

# **Monetary Integration and Policy Autonomy<sup>1</sup>**

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## **PRELIMINARY DRAFT**

### **Abstract**

In the European discourse, opponents of monetary union argued that giving up one's own currency signifies the loss of a forceful policy instrument. By analyzing monetary policy decisions of national central banks, the paper shows that member countries of the European Monetary System (except Germany) had already abandoned monetary and exchange rate autonomy long before entering European Monetary Union (EMU), and that Germany has in fact been the only country that actually lost sovereignty through EMU. Virtually all other euro countries have regained a voice in monetary policy decisions through EMU membership. Likewise, the paper argues that the current (informal) "East Asian dollar standard", i.e. the common (soft) dollar pegging toward the US dollar, has created a situation in which East Asian countries (except Japan) have largely abandoned monetary policy autonomy. Through a process of multilateral monetary integration that could eventually culminate in the creation of a common regional currency, East Asian countries could potentially resume some degrees of shared monetary independence.

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## 1. Introduction

“When you got nothing, you got nothing to lose”

Bob Dylan in “Like a Rolling Stone”, from the album *Highway 61 Revisited* (1965)

The starting point of the theory of optimum currency areas is that countries that join a currency area by fixing their exchange rate will lose their monetary policy autonomy. Countries which experience similar economic cycles and shocks, or which have other adjustment mechanisms to idiosyncratic shocks than monetary policy or exchange rate revaluations, such as flexible labor markets, are hence deemed good candidates for a common currency area. While this is undoubtedly true, common wisdom automatically seems to equate monetary integration with a loss of policy autonomy. As will be discussed below, this is not necessarily the case as you can only lose what you have and in many cases countries do not enjoy full policy autonomy to start with. Indeed, the paper argues that under certain circumstances monetary integration can actually increase countries’ policy influence.

By analyzing the monetary policy decisions of national central banks, the next section shows that the member countries of the European Monetary System (except Germany) had already abandoned monetary and exchange rate autonomy long before entering the European Monetary Union (EMU), and that Germany has in fact been the only country that actually lost sovereignty through EMU. Virtually all other euro countries have regained a voice in monetary policy decisions through EMU membership. Likewise, section three argues that the current (informal) “East Asian dollar standard”, i.e. the common (soft) dollar pegging toward the US dollar, has created a situation in which East Asian countries (except Japan) have largely abandoned monetary policy autonomy. Through the creation of a common currency,

which could float freely against the dollar, East Asian countries could potentially resume some degrees of shared monetary independence.

