BRIEFING PAPER

How much inevitable US –euro area interdependence is there in monetary policy ?

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Executive Summary

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As during the financial turmoil in 2000 and 2001 the two most powerful central banks on the globe, the Fed and the ECB, act differently on the very same major economic challenges. While the Fed takes a pre-emptive and aggressive counter cyclical stance, the ECB preserves its attitude of mainly wait and see. At the first glance one could argue that the objective functions of both central banks are different. In the following it will be argued that at a closer look, this not the case. Even if one takes the different targets into account both monetary policies have interdependencies not to be neglected. So in the end the ECB has to consider what the Fed does and vice versa. This may not lead to a completely identical monetary policy even if the economic situation is similar in both areas. But some aspects of co-ordination should be taken into account. The basic policy recommendation to the ECB is to be more flexible when reacting to changes of the economic situation. The extent may not be the same as in the US but the direction should.

1. Introduction

There we are again. As during the financial turmoil in 2000 and 2001 the two most powerful central banks on the globe, the Fed and the ECB, act differently on the very same major economic challenges. While the Fed takes a pre-emptive and aggressive counter cyclical stance, the ECB preserves its attitude of mainly wait and see. The Fed lowered interest rates very swiftly in the light of the financial turmoil and an ailing economy. The ECB recently even moved into the opposite direction by raising interest rates slightly to fight high inflation rates.

At the first glance one could argue that the objective functions of both central banks are different. The Fed has to consider a whole set of economic data among them inflation and the stance of the business cycle. The ECB on the other hand predominantly has to fight inflation. In the present situation, one might argue, there is a conflict between price stability and economic growth. The Fed has to find a compromise between stimulating growth and keeping inflation low. That may well lead to the presently applied strategy of the Fed to fight economic slack first and then deal with inflation rates that may anyway get subdued when the economy is weak. Instead, the ECB has to focus on high inflation rates that are well above the target. Therefore it has to raise interest rates notwithstanding its adverse impact on economic growth.

The conclusion from these considerations is that monetary policy in the US and in the Euro area could be completely independent of each other given the different objectives. In the following it will be argued that at a closer look, this not the case. Even if one takes the different targets into account both monetary policies have interdependencies not to be neglected. So in the end the ECB has to consider what the Fed does and vice versa. This may not lead to a completely identical monetary policy even if the economic situation is similar in both areas. But some aspects of co-ordination should be taken into account.

In the first section different economic channels that constitute the interdependencies, will be outlined. In the second section this will be deepened by analysing the course of

monetary policies in the US and the Euro area since 2000/2001 as well as the present situation. The final section contains policy recommendations.

2. The Channels of Interdependence

There are several channels that could induce interdependence between both central banks despite different objectives. The first and obvious is an interdependent economic situation. In this case the Fed has to look anyway to the Euro area not the most important but nevertheless one of major trading partners of the US. A recession in the Euro area could via direct and indirect effects through other trading partners threaten the Feds growth target in the US. Hence the Fed must be interested in what the ECB does against the danger of a slack and react appropriately. The other way also applies. If there is a recession in the US the Euro area will be affected. The direct trade links are also not the most important but indirectly via trade links with Asia that is very much affected by US developments, US developments become very important. Those consequently affect the stance of the business cycle in the Euro area and thus inflation. The ECB has to consider it when forecasting inflation and therefore has to observe what the Fed does in this situation and react appropriately. The reactions of the two central banks will have to go into the same direction if the business cycles movements are the same, too.

Recently there has been a debate on a possible decoupling of the business cycle in particular between the Euro area and the US (IMF 2008, Chapter 4). The reason was that in 2007 there was the general expectation of a significant slow down of the US economy. Many policy makers and forecasters expected on the other hand that the Euro area would not be affected by this. As reasons were mentioned strong domestic demand and diminishing trade links with the US (IMF 2008). Then there would be a decoupling of the US and the European business cycle. In the light of recent data this debate is to some extent spilt milk. It has become obvious in the meantime that the Euro area also is heading for a slow down. This corroborates the findings of the IMF (2008) and others (BNP Paribas 2008) that in fact the global cycles are more and more synchronised, because many causes of economic developments are of global nature. But as Kose/Otrok /Prasad (2008) point out synchronisation mainly applies to different groups

