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FLOAT IN ORDER TO FIX?  
LESSONS FROM EMERGING MARKETS  
FOR EU ACCESSION COUNTRIES

by

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Research programme on:  
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## RÉSUMÉ

Les pays « candidats » à l'Union européenne connaissent une recrudescence des flux de capitaux alimentée par des écarts positifs de taux d'intérêt et l'anticipation d'une appréciation de leur monnaie. Si les autorités de ces pays se sont efforcées de gérer ces flux et d'empêcher une appréciation injustifiée de leur monnaie, elles auraient néanmoins tout intérêt à tirer les leçons de l'expérience d'autres pays avant d'opter pour telle ou telle combinaison de mesures.

Les marchés émergents connaissent bien ces épisodes d'afflux massifs de capitaux, qui finissent souvent mal. Trois régions ont connu des crises de change dans les années 1990 — l'Europe, en 1992-93 ; l'Amérique latine, en 1994-95 ; et l'Asie, en 1997-98, qui a eu des répliques en Russie et au Brésil et, plus récemment, en Turquie et en Argentine.

De toute évidence, les décideurs ne peuvent tolérer l'apparition d'une grave crise des changes tous les deux ans. La virulence, la rapidité et le pouvoir de contagion des crises financières qui n'ont cessé de frapper les pays désireux d'intégrer les clubs des pays riches au cours des 20 dernières années ont amené à redéfinir les options et les arbitrages politiques dans un contexte de forte mobilité des capitaux. Ce document passe en revue certains de ces épisodes catastrophiques et recommande à chaque pays d'asseoir solidement sa crédibilité, plutôt que de l'« emprunter », et de ne pas exclure trop vite les différentes possibilités de la politique monétaire.

## SUMMARY

The so-called “accession economies” preparing to enter the European Union are experiencing increased inward capital flows based upon positive interest spreads and expectations of currency appreciation. While the authorities of these countries have tried to manage these flows and to prevent unjustified appreciation of their currencies, the policy mix they may be tempted to apply can benefit from experiences elsewhere.

Episodes of heavy capital inflows are well known to emerging markets and have often ended in tears. The 1990s saw three separate regional currency crises: the European crisis of 1992-93, the Latin American crisis 1994-95, and the Asian crisis 1997-98 followed by crises in Russia and Brazil, and recently by Turkey and Argentina.

Obviously, a major currency crisis every 24 months is too much for policy makers' comfort. The virulence, speed and contagion of financial crises that have hit prospective entrants to rich-country clubs repeatedly over the past two decades have redefined policy choices and trade-offs in a world of intense capital mobility. Reviewing some of these dismal experiences, this paper recommends building, rather than borrowing credibility and not foreclosing monetary policy options too quickly.

## FLOAT IN ORDER TO FIX?

*“Argentina, Chile and Mexico, Spain and Portugal: même combat! Having established macroeconomic discipline, structural reform and democracy at home, their governments would like to set these achievements in stone by joining a rich-country club. .... With an inflationary history at their back, the authorities will then be tempted to reach out for a most visible stabilisation commitment: they will fix, peg or at least shadow their currency to an anchor currency.”*

Reisen (1993a)

The European Union is now preparing for its biggest enlargement ever in terms of scope and diversity. Thirteen countries have applied to become new members, of which ten countries in Central and Eastern Europe. Recently, the EU Commission recommended to close negotiations with Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, the Slovak Republic and Slovenia. The objective is that the first group of new members should join the EU in time for the elections to the European Parliament scheduled for June 2004; the EU hopefuls are envisaged to join the EMU contingent upon spending two years in the new Exchange Rate Mechanism (ERM II) without realignment of their currencies.

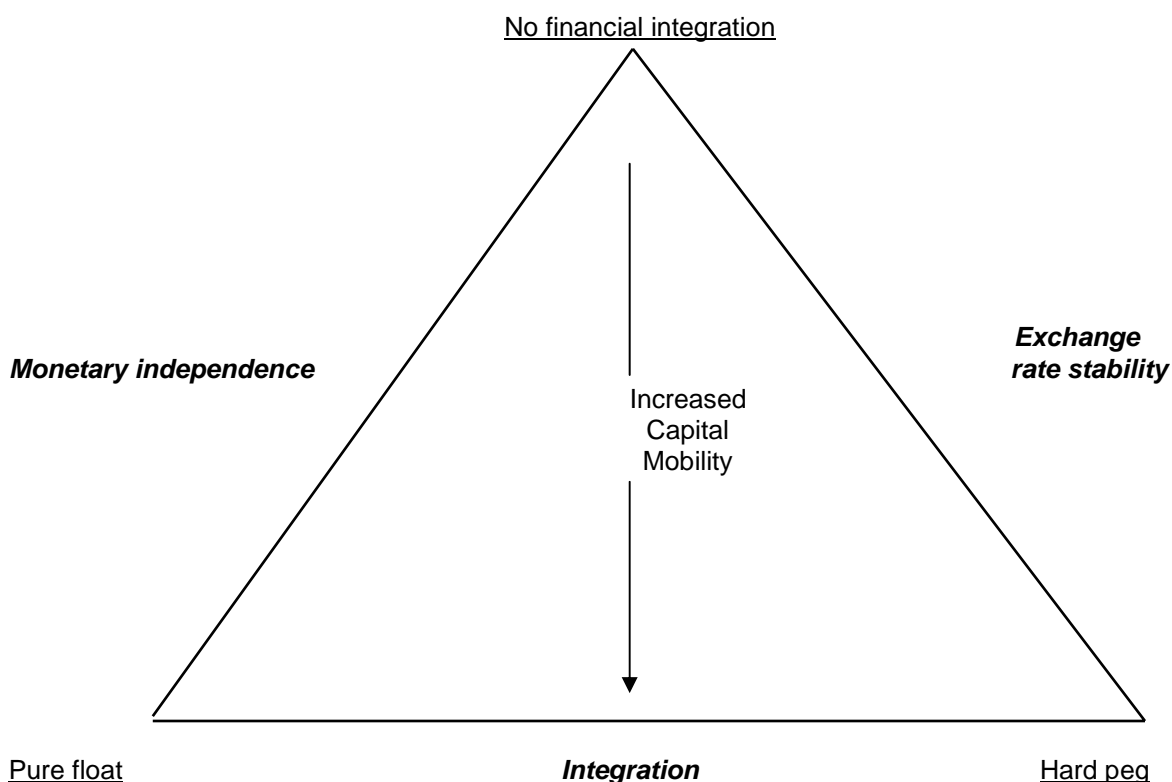
Not surprisingly, many countries in Central and Eastern Europe are currently global investors' most favoured *convergence plays*. Positive interest spreads and expectations of currency appreciation have been directing money to Budapest and other financial markets in the region, often in the form of highly leveraged carry trades. While the discovery of the region to private capital inflows amounts to a *de facto* financial opening, full *de jure* capital mobility both with the EU and with third countries is expected to prevail at the time of accession. The EU accession countries are thus confronted with the problem of the *impossible trinity*: they must give up one of three policy goals — monetary independence, exchange rate stability, or free capital markets — as they cannot have all three at once. Central European policy makers have been fighting currency appreciation through repeated verbal and direct FX intervention and interest cuts.

Alas, such episodes of heavy capital inflows are well known to emerging markets and have often ended in tears. The 1990s have witnessed three distinct regional currency crises: the European crisis of 1992-93, the Latin American crisis 1994-95, and the Asian crisis 1997-98 which in turn was followed by crises in Russia and Brazil, and recently by Turkey and Argentina. Obviously, a major currency crisis every 24 months is too much for policy makers' comfort. The virulence, speed and contagion of financial crises that have hit prospective entrants to rich-country clubs repeatedly over the past two decades have redefined policy choices and trade-offs in a world of intense capital mobility. Reviewing some of these dismal experiences, this paper recommends to build rather than borrow credibility first and not to foreclose options to quickly: no sensible sailor drops the anchor until the boat stops moving.

