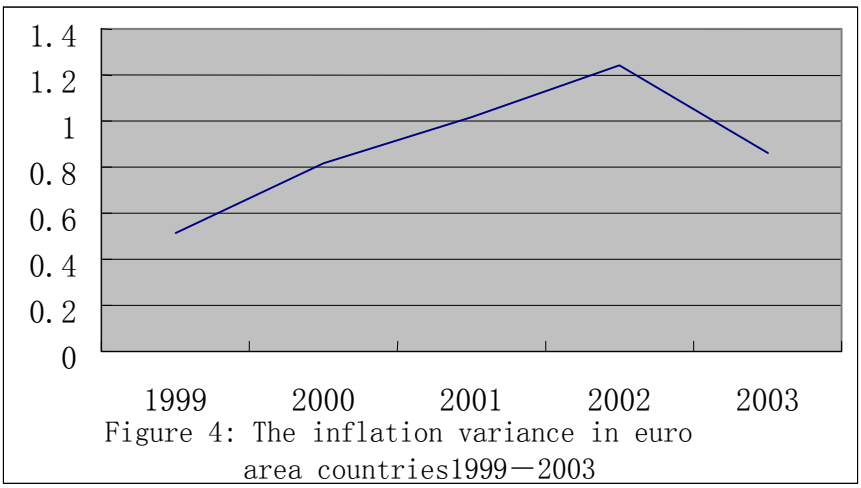


Figure 4: The inflation variance in euro area countries1999—2003

The continually increasing inflation variance in the euro zone is completely attributed to its centralized monetary policy and decentralized fiscal policy. As could be seen in the figure 4 that from 1999 to 2002, the inflation variance among the euro countries was expanding, which rose from 0.51 in 1999 all the way to 1.24 in 2002 and showed an obvious decline to 0.86 in 2003 only when the ECB adopted the expansionary monetary policy decisively. This indicates that if the ECB hadn't carried out the relatively pro-active fiscal policy, the continuously expanding inflation variance between the member states could have led to the break down of the euro area. The conduct by the ECB apparently reduced the inflation variance between euro countries; nevertheless, it caused the inflation rate in the euro zone to go beyond the highest stipulated level. Consequently, although with the rapid increase in M2 supply, the unemployment rate was reduced from two digits to one digit and the expansionary fiscal policy in violation of the Treaty by each member country was to some extent under control, the inflation rate broke through 2 percent predetermined level.

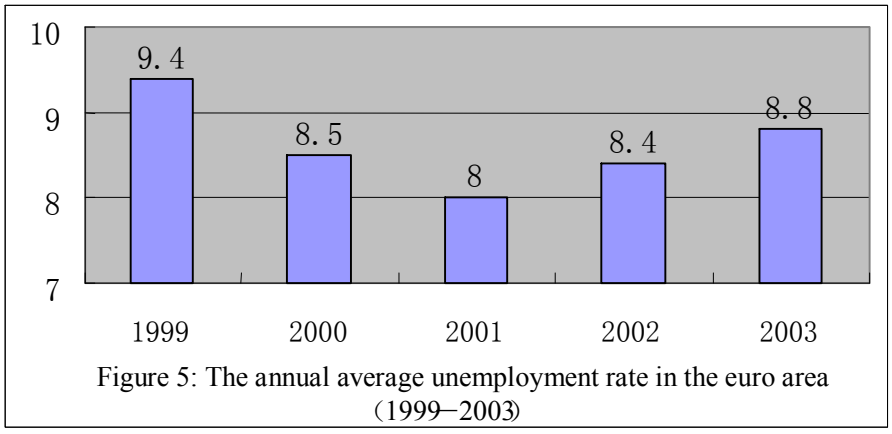


Figure 5: The annual average unemployment rate in the euro area (1999–2003)

Data from: IMF World Economic Outlook 2004

1.2. The technical conversion effect of the euro circulation

When the euro was, in effect, in circulation, its exchange rate against the national currencies of the countries in the euro area was quotated in indirect terms, that is national currencies units per euro. The conversion rate was expressed in 6 valid digits and when the eruo countries' currencies were converted to euros, two digits after the decimal were reserved, the third being rounded. This conversion exchange rate between the euro and the national currencies in the euro area using this method could be seen from Table 3.