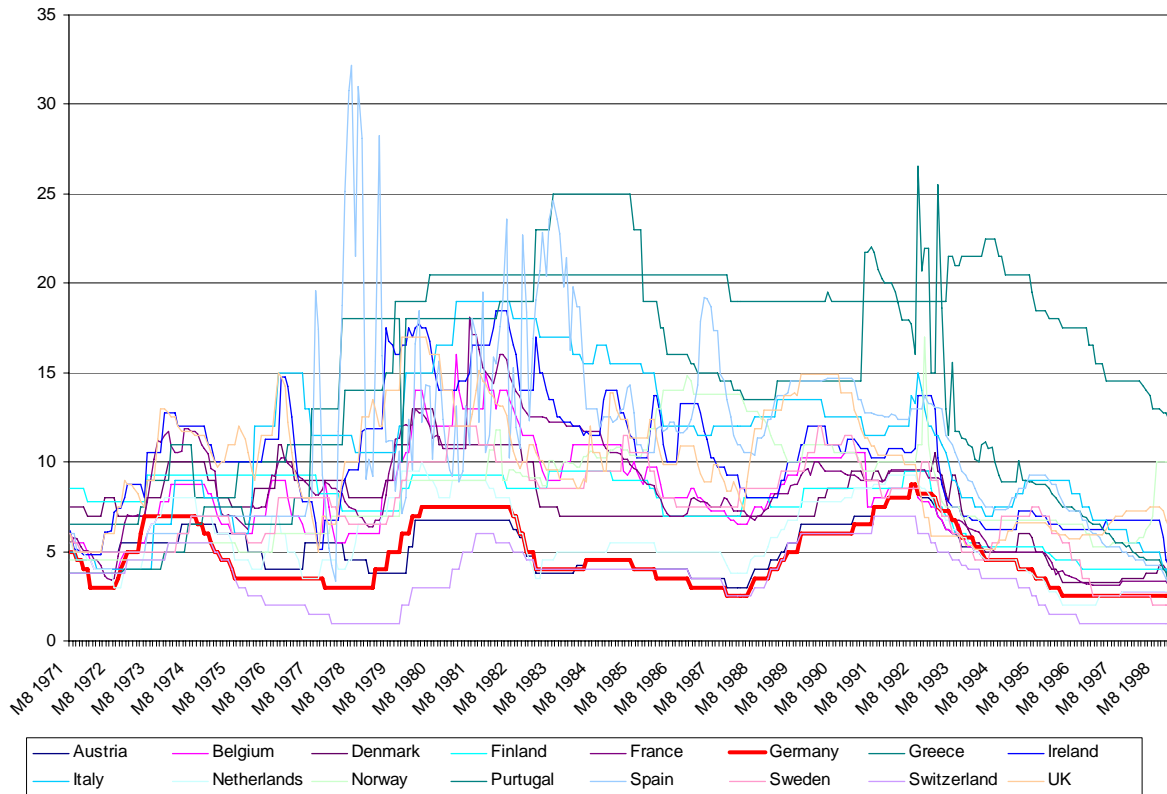
## **2. The European case**

In the discourse in the run-up to EMU, opponents of monetary unification argued that giving up one's own currency signifies the loss of a forceful policy instrument. However, the discussion in Europe had been somewhat unreal. As Charles Goodhard (1995, p. 458) pointed out, through their membership in the European Monetary System (EMS), EMS countries (except Germany) had already abandoned discretionary monetary policy long before monetary union was accomplished meaning that there would be “virtually no economic cost in doing so formally and completely by moving to a full monetary union.”<sup>2</sup> Figure one illustrates this point by showing that basically all European countries, to different extents, followed the Bundesbank's discount rate policy.

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<sup>2</sup> Goodhard (1995, p. 457) does mention the costs of losing seignorage, but argues that the value of seignorage to a stable country with low inflation is small and that the arrangements made under the Maastricht Treaty for returning seignorage to the constituent national central bank suggests that the net loss or gain to most European countries is of secondary importance. One should also highlight the loss of the national central bank as lender of last resort, but in the EMU this function is still fulfilled by the European System of Central Banks with the European Central Bank at the center.

**Figure 1: Central bank discount rates of European countries, 1971-98**



Source: IMF/IFS and Global Financial Data

For a formal test of this hypothesis, the following simple Taylor rule is estimated

$$r_{ct} = \beta_1 + \beta_2 IP_{ct-2} + \beta_3 \pi_{ct-2} + \beta_4 r_{Bt-2},$$

where  $r_{ct}$  is the central bank interest rate of country  $c$  at time  $t$ ,  $IP_{ct-2}$  is country  $c$ 's industrial production, and  $\pi_{ct-2}$  is the inflation rate.  $r_{Bt-2}$  is the lagged Bundesbank discount rate.<sup>3</sup> The results for the period ranging from August 1971 to December 1998, i.e. from the breakdown of the Bretton Woods system to the launch of the euro, are presented in table one. The estimates show that the monetary policy decisions of virtually all European countries

<sup>3</sup> Data are monthly and are taken from the International Financial Statistics and Global Financial Data. The estimates are obtained using ordinary least squares with heteroskedasticity- and autocorrelation-consistent standard errors. Changing the lags does not significantly alter the results.

analyzed here, with the exception of Greece and Norway (both of which were no members of the EMS<sup>4</sup>), were to a large extent driven by the interest rate policy of the Bundesbank.<sup>5</sup>

While domestic inflation and industrial production also seem to have played a role in the conduct of many of these countries' monetary policies, the Bundesbank discount rate had a far greater impact for all countries. US interest rate policy, in contrast and as one would expect, was not influenced by the Bundesbank.

One can push Goodhard's argument further and argue that the European countries (except Germany) that entered monetary union not only *did not lose* monetary autonomy, but instead *regained* some degrees of monetary policy influence through EMU membership. Indeed, it is arguable that Germany had been the only country that actually lost monetary sovereignty. Virtually all other EMU member countries have obtained a voice in monetary policy decisions. Instead of following the Bundesbank's policy stance, all EMU member countries are now represented through their national central bank governors in the European Central Bank's (ECB) governing council, the ECB's main decision-making body that also takes monetary policy decisions.

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<sup>4</sup> The Greek drachma joined the EMS only in March 1998.

<sup>5</sup> This result is confirmed by Frankel et al. (2004) and Chinn et al. (1993), who find that interest rates in European countries have become completely insensitive to US interest rates, but fully sensitive to German interest rates.

