

Increased Capital Mobility: A Challenge for National Macroeconomic Policies

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1. Introduction: How important is the increase in capital mobility?

Influenced by the hype about globalisation many observers take it for granted that the degree of capital mobility has increased substantially during the last decades and that capital markets are more integrated today compared to any previous period in history. The empirical evidence, however, is not as clear-cut. In this section we briefly survey this evidence.

There is a very large literature following up on the seminal paper of Feldstein and Horioka (1980). Feldstein and Horioka reasoned that, in a world of perfectly mobile capital, domestic savings would seek out the highest returns in the world capital market independent of local investment demand. By the same mechanism, world capital market should serve as a source of financing for domestic investment needs. Thus, if capital markets are integrated, the investment ratio (investments/GDP) should be independent of the savings ratio. Feldstein and Horioka argued that the correlation between investment and saving in a cross-section of countries might provide a test of global (or international) capital mobility. They found that this correlation was very high in the post-war period, indicating that the degree of capital mobility was not substantial.

Subsequent econometric research has confirmed the high correlation between savings and investment ratios in cross-country regressions. However, it has also been stressed by several researchers that a high correlation between savings and investment ratios may not necessarily signal a low degree of financial integration¹. Two alternative explanations have been advanced. The first one is that common factors such as population growth, output changes or productivity shocks may determine investment and savings simultaneously. When these common shocks occur the two variables are cointegrated and automatically exhibit a high correlation. This will be the case even if capital markets are fully integrated. The second explanation relies on the fact that economic policies tend to be similar across countries. Policymakers in most countries may seek to attain approximate current account balance. This goal can be achieved through appropriate monetary and fiscal policies. If cross-country targets are similar then the high correlation of savings and investments across countries follows automatically.

¹ See: Obstfeld (1986), Summers H. (1988), Barro, Mankiw, Sala-i-Martin (1992), Frankel (1991).

One conclusion from the vast literature is that the original Feldstein-Horioka test is not informative, since conventional cross-sectional regressions are likely to produce high saving-investment correlations, regardless of whether the degree of international capital mobility is high or low².

In addition to its methodological and econometric problems, the Feldstein-Horioka econometric test does not produce a benchmark that can indicate low or high integration. Even if the Feldstein-Horioka criterion measures integration properly and the econometrics yields a proper estimate, we are still left without a yardstick telling us what is “high” and what is “low”. However, potentially useful information can be obtained by analysing the changes over time in the correlation between savings and investment. Such an analysis has been done by Taylor (1996)³. Using a modified F-H measure, Taylor found a lower correlation among high-income countries. In addition, his analysis uncovered a general decline in the correlation (higher integration of markets) from 1980 onwards. Taylor concludes that in this modified framework, international markets do exhibit a recent tendency towards increased integration. Although this conclusion seems plausible, it is subject to a similar criticism as the one levelled against the original Feldstein-Horioka result. The decline in the correlation observed since 1980 could be due to a decline in the importance of common shocks.

Recently economists have taken a long historical view to analyse the question of whether capital mobility has increased. A surprising finding is that net capital flows (as measured by the current account) tended to be of the same order of magnitude during the period of the international gold standard as compared to the present period. This has been confirmed by Zevin (1992), Sachs and Warner (1995) and Rodrik (1998), leading to the conclusion that today’s degree of capital market openness is nothing particular as compared to the situation a century ago. Using US data, Eichengreen (1999) has claimed, however, that the present degree of financial integration has increased relative to one hundred years ago.

To sum up, the degree of financial market integration today is not dramatically higher than one hundred years ago. This goes counter the conventional wisdom that exists in the popular press and in the large “globalisation literature”. Nevertheless, there seems to be evidence that the degree of financial integration in the world has been

² See Jansen (1996).

³ See Taylor (1994).

increasing in the last few decades. The recent increase leads to many new challenges, one of which has to do with the conduct of national monetary and fiscal policies.