of countries. Synchronisation has increased among industrialised countries and emerging markets, but not between them. Nevertheless this entails an even increasing interdependence of the Fed and the ECB. If business cycles converge there is an unavoidable interdependence even if objective functions are different. When an economy heads for a slack, inflation rates will sooner or later go down as well. Then even a central bank with a strict inflation target like the ECB will have to fight a too low inflation rate violating the lower bound of the inflation target. This can only be done by stimulating the economy. The longer the ECB waits to fight the economic slow down the more drastically the change of course has to be later on. Because the slow down will be harder to fight then.

In fact globalisation is a key issue when dealing with central bank interdependence. A major part of globalisation is financial markets. They deal with global transactions of assets owned by globally acting investors and the global financial centres are closely linked together. If these markets move significantly into one direction, a global impact is unavoidable. This has been shown at times of boom as well as at times of bust. The internet boom at the end of nineties positively affected all major industrial countries. On the other hand, the end of the internet bubble as well as the present sub prime crisis shows an adverse impact on a global scale. Already any worsening of forward looking business climate indicators regularly spread on a global scale. If business expectations change in a synchronised way, so will the cycle. This again speaks in favour of an increasing interdependence of monetary policy.

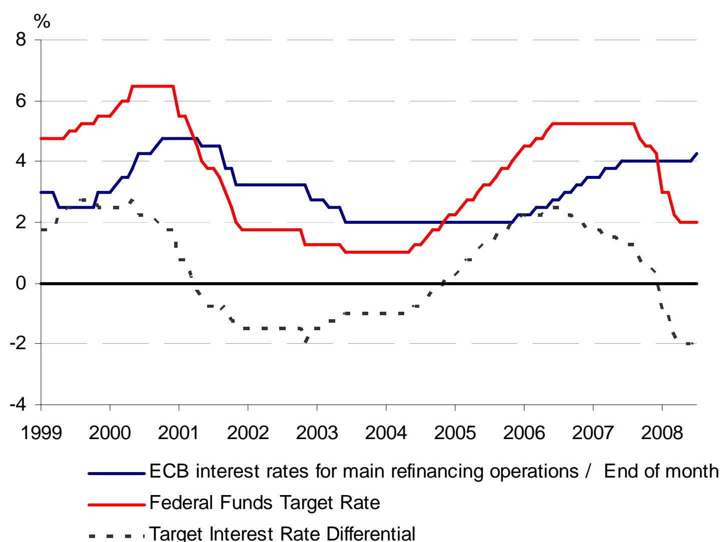
The third element of interdependence is exchange rates. Any change of interest rates for the US- Dollar or the Euro affects financial investments into the respective currency areas. As soon as investors expect interest rates to rise in one area stronger than in the other, they will shift their assets accordingly and fast. The expectation immediately feeds into the actual course. Therefore if there is already any speculation on a change of interest rates ahead of a central bank decision, currency markets will move. If there is the expectation that the Fed will lower interest rates, while the ECB may do nothing or even move into the opposite direction, people will expect the US dollar to fall against the Euro. Exactly this has happened throughout spring and early summer. The reasons for these movements are that financial assets in the Euro area carry higher interest and

assets therefore move to the Euro area. Given these expectation an appreciation of the Euro swiftly occurs and has indeed occurred until recently. Given that European exports were adversely affected, the risk of a down turn of the Euro area has increased, too. At the same time imported goods become cheaper diminishing the risk of inflation. All this has to be considered by a central bank even it if just focuses on inflation. With an appreciated domestic currency the fight against inflation is much easier. Therefore the need to raise interest rates becomes less urgent. In other words, given the exchange rate link, any decision of one central bank influences the decision of the other. There exists interdependence.

3. **A brief Review on the Past and a Look at the present situation**

There are many similarities between the present situation and the past global downturn in 2000/2001. One should keep this in mind when assessing the present situation. While the root of the crisis is different its propagation around the globe is not and that is decisive. Then the internet bubble burst. The roots of disaster were exaggerated profitability expectations for these firms, especially in the US. Before the crisis started, the Fed had increased the Federal funds interest rates to over 6 % making borrowing very expensive.