Seen from the conversion rate in the following table, due to the weak valuta of many currencies in euro zone when converted to the euro, they didn't have corresponding currency units. For instance, 1 euro= 1936.27 lira, so 1 lira≈0.0005 euro. Since the minimum currency unit was cent when the euro was issued, 1 lira couldn't find the corresponding euro currency unit. Therefore, in Italy, some quite cheap goods priced in euro became notably more expensive after the euro's circulation.

Take goods and services of 10 lira as examples, their prices went up considerably because they had to be priced at 0.01euro. Moreover, any goods and services which had mantissa below 10 lira had to be priced at 0.01 euro, 110 lira priced at 0.06 euro typical of this. In fact, besides Italy, Portugal and Spain were faced with the same situation. Consequently, to various degrees, the conversion effect caused inflationary tendency prevailing in the euro zone countries during the conversion from the former sovereignty currency to the euro.

Table 3 The Exchange Rate of the euro against the National Currencies in Euro Area Countries

Currency	1 euro equals
Belgian Franc	40.3399
Deutsche Mark	1.95583
Spanish Peseta	166.386
French Franc	6.55957
Irish pound	0.787564
Italian Lira	1936.27
Luxembourg Franc	40.3399
Dutch Guilder	2.20371
Austrian Schilling	13.7603
Portuguese Escudo	200.482
Finnish Markka	5.94573
Data from: China Economic Times, January 1st, 1999	

The gravity of the problem also lies in the 'Path Dependence' existing in the price setting of goods and services in each country. For example, the goods originally priced at 1Deutsche Mark needs changes after the euro pricing, which will increase the transaction expense in the sale. As time went by, the merchants would gradually restore the euro pricing to the value priced in Deutsche Mark before the euro's circulation. 'Path Dependence' on the pricing mechanism played an important role in the rising price in the euro zone.

1.3. The effect of social expectation

It is becoming clearer and clearer in the argumentation of the ECB's monetary policy strategy that the ECB must choose one out of the two possibilities: the one aimed at controlling the money supply and the other checking inflation. [2]As far as the ECB's main task is concerned----to curb inflation, it is quite obvious that the ECB ought to choose the latter, the strategy with a goal to reign in inflation. Whereas the ECB chose this monetary policy strategy, the actual money supply was too great that the inflation rate in the euro zone exceeded the preplanned level of 2 percent, which led people to doubt the ECB's ability to control inflation. Thus it is found that the public would certainly form an irreversible inflation expectation. Furthermore, under the work of long-term Phillips curve, the expectation was most likely to arouse economic stagnation.

[2]【Netherlands】Sylvester CWEijffinger, Jak De Haan《European Monetary and Fiscal Policy》(Chinese Edition, China People Publishing House, 2003, page 81

We can see from the Figure 5, though the unemployment rate was reduced from two digits to one digit, the employment still didn't improve much and the economic stagnation was already apparent.

2. The effect of goods differentiation and competitiveness due to monetary integration

Generally speaking, the trade volume between countries is usually subjected to the following factors: firstly, the restrictions from trade protection policy; secondly, the trade barriers caused by space distance and transportation cost; thirdly, the trade barriers because of currency factor. The reason why currency becomes a barrier in international trade is that different currency conversion will not only produce transaction fees, but also bring about the changes between the two trading parties as a result of governments' intervention in the exchange rate, which further impose adverse impacts on trade. It is common to see competitive depreciation of exchange rate in world economy, which in the final analysis is a trade war.

