



**CENTRAL BANK OF ICELAND  
WORKING PAPERS No. 4**

**SMALL STATES ON THE FRINGES OF BIG CURRENCY  
AREAS: EXPERIENCES AND THE POLICY OPTIONS  
OF SMALL NON-EU EUROPEAN STATES**

by  
**Már Guðmundsson**

**May 1999**

**CENTRAL BANK OF ICELAND  
Economics Department**

Central Bank of Iceland Working Papers are published by the Economics Department of the Central Bank of Iceland. The views expressed in them are those of their authors and not necessarily the views of the Central Bank of Iceland.

Also available on the Central Bank of Iceland World Wide Web site (<http://www.sedlabanki.is>)

All rights reserved. May be reproduced or translated provided the source is stated.

ISSN: 1028-9445

# **SMALL STATES ON THE FRINGES OF BIG CURRENCY AREAS: EXPERIENCES AND THE POLICY OPTIONS OF SMALL NON-EU EUROPEAN STATES**

by

**Már Guðmundsson\***

**May 1999**

---

## **Abstract**

A big currency area is likely to have small states on its fringes that are strongly influenced by the monetary policy pursued by that area. Many of these countries will choose to peg their exchange rates to the currency of the big area and even go as far as to adopt that currency as a legal tender. This is clearly the case on the southern flank of the United States. It is also likely to be the case with small states on the fringes of the emerging euro area. The relative attractiveness for European "non-EU-outs" of some kind of a euro peg depends on the eventual size of the euro area, the degree of economic integration with the euro area, the likelihood of asymmetric shocks and the options that will be available regarding bilateral pegs for close third countries. There are different degrees to the option of a peg to the euro, i.e. a traditional unilateral peg, a bilateral peg, a currency board and the introduction of the euro as a legal tender. The last option will give greatest benefits in terms of reducing the interest rate differential but has costs in terms of a loss of independent monetary policy and sovereignty. From that standpoint a membership in EMU is superior.

Key words: Monetary union, EMU, exchange rate policy

JEL: E42 - F33

---

---

\* Chief Economist and Director of Economics Department, Central Bank of Iceland. A paper originally presented at a Conference on "The Global Financial Market and the Euro: Strategies and Prospects", Bank of Portugal, 10-11 November 1998. I would like to thank Thórarinn G. Pétursson for comments and him and Kristjón Kolbeins for research assistance. The views expressed in this paper are those of the author and do not necessarily have to reflect the views and policies of the Central Bank of Iceland.

## Contents

I.	Introduction .....	1
II.	The "non-EU-outs" .....	1
III.	The Caribbean and Central American experience .....	3
IV.	Trade composition, convergence and economic fluctuations .....	4
V.	Economic impact .....	6
	Size of EMU .....	6
	General effects .....	7
VI.	Policy options .....	8
	Present position of EFTA-countries .....	8
	Exchange rate arrangements .....	10
	References .....	13

## **I. Introduction**

A big currency area is likely to have small states on its fringes that are not a part of the currency area but are strongly influenced by the monetary policy pursued by the monetary authority of that area. This will apply irrespective of the exchange rate regime of the country in question, granted that these states are close trading partners with the currency area. But as these countries will have a limited room for independent monetary policy they will in many cases opt for a close currency peg to the centre, thus importing the inflation rate of the currency area in question. This has been the case with many of the small states on the southern flank of the United States. It is also likely to be the case with the euro area, especially if it will in due course involve all the EU-countries, and granted that it will be at least a relative success.

This paper discusses the issue of small states on the fringes of big currency areas. The main focus will be on what is called the "the non-EU-outs" and the policy options they face with the emergence of the euro area. The paper begins by defining what countries are at present relevant in this regard for the euro area. It then proceeds to discuss the experience of the Central American and Caribbean countries as they provide real live examples of small countries on the fringe of a big currency area. Some facts on trade composition, convergence and economic fluctuations of the non-EU-outs are then presented, followed by an analysis of the economic impact of EMU on them. Finally, the policy options of these countries are discussed. The discussion will be disproportionately weighted towards the EFTA-countries, mainly because they are the closest non-EU-outs. It is hoped that even that part of the paper has also a more general relevance.