Fig. 1:Target Rates Fed and ECB



Since then quite a few financial investments were based on borrowed money to leverage profits and many had to withdraw their investments because of rising costs of money. Then stocks started to tumble. In the first place only financial investors in the US were affected. Some were led to suppose that this downturn on financial markets would be confined on the US and European stocks were not going to be affected. But soon the impact was felt an all major stock exchanges. If profitability of these firms was overestimated for the US, so it was or Europe. Then again many people supposed that only stock exchanges would be affected but not the real economy. They forgot that banks had to become increasingly risk averse in the light of so many broken investments. They had to restrict their lending for real investments too. Soon the US economy headed for a recession. Already then a decoupling debate between the US and the Euro area started. This proved wrong too, for reasons described in the previous section and indeed, recessions became global in turn.

All this reminds very much of the present situation. In the beginning there was only a sub prime crisis in the US real estate sector also triggered by higher interest rates in the US. With the global trade of structured financial products these financial failures did not stay there. On the contrary against initial expectations of many they spread all over the globe. Again banks have to write off a lot of investments and in addition to that many people have lost confidence into the investment behaviour of financial institutions. These even do not trust each other any more, what brought markets for inter- bank lending almost to a complete halt and central banks were forced to provide huge amounts of liquidity to keep banks alive. Such a situation requires banks to become more restrictive in their lending behaviour that will affect investments into structures, equipment and housing in due turn. Again all indications point to a global downturn.

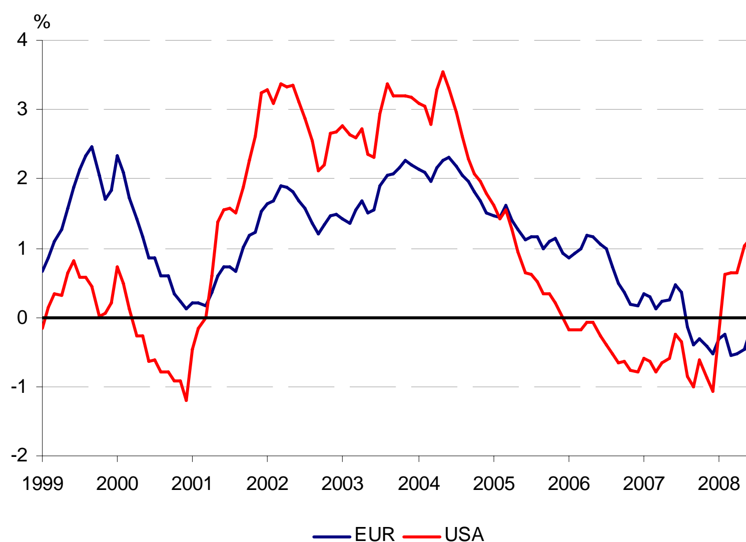
While all the crises mainly originated in the US, they spread all over the globe and the Euro area was – albeit always a bit later - also affected. It is interesting to see how monetary policy in the US and the Euro area acted against this similar backdrop in a different way. As Fig .1 shows the Fed was always the front runner, what is not surprising, since effects were being felt in the US earlier. In the past crisis the Fed lowered interest rates for the first time in January 2001. The Fed decreased the Federal funds rate by a drastic 100 basis points in one step. The ECB did not act before May

2001 when already all indicators for the Euro area pointed downwards. Then the ECB reduced its repurchasing rate by a mere 25 basis points. The Fed lowered interest rates down until 1pc. The ECB stopped at 2 pc. There a pattern emerged that is basically still valid. The ECB acts later and weaker than the Fed, but in the end they move into the same direction. This also applies to the latest turning point when the economies picked up again. The Fed started to raise interest rates in spring 2004 whereas the ECB followed only a the end of 2005. At that time US interest rates were again much higher than in the Euro area.

Presently there seems to be a break in the pattern. While the Fed aggressively lowered interest rates during the summer of last year to fight the adverse impact of the financial turmoil, the ECB still raised rates, albeit slowly. But it remains to be seen whether this is sustainable given the fact that interdependences of the financial markets and the business cycle already show their deteriorating effects on European economies.