Table 4 Goods Trade in Western Europe (%)

Annual Growth Rate	Export	Import
1980-85	-1	-3
1985-90	16	16
1990-95	7	6
1995-00	2	3
2000	4	7

2001	**0**	**-2**
2002	**6**	**4**

Data from: International trade statistics 2003, World Trade Organization

In order to avoid such a trade war, the euro area countries were determined to carry out monetary unification cooperation, which had a vital goal to enhance the integration of the internal market and increase the trade volume and scale between the member states through the elimination of currency barrier in the international trade. But seen from the current trade in euro zone, the implementation of monetary unification failed to achieve the expected aim and the trade volume on euro area scale didn't grow with the advancement of the monetary integration.

Seen from Table 4, the increase rates in the foreign trade of the whole Western Europe including the euro zone in 1995 to 2000 were much lower than those in 1990 to 1995. After 2000, the foreign trade in Western Europe continued to grow at a relatively low rate because of the "9.11" event and the deep depreciation of the dollar. In addition, with the establishment of the euro zone, the trade development took on the following characteristics (See Table 5): Firstly, compared with 1995, the intra euro zone trade value didn't change significantly with the deepening of the monetary unification. The imports of the intra euro area did grow whereas the exports declined. Secondly, compared with 1995, the proportion of the foreign trade in euro zone to the world trade decreased

by different levels in 2002, whether in imports or exports. The question is: why the monetary integration was unable to promote the trade development in the euro zone, on the contrary resulted in the worsening of the its trade? This could be related to the following factors: one is the effect of goods differentiation and the other is the effect of international competitiveness.

Table 5 The Goods Trade Intra the Western Economy (1 billion/percent)

Year	2002	1995	2002	1995-00	2000	2001	2002
The Intra Western Europe Trade (Export)	1787	69.7%	67.3%	2%	2%	-1%	5%
The Trade Among the 15 European Countries (Export)	1639	64.0%	61.7%	2%	2%	-1%	5%
The Intra Western Europe Trade(Import)	1789	63.8%	67.3%	2%	2%	-1%	6%
The Trade among the 15 European Countries(Import)	1651	58.4%	62. 1%	2%	2%	-1%	6%
The Percentage of the Trade Volume of the Western Europe in the World Trade		69.7%	67.4%				

(Export)							
The Percentage of the Trade Volume of the Western Europe in the World Trade(Import)		69.3%	67.1%				

Data from: International trade statistics 2003, World Trade Organization

First let us analyze the unfavorable impacts of goods differentiation. According to the new international trade theory, goods differentiation happened to be one of the important drives for international trade. [3]However, a fundamental premise implied here is: Foreign consumers were only constrained by the purchasing power or the product quality, so they can satisfy the consumption demand, maximizing the utility by choosing the favorite goods they can afford. But in fact, most consumers have consumption preference for native products, who are subject to cultures and living conditions when choosing consuming goods. For instance, English people have a taste for drinking tea, French people love red wine and cheese, Germans enjoy drinking beer, and Italians prefer pizza and pasta. In addition to different dieting habits, European countries also differ greatly in living customs. It is the difference that brings the world tradable differential goods and lead to different

[3] 【America】Paul.Krugman,《Rethinking International Trade》(Chinese Edition), China Social Science Publishing House, 2001, page14.

consumption preferences among countries at the same time. Since these preferences have native characteristics, they become a kind of barrier, which here we consider as trade barrier of "native goods preference".

From the perspective of barrier in International trade, it can be hardly removed through the institutional innovation of trade liberalization and monetary integration because this barrier results from the differences in cultures and living habits, and is "natural", which distinguish it from those various man-made "trade barriers". In this case, the euro countries tried in vain to increase the trade volume and scale through monetary unification. The result was just as shown by the statistics: from 1962 to 1990, the proportion of intra-euro zone trade of EU 15 countries rose form 56 percent to 66 percent. But since 1990, the figure has been stabilizing at 2/3. [4]Upon the actual circulation of the euro, the intra-euro area trade even had a tendency to drop. The reason is that after the monetary integration broke down the "currency barrier" in trade, the entrepreneurs in euro area were more focused on producing goods with native cultural characteristics so that they could substitute the new "differential goods" barrier for the "currency barrier" which exited prior to the integration.