## **II. The "non-EU-outs"**

There is a growing literature on the relationship between the "ins" and the "outs" of monetary union in Europe, where the ins are those EU-countries that will enter the third stage of monetary union but the outs are other EU-countries.<sup>1</sup> The outs are sometimes divided between the so-called "opting outs", those EU-countries that have chosen to stay out, even if they fulfil all the criteria for being members, and the "pre-ins", EU-countries that will try to become members as soon as possible. But there are other kinds of "outs": those European countries, which are not members of the EU but have very close economic relations with it. We could perhaps call these countries "non-EU-outs" although it is not a particularly pretty name. Obviously these countries cannot become members of

---

1. See for instance Wyplosz (1996) and DeGrauwe (1997).

the EMU, as it is conceived, because the union is based on a Treaty that they are not partners to. Still, these countries will be strongly affected by EMU and might have to re-orientate their monetary and exchange rate policies as a result of it. Some aspects of this issue will be discussed in this paper.

First a remainder what "non-EU-outs" will be considered here. They are, firstly, the EFTA-countries, i.e. Iceland, Liechtenstein, Norway and Switzerland. They are, secondly, the "pre-accession" countries of Eastern Europe, and, thirdly, the *small Mediterranean countries* Malta or Cyprus.

The EFTA-countries are closely integrated economically and financially with the EU. All of them have decided to stay out of the European Union, for the time being at least, for reasons that have very little to do with monetary union. Iceland has serious problems with the common fisheries policy of the EU, Norway turned down EU-membership in a referendum in 1994 and Switzerland did the same earlier with membership in the European Economic Area (EEA). Iceland, Liechtenstein and Norway are participants in the internal market through the European Economic Area agreement (EEA), which provides for free movement of goods, services, labour and capital in relation to the EU. Switzerland is also closely integrated with the EU through trade relations and various bilateral agreements and Liechtenstein is a member of the EEA at the same time as it is in a currency union with Switzerland.

The "pre-accession" countries of Eastern Europe are less integrated with the EU than the EFTA-countries and are at a different level of economic development and macroeconomic stability. But they are important trading partners of the EU and have shown an interest in becoming members of the EU in due course.<sup>2</sup> Five of these countries have already been accepted by the EU for membership negotiations, that is Estonia, Czech Republic, Hungary, Poland and Slovenia. The *small Mediterranean countries*, Malta and Cyprus have a longer history of economic relations with the EU and have reached a higher level of macroeconomic stability as witnessed by their inflation rate.<sup>3</sup> They have both applied for EU membership.

---

2. Here the reference is to Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia.

3. See table 3.

### III. The Caribbean and Central American experience

The Central American and Caribbean countries have for a long time been living on the southern flank of the US-dollar currency area. It is therefore instructive to investigate what kind of exchange rate arrangements they have adopted. These are listed in table 1, along with the inflation rate in these countries in 1997. All the countries that peg their exchange rate (11) do so against the US-dollar. Three countries use the US-dollar internally. Finally, it is of interest to note that the inflation rate is significantly higher among the floaters (12) than among the peggers.