2. Implications for monetary and fiscal policies

There is a general consensus among economists that the increase in capital mobility has affected the viability of fixed exchange rate regimes. In particular, it has made the fixed exchange rate regime more fragile and less capable of withstanding speculative movements. The very fact that speculators expect a future devaluation can dramatically increase the cost of defending a fixed exchange rate, giving strong incentives to the monetary authorities not to fight the speculators and to devalue. This phenomenon has been given theoretical backing in the so-called second generation models of speculative attacks⁴. In addition, increased capital mobility may have intensified the contagious effects of crises⁵. As a result, the increasing integration of financial markets has forced more and more countries to move away from fixed exchange rate arrangements. This phenomenon is well illustrated in table 1. Since 1975, the number of developing countries pegging their currencies dropped by half.

Table 1: Developing economies – evolution of pegged exchange rate arrangements.

Year	Percentage of developing countries pegging their currencies	Of which to (in %)				
		USD	FF	SDR	Other currency	Basket
1975	88	50	15	12.5	12.5	10
1986	70	37	27	16	13	7
1998	43	34	26	21	14	5

Source: Michael Mussa, Paul Masson, Alexander Swoboda, Esteban Jadresic, Paolo Mauro, and Andy Berg "Exchange Rate Regimes in an Increasingly Integrated World Economy", IMF, April 2000

The implications of the move away from pegged exchange rates are that countries have sought alternative arrangements in drastically different directions. One set of countries (the largest part) has sought refuge into more flexible exchange rate

⁴ See Obstfeld (1996).

⁵ See Eichengreen and Wyplosz (1993).

regimes. This is shown in table 2.

Table 2: Exchange rate arrangements in small economies in 1998.

Exchange rate arrangements in 1998	# Countries	Average GDP of the economy (bln. USD)	Average trade share (in %)	Average share of the largest export partner	Fraction of countries with controls on current account (%)
Pegged to:	45	1.58	51.8	33.6	78
USD	16	1.20	61.1	29.5	69
FF	13	2.03	34.4	36.9	100
Other	8	1.52	63.4	37.2	75
Basket	8	1.68	53.4	34.1	63
Flexible:	28	2.15	51.3	34.3	57
Managed float	11	2.00	69.7	27.7	64
Independent float	17	2.25	38.7	38.9	53
#Small economies	73	1.80	51.6	33.9	70

Source: Michael Mussa, Paul Masson, Alexander Swoboda, Esteban Jadresic, Paolo Mauro, and Andy Berg "Exchange Rate Regimes in an Increasingly Integrated World Economy", IMF, April 2000

Another group of countries has chosen much tighter arrangements than pegged exchange rates. The most notable move was made by eleven EU countries that decided to abolish their intra-exchange rates altogether and to move into a monetary union on January 1, 1999. Other countries sought to tighten up their exchange rate arrangements by adopting currency boards.

The consensus today is that countries have little choice but to move to one of the two extremes, i.e. either towards more flexibility or towards more rigidity, because the intermediate regime of pegging is not sustainable for long in a world of high capital mobility.

These new policy choices create new challenges for macroeconomic policies that we analyse in the next sections.

3. The challenge of increased flexibility of the exchange rates.

The major challenge here is how countries can anchor nominal variables such as the price level and the money stock, once the exchange rate anchor has gone. There is no doubt that in the past many countries used the fixed exchange rate as the anchor for their domestic price level and money stock. In doing so they in fact used the services of the leader in the system (for most countries this was the US) who was doing the job of explicitly anchoring nominal variables. In a flexible exchange rate environment, these countries cannot rely anymore on economic policy of another country and have to manage the price level and the money supply themselves.

The need to anchor nominal variables in a flexible exchange rate environment explains the increasing popularity of procedures of explicit inflation targeting. We now observe that more and more countries have switched towards inflation targeting. Among the industrial countries, seven have adopted inflation targeting during the past decade. They are (in chronological order): New Zealand, Canada, the United Kingdom, Finland, Sweden, Australia and Spain. With the introduction of the euro on January 1, 1999, the central banks of Finland and Spain lost their power to conduct independent monetary policy and have transferred it to the European Central Bank. All of the listed countries are small or middle-sized open, industrialised economies. They have showed a poor record in fighting inflation (for industrialised countries standards) over the past 30 years and they were generally perceived to lack monetary policy credibility.