## Some Very Basic Theory

It is an almost common view now that intermediate or BBC regimes (bands, basket or crawling pegs) are not sustainable in a world of intense capital mobility. Currently, there are few efforts to revive the intermediate option (but see Williamson, 2000; and Braga de Macedo *et al.*, 2001). Countries are being pushed to the corners of either firm-fixing or free-floating. This clearly reflects the desire to keep capital markets open, as can be easily seen from Figure 1.

Figure 1. **The Impossible Trinity**



The logic behind the proposition in favour of corner solutions is the impossible trinity (see Frankel, 1999). Impossible trinity, because a country must give up one of three goals: exchange rate stability, monetary independence (useful to cope with slumps), or financial-market integration. It cannot have all at the same time. Countries can attain only two of the three goals simultaneously:

- lack of financial integration allows exchange rate stability and monetary independence;
- hard pegs (dollarisation, monetary union) allow integration and exchange rate stability;
- a full float allows integration and monetary independence.

This trilemma is, in a certain way, an *embarras de richesse* at times of growing global risk aversion. Apart from many poor developing countries, entire emerging-market regions (such as Latin America) risk to drop from portfolio investors' radar screen (Reisen, 2002). Not so the EU accession countries. A tide of convergence interest has caused a surge of capital inflows in a number of central European currencies, most recently post-Irish referendum. The result has been a strong rally in local bond yields and, in many cases, a significant strengthening of the currencies.

Whatever the exchange-rate regime, the basic requirement for avoiding macroeconomic complications with free capital flows is *fiscal control*. Unless the government commands fiscal control for stabilisation purposes, it has to violate the *Mundell assignment* and use monetary policy for internal balance. According to Mundell (1962), however, once the capital account is open, even imperfectly, *monetary policy* acquires a comparative advantage in dealing with *external* imbalances, while *fiscal policy* is assigned to maintaining *internal* balance. Branson and Braga de Macedo (1996; also Branson *et al.*, 2001) show for EU accession countries that fiscal rigidity in view of an investment boom forces an *unstable assignment* upon the authorities. If fiscal policy does not tighten sufficiently to cope with the investment boom, monetary policy is left to hold down aggregate demand. This in turn would *widen* the interest differential and thus reinforce the balance of payments surplus. Extending the assignment model to three targets and three instruments, Branson and Braga de Macedo assign fiscal policy to internal balance (non-inflationary aggregate demand), the real exchange rate to the current account, and the interest rate to the external balance in terms of FX reserves.

Circumspection is required when trying to distil policy lessons from currency crises (Reisen, 1998). All too often, the isolated focus on characteristics found in countries which have fallen victim to a currency crisis yields "causes" that are merely *endogenous effects of massive net capital inflows*. Current account deficits, overvalued exchange rates (in real terms), overinvestment in real estate and declining capital productivity all figure prominently in the list of "culprits". However, net flows from capital-rich to capital-poor countries can only be effected with corresponding current account deficits in the recipient countries, which are produced by a real appreciation of their exchange rate. The appreciation in turn reduces the relative incentive to invest in exportable production and tilts incentives towards non-tradables, including real estate, whose relative price has to rise. Higher capital equipment of local labour, a result of domestic investment financed (partly) by foreign savings, reduces the marginal return to capital.

### **The Choice of the Exchange-Rate Regime**

The currency crashes of the 1990s underscore the evidence that the combination of pegged exchange rates and open capital accounts are prone to costly accidents. Soft pegs and narrow bands (2.25 per cent) created a one-way bet for speculators under ERM I in the early 1990s, as convergence plays in connection with the EU southern enlargement were encouraged by pegs that assumedly minimised currency risk and thereby created investor moral hazard. Mexico's 1994-95 highlighted the same crisis mechanism as slow disinflation in the presence of heavy intramarginal intervention to defend the crawling peg for the peso had created cumulative competitiveness problems



and a large current account deficit financed by short-term bonds. The Asian crisis of 1997-98 was preceded by considerable appreciation of real effective exchange rates, in particular during the 1995–96 period, which resulted largely from the rise in the US dollar to which the Asian currencies were effectively pegged and from the depreciation of the yen, a key competitor currency. The inappropriateness of a dollar peg for the APEC currencies had long been recognised (Reisen and van Trotsenburg, 1988), although it had prevented beggar-thy-neighbour policies through competitive devaluations in the region. The disastrous failure of the currency board system in Argentina can be traced to insufficient fiscal discipline, an overvalued real effective exchange rate, and to the disincentives for savings promotion due to heavy liquidity requirements in the banking system (Braga de Macedo *et al.*, 2001).

Argentina's dismal experience shows that no exchange rate regime will confer sufficient stability in the prolonged absence of growth. Flexible exchange rate systems have tended to favour those macro variables that have been identified in the theoretical and empirical literature as important channels for sustained economic performance (Bank of Canada, 2001): *a*) investment, *b*) trade openness, *c*) capital flows and *d*) fiscal or institutional rigidities. In a study that evaluates Latin American growth performance, Grandes and Reisen (2003) confirm the channels emphasised in the sparse literature that links the choice of the currency regime to growth performance. They highlight four criteria that will help guiding the choice of the appropriate currency regime in emerging-market countries:

- How does the regime impact on the mix of capital inflows? Does it encourage flows that carry positive growth externalities or does it encourage flows that raise a country's vulnerability to financial crisis?
- How does the regime impact on the incentive to invest and save rather than to consume? Does it foster productivity growth by keeping output volatility in check?
- How does the regime impact on the tradables sector and add to its integration into world trade, namely by providing sustainable and competitive exchange-rate levels and by avoiding misalignments from the fundamental equilibrium rate?
- How does the regime cope with a country's given rigidities, namely in the fiscal area, and to what extent can such rigidities safely be assumed to display a sufficient degree of endogeneity to the regime choice?

The hard peg advocates have argued that independent monetary policy is no longer an effective policy instrument for emerging countries for a variety of reasons: *a*) the lack of credibility; *b*) liabilities dollarisation (Calvo, 2001); *c*) the "original sin" problem of non-existing long-term local-currency finance causes currency or maturity mismatches (Hausmann, 2000); *d*) excessive de-facto interest rate and reserves volatility resulting in "fear of floating" (Calvo and Reinhart, 2000); or *e*) the substitution with capital market financing of relative price-adjustment (Dornbusch, 2001). We would add to this list that a pure nominal float tends to encourage prolonged periods of misalignment (such as in New Zealand and the United States in the 1980s, and later in Great Britain) which threaten growth strategies based on diversifying exports away from traditional crops towards non-traditional industries (see, for example, Joumard and Reisen, 1992).

In Latin America, the hard peg view has been increasingly discredited: During the last two decades, failed attempts with hard pegs have been discontinued in favour of more flexible exchange-rate arrangements, witness Chile in the early 1980s, Mexico in the mid 1990s, Brazil in the late 1990s and now Argentina. Those who support exchange rate flexibility (e.g. Larrain and Velasco, 2001; Schmidt-Hebbel, 2000), point to nominal wage and price rigidities, to the prevalence of real shocks in emerging markets and to the moral hazards implicit in pegs to make the case for exchange-rate flexibility. They attempt to prove their case by citing the main shortcomings of the hard pegs experiences as: wider and more volatile sovereign spreads driven by comparatively growing default risk; heightened output volatility; wage and price stickiness; insufficient fiscal discipline and the non-compliance with Optimum Currency Areas criteria (OCA) to irrevocably peg the exchange rate.