**Table 1. Exchange rate arrangements in Central American and Caribbean countries**

<i>Country</i>	<i>Currency</i>	<i>Other currency in circulation</i>	<i>Exchange rate arrange- ments</i>	<i>Pegged against</i>	<i>Inflation 1997 (%)</i>
Antigua & Barbuda	ECD	-	P	USD	NA
Aruba	Florin	-	P	USD	3.0
The Bahamas	Bahamian dollar	USD	P	USD	0.5
Barbados	Barbados dollar	-	P	USD	7.7
Belize	Belize dollar	-	P	USD	1.0
Costa Rica	Costa Rican colón	-	M	-	13.2
Dominica	ECD	-	P	USD	2.4
Dominican Republic	Dominican peso	-	M	-	8.3
El Salvador	Salvadoran colón	-	M	-	4.5
Grenada	ECD	-	P	USD	1.2
Guatemala	Quetzal	-	I	-	9.2
Guyana	Guyana dollar	-	I	-	NA
Haiti	Gourde	USD	I	-	20.6
Honduras	Honduran lempira	-	M	-	20.2
Jamaica	Jamaica dollar	-	I	-	9.7
Mexico	Mexican peso	-	I	-	20.6
Nicaragua	Córdoba	-	M	-	10.2a
St. Kitts & Nevis	ECD	-	P	USD	8.6
Panama	Balboa	USD	P	USD	1.3
St. Lucia	ECD	-	P	USD	-1.7b
St. Vincent & Grenadines	ECD	-	P	USD	0.5
Surinam	Surinam guilder	-	M	-	7.1
Trinidad & Tobago	T & T dollar	-	I	-	3.5c

*Note:* ECD denotes Eastern Caribbean dollars. USD denotes United States dollars. P denotes pegged, M denotes managed floating and I denotes independent floating. a: From 1996(Q1)-1997(Q1). b: From 1996(Q2)-1997(Q2). c: From 1996(Q3)-1997(Q3).

*Source:* IMF (1997): *Exchange Rate Arrangements and Exchange Restrictions* and IMF: IFS-tape, August 1998.

Average inflation: P (no. obs. 10) 2.5% 95% confidence interval (0.2% 4.7%)  
M&I (no. obs. 11) 11.6% 95% confidence interval (7.4% 15.7%)

#### IV. Trade composition, convergence and economic fluctuations

Here we present some basic facts on the degree of trade integration, convergence and the synchronisation or asymmetry of economic fluctuations and shocks. These are summarised in table 2 for EFTA countries with some selective EU countries for comparison. A high share of the merchandise trade of these countries is with the EU, or 60% in case of Iceland,<sup>4</sup> 75% in the case of Norway and 70% in the case of Switzerland. All these countries meet the convergence criteria of the Maastricht Treaty, to the extent they are relevant to these countries,<sup>5</sup> except that Iceland fails on the criteria on long term nominal interest rates. Iceland and Norway suffer asymmetric shocks since during the period between 1961-1995, the share of the annual change in GDP that was symmetric with the

**Table 2. Convergence criteria, trade composition and economic fluctuations:  
EFTA and EU-countries  
Percentages**

	<i>Iceland</i>	<i>Norway</i>	<i>Switzerland</i>	<i>Belgium</i>	<i>France</i>	<i>UK</i>
<i>Convergence criteria:</i>						
Budget balance	-0.2	7.3	-1.9	-2.5	-3.1	-3.0
Gross debt	53	41	49	125	57	54
Inflation (2.7)	1.8	2.6	0.5	1.5	1.3	1.9
Interest rates (7.8)	8.9	5.9	3.4	5.6	5.6	7.0
<i>Trade composition:</i>						
EMU-11	32.5	40.1	60.5	60.7	51.3	47.3
EU	59.5	74.2	69.8	72.0	62.9	51.3
North America	11.8	10.1	8.9	6.1	7.7	13.7
Japan	6.8	2.9	3.4	1.9	2.6	3.8
Exports to UK	19.0	19.8	6.5	8.7	9.3	-
<i>Economic fluctuations:</i>						
GDP-measure	5.0	7.2	45.6	63.2	71.2	48.9
"Real" exports	23.5	4.1	40.6	45.8	78.3	42.3

*Notes:* The convergence criteria refer to 1997, except for figures on government finances in Switzerland, which refer to 1996. Figures for government finances are OECD: Economic Outlook, Dec. 1997 predictions, except for Iceland. Interest rates show the annual average for 10 year nominal government bonds, except for Iceland where it is the rate on 10 year indexed government bonds, plus inflation in the course of the year and plus a 1% inflation risk premium. Trade composition refers to merchandise trade in 1996. The measure on the symmetry of economic fluctuations shows the share of the change in the series during the period 1961-1995 that can be explained by the current change in the same series for the aggregate of EU-countries. "Real" exports refer to exports of goods and services in terms of import prices.