In all these countries, the inflation target is set around 2%. In Australia (and Finland before 1999), central bank targets the point objective, while in Canada, New Zealand, the UK and Sweden central banks specify a range for the inflation target. The Spanish central bank used to specify a ceiling for the inflation rate.

The empirical evidence indicates that until now inflation targeters have had some success in anchoring their domestic price levels. Many issues remain, however. First, other industrial countries without explicit inflation targeting procedures have been equally successful in reducing inflation. It is, therefore, unclear whether inflation targeting is superior to other forms of monetary control. Second, there is the question for inflation targeters and others alike of whether the success in reducing inflation is sustainable. A subsidiary question is whether the success in stabilising the price level will also lead to more stability of the exchange rates. Since price levels are one of the

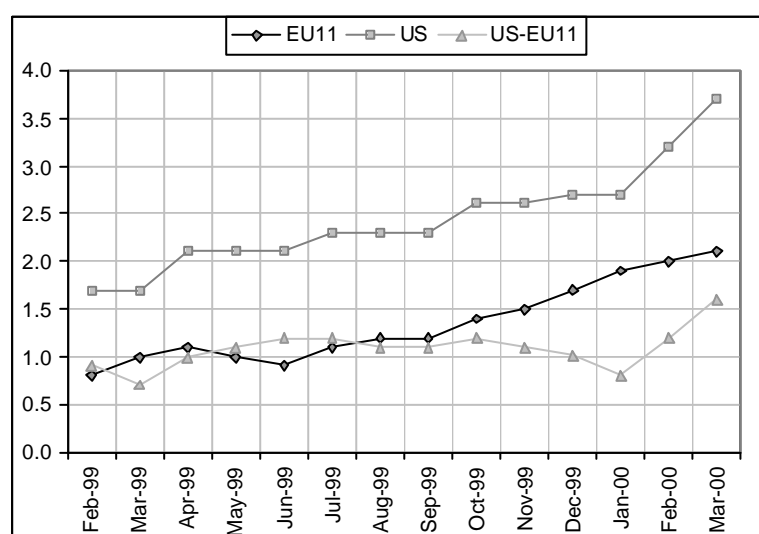
fundamental variables determining exchange rates, one would expect that success in stabilising price levels would also tend to stabilise exchange rates.

The evidence on PPP, however, is weak. This is especially the case for currencies experiencing low inflation rates. The recent developments in the euro-dollar exchange rate illustrate this point. Inflation differentials between the US and Euroland have remained extremely low since the start of EMU. They fluctuated around 1% to 1.5% (see fig. 1), while the US dollar appreciated by more than 20% during the same period. Surprisingly, it is the US with the appreciating currency, which experienced a slightly higher rate of inflation. One can conclude that it is far from certain that price stability will do much to stabilise exchange rates. We are likely to have to live with significant volatility of the major exchange rates even in a world of price stability.

This leads to the other challenge for the countries moving towards more exchange rate flexibility. The first question that arises in this context is whether countries should worry about the kind of exchange rate volatility that such a system implies. The second question is whether they can and should do something about this.

To the first question, the answer seems to be yes, but only when misalignments take on large proportions. Examples of such large misalignments have been the dollar movements of 1980-85, and the recent movements of the euro-dollar and euro-yen rates. It should be stressed that these large misalignments have been relatively rare.

Figure 1. Inflation in the US and Euroland.



Source: ECB, Monthly Bulletin

This leads us to the next question, which has been, and continues to be hotly

debated: what can be done about the large swings in the exchange rates? One school of thought (represented by Williamson, Bergsten and others) has been arguing that agreements to set up looser forms of exchange rate pegs (target zones) are called for. In other words, these are proposals aiming at escaping the iron logic of a world of capital mobility that drives countries to the extremes of high flexibility or rigid fixity.