The situation in transition countries is varied (Granville, 2001). Some central European countries — the Czech Republic, Poland, and Slovakia — have moved to managed floats, while Hungary has already committed to an ERM II-type exchange-rate mechanism (a +/- 15 per cent band around a fixed parity to the Euro). However, a peg to the Euro may be premature and subject to the *Walters' Critique*. The one-time advisor to former UK Prime Minister Margaret Thatcher had prominently pointed out the boom-bust risk of shadowing an anchor currency when local inflation remained somewhat higher than in the anchor country. With converging interest rates, real interest rates may become inappropriately low in countries with higher inflation, and stimulate a twin spending and debt boom while local asset prices are pushed up. In particular the history of emerging-market crises suggests that booms are easily followed by busts and that today's financial-market darlings, including former EU and OECD entrants, have become financial-crisis victims within months.

Whether hard pegs such as currency boards as practised in Estonia are a better alternative for open economies depends very much on institutional and regulatory prerequisites and on their degree of endogeneity with respect to the exchange rate regime (Eichengreen, 2000). These can be summarised as follows:

- The banking system must be strengthened, so that the central banks' more limited capacity to provide lender-of-last-resort services does not expose the country to financial instability;
- The fiscal position needs to be strong so that the absence of the central banks' ability to absorb new public debt does not end in a funding crisis;
- Commercial and intergovernmental credit lines must have been negotiated to secure liquidity in an investor sentiment crisis;
- The labour market must be made flexible in order to accommodate asymmetric shocks without higher levels of un(der)development;
- And the real economy structures should be aligned to ensure that cyclical and monetary conditions coincide with the pegging partner.

This is a long list which is not easily met; neither can its parameters assumed to be largely endogenous to the exchange-rate regime. Authorities in central Europe are certainly better informed than us whether or when their country would meet that demanding list. It should be noted, however, that there is evidence that EU accession

countries currently encounter shocks that are largely uncorrelated with those in the EMU core (Fidrmuc, 2002); that the EU is likely to impose transitional barriers to international migration following EU enlargement so that migration will not be an effective adjustment channel; and that there is essentially no fiscal risk sharing among the EU or EMU countries.

While hard pegs often confer initial gains in credibility and hence lower capital cost, these gains can be ephemeral when they are not supported by a sufficient degree of institutional development and economic flexibility. Braga de Macedo *et al.* (2001) have shown that both Africa and Argentina became trapped by an inappropriate anchor currency — inappropriate as the anchor did neither reflect their trade directions nor their cyclical needs. As there are few currencies available to borrow credibility from, this lesson will not be unique: it suggests either a basket peg or, if a realistic option, to build rather than borrow credibility.

Agnes Benassy-Quere and Benoit Coeure (2000) have recently stressed the *regional dimension* of the debate on corner solutions (see also Branson, 2001, who computes optimal pegs for groups of developing countries). They argue that both pure floating and hard pegs make future regional co-operation more difficult. This is important in a world of regional trade blocs which look for ways to intensify co-operation. A float is an inherently unstable regime for countries competing on world markets for a similar range of products and hence sets incentives for beggar-thy-neighbour competitive devaluation. Floating induces non-co-operative strategies, especially when the competing neighbours face a common shock. Hard pegs are hard because it is so difficult to reverse them and because they lack an exit strategy. They are thus only suited for countries which aim at joining a monetary union with the anchor currency in not too distant a future (such as some EU accession countries). On the other hand, the perspective of joining or creating a monetary union can make intermediate regimes more robust in the mean time.

With increasing financial integration, emerging markets may thus opt to give up on *some* exchange rate stability and on *some* monetary autonomy. There is ample choice on currency regimes inside the corners, although most of the regimes will amount to some sort of inflation targeting.<sup>1</sup>

Fiscally disciplined Southeast Asia succeeded for quite a while (1978-96) to reconcile stable exchange rates, low inflation and massive capital inflows without resort to capital controls. In the absence of developed money markets, the Southeast Asian central banks extended the open-market sterilisation instruments common in industrial countries through the use of public institutions such as social security funds, state banks

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1. Sebastian Edwards (2000) lists the range of regimes from *i*) free float (with the exchange rate determined in the market alone) to *ii*) floating with a "feedback rule" (indirect intervention which does not result in changes in reserves), *iii*) managed float (with intervention resulting in changes in international reserves), *iv*) target zone (floating within a band, with the central parity fixed), *v*) sliding band (with adjustable central parity), *vi*) crawling band (backward- or forward-looking change of central parity), *vii*) crawling peg (passive or active adjustable peg), *viii*) fixed, but adjustable peg, *ix*) currency board, and *x*) full adoption of another country's currency. Fischer (2001) excludes fixed, but adjustable pegs and narrow band exchange rate systems as not viable in countries open to international capital flows.

and public enterprises as monetary instruments (Reisen, 1993b). But, from the mid-1990s, the regime ceased to keep the real effective exchange rate stable, and gradually turned into a dollar peg, as demonstrated by Benassy-Quere and Coeure (2000).

Further, exchange rate target zones with little intra-marginal intervention and moderate width have been pursued quite successfully in Chile, Colombia and Israel in the early 1990s (Williamson, 1996), despite a large degree of financial openness in these countries: their crawling band help to achieve the trade-off between the conflicting objectives of reducing inflation and maintaining export growth. That they were given up in all cases, needs some explanation. A possible theoretical rationale is the complexity of basket pegs with bands, which hampers their verifiability, but is nevertheless needed for credibility (Frankel *et al.*, 2000). In the next section we argue that, once the effectiveness of the Multilateral Surveillance Framework (MSF) is verifiable, there will be greater tolerance for intermediate regimes, so that the argument that they are “too complicated for locals and for Wall Street” need not apply.

### **Earning Credibility through Multilateral Surveillance**

Braga de Macedo *et al.* (2001) discuss how a code of conduct built up over the years and transformed the ERM from an exchange rate arrangement into a convergence instrument. This ERM code of conduct favoured a medium term orientation of macroeconomic policy, coupled with measures designed to improve the functioning of factor markets and of the public sector. The principle of a stability oriented policy based on the respect of property rights and open markets goes back to the gold standard, and reflects “rules of good housekeeping” valid at the core and at the periphery. Actually, “sustained regime change” was identified in EC (1990, chapter 9) as a condition for benefits to accrue to peripheral nations or regions. This argument was especially strong under the limited labour mobility and flexibility, coupled with low fiscal redistribution among states, which prevails in the European economy. In these circumstances, exchange rate adjustments may become necessary to eliminate declines in competitiveness but they may not succeed in changing relative prices. The greater the underlying capital mobility and the more likely the repetition of exchange rate adjustments, the less effective a devaluation will be.

EC (1990) also used survey data to suggest that firms did not expect devaluation to solve their problems but rather thought that credit constraints were a more severe hindrance to expansion at the peripheries than at the centre. The fear that restrictions on fiscal policy called for by the excessive deficit procedure (EDP) contained in the treaty and later by the Stability and Growth Pact (SGP) would hurt growth and prosperity was addressed in Buti *et al.* (1997), who showed that the retroactive application of the SGP would not have exacerbated recessions over the 1961-97 period. With the current downturn the debate has resurfaced and led to suggestions that the SGP should be scrapped (Blanchard and Giavazzi, 2002; Wyplosz, 2002). Evidence from the markets suggests otherwise: the SGP has helped Euro credibility by alleviating concerns about “the free rider problem that potentially arises with the adoption of a common currency across a group of states with national budgets” (Persaud and Metcalfe, 2002; also

Alphandéry, 2002, and Thygesen, 2002). Therefore the modifications announced on 27 November 2002 have restored the credibility of the MSF for Eurozone members.