*Sources:* Central Bank of Iceland (1997). IMF: Direction of Trade. IMF: IFS. OECD: Economic Outlook, December 1997.

4. The share in the official Icelandic currency basket is somewhat higher. The difference is that the currency basket takes into account services, competition from countries on third markets and ignores countries with a very small weight. Table 2 shows the direct share of countries in merchandise trade in order to make them comparable between countries.

5. Here is referred to the criteria on exchange rate stability interpreted as respecting the normal fluctuation margins of the ERM for two years. Actually, the Norwegian krona was very stable since the end of 1992 until late summer 1998 and the Icelandic króna since the end of June 1993.



current changes in GDP of the aggregate of those countries which are now EU-15 was only 5% in the case of Iceland and 7% in the case of Norway. This is to be expected given the high share of fish in exports from both countries and, lately, oil from Norway. These countries have also a somewhat higher share of trade with North America and Japan than might be expected, given their geographic location and size. The situation is different in the case of Switzerland, where the symmetric share of GDP-fluctuations was 46% during this period.

**Table 3. Trade composition and inflation:  
"pre-accession" Eastern European and Mediterranean countries**

	<i>EMU-11</i>	<i>EU</i>	<i>Inflation latest available</i>
Bulgaria	31.0	40.8	310.8 (Dec. 96)
Czech Republic	53.2	58.3	13.0 (May 98)
Estonia	39.3	55.2	12.6 (April 98)
Hungary	55.8	61.3	16.3 (April 98)
Latvia	28.6	46.5	5.4 (May 98)
Lithuania	28.7	38.1	6.7 (May 98)
Poland	54.7	65.2	13.3 (May 98)
Romania	48.2	54.1	56.5 (May 98)
Slovakia	36.1	39.1	7.6 (May 98)
Slovenia	62.4	66.1	9.4 (May 98)
Cyprus	19.6	38.3	1.3 (Mar. 98)
Malta	50.3	62.8	4.3 (Feb. 98)

*Notes:* Trade composition refers to merchandise trade in 1996. Inflation refers to 12-month change to the month in brackets.

*Sources:* IMF: Direction of Trade Statistics. IMF: IFS-tape, August 1998. European Commission: European Economy, Supplement C, No. 4 - December 1997.

Table 3 gives the trade composition and latest available 1997 inflation figures for the "pre-accession" Eastern European and Mediterranean countries. None of these countries meet the Maastricht-criteria on inflation, except Malta. The trade share of the EU is in general somewhat lower than among the EFTA-countries, although well above 50% in most cases and Hungary, Poland, Slovenia and Malta have higher share of trade with the EU than Iceland.

## **V. Economic impact**

If successfully implemented, EMU will contribute to growth and stability not only in participating countries, but also in other European countries, especially those with a high degree of economic integration. These positive effects are due to the disappearance of exchange rate risk among participating countries, lower transaction costs in foreign trade, convergence of inflation and interest rates to the level of the most stable countries and lower interest rates and costs of financial transactions due to bigger, deeper and more liquid financial markets. But there are also risks associated with EMU that have to be taken into account. Firstly, EMU members will take certain risks, as monetary policy can no longer be applied in response to country specific external shocks. The risk of such shocks is larger in those member countries where the economic cycle is less harmonised with the 'core countries' in the prospective monetary union. A relatively inflexible labour market in many European countries adds further to the risk of EMU membership.

### *Size of EMU*

Let us assume that EMU will be successfully implemented so that the positive aspects will dominate. Then the economic impact on EFTA-countries will partly depend on how many current EU-countries will finally enter monetary union. EMU will start with eleven members, i.e. all the EU-countries except Denmark, Greece, the UK and Sweden. Later on it could embrace all present members of the EU.