Then let us make some comments on the international competitiveness. In the monetary union era before the unification, each

[4] 《International Monetary Fund: Trade Statistics Year Book》,2003.

member state could choose and adjust its own currency exchange rate (particularly the adjustment of the exchange rate against the dollar). Though this adjustment was subject to the discipline constraint of range stipulated by the ECU (European Currency Union), it is certain that every country had the right to choose discretionary policy. Nevertheless, the country's relatively independent power to adjust the exchange rate was centralized in the hand of the ECB, what impact on earth would this change bring to the euro zone countries? As regards this issue, we could possibly analyze from the following two aspects.

One the one hand, it is impossible for the ECB, which has centralized the decision power of monetary and exchange rate policy of the euro area, to adjust the exchange rate or interest rate in light of the competitiveness change in a certain member state, or it will hurt other countries' interests and lead to the downfall of the whole system. The Great Britain to opt-out the European Currency Cooperation Union is a good case in point. However, as long as the ECB can't make flexible exchange rate change according to the change in the member states' competitiveness, some euro area countries will definitely suffer from the loss of trade opportunities due to the decreased competitiveness, which will further affect the trade scale inside and outside the whole euro zone.

On the other hand, it should be noted that the world currency system differs from the world trade system mainly in that the former bears a

distinct characteristic of hegemony. Since the world currency system with the hegemony of the sterling broke down, whether under the Bretton Woods system or post-Bretton woods system, the dollar had always been dominating the world currencies and each country's currency price-setting right was in the hand of the American. Consequently, when the American implemented the strong dollar policy, other countries would have to let their national currency depreciate, and vice versa, when the American implemented the weak dollar policy, other countries would again have to let their national currency appreciate. This situation got no improvement after the monetary integration was put into practice and even the price-setting power of the euro was basically in the Americans' hands, that is when the dollar appreciated, the euro had to depreciate, and when the dollar depreciated, the euro was pressured to appreciate. Besides, considering that the euro is a common currency comprised of multinational currencies, it couldn't act as a single national currency, just like the yen, to take flexible exchange rate policy in response to the changes in the dollar exchange rate so that any variation in the American exchange policy would make a full impact on the International competitiveness in euro area countries, especially when the American adopt the currency depreciation policy, the passive appreciation of the euro surely did great harm to the euro countries' international competitiveness.

Table 6: The Variation in the Exchange Rate of the Three World Main Currencies

Year	1994	1995	1996	1997	1998	1999	2000	2001	2002
Dollar	1	1	1	1	1	1	1	1	1
Euro						1.067	0.924	0.896	0.939
Japan	102.2	94.1	108.8	121.0	130.9	113.9	107.8	121.5	124.0

Note: Figure in 2002 is predicted

Data from: IMF, The world Economic Outlook: September, 2002 (Chinese edition), China Financial Publishing House, 2003, page 172

So far, we can easily find that for such an international currency as the euro, which internally exists adjustment rigidity and externally lacks competitiveness (compared with the dollar), is sure to bring negative effects to the foreign trade of the euro area states, so that the official inception of the euro didn't bring any increase in trade inside and outside the euro zone, instead the foreign trade of the euro zone got into the trouble. As were shown in Table 4 and Table 5 that, the trade growth in the euro area was stagnant, the intra-euro zone trade hardly changed, whereas the proportion of its foreign trade in the world trade was prone to fall. Confronted with such a predicament, these countries could only replace goods trade with foreign direct investment, therefore, the European capital flew to the U.S.A on a large scale and the euro and the euro appeared sagging very soon (Table 7).

Conclusion can be drawn here: In view of the effects of goods differentiation and international competitiveness, the monetary unification may not be able to promote the development in trade. Considering this, it's meaningless to establish a unified currency with dear cost and aimed at the promotion of trade growth.