If correcting excessive deficits is difficult for EU member countries, buttressing the soundness of public finances is a formidable task in countries with histories of high inflation, where neither the social partners nor public employees automatically appreciate the benefits of the regime change that the policy makers are attempting to engineer. Errors in policy appraisal can unduly raise the costs of reform, when information about the change in regime is not readily available to international financial markets. Repeated market tests of the authorities' commitment to exchange rate stability may result from this imperfect information. If these tests of the authorities' resolve greatly increase the cost of defending the exchange rate, they can lead to policy reversals. Conversely, if the volatility of the exchange rate is a direct consequence of system turbulence, market tests will be short-lived and the threat of a reversal will become less and less credible, both abroad and at home.

Since its meeting in Brussels in late 1993, the European Council has been issuing "broad guidelines" against which policy and performance in the member states are to be gauged in what has become a regular test of the MSF for all EU member states. The progress of policy reform stands on how effective this MSF might be among union officials whose interaction with national officials should be accountable in their respective parliaments and in the European parliament.

As stated, the debate on corner solutions has a regional dimension. Regional integration reinforces peer alignment, contributing to the atmosphere in which peer review and surveillance take place. The EU and Euro area policy review processes are very intensive, with peer pressure based on elements that cannot be replicated in any looser form of international institution. There are elaborate, frequent procedures sometimes based on rules, but mostly on national commitments to which it is the task of the monitoring agencies such as the Commission and at the next level, committees, to keep countries to. The involvement of high-level officials is much greater than at the IMF or the OECD. In sum, the arrangements in place within the EU give by far the greatest scope for the exercise of peer pressure and supervision.

In contrast with the Asian and Latin American experiences mentioned at the outset, candidates for membership have not been willing to set up a MSF among themselves, even when there exists an institutional vehicle like CEFTA. Yet this is the way in which geographical peripheries can acquire global reputation. In a sense, they overcome the cost of physical distance through financial proximity. Of course initial and terminal conditions matter as much as the capacity to transform. Doctrinal controversies often reflect different assumptions about each one of these three factors.

In transition and developing economies, though, the institutional framework for such an orientation is lacking, so that the rules for monetary stability are not credible. The expectation of EU membership, under conditions of convergence and cohesion, provides this credibility but credible surveillance is needed for geographical peripheries to acquire global reputation. The time it takes for a nation to acquire a reputation for financial probity varies but it typically involves several general elections where alternative views of society may confront each other.

To construct a social consensus domestically, credible signals that the authorities are committed to reform may be needed. If stable democratic governments succeed in implementing reforms which help to achieve convergence between poorer and richer nations and regions, they can set off a self-reinforcing virtuous cycle of stability and growth. On the other hand, there will be a vicious cycle if short-lived governments, fearing the social conflicts associated with reforms, delay implementation and impair convergence.

With high capital mobility, exchange rate stability requires a speedy real and nominal convergence process. The indicators of budgetary discipline have become signals of regime change sustained by the structural reform of the public sector. Given that financial markets tend to exaggerate rather than to dampen such signals, apparent reversions during a relatively rapid convergence are also more liable to misinterpretation. The cohesion objective involves a degree of social awareness that may not be required with respect to the convergence of fiscal variables. In any event, whatever the credibility of national policies, it has been apparent that fast convergence is more difficult with slower growth and that the main macroeconomic costs arise before the main microeconomic benefits are felt.

If, in the final analysis, the exchange rate reflects the credibility of national policies over the medium term, it may do so with considerable noise if the entire parity grid is under attack. This is why little indication about the credibility of national policy could be gathered from the realignments which occurred during the turbulent 1992-93 period. Speculative attacks on more vulnerable currency parities will have more negative effects on the system if parities are already locked than if they continue to be flexible. Flexibility within a sufficiently wide band allows speculation not to be a one-way bet. That lesson was learned in the twelve months preceding 2 August 1993 when very wide bands of 15 per cent replaced the normal fluctuation margins. The external discipline provided by the grid no longer obtained and each central bank decided whether or not to intervene within the old fluctuation bands. Most decided to do just that, so that the convergence process was not hurt by the decision to widen the band. The lesson from the currency crises is that the largely unwritten ERM code of conduct implied more effective co-ordination mechanisms among monetary and fiscal authorities than expected. Non-compliance with the code of conduct played a major role in the development of the currency turmoil, but the system regained stability after 2 August 1993, thanks to the widening of the fluctuation bands, which limited speculative pressure by eliminating one-way bets and reintroducing two-way risks.

The option to float in order to fix, a kind of financial "cruel to be kind" (Braga de Macedo, 2001a, using a line from Hamlet, which made its way into a pop song) shows that the set of principles, rules and code of conduct which underlie the ERM have proven correct for the euro as well. That the widening of the bands was a positive step towards the euro may be easily accepted nowadays. That you may float in order to fix introduces the earning credibility process explicitly in what is the major lesson from the ERM code of conduct. When the decision to widen the bands was taken, however, many observers and prominent economists stated that the euro was dead as Branson (1994) remarked at the time. The question of credibility is different in members of the Eurosystem because, with a single monetary policy, they are more used to follow a multilateral surveillance

framework. Since the best indicator of policy credibility is that multilateral surveillance is effective, it is the framework that determines the choice of an exchange rate regime.

### **Flexible European Integration**

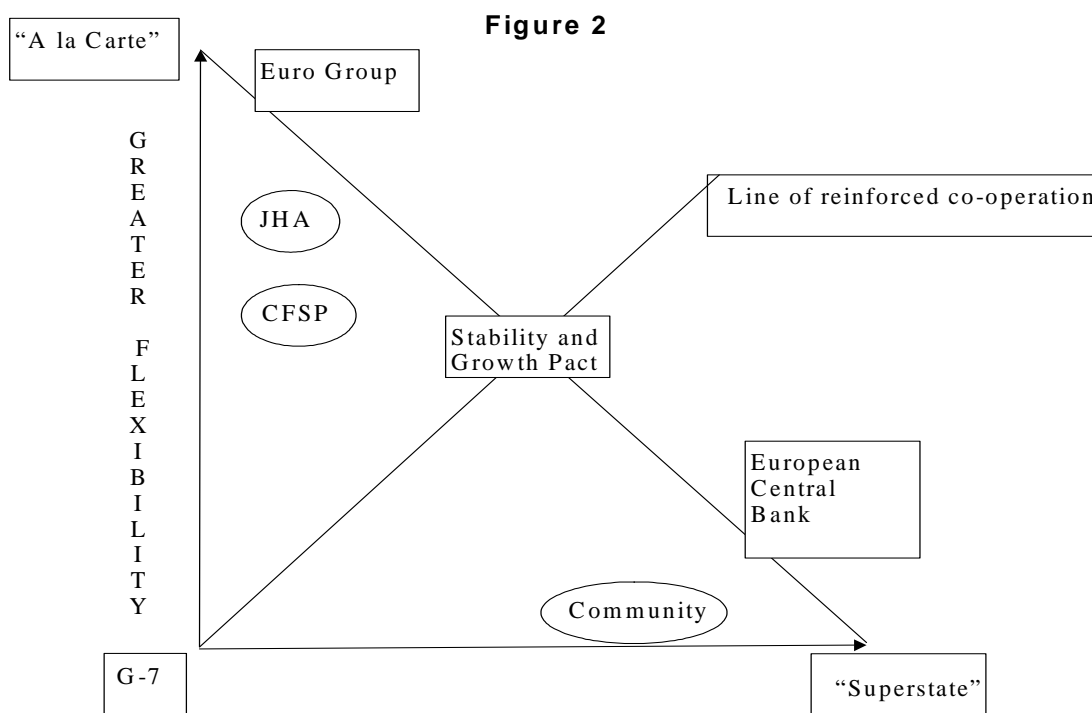
The creation of the eurosystem was followed by a difficult institutional period, which has also delayed the accession calendar. The delay reflects the propensity to procrastinate on structural reforms, rather than the recurrent European debate about whether multiple-speed convergence towards union objectives is possible and desirable. This debate does help illustrate the complementarity between global and regional common good. One extreme position in the European debate draws on the view of a unified constitutional state, for which variable geometry is impossible. The other extreme position calls for a set of contractual arrangements, where common institutions are undesirable.