In the first case, the effect on countries like Iceland and Norway, to take an example, will not be as big as one might expect. There are two reasons for this. Firstly, many of these countries have been very close to a monetary union for several years anyway, as the convergence of inflation and interest rates has reached an advanced stage and exchange rate stability was preserved during the turbulence in European foreign exchange markets in 1992 and 1993. The added benefit in terms of exchange rate risk, transaction costs and a lower average interest rate level will therefore not be as large as one might expect. Secondly, these countries account only for around 33% of Iceland's and 40% of Norway's merchandise trade, but the share is significantly in the case of Switzerland, or around 61%.

The impact will be much greater if we are faced with a wide-EMU, including all the EU countries. In that case the share of EMU countries in merchandise trade will rise to 60% in Iceland and 74% in Norway. The opting-out countries, i.e. Britain, Denmark and Sweden are big trading partners of these countries. Britain is actually the largest export

market of both countries with a share of merchandise exports of around 20%. If Britain were to join EMU, it will therefore not only affect the prospects of Denmark and Sweden becoming members, as has been widely discussed in the press. It would also profoundly affect the relevance of EMU for Iceland and Norway, both in terms of economic impact and possibly also in terms of policy response.

The size of EMU matters less for the economic impact of the "pre-accession" countries of Eastern Europe than in the case of Iceland and Norway, as can be seen from table 3. The trade share of EMU-11 is in most cases well over 50% and the relative importance the EU-outs in merchandise trade is less. The Baltic countries and Poland are though an exception to this due the importance of trade with the UK and the Scandinavian out-countries. The same applies to Cyprus and Malta (Greece and UK).

#### *General effects*

If successfully implemented, EMU will also have positive effects on close outsiders. Firstly, transaction costs in foreign trade will be reduced, as there will be fewer foreign currencies involved. The same benefits will accrue to travellers. Secondly, any growth benefits of EMU will also accrue to outsiders, depending on their share of trade with the EMU countries. Finally, outsiders will benefit from bigger and deeper financial markets in the euro-zone. In all cases the benefits will be smaller than those that accrue to insiders and the benefits will be larger, the bigger the euro-area.

But there will also be negative aspects facing outsiders. Firstly, the competitive position might deteriorate vis-à-vis insiders as the benefits accrue disproportionately to the insiders. Secondly, firms in the outsider countries might substitute direct investment in the euro-area for exports in order to improve their competitive position, possibly at the cost of jobs in outsider countries. Thirdly, the interest rate margin of outsiders against their trading partners might widen as interest rates in high interest rate insider countries converge to the core rates. Fourthly, it might become more difficult to maintain stable exchange rate policies with free capital movements for small countries at the margin of a big currency area. Fifthly, the competitive position of financial institutions with those in participating countries might be adversely affected, especially if the access to the TARGET-system for close outsiders is restricted. Finally, there is the possibility of some currency substitution, especially among the smallest outsiders, with some adverse effects on seigniorage.

EMU will also affect the economic policies of outsiders; irrespective of what exchange rate arrangements or relationship to the euro they choose. Stability oriented policies will, if anything, become more important in order to maintain economic stability and competitiveness. Also, the convergence criteria of the Maastricht Treaty and requirements of the Growth and Stability Pact will also become reference values for close outsiders. It is very likely that international financial markets and credit rating agencies will make it a requirement for favourable credit ratings that countries meet these criteria in normal times.

## **VI. Policy options**

Here two issues will be discussed. Firstly, what policies might close out-countries adopt in order to maximise the positive effects and minimise the negative effects of EMU? Secondly, what are the options regarding exchange rate policy?

It was mentioned before that stability oriented policies would become even more important for outside countries than before. Being outside the monetary union will for many of these countries imply a positive risk premium in domestic interest rates in relation to the euro-zone. A good track record of economic stability will over time reduce this. The same applies to measures to enhance credibility, especially steps taken towards securing that central banks have full instrument independence to pursue a clear mandate of price stability. Both will increase the relevant options regarding exchange rate policy. Countries with a track record of inflation, economic instability, low credibility and dependent central banks will have more difficulties than others with any exchange rate regime, flexible or rigid, whatever might be the optimal arrangement.