It is doubtful that these target zone agreements can survive any better than pegged exchange rate systems. Although target zones provide more flexibility than pegged rate systems, they suffer from the same weakness, i.e. that the national monetary authorities must be willing to subordinate domestic objectives to the external constraint of the target zone. To take an example, suppose that today, in June 2000, a target zone agreement existed between the US and Euroland. This would be fine for Euroland because the euro depreciation would act as a signal for the ECB to tighten monetary policy, which it probably wants to do anyway because of the inflationary pressures generated by the weak euro. But what about the US? There can be no doubt that a target zone agreement today would lead to a major policy conflict for the US monetary authorities. The reason is that it would force the US monetary authorities to loosen monetary policies to bring down the dollar. Such an easy monetary policy, however, would further exacerbate the domestic consumption boom and increase inflationary pressures. Faced with such a dilemma, there is no doubt that the Fed would choose for its domestic objectives and would not do its part of the deal implicit in a target zone agreement. Such conflicts between domestic objectives and external constraints would regularly emerge, reducing the credibility of the target zone agreement.

One can conclude that the only cooperative initiatives that have some chance of success will be ad-hoc agreements concluded when there is a broad consensus that exchange rate movements “have gone too far”, and that it is in the interest of all concerned sides to correct these movements. This happened in 1985, and led to the Plaza agreement, which was relatively successful in correcting the overvaluation of the dollar. Such ad-hoc agreements are all one can wish for in the future.

4. The challenge of the fixers

Many countries have decided that the optimal response to greater capital mobility is not to go for more flexibility, but to look for tighter fixity in the exchange rate.

European countries forming EMU went all the way in this logic and started a monetary union. In section 6, we deal with some of the challenges that these countries face. In this section we discuss the experiments of other countries that chose to go in the direction of more fixity.

A significant number of countries have decided to take up a monetary regime - the currency board - that seemed to be discredited, since it was linked to colonial times. Surprisingly, countries that have chosen this monetary regime seem to have performed relatively well compared to other countries choosing a different fixed exchange rate regime. This has been documented in a recent IMF study⁶. The study compared inflation and output in countries operating under different exchange rate arrangements (a currency board, a fixed exchange rate regime and flexible exchange rate regime). Ten countries were included in the sample of countries operating under a currency board: Antigua and Barbuda, Argentina, Djibouti, Dominica, Estonia, Grenada, St. Lucia, St. Vincent and the Grenadines, Hong Kong and Lithuania. Nine countries in the sample linked their currencies to the US dollar and one to the euro (Estonia). Other currency board countries were not included in the sample because of the lack of data or very short time of their operation. The study covered the period from 1970 to 1996.

Inflation averaged 6% per year in countries with a currency board, which was substantially lower than in countries with a flexible exchange rate (50%) and other forms of a peg (20%). The results remain unchanged after the adjustment for outliers.

Controlling for other variables like real income, the growth rate of the money stock, the rate of turnover of the central bank governor and the ratio of the sum of exports and imports to GDP, the estimated inflation differential remained highly significant. The IMF study estimated that a currency board system creates a “confidence effect”, amounting to 3.4 percentage point decrease in inflation rate and caused by the very existence of a currency board in a country.

This favourable inflation performance does not seem to have been bought by lower economic growth. In the sample of countries operating under a currency board, the average annual growth of per capita income was almost twice as high as in all other countries. In addition, the volatility of the GDP growth was slightly lower in currency board countries than in other countries.

⁶ See Ghosh, A., A. M. Gulde and H. C. Wolf (1998).

These are impressive achievements. Yet, the recent financial crises illustrate that the currency board system does not shield countries from speculative attacks, which in a number of cases (e.g. Hong Kong) have been quite fierce. Although these countries have been able to resist the onslaught of the last crisis, it is unclear that they will be able to do so indefinitely. Thus, a currency board remains a fragile construction. This fragility will be enhanced when the political pressure to take on a monetary regime that makes the country less dependent on a foreign big power accumulates. This pressure is likely to increase as countries regain monetary stability. The big challenge therefore will be to manage the transition to a new exchange rate regime.

5. The temptation of capital controls

We argued that the increasing degree of capital mobility puts countries into the uncomfortable situation of having to choose for more flexibility or much tighter arrangements. The temptation to avoid such a choice and to find something in the middle ground will therefore continue to exist. This will also keep capital controls on the political agenda.