From the beginning, the European Community attempted to transcend the rigid intergovernmental nature of the OECD or of the G-7 (which does not even have a permanent secretariat) in the direction of supranational institutions like the EC. But the convergence stopped far short of establishing Community-wide democratic legitimacy. As a consequence, the institutional framework became more and more complex, especially after a Union with three pillars, the Community and two intergovernmental ones was created in the 1992 Maastricht Treaty. In the process, flexibility was lost and this is why the institutional debate has resurfaced in the *Convention for the future of Europe*. The Convention deals with ongoing “back to basics” issues such as proximity, legitimacy and accountability and takes into account the views of the accession countries.

The case for flexible integration can be made with the help of a diagram. For any given number of member states, there is a trade-off between the freedom to enter into contractual agreements which include some members and exclude others and the ultimate requirement of “one man, one vote” which would be associated with a new state emerging from the integration of all members. In Figure 2, adapted from CEPR (1996, p. 47), the vertical axis measures flexibility and the horizontal axis measures depth of integration. The origin represents purely intergovernmental co-operation among the same member states. The vertical axis represents economic efficiency and executive performance, or the forces of competition, while the horizontal axis represents legal status and legislative activity, or the forces of co-operation. Each point in the quadrant can therefore be seen as a combination between competition and co-operation.

The highest point on the vertical axis, labelled “a la carte”, would be equivalent to a purely contractual institutional design where any combination of subgroups of member states is acceptable, so that the basic intergovernmental principle of equality of member states applies and unanimity in decision making is preserved. During the revisions of the Union treaty in 1996 and 2000, intergovernmental schemes of “reinforced co-operation” have been called for among some member states, as their creation still requires unanimity of all member states and their membership is open to all of the member states who qualify. The Nice treaty made “reinforced co-operation” possible in Community, JHA and even some CFSP areas (CEPR, 2001). This should alleviate cohesion countries’ concerns about the proposals for flexible integration made during the preparation for Amsterdam. To the extent that flexible integration also stresses the portability of the

European experience to countries in different stages of economic and financial development, it may not only facilitate enlargement but also a clearer European identity in development co-operation.



Proximity suggests governance responses at the appropriate level, through the combined action of elected officials and civil society (including business). The common good may thus be provided by regional institutions, as long as the various levels of government are appropriately combined. For these reasons schemas of flexible integration have been proposed, where the principle of proximity (or subsidiarity) is generalised from geography to issue areas. Along the same lines Kolliker (2001) shows that this generalisation depends on the characteristics of the public good being provided. When there are network externalities with exclusion benefits, as is the case with the Eurosystem (also Schengen), then such flexible integration has a “snowballing effect” which may lead initially reluctant states to join in. When there are no exclusion benefits but rather free ride problems, flexible integration does not lead initially reluctant states to join in. This has been observed with respect to common resources (tax or otherwise).

For certain public goods, then, flexible integration recognises national legitimacy and democratic accountability at national level. It also stresses the role of external pressure in bringing about structural reforms resisted by the operation of domestic-vested interests through yardstick competition.

The Euro delivered convergence and cohesion because the “new politics of credibility” overcame financial hierarchy among sovereign risks. Trade unions recognised the perverse interaction between price and wage increases (which hurts the poor and unemployed disproportionately) and public opinion accepted the medium term stance of



policy. Yet it took longer to convince voters than markets, and some countries used the Euro to procrastinate on their unpopular reforms, threatening the benefits of the stability culture with the “Euro hold up” (Akerlof, 1991; Buiter and Sibert, 1997, for the general point; Braga de Macedo *et al.*, 2001, for the application to the Euro).

### Balancing Disinflation and Competitiveness

The history of Latin American crises (e.g. Chile 1982, Mexico 1994, Brazil 1998, Argentina 2001) warns that many boom episodes have ended in tears because it proved hard to bring inflation from moderate to low levels without endangering external competitiveness and a solid FDI-based structure of capital inflows. All these countries followed exchange-rate based disinflation strategies until their currency crashed. Whether such strategy can succeed depends on *i*) how quickly inflation can be brought down to the rich-country level and *ii*) the cost implied by the loss of international competitiveness. Inflation will persist unless wage inflation becomes forward-looking (by breaking backward indexation or by introducing incomes policy) or unless exchange rate depreciation falls below the past rate of inflation (Dornbusch and Fischer, 1991). Table 1 takes a closer look at the disinflation process in selected EU accession candidates.

Table 1. **Disinflation and Competitiveness**  
(annual percentage points)

	CPI	Wages	Unit Labour Cost (Export Prices)	IMF FX Reg
Czech Rep.				
2000	3.9	7.2	-0.7 (1.7)	7
2001	4.8	8.1	2.7 (2.5)	8
2002(e)	2.1	6.7	10.2 (2.7)	
Hungary				
2000	9.8	21.6	-8.8 (0.8)	6
2001	9.2	14.8	10.2 (1.2)	4
2002(e)	5.4	13.7	13.6 (2.4)	
Poland				
2000	10.1	9.7	-0.6 (-0.4)	8
2001	5.5	8.5	4.2 (-0.9)	8
2002(e)	2.1	3.5	-7.2 (-7.3)	
Slovak Rep.				
2000	12.0		10.9 (7.6)	7
2001	7.4		4.6 (2.7)	7
2002(e)	3.5		1.2 (3.7)	

*Notes:* *CPI* = consumer price indices, percentage change from previous year.  
*Wages* = compensation per employee in the business sector, percentage change from previous year.  
*Unit labour cost (export prices)* = competitiveness-weighted relative unit labour cost (export prices) in the manufacturing sector in dollar terms, percentage change from previous year.  
*IMF FX Reg* = IMF exchange rate regime classification from 1 (euroisation or dollarisation) to 8 (independent float): 4 = horizontal bands; 6 = crawling bands; 7 = managed float with no pre-announced exchange-rate path.

*Source:* OECD, *OECD Economic Outlook*, Vol. 72, December 2002; IMF, *International Financial Statistics*, Vol. 55, May 2002; author's calculations.

The table demonstrates the amount of disinflation achieved in the Central European OECD member countries during the last three years. During this period, the consumer price index in the Euro area rose at a stable 2.4 per cent per annum. The Czech Republic and Poland, therefore, have brought their inflation already down to target

levels; these two countries are thus released from the pressure to keep interest rates high, implying less incentives for hot money inflows and unwarranted currency appreciation. By contrast, disinflation remains incomplete in Hungary where incomes policy and fiscal policy have been unhelpful. Competitive positions as measured by relative unit labour cost and relative export prices have deteriorated except in Poland. The table suggests that the hardening of the Euro peg in Hungary has intensified the trade-off between disinflation and competitiveness. The divergence between the sharp rise in unit labour cost and the moderate rise in relative export prices must be due to corporate profit squeezes that are unlikely to be sustained for long.