As a result of this monetary policy pattern the stance of monetary policy was quite different in both currency areas. As Fig. 2 shows the US monetary policy reacted much more pronounced on cyclical developments than the ECB that followed a steadier course.

Fig. 2 Yield Difference US and Euro Area



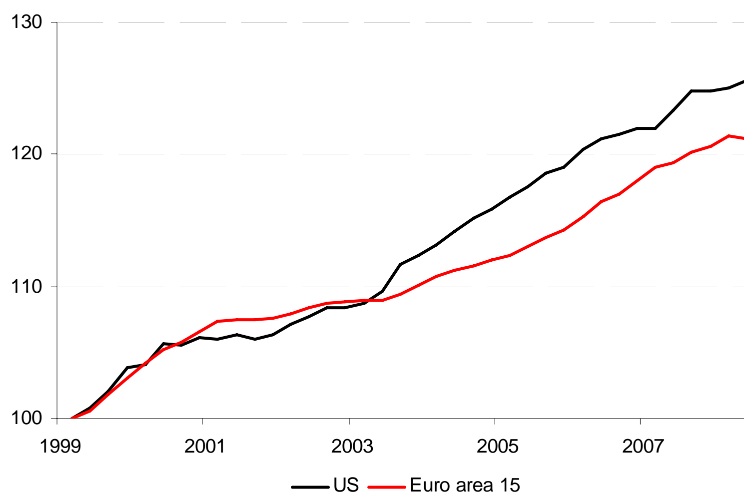
The Yield difference for the US is calculated as the difference between 10-Year Treasury Constant Maturity Rate US and 3-MONTH EURO-DOLLAR DEPOSIT RATE.The Yield difference for the Euro Area is calculated as the difference between 10-Year Treasury Constant Maturity Rate Euro Area and EURIBOR three-month funds rate.

The yield differential, the difference between long term and short term interest rates, is good indicator for the stance of monetary policy and a good predictor for future economic development. Short term rates reflect monetary policy and long term rates the expectations of financial market investors on future inflation and future economic situation. If the difference is small or even negative monetary policy is rather restrictive since it set rates close to future expectations. In other words profit expectations should be low in such a situation and the economy is heading for a downturn. If the yield is highly positive monetary policy is rather expansionary since costs of credit are low compared to yield expectation on financial markets the economy should be heading for an upturn.

It can be seen from Fig. 2 that the amplitude of the Euro yield differential is much smaller than that of the US. Overall monetary policy in the Euro area took a much steadier stance than the Fed. With a synchronised business cycle this means, the ECB followed a much less pronounced anti cyclical course than the Fed. During a slack the fed had stimulated the US economy in a much stronger way and in turn had to pull the brakes harder in order to prevent an overheating. Growth rates for the US have been nevertheless higher since 1999 than in the Euro area, although the crisis in 2001 was much deeper in the US. Obviously the Euro area latter lacked some stimulus, the US economy had.

Fig 3 Gross Domestic Product

quarterly data, real, Q1 1999 = 100



Source: Eurostat and BEA, calculations by IMK.

A closer look on the yield developments reveals interesting sequences at turning points that explain why the stimulus for the Euro area is lacking. Interestingly these turning points basically happen at the same point of time for the US as for the Euro area as Fig. 2 shows. At these turning points the Fed acted while the ECB did nothing for some time and then reacted. Nevertheless the stance of monetary policy of the ECB was also affected by the Fed. Two examples will show that.

The first is the turning point at the beginning of the year 2001. Until then both central banks had been on a restrictive course. However the economic outlook started to get worse and worse. Therefore the Fed in January 2001 lowered interest rates by 100 basis points. Short rates dived even more in the following months, whereas long term rates reduced more resiliently. In other words cost of borrowing decreased more than economic expectations raising the outlook on profits and thus making monetary policy more expansionary. While this was exactly the intention of the Fed the ECB did nothing and nevertheless its stance also got more expansionary but in a passive way. The lowering of interest rates in the US created the expectation that the in due course the ECB would follow. Therefore short term rates in the Euro area also went down significantly. Even long term rates reduced to some extent. Only five months later the ECB also reduced interest rates for the first time during that cycle.