One of the more surprising developments is the strong popularity that the Tobin tax has acquired in the political arena. Many parliaments now are voting motions to introduce such a tax on a world-wide scale. Most NGOs have made of the Tobin tax one of their favourite battling cries against the wicked international speculators.

Will the Tobin tax allow countries to find a middle ground between the two extreme monetary regimes that international capital market integration now increasingly imposes on them? This question can be divided into two subsidiary questions:

- Is the Tobin tax an instrument to reduce exchange rate volatility for those countries that moved in the direction of more flexibility?
- Is the Tobin tax an instrument that can make a pegged exchange rate system less fragile?

5.1. The Tobin tax and exchange rate volatility

Proponents of the Tobin tax have been mesmerised by the large size of the daily transactions in the foreign exchange markets. The latest BIS estimates are that these could amount to \$1.5 trillion. Since exchange transactions arising from exports and imports are small, probably not more than 5%, the quick conclusion has been that all

the rest is the result of speculative capital flows. The problem with this conclusion is that it fails to account for an important institutional feature of the foreign exchange market: this is a multi-dealer market in which the largest part of the daily transactions are done for purposes of hedging and not of speculation. It has been estimated that 80% of the daily flows represent hedging activities of dealers (“hot-potato trading”)⁷. Thus, the Tobin tax will discourage short-term speculators and short-term hedgers. Since the latter are responsible for (by far) the largest part of the market transactions, it is not obvious that the reduction of hedging activity will tend to reduce the exchange rate variability.

We have to look into the “microstructure” of the foreign exchange market to give an answer to the question of how the reduction in the size of hedging activities will affect the variability of the exchange rates. This microstructure model can be described as follows⁸.

Suppose an individual speculator buys dollars (sells euro), thereby raising S (the price of dollar in units of euro). If there are no dealers, the speculator must find another trader willing to hold the euro. In order to find a risk averse trader to hold all these euros, the price of euros will have to drop a lot.

With many dealers we have a different situation. Let us assume a chain of dealers. The first dealer obtaining the euros will want to unload them, but not the full amount. Because of the drop in the price of the euro the dealer has an incentive to hold a fraction of these cheap euros. Suppose, he holds 5%. He then unloads the other 95% to another dealer, who has the same incentive to hold a fraction and to unload the rest. (This is the hot-potato trading). At the end of the line all the dealers hold a fraction of the initial net speculative demand. (Note that the chain will typically be shorter because a speculator is likely to be found willing to buy the remaining fraction of the euros at the given price). Since each (risk averse) dealer holds only a fraction of the initial order flow, he will be willing to accept a smaller price decline of the euro than if any one of them had to hold the full order flow. Thus, when there are many dealers, the price decline of the euro necessary to absorb the initial order flow will be smaller than if there were no dealers⁹.

⁷ See Lyons (2000) on this.

⁸ For a formal analysis see Lyons (2000).

⁹ Note that this argument is based on the concavity of the utility function: risk premia increase with increasing positions in a particular currency.

The previous analysis can also be formulated as follows: The existence of many dealers is a mechanism that allows spreading risk more efficiently. When a speculator buys dollars (sells euros) he forces somebody to take the counterparty risk. When there are many counterparties this risk can be spread around more efficiently.

If one accepts this reasoning one comes to the conclusion that taxing all transactions in the foreign exchange market also makes this search for risk spreading more difficult. As a result, it is not certain at all that exchange rates will move less. They could be moving more.

Note that the Tobin tax will discourage hedging in the foreign exchange market more than pure speculation. The reason is that the search for risk spreading involves multiple transactions in the foreign exchange market. For example, assume that the initial sale of euros is 100. Each dealer keeps 5% until, say, after five dealers the rest is unloaded to another speculator willing to take a reverse position. The chain of taxes (assuming a Tobin tax of 1%) will be:

$$100 * 0.01 [1 + 0.95 + (0.95)^2 + (0.95)^3 + (0.95)^4].$$

Thus hedging will be taxed by a multiple of the Tobin tax. In this simple example the hedging activities are taxed at a rate of 4.5%. This must have effects on the structure of the market. It is likely to eliminate the multi-dealer nature of the market and to favour its centralisation, like the one that exists in the stock markets. Such a centralisation becomes then another substitute for the efficient spreading of risk. It is unclear, however, whether a more centralised market leads to less variability of prices. The evidence seems to go in the other direction since centralised asset markets experience more price variability (see P. De Grauwe (1996)).