Much has been made of the *Balassa-Samuelson effect to justify real currency and wage appreciation* in the so-called transition countries (Halpern and Wyplosz, 1995). From 2000/2001 on, however, productivity gains relative to the major trading partners seem to have been insufficient to compensate for real currency and wage appreciation.

Moreover, while the *speed of the catch-up effect* may slow down as central Europe approaches Western Europe's income levels, EU accession will imply the abolition of remaining barriers to trade, except in a few areas subject to temporary derogations. This means that many firms will face higher competitive pressures from imported EU goods, that smaller firms will suffer from the new burden of legal regulations required by the EU, and that certain companies will lose access to certain tax incentives which are not compatible with EU regulations. Such *deprotection* of sectors exposed to international competition requires a *real depreciation* of the local currency for internal and external balance, which has to be weighed against the amount of real appreciation required by the Balassa-Samuelson effect.

Finally: as long as massive net inflows to the private sector were accompanied by large repayments of foreign public debt, financed by significant privatisation revenues, real currency appreciation could be held in check (for Hungary, see Oblath, 1998). Family silver, alas, is not endless. Further privatisation will thus be a limited option as a policy instrument to influence the real exchange rate.

Such considerations – and the numbers in Table 1 — point to the potential risk that the EU hopefuls will *enter the currency union at an overvalued exchange rate*, as arguably did post-unification Germany<sup>2</sup>. With a low inflation target set by the ECB, real overvaluation will only be corrected over time through even lower inflation, if not deflation. This is a painful process in the presence of price and wage rigidities; the French used to call it “competitive disinflation”, suffering for an extended period until competitiveness had been restored (Blanchard and Muet, 1993).

### Limiting Crisis Vulnerability

In order to gauge whether EU accession candidates have penetrated the crisis danger zone, economists can consult three generations of models of currency crises summarised in Edwards and Frankel (2002). The earliest models of currency crises, in

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2. Financial market observers do worry about real currency overvaluation already now. Standard & Poor's MMS estimated late January 2003 that the Czech and Hungarian currencies were overvalued by up to 40 per cent, while the estimate for the Polish zloty was 13 per cent overvaluation (Luxton, 2003).

particular the influential paper by former IMF chief economist Jacques Polak (1957), were based on the incompatibility of expansionary fiscal and monetary policies with fixed exchange rates. Excessive money creation would then “leak out” through overall balance of payments deficits, until the shortage of foreign exchange reserves would force devaluation or impose controls on capital outflows. The attempts of investors to anticipate the inevitable collapse would generate a speculative attack on the currency when reserves fell to some critical level. The “first-generation” crisis models (Krugman, 1979; Flood and Garber, 1984) accounted well for the many currency crises in the 1970s and also for the 1982 developing-country debt crisis, but the models failed to explain Chile’s 1982 crisis, the 1992 European crisis, the Mexican peso crisis 1994–95 and the 1997-98 Asian financial crisis. The logic of the “second-generation” crisis model (Obstfeld, 1994, developed in the aftermath of the European currency crises, stressed the trade-offs between the benefits of a credible exchange rate peg and the costs in terms of higher interest rates, higher unemployment or lower growth of defending the peg.

Table 2 reveals several weak spots in EU accession countries, both in view of the first- and of the second-generation models. We observe twin budget and current account deficits, which not only indicate a policy mix of loose fiscal stance and tight money, but also are at levels high enough to drive public and foreign debt up in terms of GDP. In fact, the latest OECD Economic Outlook calls for fiscal tightening in all four member countries. Foreign exchange reserves have started to dwindle in Hungary. On the other hand, moderate real GDP growth and very high levels of unemployment seriously limit the governments’ capacity to defend pegs with intensified macroeconomic restraint, imposing a severe second-generation trade-off on ERM II-type currency arrangements for now.

Table 2. **First and Second Generation Indicators, latest**

	Czech Rep.	Hungary	Poland	Slovak Rep.
General government financial balance	-5.7	-6.7	-6.0	-5.5
Current account balance	-4.2	-5.3	-3.3	-7.0
Money growth	6.2	13.0	2.5	9.4
Foreign FX reserves growth	53.3	-16.9	3.1	103.4
GDP growth	2.5	3.1	1.2	4.3
Unemployment rate	7.4	10.1	19.7	19.0

*Note:* Flow data refer to avg. 2002, stock data to end 2002. If not stated otherwise, data are in percentage of GDP; money growth is growth of M2 and FX reserves in 2002 compared to 2001; unemployment is in percentage of labour force.

*Sources:* OECD, OECD Economic Outlook, No. 72, December 2002; IMF, International Financial Statistics; Datastream.

Both the first — and the second-generation crisis models failed to explain several of the recent emerging-market crises, in particular the Asian crisis. A third-generation model explains some of the recent events better: McKinnon and Pill (1998) show how reform countries get into the vulnerability zone through euphoric expectations about the permanent income level. Inefficient financial systems stimulate excessive optimism through credit growth and asset-price inflation. The distortions are magnified further through net capital inflows as they stimulate bank credit growth. Once short-term foreign debt exceeds official reserves, a run on a country’s liquid assets is intensified by the investor knowledge that there are not enough liquid reserves to restore confidence. Short-term debt poses special problems for the maintenance of financial stability, as its

rapid withdrawal can trigger sovereign default, a systemic banking and payments crisis and large-scale corporate defaults (Eichengreen, Mussa, *et al.*, 1998). Exchange rate pegs, in combination with high interest rates, typical in developing countries for structural reasons, tend to reinforce bank lending and spending booms (Reisen, 1998). They constitute an incentive for leveraged investors to exploit interest differentials as well as for offshore borrowing by creditworthy banks and non-banks to tap seemingly cheap sources of finance. Central bank intervention on the foreign exchange market to peg the currency in the face of net inflows, unless sterilised fully, is intermediated into the domestic banking system. The exchange rate peg provides the incentive to allocate those funds disregarding currency and maturity risks, as these are being implicitly transferred to the central bank (Calvo and Mendoza, 1996).

Short-term foreign debt (liabilities to non-resident banks, debt securities, suppliers' credit, domestic debt held by non-residents, deposits of non-residents in domestic institutions) in relation to official foreign exchange reserves has been identified as the single most important precursor of financial crises triggered by capital-flow reversals<sup>3</sup>. As the level of international trade does not seem to have any relationship with level of short-term debt, short-term trade credit seems to play an insignificant role in driving short-term flows (Rodrik and Velasco, 1999). FDI flows, in contrast to debt-creating flows, have been found to stimulate domestic investment, rather than crowding it out by competing in domestic product markets or financial markets. The complementarity of FDI and domestic investment is explained by the complementarity in production and by positive technology spillovers (Borensztein *et al.*, 1995).

Table 3. Indicators of Financial Vulnerability, latest

	Czech Rep.	Hungary	Poland	Slovak Rep.
Short-term foreign debt/reserves	0.7	0.4	0.3	0.7
M2/reserves	2.9	2.3	3.1	3.2
Foreign liabilities/ foreign assets (towards BIS reporting banks)	0.8	3.9	0.8	1.9
FDI/current account deficit (CA deficit as % of GDP)	1.8 (4.2)	0.4 (5.3)	0.8 (3.3)	2.5 (7.0)

Note: Data refer to 2002, but not necessarily to end-of-year.

Sources: BIS, [www.bis.org/statistics/bankstats.htm](http://www.bis.org/statistics/bankstats.htm); IMF, *International Financial Statistics*, Vol. 55, December 2002; OECD, *OECD Economic Outlook*, Vol. 72, December 2002.