Table 7 The Net Foreign Direct Investment from the Euro Zone Countries

(Unit：BoP, current 100million dollars）

Year	The FDI form the Euro Area Countries											
	Germany	France	Italy	Austria	Belgium	Finland	Greece	Ireland	Luxembourg	Netherlands	Portugal	Spain
2002	119.98	-107.1	-25.48	-46.2	-	3.56	-6.16	217.3	-243.7	-54.18	5.56	26.23
2001	-81.25	-381.2	-68.84	27.74	-125	-47.19	9.74	54.68		45.79	-17.75	-51.34
2000	1553.34	-1320	10.99	29.24	74.7	-147.7	-10.15	188		-112.6	-8.19	-169.35
1999	-539.96	-728.7	2.2	-2.98	127	-20.9	0.25	125.1		-160.2	-17.83	-262.12
1998	-662.93	-161.8	-97.72	18.66	-62	-66.69	0	60.8		6.81	-7	-71.6
1997	-299.3	-124.4	-67.14	6.41	47.5	-31.32	9.84	17.35		-134.7	3.55	-60.39
1996	-443.23	-83.89	-51.51	26.37	60.4	-24.65	10.58	18.91		-153.3	7.31	12.19
1995	-271.15	79.15	-21.82	7.67	-9.1	-4.5	10.53	6.27		-79.82	-0.04	20.91
1994	-116.48	-86.41	-30.39	8.6	71.4	-28.58	9.81	4.01		-104.6	9.83	51.65

1993	**-167.42**	**1.5**	**-35.8**	**-0.6**	**58.5**	**-5.38**	**9.77**	**9.01**		**-35.74**	**13.87**	**64.93**
1992	**-208.48**	**-94.3**	**-10.43**	**-2.5**	**-1.2**	**11.53**	**11.44**	**12.26**		**-65.89**	**11.86**	**110.84**
1991	**-182.33**	**-87.79**	**-51.34**	**-9.33**	**30.9**	**-1.13**	**11.35**	**11.62**		**-72.11**	**19.85**	**80.51**
1990	**-214.79**	**-216.4**	**-9.83**	**-10.5**	**17.3**	**-19.7**	**10.05**	**2.63**		**-30.42**	**24.47**	**104.61**
1989	**-81.65**	**-91.94**	**0.06**	**-2.8**	**5.34**	**-24.78**	**7.52**	**0.85**		**-63**	**16.53**	**69.55**
1988	**-134.69**	**-60.06**	**20.98**	**1.26**	**14.3**	**-20.92**	**9.07**	**0.92**		**-23.36**	**8.42**	**57.86**
1987	**-79.39**	**-40.71**	**20.81**	**0.96**	**-4.3**	**-8.76**	**6.83**	**0.89**		**-56.29**	**4.76**	**38.25**
1986	**-95.41**	**-21.47**	**-26.28**	**-1.3**	**-9.9**	**-4.13**	**4.71**	**-0.4**		**-9.64**	**2.38**	**30.73**
1985	**-48.04**	**3.53**	**-6.64**	**1**	**7.55**	**-2.35**	**4.47**	**1.64**		**-12**	**2.52**	**17.18**

Data from：The Economic Planning Commission of the State, National Bureau of Statistics, The State Centre of Information（Dealt by the data centre of China economic website，June 29, 2004）

3. The Rigidity of Organization Caused by Monetary Integration

The rigidity of organization brought about by the monetary integration was prominently reflected by the ECB's "sit-by".

In the recent two years, with the depreciation of the dollar, the euro's strong exchange rate has done obvious harm to its export competitiveness. In 2004, when discussing the economy in Europe, the economists present at the Davos World Economic Forum agreed that, the continuous

appreciation of the euro is not favorable to the European economic development. The Chief economist Jean-Philippe Cotis pointed out: the fall in the dollar and the rise in the euro were threatening the European economic growth. The further appreciation of the euro against the dollar could only bring European economy into a "dangerous zone", emphasized him. [5]Still, compared with the Japanese government, the ECB's response on this issue was rather negative and lagged behind.