### *Present position of EFTA-countries*

The EFTA-countries have at present somewhat different frameworks for their exchange rate and monetary policies. Switzerland has a floating exchange rate and uses the monetary base as an intermediate target. In Iceland and Norway the exchange rate is the intermediate target of monetary policy, although in somewhat different form. Iceland has a fluctuation band of  $\pm 6\%$  around central value of a trade-weighted basket. Norway attempts to keep the exchange rate of the Norwegian krona stable against European currencies (ECU) without having a specified band or a preannounced commitment as to how and when deviations of the exchange rate in relation to European currencies will be reversed.

In all these three countries official reports<sup>6</sup> have concluded that it is premature to make any firm proposals regarding future monetary policy frameworks in the wake of the establishment of EMU. In none of these reports is it ruled out that the present frameworks could be maintained.

Switzerland is in a somewhat different situation in this regard than the other two countries due to a different monetary framework, and because the Swiss franc has had a reserve currency status and its interest rates have persistently been lower than in Germany. The immediate possible danger for the Swiss economy from the implementation of EMU is an appreciation of the Swiss franc. However, if the implementation of the EMU goes smoothly and confidence is maintained, this danger will be smaller.

The issues facing Iceland and Norway are very different. On the one hand they face the problem of unilaterally maintaining stable exchange rate policies with free capital movements at the margin of a large currency area. On the other hand they have the problem, especially Iceland, of positive interest rate differentials against their trading partners. This really goes to the heart of exchange rate policy, because although a part of the interest differential can at present be explained by the relative cyclical position of these countries against continental Europe, a part of it is a kind of insurance premium that these countries have to pay for keeping their own currencies. That insurance premium has to be evaluated in a cost-benefit analysis against the benefits of being able to use monetary policy to facilitate the adjustment to asymmetric shocks. It is possible that EMU will change the parameters of such a cost benefit analysis in such a way as to reduce the net benefit of an outsider from keeping its own currency.

The EEA-agreement stipulates free movement of capital and attempts to create a level playing field for financial institutions. But the EEA-agreement does not cover monetary policy, and some monetary instruments can affect relative competitive positions. But these countries can of course attempt to harmonise their monetary policy set-up with that of the ECB in order to minimise the possible negative effects of EMU on their competitive position. It is also important that these countries get access to TARGET so that the competitive position of their financial institutions is not harmed.

---

6. Central Bank of Iceland (1997), Norwegian Ministry of Finance (1997) and Kommission für Konjunkturfragen 1996: *Die Schweiz und die Europäische Wirtschafts- und Währungsunion. Eine Analyse der wirtschaftlichen Aspekte*. See also Storvik (1996).

### *Exchange rate arrangements*

In principle, the non-EU-outs could take their monetary policy frameworks in two directions when the euro becomes reality: towards direct inflation targeting and floating exchange rates or towards much closer pegs to the euro. The relative attractiveness of the second option will depend on how wide the euro-area will be and what options will be available regarding bilateral pegs for close third countries. There are different degrees to the option of a peg to the euro:

1. Traditional unilateral peg
2. Bilateral peg
3. Currency board
4. Introduction of the euro as legal tender (the Panama-road).

The *traditional unilateral peg* suffers from all the drawbacks of unilateral pegs with free capital movements. There is no outside credibility bonus and the gain in terms of lower interest rate differential will be small or non-existent. Furthermore, it will be problematic for those countries that have strong trading relations with the EU-outs, especially the UK. It is therefore less likely in these cases so long as we do not have a wide EMU, including the UK.