- It is often maintained that distinguishing between types of flows generates little policy insight, for essentially two reasons. First, capital flows are said to be fungible. That would imply, for example, that we cannot discern a differentiated impact of foreign direct investment or short-term debt flows on private or government consumption. Second, it has been argued that capital-flow labels have become meaningless in the presence of derivatives or efforts to circumvent capital controls. These claims, however, ignore a large body of empirical, if not analytical, evidence. Sarno and Taylor (1999) measure the relative size and statistical significance of permanent and temporary components of various categories of capital flows to a large group of Latin American and Asian countries during the period 1988-97. They find relative low permanent components in bond flows, equity flows and official finance, while commercial bank credit flows appear to contain quite large permanent components and FDI flows are almost entirely permanent. If a large portion of the variation in the time series is explained by movements in the temporary components, then the flows under consideration indicate a higher degree of potential reversibility.

Abundant foreign supply of capital (offered at rapidly falling sovereign yield spreads) and the greater ability of non-bank and bank borrowers to tap the international financial markets have interacted to fuel a rise in non-bank and bank foreign liabilities (toward BIS reporting banks). In terms of foreign assets, non-bank foreign liabilities exploded in especially in Hungary (see Table 3). When short-term foreign debt starts to exceed official reserves (indicated by a ratio higher than one), each creditor knows that there are not enough liquid foreign exchange reserves, so there is a race to the exit. The Table gives no warning on that front, and especially not to Hungary.

While all for EU hopefuls display a short-term debt/reserves ratio lower than one, they are financially open. Openness implies that M2/reserves become the relevant indicator for financial vulnerability, as residents may try to obtain foreign currency for their domestic currency holdings. The M2/reserves ratio exceeds one by far in all four countries. As for the reversibility of the capital flows financing the current account deficits in EU accession countries, Hungary stands out for combining a high deficit level (relative to GDP) with a low FDI cover. The country's combination of twin budget and current account deficits plus vulnerable finances risks to ignite unpleasant fireworks in financial markets, if emerging-market lessons hold.

## **Conclusion**

On the way to become a full member of the Euro area, EU accession countries will face an intensified policy trilemma between open capital accounts, monetary sovereignty and exchange rate stability; the trilemma is most visible already in Hungary. In particular, where fiscal institutions do not yet allow full fiscal control, where the banking sector is weak and where inflation levels remain above those at the centre, loss of external competitiveness through exchange-rate misalignment and balance-sheet mismatches might lead the accession countries rapidly into the crisis danger zone. For those unaware of the history of EU enlargement and of failed hard-peg experiments in emerging markets, corner solutions — a pure float or a hard peg — are the preferred choice for the exchange-rate regime to resolve such policy trilemma and limit crisis vulnerability.

The prospect of regional integration invalidates corner solutions as non-co-operative (float) and costly to exit (hard pegs), but it revives the intermediate exchange-rate regime. The EMS experience shows that target zones plus effective codes of conduct, wide enough to allow for sufficient flexibility, can indeed confer sustained credibility as to avoid large misalignments and to reduce crisis vulnerability. What they need to achieve these objectives goes beyond the public perception that the central parity is consistent with long-term fundamentals. Expectations need to be guided by mutually agreed and monitored governance codes towards intensifying integration, based on visible progress in macroeconomic stability and regulatory reform. The MSF (multilateral surveillance framework) has to be “owned” by, rather than imposed on, the countries concerned. It must therefore be supported by peer pressure and yardstick competition, both of which are built gradually. The “Eurocentric” approach to earning credibility on the way to monetary integration holds impressive successes in the former (Southern) periphery. This is why the practical operation of the EMS provides important lessons for authorities struggling to implement sustainable exchange-rate regimes to

support economic convergence. These lessons are beginning to spread beyond the European continent, reaching Asia and Latin America. While an EU style MSF is no panacea either, the fact that it does not seem to avoid difficult choices will certainly be welcome by reformist governments worldwide.

## BIBLIOGRAPHY

- AKERLOF, G. (1991), "Procrastination and Obedience", *The American Economic Review*, Vol. 81:2, pp. 1-19.
- ALPHANDÉRY, E. (2002), *Need We Amend the Stability and Growth Pact?*, paper presented at the Euro 50 Group meeting held in Paris on 27 November 2002.
- BAILLIU, J., R. LAFRANCE and J.F. PERRAULT (2001), "Exchange Rate Regimes and Economic Growth in Emerging Markets", in Bank of Canada, *Revisiting the Case for Flexible Exchange Rates*.
- BENASSY-QUERE, A. and B. COEURE (2000), "Big and Small Currencies: the Regional Connection", *CEPII Working Paper* No. 2000-10, June.
- BLANCHARD, O. and F. GIAVAZZI (2002), *A Reform that Can Be Done Now: Improving the SGP through a Proper Accounting of Public Investment*, paper presented at the Euro 50 Group meeting held in Paris on 27 November 2002.
- BLANCHARD, O. and P.A. MUET (1993), "Competition through Disinflation: An Assessment of the French Macroeconomic Strategy", *Economic Policy*, Vol. 16, pp. 12-56.
- BRAGA DE MACEDO, J. (2001a), "Statement to the Preparatory Committee of the UN Conference 'Financing for Development'", New York, 20 February, available at [www.fe.unl.pt/~jbmacedo/oecd/un.htm](http://www.fe.unl.pt/~jbmacedo/oecd/un.htm).
- BRAGA DE MACEDO, J. (2001b), "The Euro in the International Financial Architecture", *Acta Oeconomica*, Vol. 51 (3), pp. 287-314.
- BRAGA DE MACEDO, J. (2000), "Converging European Transitions", *The World Economy*, Vol. 23, No. 10, pp. 1335-1365, November.
- BRAGA DE MACEDO, J., D. COHEN and H. REISEN (2001a), *Don't Fix, Don't Float*, Development Centre Studies, OECD, Paris.
- BRAGA DE MACEDO, J., D. COHEN and H. REISEN (2001b), "Monetary Integration for Sustained Transition: Earning Rather than Importing Credibility", in J. BRAGA DE MACEDO, D. COHEN and H. REISEN (2001a), pp. 11-53.
- BRANSON, W. (2001), "Intermediate Exchange Rate Regimes for Groups of Developing Countries", in J. BRAGA DE MACEDO, D. COHEN and H. REISEN (2001a), pp. 55-76.
- BRANSON, W. (1994), "German Reunification, the Breakdown of the EMS and the Path to Stage Three", in D. COBHAM (ed.), *European Monetary Upheavals*, Manchester University Press.
- BRANSON, W. and J. BRAGA DE MACEDO (1995), "Macroeconomic Policy in Central Europe", *CEPR Discussion Paper*, No. 1195, August.
- BRANSON, W., J. BRAGA DE MACEDO and J. VON HAGEN (2001), "Macroeconomic Policies and Institutions during the Transition to European Union Membership", in *Central Europe towards Monetary Union: Macroeconomic Underpinnings and Financial Reputation*, R. MACDONALD and R. CROSS (eds.), Kluwer Academic Publishers, Boston, pp. 5-30.