This change in the market structure will also affect another objective of the Tobin tax because it will lead to a large reduction in the size of the daily transactions, as the multiple dealer market tends to disappear. Consequently, the objective to raise revenues for worthwhile international projects will have to be scaled down significantly.

5.2. The Tobin tax as an instrument to make fixed exchange rates less fragile

Suppose a Tobin tax of 1% were imposed on all exchange transactions. (We do not go into the problem of whether such a tax can be implemented in practice. It is quite

unlikely that this can be done). Can such a tax protect a country from a speculative attack of the kind we have seen in Asia during 1997-98? The answer is that it can't. Speculative attacks on fixed exchange rates are typically driven by expectations of relatively high devaluations. Typical orders of magnitude are 20% or more. A tax of 1% does very little to discourage these speculative attacks. In addition, much of the capital movements in a crisis situation is the result of panic¹⁰ whereby investors run for the exit door. A Tobin tax of 1% will do little to discourage panic flows¹¹.

One can conclude that the Tobin tax will do little to reduce exchange rate volatility, nor will it give countries that defend a fixed exchange rate a weapon to ward off speculators¹².

6. Capital mobility and monetary cooperation

Increased capital mobility induces countries to move in opposite directions in their choice of exchange rate regimes. It, therefore, also leads to opposite requirements as far as policy co-operation in the monetary field is concerned. Those countries that decide to move in the direction of more exchange rate flexibility by the same token reduce the need to coordinate their monetary policies. Countries that move towards tighter exchange rate arrangements find themselves forced to increase monetary cooperation. This is so because in a tightly fixed exchange rate regime (monetary union; currency board) the interest rates of the member-countries must be equalised. Some rule must therefore be agreed upon the question of how the joint level of the interest rate will be decided about. In a monetary union, this requires central bankers of the union to sit together and to decide about this jointly. In a currency board regime the country setting up a currency board accepts whatever decision the country to which it ties its currency decides. No such explicit cooperative monetary arrangements are necessary in a flexible exchange rate system.

Thus, the net effect of increased capital mobility on the degree of cooperation of monetary policies in the world is unclear. It all depends on how capital mobility affects the countries' choices of exchange rate regimes. If the net effect of capital mobility is to generalise exchange rate flexibility then the need for cooperation may actually

¹⁰ See Radelet and Sachs (1998).

¹¹ See Tobin (1999) who acknowledges this point.

¹² There may exist other forms of capital controls that are better suited than the Tobin tax to defend fixed exchange rates. For a discussion see De Grauwe (2000).

decline.

While all this is obvious as far as monetary policies are concerned, this is not the case with *fiscal policies*. We turn to this issue in the next section by concentrating on the question of how the move to a monetary union (like in Europe) affects the need to cooperate in the field of fiscal policies.

7. The need for fiscal policy coordination in a monetary union

EMU is a quantum jump forward in macroeconomic policy coordination in the EU. Since the start of EMU, decisions about interest rates, money stocks and reserve requirements have become truly joint decisions. One could not possibly have more cooperation in the monetary field.

The question that arises next is the following. Does the intense cooperation in the monetary field require a parallel intensification of cooperation of fiscal policies? In order to analyse this question, let us concentrate on two concepts: spillover effects and asymmetric shocks.

8. Spillover effects of fiscal policies and the need to cooperate.

It is well known that gains from cooperation critically depend on spillover effects. If the effects of budgetary shocks in one country on other countries are important, cooperation can improve welfare significantly. When these spillover effects are low, there is little welfare improvement to be expected from a budgetary cooperation.