From the actual performance of economic development, the depreciation of the dollar since February, 2002 was more of the exchange rate adjustment by the American authority than the change in its fundamental economic aspects: In 2002, the American economic growth was 2.3 percent, the EU (European Union) was 1.1 percent; while in 2003, the American's was 3.1 percent, and the EU's and euro area's were only 0.8 and 0.4 percent respectively. [6] Encountered with the great depreciation of the dollar, the Japanese authority took much pro-active intervention measures to suppress the adverse impacts of the yen's appreciation towards the dollar. And by the end of the September, 2003, Japan had issued and sold yens worth of 100 billion dollars. In contrast, the ECB almost took "sit-by" policy on the exchange market, therefore the euro's appreciation was apparently greater than the yen's appreciation

[5] 《International Economic Information》，No.3, 2004 (published on February 10), page4
[6] 《International Economic Briefs》, No.11,2004 (published on March,23),page7

against the dollar. [7]By this, we can conclude confidently that the response and adjustment measures of the ECB were quite slow, at least on the exchange rate policy.

Then comes another question why the ECB was so indifferent to the euro's exchange rate and why it didn't adopt active measures, just like America and Japan, to exert influences on the euro's exchange rate to maintain the international competitiveness of the euro. Answers should be analyzed from two layers. One is related to the decision-making mechanism of the euro's exchange rate; the other involves the game between interest groups implied behind the exchange decision-making mechanism. As we can see from the following analysis, it is the second layer, the deeper layer reflecting "the logic of collective action", which determined the ECB's rigidity in response and slowness in making decisions when faced with external changes and even impacts.

Let us talk on the first layer, the mechanism of the formation of euro's exchange rate. In law, the ECB and the Council of Ministers have the decision power in exchange rate, and there is possiblity to upgrade the euro's competitiveness in foreign trade by implementing the appropriate exchange rate policy. But it's far from the reality.

As we all know, the Maastricht Treat proposes two arrangements for the euro's exchange rate. The first is called "hard restriction form",

[7] 《The World Economy》, No.3, 2004, page 25

requiring the financial ministers of the member states to reach an official agreement on the exchange rate regime for the euro towards non-EU countries currencies. The second is considered "soft restriction form", requiring the countries to propose a general policy on exchange rate under the circumstance of no currency regime against one or even more non-EU countries' currencies. [8]Both the formal treaties and the general guideline should deem the chief objective—no hurt to the maintenance of price stability—as a prerequisite.

Examined form the decision process, these formal treaties ought to be proposed by the ECB or the European Commission, assented by the the Council of European Economic and Finance Ministers, consulted with the ECB to be in line with the objective of price stability, and submitted to the European parliament before they can be reached upon. The general policy should be proposed by the ECB or European committee, agreed by qualified majority of the council, and consulted with ECB to maintain the same purpose of price stability before deciding whether to adopt, adjust, or abandon the central euro's exchange rate. In accordance with the procedures and some related regulations in "Maastricht Treaty", the central bank of each member country, the ECB, the Council of the European Economic and Finance Minister plus the European Commission consist of the four functionary divisions from

[8] Lei Zhiwei, 《The Fundamentals and Operation of the European Monetary Union 》, China Financial Publishing House, August, 2000, page 281

down to top, among which the crucial decision makers are the Council of Ministers and the ECB; the European Union plays a certain role in the guidance and advice, but most decisions are specified by the Council of Ministers; European Commission must consult with the ECB so that the objectives of the exchange rate policy conforms to the monetary policy; the ECB doesn't have the final say, but the day-to-day intervention on exchange market and the management of the reserves, though it has the advising right in the decision on the exchange rate regime and exchange rate parity.