**Table 1: Determinants of monetary policy decisions, August 1971 – December 1998**

	<b>Bundesbank discount rate</b>	<b>CPI</b>	<b>Industrial production</b>	<b>Observations</b>	<b>R-squared</b>
Austria	0.6916*** [0.0463]	0.0597 [0.0385]	-0.0117* [0.0064]	327	0.7776
Belgium <sup>a</sup>	0.9371*** [0.1248]	0.1575*** [0.0497]	-0.0285* [0.0150]	327	0.431
Denmark	0.7214*** [0.0483]	0.1933*** [0.0379]	-0.0391*** [0.0069]	298	0.787
Finland	0.3226*** [0.0464]	0.1439*** [0.0226]	-0.0407*** [0.0066]	327	0.6986
France	0.7435*** [0.0785]	0.4341*** [0.0420]	0.0372*** [0.0116]	327	0.678
Greece	0.2366 [0.1561]	0.1978*** [0.0565]	0.2839*** [0.0261]	327	0.5864
Italy	0.4584*** [0.1462]	0.3403*** [0.0582]	0.0548*** [0.0177]	327	0.3219
Luxembourg <sup>a</sup>	0.9789*** [0.1181]	0.0449 [0.0737]	-0.0842*** [0.0151]	327	0.5
Netherlands	0.9881*** [0.0594]	-0.0457 [0.0295]	-0.0199** [0.0080]	327	0.7033
Norway	0.1592 [0.1365]	0.3018*** [0.0949]	0.0619*** [0.0160]	327	0.1089
Portugal	0.7889*** [0.2442]	0.5391*** [0.0626]	0.1824*** [0.0206]	327	0.4552
Spain	0.4329* [0.2354]	0.2147** [0.1045]	0.0614** [0.0295]	327	0.0725
Sweden	0.4431*** [0.0968]	0.3301*** [0.0437]	0.0155* [0.0084]	327	0.4673
Switzerland	0.5760*** [0.0674]	0.1695*** [0.0347]	n.a.	327	0.6292
UK	0.4792*** [0.1348]	0.2338*** [0.0526]	-0.0039 [0.0260]	327	0.318
US	-0.03 [0.1124]	0.5844*** [0.0692]	0.0016 [0.0121]	327	0.5202

Data are from IFS and Global Financial Data

Newey West standard errors in brackets

\*\*\* denotes statistical significance at the 1% level, \*\* at the 5% level, and \* at the 10% level.

<sup>a</sup> Luxembourg and Belgium had a monetary union, the Belgium-Luxembourg Economic Union, since 1922

### 3. The East Asian case

A different but also dylanesque situation applies for most East Asian countries when it comes to their conduct of monetary policy. The region's exchange rate policy can be described by the "East Asian dollar standard" (see McKinnon 2005), a situation in which all East Asian countries with the exemption of Japan operate more or less tight pegs toward the US dollar. The pegs were temporarily lifted during and after the Asian crisis (except China, Hong Kong and Singapore), but over the last years there has been a resurrection of the dollar standard (McKinnon 2001, Schnabl 2006), even though most countries officially declare their exchange rate regimes as (managed) floats. Table two gives an overview of East Asian countries' official and de facto exchange rate regimes. The dollar weights in the hypothetical currency baskets of East Asian countries presented in column three were estimated using the following multivariate OLS regression which was first proposed by Frankel and Wei (1994):

$$\Delta \ln (e/CHF)_t = c + \beta_1 \Delta \ln (USD/CHF)_t + \beta_2 \Delta \ln (EUR/CHF)_t + \beta_3 \Delta \ln (JPY/CHF)_t + \varepsilon_t,$$

where the local currency  $e$  is regressed on the US dollar, the euro, and the Japanese yen. The Swiss franc, which can be assumed to be uncorrelated with the currencies of the basket, is used as numeraire in order to minimize multicollinearity problems. The  $\beta$  coefficients are the weights of the basket.  $\Delta$  stands for the first-difference operator and  $t$  for time. All variables are in natural logarithms. The baskets were estimated using daily exchange rates for the period since July 21, 2005, when the People's Bank of China (PBC) officially announced to abandon the eleven-year old peg to the dollar and instead link the yuan to an undisclosed basket of currencies.