The crucial question therefore becomes the following. How will the existence of EMU affect spillover effects of national fiscal policies? If EMU leads to higher spillovers, then more intense fiscal policy coordination is desirable, and *vice versa*.

EMU can affect spillover effects of fiscal policies in two ways. *First*, EMU could lead to more intense trade links between the member states. The argument that has often been used here is that EMU leads to more price transparency, which intensifies competition and opens new possibilities for trade within the union. This would increase the spillover effects of fiscal policies. *Second*, EMU will lead to intense financial integration. This is already very visible in the bond market. The introduction of the euro has made it possible for a large euro-denominated bond market to emerge. What is the implication of financial integration for spillover effects of fiscal policies? The full integration of the bond markets implies that a fiscal policy action in

one country, e.g. a higher budget deficit, increases the interest rate in the euro-bond market and therefore affects other countries. This effect is bound to be larger than when the bond markets are segmented. Thus, spillover effects through the interest rate channel increase.

The latter analysis has been influential in the design of the stability pact. The fear that excessive budget deficits and debt levels in one country would affect other countries through the interest rate channel has led to the idea that fiscal policies of the member states of the EMU should be tightly controlled.

One problem has been generally overlooked. Although spillovers through trade and interest rates are likely to increase in the EMU, the signs of the impact on economic activity through these channels are different. As a result, the *total* spillover of fiscal policies on the output levels of other countries may or may not increase as a result of the EMU. This can be easily shown in the context of a simple two-country Mundell-Fleming model. The intuition is the following. Take a fiscal expansion, let us say in France. Because of stronger trade links, it increases output more than before the EMU in, let us say, Germany. At the same time, the French fiscal expansion has a higher impact on the long-term interest rate in Germany (through the unified euro-bond market) than prior to EMU. But this leads to a stronger negative effect on German output. It is unclear, therefore, that the spillover effects of the French fiscal policy on foreign output will increase in EMU. One should also conclude that it is unclear whether a more intense coordination of fiscal policies in EMU will increase welfare.

Another way to phrase this result is as follows. The use of fiscal policies creates public good effects. Government spending in one country creates benefits in other countries. The benefits that spill over to other countries are likely to become more important in a monetary union. If, however, the expanding country has to bear full costs of financing this increase, it will engage in less government spending than it is desirable. Countries will have an incentive to spend too little.

However, at the same time a monetary union increases the possibility to shift part of the financing costs of the expanding country to the other members of the union. This effect leads countries to increase their spending too much. Thus, both the benefits and the costs spilling over to the other countries tend to become more important. It is not clear, therefore, to what extent the monetary union distorts the incentives for

individual countries to engage in too little or too much spending; nor is it obvious that one needs more coordination of fiscal policies in a monetary union.

9. Asymmetric shocks and the need to cooperate

The traditional theory of optimum currency areas has put a lot of emphasis on the notion of asymmetric shocks. This theory can be summarised as follows. Asymmetric shocks are likely to occur in a monetary union. It is therefore important to have an insurance mechanism that will allow individual nations to soften the blow of a negative shock on output and employment. Such an insurance mechanism can be provided by a unified European budget. By its very nature, such a unified budget automatically redistributes from countries experiencing good economic luck to countries experiencing bad economic luck.

If, however, no unified budget is set in place, which is the case in Euroland, the prescriptions of the theory are not favourable for the idea of cooperation. In the absence of a unified budget, countries have to use an intertemporal insurance mechanism to smooth asymmetric shocks, i.e. use the budget deficit in a counter-cyclical way. This theory leads to the conclusion that in the absence of a unified budget, individual nations should use their fiscal policies to absorb asymmetric shocks. Therefore, national fiscal policies are tied to national objectives, making it very difficult to use fiscal policies in a cooperative way.

Recent research has stressed, however, that there is an alternative insurance mechanism for asymmetric shocks (see Asdrubali, et al.(1990) and Melitz and Zumer(1998)). It comes from financial integration. Empirical evidence suggests that integrated financial markets are capable of providing insurance against asymmetric shocks that is equally powerful as a unified budget. This insight has important implications for the EMU, which is likely to intensify financial integration. When financial markets are fully integrated, the EMU will function as an insurance mechanism against asymmetric shocks, reducing the need to provide insurance by budgetary transfers.