The *bilateral peg* is a much more interesting option, as there will be an extra credibility bonus to the extent the future ECB is willing to defend the peg. The gain in terms of lower interest rate differential could therefore be significant. But it is difficult to evaluate this possibility at present, as exchange rate relations with close third countries have not been defined. The EEA agreement does not cover monetary and exchange rate arrangements, but article 46 of the agreement opens up the possibility of exchanging information and viewpoints on these issues, though without any commitment. But it is somewhat contradictory to claim that monetary union is a very important compliment to the internal market (some say even a necessary addition) while at the same time accepting that those countries, which are through the EEA agreement part of that market, could in principle have very flexible exchange rates towards the euro-area. If we look at legal provisions in the Maastricht Treaty, then it seems that ERM2 will not be open for non-EU countries. Formal exchange rate arrangements involving non-EU currencies will be governed by article 109(1) of the Maastricht Treaty, which makes it clear that it will be the responsibility of the Council, acting on recommendations from the ECB and the Commission, after having consulted the ECB and the European Parliament, to conclude such agreements. It is clear that this process is somewhat cumbersome if we are think-

ing of a bilateral agreement of supporting some peg of the Icelandic króna towards the euro, to take an example, although this route cannot be excluded. ECB, on the other hand, will possibly be able to make agreements on limited intervention support. That is therefore another, and possibly an easier variant.

This raises the question why insiders should be interested in providing institutional arrangements for bilateral pegs for outsiders. Honohan (1997) provides the argument that the existence of outsiders that are strongly integrated with certain insiders and face similar kind of shocks could make the problem of asymmetric shocks even worse for these insiders and thus be a potential threat to a monetary union. He goes on to propose soft target zones with a flexible intervention support from the ECB in these cases.

The *currency board option* is of course a unilateral peg, but with a stronger internal commitment mechanism. The problems with this road are possible strains on the banking system and the absence of the lender of last resort function. It is also to be considered that this road has usually been taken by colonies, newly independent countries which face the issue of establishing their own currency, or countries that have very big problems with instability and lack of credibility. It is not a road that has been taken by relatively successful independent developed countries. It could though be a good option for some of the "pre-accession" countries.

The *unilateral use of the euro as legal tender* is also a road that has usually not been taken by relatively successful developed countries. There is the problem from the standpoint of sovereignty that seigniorage will accrue to other countries and they will benefit and the country in question will lose if notes and coins get lost or destroyed, and that the country in question will not be a participant in deciding monetary conditions. But this option would have the biggest benefits in terms of reducing exchange rate risks and interest rate differentials.

As mentioned before, these countries are not members of the EU, for reasons that have nothing to do with EMU, but that excludes them from taking part in it. But it seems that a *membership in the EMU* would be a superior alternative to both a currency board arrangement and the unilateral use of the euro as a legal tender. All benefits of the latter road concerning exchange rate risk and interest differential will accrue. But it will have the added benefit that the country would get its share of the seigniorage of the euro and what is more important, it would be part of the decision process of monetary policy, which is of course more fitting for sovereign nations.

For some countries a membership in the EU and EMU is not a viable option for the time being. These countries will therefore have to choose their degree of flexibility or fixity towards the euro on the basis of their specific situation. But it seems to be in the interest of monetary stability in Europe that the new euro-zone offers some facilities for those countries that are interested in a bilateral peg to the euro.



## References

- Central Bank of Iceland (1997), *Economic and Monetary Union in Europe* (in Icelandic).
- Commission of the European Communities (1997), "External Aspects of Economic and Monetary Union", *Commission Staff Working Paper*, SEC(97) 807.
- Council of the European Communities, Commission of the European Communities (1992), *Treaty on European Union*.
- DeGrauwe, Paul (1997), "Exchange Rate Arrangements between the Ins and Outs", *CEPR, Discussion Paper Series, No. 1940*.
- Honohan, Patric (1997), "Miniblocs and Fringe Currencies of the EMU", *CEPR, Discussion Paper Series, No. 1704*.
- Norwegian Ministry of Finance (1997), *The Revised National Budget* (in Norwegian).
- Storvik, Kjell (1996), "A Common Currency in the EU - Effects on the Norwegian Economy" (in Norwegian), *Penger og Kredit, 4/96*, Norges Bank.
- Wyplosz, Charles (1996), "Monetary Options for the "Outs", *A paper for the Conference on Monetary Policy in Transition*, Austrian National Bank.