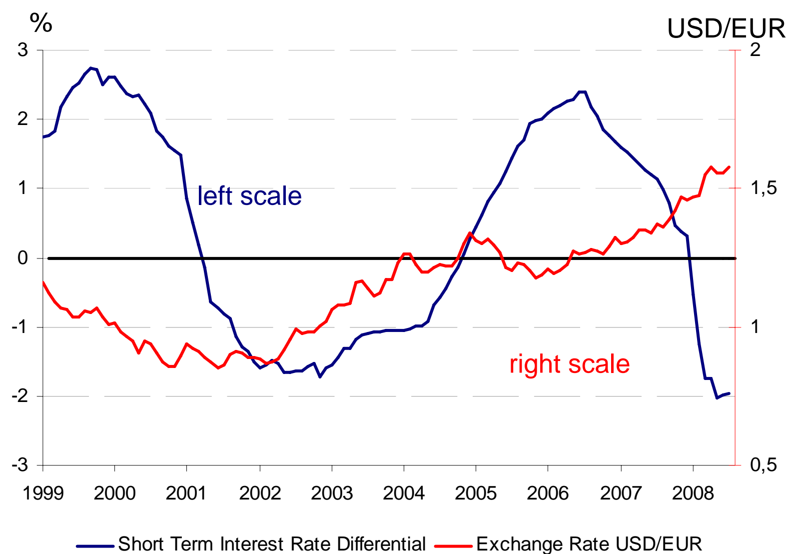
The same happened in the other direction in 2004 when the worst of the crisis was over and both economies started to pick up. The Fed actively raised its rates inducing a steep increase of short term rates fuelled by the expectation of further rate hikes. At the same time long term rates decreased since with a central bank changing to a more restrictive stance expectations became downbeat. The ECB again did nothing. But short term rates were going up in the Euro area too, since more pessimistic expectations spilled over from the US.

The only counterexample to this pattern is the recent development. While at the beginning of the present downturn things looked pretty similar to past cycles, the Fed acting and the ECB waiting, the .ECB has now moved into the opposite direction and raised interest rates. Therefore monetary policy in the Euro has got much restrictive than that US. But it is highly likely that with the economic outlook worsening in the Euro area

due to the described interdependencies the ECB will be forced to change its course towards the fed one sooner or later.

The different patterns of monetary policy have influence on their effectiveness as the GDP graph has shown. It is not only the difference between an active and a passive monetary policy that is important. A major impact is also triggered by the exchange rate channel.

Fig. 4 Exchange Rate and Interest Rate Differential



Short term Interest rate for the US is the 3-MONTH EURO/ DOLLAR DEPOSIT RATE

Short term Interest rate for the Euro Area is the EURIBOR three-month funds rate

Each time the Fed markedly changed its course ahead of the ECB. The exchange rate showed the expected repercussions. When the Fed got more restrictive the Euro depreciated against the Dollar and when the Fed relaxed its stance the Euro appreciated. Hence the Euro monetary policy was always subject to two opposing influences. On the one hand its stance moved along with the Fed albeit passively. On the other hand the exchange rate triggered opposing effects. At times of more restrictive course in the US depreciation stimulates Euro area exports and spurs inflation. That alone may force the ECB to become restrictive after some time. If the Fed moves on a more expansionary course the Euro appreciates dampening exports and inflation. Therefore the ECB may be forced to actively change its course after some time too. In

any case the exchange channel puts a passively acting ECB into a following position. The direction of monetary policy in fact is determined outside the Euro area.

4. Policy Recommendation

The present situation of European monetary policy is not satisfactory. Even if one has to concede that the objective function of the ECB is different from that of the Fed it is unsatisfactory the ECB de facto always followed the Fed. This means that a least the direction of the Feds course was considered appropriate for the Euro area after some time too. So the question rises, why not earlier? At the age of globalisation it seems odd that the central banks of the major currency areas could lead a monetary policy strategy of mutual isolation. Both central banks have to assess the same global developments and even if there are domestic differences, financial market and exchange rate links trigger spill over effects that have to be considered. Hence the basic recommendation to the ECB is to be more flexible when reacting to changes of the economic situation. The extent may not be the same as in the US but the direction should.

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