It is unclear, however, whether the insurance against asymmetric shocks provided by financial markets is satisfactory. The reason is that it insures the incomes of the relatively wealthy in a country hit by a negative shock, leaving the poor and the lower income groups with few financial assets unprotected. Modern nation states will want to extend the insurance mechanism also to cover these groups. Consequently, a

significant part of fiscal policies will continue to be tied up with the provision of insurance against asymmetric shocks in a monetary union.

10. The need for co-operation between the ECB and the budgetary authorities

In the previous section we analysed the need for co-operation between national budgetary authorities. In this section we study the need for co-operation between the ECB and the national governments setting fiscal policies. Here again the key concept is spillovers. Decisions made by the national budgetary authorities affect macroeconomic variables (inflation, output). Since the ECB is trying to control the same variables a spillover arises, and co-operation between the ECB and the fiscal authorities will generally improve decision making (and welfare).

There is no doubt that this is theoretically correct. The issue, however, is whether the size of the spillovers is sufficiently important to create significant welfare gains. Much of the literature on the desirable degree of co-operation between monetary and fiscal authorities has been based on models in which one monetary authority plays a game with one fiscal authority. In the context of EMU, however, one central bank faces eleven (and soon more) national fiscal authorities. This set-up weakens the case for co-operation significantly. The reason is that the spillover of budgetary policy of one country on the ECB is likely to be small. But differently, if one country, say, France follows expansionary budgetary policies, the impact of these policies on the EMU-wide inflation and output is relatively small because France represents only about 20% of Euroland's output. In addition, France's actions are likely to be partially offset by other countries' actions. As a result, the French budgetary policies will interfere little with the ECB's policies. And the larger Euroland becomes, the weaker are these spillover effect, and the less the ECB has to worry about them. Thus, EMU is quite different from the US, where the actions of the US federal government are likely to have a significant effect on US output and inflation, creating a need to co-ordinate monetary and fiscal policy.

There is another, political, dimension that should be take into account. Decisions in the budgetary field are a prerogative of nationally elected parliaments. Decisions made by these bodies are slow and unpredictable. Attempts to co-ordinate these policies are, therefore, likely to be quite ineffective. In addition, systematic co-operation of fiscal policies is bound to reduce the power of national parliaments. It is

unclear whether this is desirable in the absence of steps towards strengthening the democratic process at the EU-level.

To conclude, the following points should be stressed. First, there is already a significant amount of co-ordination in the budgetary policy field in the context of the stability pact. The arguments developed here imply that there is little need to go beyond the stability pact and to enhance budgetary co-operation in a systematic way. This does not mean, of course, that occasional co-operation may be called for, for example, when a strong enough common shocks occur.

Second, our conclusion that further steps towards budgetary co-operation are not needed does not imply that co-operation in other fields may not be desirable (e.g. tax harmonisation, co-ordination of bank supervision)

11. Conclusion

The increased mobility of capital of the last few decades creates new challenges for the macroeconomic policies of the nation-states. In this paper we have analysed some of these challenges. One conclusion from our analysis is the following. Contrary to what is often alleged, increased capital mobility does not necessarily increase the need for co-ordination of monetary and fiscal policies. The reason is that this increased mobility of capital has led many nations to move towards greater exchange rate flexibility. And the latter reduces the need to co-operate in the monetary field. The effect on the need for fiscal policy co-ordination crucially depends on how spillovers of fiscal policies from one country to the other are changed. To the extent that capital market integration and trade integration go together we do not know how the net spillovers of fiscal policies are affected.

Increased capital mobility creates many other challenges. We have analysed several of these. We argued that while increased capital mobility puts more pressure on countries to move away from pegged exchange rates towards either more flexibility or more rigidity of the exchange rates, it also increases the temptation to escape this hard choice by reimposing capital controls. We argued, however, that one particular form of capital controls, i.e. the Tobin tax, is unlikely to succeed in giving countries a “Third Way” option.

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