The decision-making mechanism and the institutional arrangements contain inherent controversies and conflicts. Firstly, in organization, the single and neutral ECB is asymmetric to the Council of Ministers composed of ministers from 12 member states, and when making decisions, the former will produce lower transaction fees while the latter higher cost, which makes it difficult to coordinate effectively in the macroeconomic adjustment, especially in the exchange rate adjustment, and to avoid the rigidity of the slow organization; Secondly, it distinctly made a mistake of "improper assignment" by Mundell if it transfers the power—decide the external equilibrium rate and make adjustments—to the Council of Ministers, and assigned the task to stabilize internal price to the ECB (though both consultation and advising are permittable in the institutional arrangements. In the Mundell Assignment model, the fiscal

policy is effective in coordinating the internal economic equilibrium while the monetary policy is effective in external economic equilibrium.[9]

It is the asymmetric organization and incorrect assignment that we can find there exist many "ambiguous zones" in the framework of exchange rate adjustment, for example, whether the official agreement or general policy on the euro's exchange rate ? In other words, how much the restrictive power is once the agreement takes shape? Furthermore, who will judge whether the general guidelines are "in line with" the price stability? Judged by the opinion of the Council of Ministers or the proposals by the ECB? It is some "ambiguous zones" that the two opinions headed by Germany and France clash with each other. What's worse, it's difficult for the ECB to reach an agreement on the adjustment to the exchange rate. Suffice it to say with questions mentioned above that the monetary integration and its slowness in organization are the main causes of the ineffectiveness in the euro area exchange rate.

If it is understandable to say that the ECB did nothing for the above reasons in decision-making on exchange rate adjustment, why did the ECB show indifference to its own fully independent decision fields (ie, influence the euro's exchange rate against other currencies by adjusting the interest rate or directly intervening in the exchange market)? It is essential for us to discuss more about the game behaviors between

[9] Hua Min, 《International Economics》, Fudan University Press, 1998 edition, page285

different interest groups behind the decision-making procedure.

According to Mancur Olson's theory, "some individuals with common interest" can be called "group"; when there exists the common interest or group interest, the organization can show its stuff, "their unique and main function is to enhance the common interest of the group composed of individuals". The collective interest can be classified as "inclusive" or "exclusive" according to the type of collective benefits. The former defines that the interest parts are inclusive to each other when in a pursuit of the interest, positive-sum game exists among the interest parties; the latter defines that the interest parties are exclusive to each other when pursuing the interest, which is a zero-sum game. To different interest groups, groups with selective incentives are easier to organize collective actions than those without the incentives; in the same way, smaller group is easier to organize for the collective actions.

Seen from each interest party related to the exchange rate decision in the euro area, there can be at least three clearly defined interest groups: the ECB, the Council of the European Economic and Finance Ministers, and exporters in the euro countries. The ECB and exporters in the euro area belong to inclusive groups respectively because their objectives are the same to each member state: the former's objective is the price stability in the euro zone, and the latter aims to find an export competitive exchange rate. However, when analyzed further, the two interest groups

are found to differ considerably in organization scale. Particularly, the ECB, as an independent decision body, whose primary goal is to "maintain price stability" and can be called "efficient small group" in view of such factors as the scale of euro members, interrelations, and incentive and punitive mechanisms. However, although the exporters share common interest in the euro's exchange rate, they could hardly play an influential role in the exchange rate decision-making due to its large number of scattered members in different countries and industries, plus the lack of effective "selective incentives" to cohere them into an effective group. Even if an exporter in a certain country could exert a strong influence on its own government, considering the government's limited seats in the Council of Ministers, his action will surely be constrained by the "logic of the collective actions".

Different from the two interest groups mentioned above, the Council of the European Ministers is exclusive on the related interests involving the euro's exchange rate. The common interest of the Council of Ministers shall be regarded as the overall economic development in the euro area, but each member has varied preference for the euro's rate based on the difference in trade structure: to export-oriented member, a fall in the exchange rate happens to drive its economic growth, but to those countries with high imports proportionate in GDP, a drop in the rate happens to raise their imports cost, and will probably bring such

unfavorable influence as inflation. The game of decision, in which the gain of one country happens to be the loss of another, bears the characteristic of zero-sum game in the intra-interest group game.