- BUITER, W. and A.C. SIBERT (1997), "Transition Issues for the European Monetary Union", in *De EMU in Breed Perspectief; Preadviezen 1997, Koninklijke Vereniging voor de Staathuishoudkunde*, Uitgeverij LEMMA BV, Utrecht, pp. 1-17.
- BUTI, M., D. FRANCO and H. ONGENA (1997), "Budgetary Policies during Recessions: Retrospective Application of the 'Stability and Growth Pact' to the Post-War Period", European Commission, DGII mimeo, Brussels.
- CALVO, G. (2001), "The Case for Hard Pegs in the Brave New World of Global Finance", in J. BRAGA DE MACEDO, D. COHEN and H. REISEN (2001a).
- CALVO, G. and E. MENDOZA (1996), "Petty Crime and Cruel Punishment: Lessons from the Mexican Debacle", *The American Review*, Papers and Proceedings, May 1996, pp. 170-185.
- CALVO, G. and C. REINHART (2000), "Fear of Floating", *Quarterly Journal of Economics* 117(2), pp. 379-408.
- CARRÉ, H. (2002), "Economic Governance in EMU", paper presented at the Euro 50 Group meeting held in Paris on 27 November 2002.
- CEPR (2001), "Nice Try: Should the Treaty of Nice be ratified?", *Monitoring European Integration* 11, London.
- CEPR (1996), "Flexible Integration, Towards a More Effective and Democratic Europe", *Monitoring European Integration* 6, London.
- DORNBUSCH, R. (2002), "A Primer on Emerging-Market Crises", in E. EDWARDS and J. FRANKEL (eds.), *Preventing Currency Crises in Emerging Markets*, Chicago University Press for NBER, pp. 743-754.
- DORNBUSCH, R. (2001), "Fewer Monies, Better Monies", *NBER Working Paper* 8324, available at: <http://www.nber.org/papers>.
- DORNBUSCH, R. and S. FISCHER (1991), "Moderate Inflation", *NBER Working Paper* No. 3896, November.
- EDWARDS, S. (2000), "Exchange Rate Systems in Emerging Economies", mimeo, UCLA.
- EICHENGREEN, B. and M. MUSSA, with G. DELL'ARICCIA, E. DETRAGIACHE, G.M. MILESI FERRETTI and A. TWEEDIE (1998), "Capital Account Liberalization: Theoretical and Practical Aspects", *IMF Occasional Paper*, No. 172.
- EC (1990), "One Market, One Money: An Evaluation of the Benefits and Costs of Forming an Economic and Monetary Union", *European Economy*, Vol. 44, October.
- FIDRMUC, J. (2002), "Strategic Aspects of Exchange Rate Regime Choice for the Accession Countries", unpublished, ECARES, Université Libre de Bruxelles.
- FISCHER, S. (2001), "Exchange Rate Regimes: Is the Bipolar View Correct?", [www.imf.org](http://www.imf.org).
- FLOOD, R. and P. GARBER (1984), "Collapsing Exchange-Rate Regimes: Some Linear Examples", *Journal of International Economics*, Vol. 17, pp. 1-13.
- FRANKEL, J.A. (1999), "No Single Currency Regime is Right for All Countries or at All Times", *NBER Working Paper* No. 7338, September.
- FRANKEL, J.A., S. SCHMUKLER L. and SERVEN (2001), "Verifying Exchange Rate Regimes", *Journal of Development Economics*, Vol. 66, 2, pp. 351-386.
- GRANDES, M. and H. REISEN (2003), "Exchange Rate Regimes and Macroeconomic Performance: Revisiting Three Major Latin-American Experiences", mimeo, Ford Foundation/ECLAC.
- GRANVILLE, B. (2001), "Exchange Rates in Transition", in J. BRAGA DE MACEDO, D. COHEN and H. REISEN (2001a), pp. 85-93.



- HALPERN, L. and C. WYPLOSZ (1995), "Equilibrium Exchange Rates in Transition", *CEPR Working Paper* No. 1145.
- HAUSMANN, R. (2000), "Exchange Rate Arrangements for the New Architecture". *in* Global Finance from a Latin American Viewpoint, R. HAUSMANN and U. HIEMENZ (eds.), OECD Development Centre, Paris.
- JOURMARD, I. and H. REISEN (1992), "Real Exchange Rate Overshooting and Persistent Trade Effects: The Case of New Zealand", *The World Economy*, Vol. 15.3., pp. 375-388.
- KOLLIKER, A. (2001), "Bringing Together or Driving Apart the Union? Towards a Theory of Differentiated Integration", preprints, Max Planck Projektgruppe Recht der Gemeinschaftsgueter, Boon 5.
- KRUGMAN, P. (1979), "A Model of Balance-of-Payments Crises", *Journal of Money, Credit and Banking*, Vol. 11, pp. 311-325.
- LARRAÍN, F. and A. VELASCO (2001), "Exchange Rate Policy in Emerging Markets: The Case for Floating", unpublished.
- LUXTON, P. (2003), "Wechselkurse der Beitrittskandidaten bereiten Sorge", [www.faznet.de](http://www.faznet.de), 30 Jan. 2003.
- MCKINNON, R and H. PILL (1996), "Credible Liberalizations and International Capital Flows: The Overborrowing Syndrome", *in* T. ITO and A. KRUEGER (eds), Financial Regulation and Integration in East Asia, University of Chicago Press, Chicago.
- MUNDELL, R.A. (1962), "The Appropriate Use of Monetary and Fiscal Policy under Fixed Exchange Rates", *IMF Staff Papers*, Vol. 9, pp. 70-77.
- OBLATH, G. (1998), "Capital Inflows to Hungary and the Accompanying Policy Responses", *Empirica*, Vol. 25.2, pp. 183-216.
- OBSTFELD, M. (1994), "The Logic of Currency Crises", *Cahiers Economiques et Monétaires*, Banque de France, Vol. 43, pp. 189-213.
- OECD (2002), *OECD Economic Outlook*, Vol. 72, December.
- PERSAUD, A. and M. METCALFE (2002), "Is it Really Stupid? The Markets Perspective on the Stability & Growth Pact and Prospects for its Reform", paper presented at the Euro 50 Group meeting held in Paris on 27 November 2002.
- POLAK, J. (1957), "Monetary Analysis of Income Formation and Payments Problems", *IMF Staff Papers*, Vol. 6.4, pp. 1-50.
- REISEN, H. (2002), *Prospects for Emerging Market Flows amid Investor Concerns about Corporate Governance*, Technical Paper No. 201, OECD Development Centre, Paris, November.
- REISEN, H. (1998), "Sustainable and Excessive Current Account Deficits", *Empirica*, Vol. 25.2, pp. 111-131.
- REISEN, H. (1993a), "Integration with Disinflation: Which Way?", *in* Richard O'BRIEN (ed.), *Finance and the International Economy 7*, The Amex Bank Review Prize Essays in memory of Robert Marjolin, Oxford University Press.
- REISEN, H. (1993b), "South-East Asia and the Impossible Trinity", *International Economic Insights*, Institute for International Economics, Washington D.C., May/June.
- REISEN, H. and A. VAN TROTSENBURG (1988), "Should the Asian NICs Peg to the Yen?", *Intereconomics* (July/August), pp. 172-177.
- RODRIK, D. and A. VELASCO (1999), "Short-Term Capital Flows", *NBER Working Paper* No. 7364, September.
- SARNO, L. and M. TAYLOR (1999), "Hot Money, Accounting Labels and the Permanence of Capital Flows to Developing Countries: An Empirical Investigation", *Journal of Development Economics*, 59(2).

SCHMIDT-HEBBEL, K. (2000), "Chile's Peso: Better than (just) Living with the Dollar?", *Cuadernos de Economía*, Vol. 37, 110, pp. 177-226.

THYGESEN, N. (2002), "The Stability and Growth Pact: Any Need for Revision?", paper presented at the Euro 50 Group meeting held in Paris on 27 November 2002.

WILLIAMSON, J. (2000), "Exchange-Rate Regimes for Emerging Markets: Reviving the Intermediate Option", Institute for International Economics, Washington, D.C.

WILLIAMSON, J. (1996), "The Crawling Band as an Exchange Rate Regime: Lessons from Chile, Colombia and Israel", Institute for International Economics, Washington D.C.

WYPLOSZ, C. (2002), "The Stability Pact Meets its Fate", paper presented at the Euro 50 Group meeting held in Paris on 27 November 2002.

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