Now let's look back on the behaviors by the interest group of the exporters in the euro area. The group affiliated to each member state, can't enter the decision procedure on its own, and has to take advantage of its government agency, which in the first place will bring high agency cost. Even though we don't take the exclusive nature of the Council of Ministers into account and assume the influence of the exporter is strong enough to affect the latter's action, the common interest of the exporter interest group won't be realized as any exporter in the country, whose efforts to drive the its government to change or adjust the unfavorable exchange rate by paying the agency cost, will be shared by other exporters in member states, thus comes up the free rider problem, which confines the exporters in each member country with common interest to the predicament of the prison and are unable to realize positive gain game. Finally, the ECB, as an efficient small group, whose main function is prominently to maintain the price stability due to the incorrect function described in the "Maastricht Treaty", is unlikely to assume more duties and responsibilities. Despite that the ECB can make use of the interest rate on the European monetary market to influence the euro's nominal interest rate given the interest rate on foreign monetary markets, with a

view to the euro's appreciation or depreciation, the method of exchange rate control may conflict with its monetary policy to stabilize the price. Therefore, when the price stability becomes the final objective of the ECB, to adopt a competitive exchange rate could only be an affiliated objective, and if the latter clashes with the former, the ECB will definitely abandon the latter to ensure the final goal of price stability, or the ECB will face the danger of being restructured. Besides, we should also take into account that in spite of the neutrality in ECB's policy making, it is not a group without its own independent interest, which lies in that it has independent foreign reserves account. In view of the foreign reserves value to be affected by the fluctuations in exchange rate, the ECB often adopts a conservative attitude when interfering in the exchange market. Theoretically speaking, a floating exchange rate with management might be suitable for the euro zone, which may determine the central exchange rate according to the changes in fundamental economy and make minor adjustments at the proper time.[10] However, under work of the two interests mentioned above (the interest to maintain price stability and maintain the asset value of foreign reserves), the ECB's basic attitude to the euro's exchange rate certainly tends to be "passive non-intervention". No wonder when the dollar was greatly depreciated, Jean-Claude Trichet, President of the ECB suggestion to the governments was "structural

[10] Lei Zhiwei,《The Fundamentals and Operation of the European Monetary Union 》, China Financial Publishing House, August, 2000, page 281

reform". [11] The suggestion, of course, is valuable and neutral, but it is a mission only to be realized in the long term and helpless to address the current short-term problem the governments faced. This couldn't help us recalling the famous remark made by Keynes "In the long term, we are dead".

Through the above analysis, a conclusion can be drawn here: Firstly, the monetary integration will produce such high social economic cost as inflation cost, decline in the competitiveness and the rigidity cost in the organization; secondly, the gain of the integration is highly indefinite, particularly to advocate the monetary cooperation among the economies with greatly differing cultures, which will encounter the goods differentiation and big discount in the gain from the monetary unification. It tells us that the similarity between economic development and political institution isn't enough to reap gains in the monetary integration, which also needs the similarity between culture and habits as an adequate condition; thirdly, adjustment cost the integration brings is also high and it is extremely difficult to make timing and flexible adjustments to the changeable exchange rate when suffering from the impacts of internal and external economy and the currency in the decision framework where multi-interest groups coexist, adopt unified monetary policy and over 10 fiscal policies coexist. This means that the result of the monetary

[11] 《International Economic Information》,No.9, 2004 (published on May 10), page5

integration will probably leads to the decline in efficiency in macroeconomic regulation (including exchange rate adjustment); fourthly, in the world currency system with currency hegemony, even the regionally unified currency like the euro is unlikely to acquire the independent price-setting right, so it would probably be in vain to improve the currency competitiveness through monetary integration; fifthly, using the euro for reference, the monetary cooperation in East Asia can't take the road of monetary unification and the monetary cooperation union, in which each currency board enjoys full autonomy, would be a relatively feasible alternative.

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