**Table 2: *De jure* and *de facto* exchange rate regimes in East Asia**

	IMF Classification	Estimated weight of the USD in hypothetical basket (in%)
Brunei dollar	Currency board arrangement (vis-à-vis the Singapore dollar)	65.28
Cambodian riel	Managed floating with no pre-announced path for the exchange rate	92.56
Chinese renminbi	Conventional pegged arrangement (vis-à-vis the US dollar)	99.42
Hong Kong dollar	Currency board arrangement (vis-à-vis the US dollar)	99.37
Indonesian rupiah	Managed floating with no pre-announced path for the exchange rate	81.47
Japanese yen	Independently floating	42.74
Korean won	Independently floating	74.03
Lao kip	Managed floating with no pre-announced path for the exchange rate	89.15
Malaysian ringgit	Conventional pegged arrangement (vis-à-vis the US dollar)	98.12
Myanmar kyat	Managed floating with no pre-announced path for the exchange rate	93.94
Philippine peso	Independently floating	91.04
Singapore dollar	Managed floating with no pre-announced path for the exchange rate	65.28
Thai baht	Managed floating with no pre-announced path for the exchange rate	69.23
Vietnamese dong	Managed floating with no pre-announced path for the exchange rate	100.40

Note: Daily exchange rates from 7/21/2005 – 4/24/2006. All dollar weight estimates are significant at the 1% level. The yen was regressed only on the dollar and the euro. Data are from Datasream (Reuters and Tenfore). Classifications are from IMF (2005).



The results show that China, Hong Kong, Malaysia and Vietnam maintain fixed exchange rates vis-à-vis the dollar. Cambodia, Lao, Myanmar and the Philippines also manage tight pegs to the dollar, with about 90% weights of the dollar in their hypothetical currency baskets. Indonesia, Korea, Singapore (and hence Brunei which maintains a currency board vis-à-vis the Singapore dollar), and Thailand allow considerably more flexibility toward the dollar than the previously mentioned countries, but nevertheless display a strong dollar orientation in their exchange rate regimes with dollar weights ranging from 65% to 80%. The only exemption to this pattern is Japan with a dollar weight of only 43%.

Although most East Asian countries maintain some form of capital controls that, in principle, should allow for monetary policy autonomy in the face of an exchange rate target, historical evidence suggests quite strongly that capital controls are porous and are easily circumvented (Edwards 1999). Furthermore, there is a growing empirical literature that puts into doubt even the traditional argument that countries with flexible exchange rates are able to isolate their domestic interest rates from changes in international interest rates.<sup>6</sup> Frankel, Schmukler and Servén (2004), for instance, find that while floating regimes entail increased monetary independence in comparison with fixed regimes, floating regimes offer only temporary monetary independence.<sup>7</sup> That is, the speed of adjustment of domestic rates toward the long run, one-for-one relation with international interest rates is generally lower under floating than under fixed regimes, but also floating regimes cannot exert autonomous monetary policy. Their findings suggest that besides the US, Germany (now the euro zone) and Japan appear to be the only countries that can independently choose their own interest rates in the long run. Fratzscher (2002) also observes that even under flexible exchange rate arrangements it becomes ever more difficult to pursue independent monetary policy.

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<sup>6</sup> See Calvo and Reinhart (2001 and 2002), Fratzscher (2002), Frankel et al. (2004).

<sup>7</sup> This is not inconsistent with Kim and Lee's (2004) finding that the sensitivity of local interest rates to US rates has declined for Korea and Thailand since they moved toward less rigid exchange rate regimes after the Asian crisis.

Moreover, the incompleteness of domestic financial markets hampers the conduct of monetary policy, creating a situation where the vast majority of East Asian countries have not been able to effectively pursue independent monetary policy.<sup>8</sup> The PBC, for instance, did not change interest rates for more than a decade until October 2004, and even this change was very modest and more symbolic than of practical import.<sup>9</sup> The most extreme case of a loss of monetary autonomy in East Asia is Hong Kong. To maintain its currency board vis-à-vis the US dollar, the Hong Kong Monetary Authority has to move in tandem with the Federal Reserve, even though local inflation development has been very different from US inflation over recent years.

If this argument is correct, then the costs of monetary integration in East Asia, at least for the economically small and developing countries, are much lower than commonly assumed.<sup>10</sup> A common agency approach to monetary unification, as pursued in Europe, could open up new ways for monetary policy in East Asia. Through the creation of a common currency, which could float freely against the dollar and the euro, East Asian countries could potentially resume some degrees of monetary independence. While they would still face an external constraint on domestic economic policies, the great difference between multilateral monetary union in East Asia and a continued dollar pegging under the East Asian dollar standard (or even full dollarization) is that the former would give members of the currency union a say in

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<sup>8</sup> This does not apply to Japan and Korea.

<sup>9</sup> One must assert, however, that China has managed very well to sterilize the large increase of foreign reserve holdings and has thus managed to control inflation. The PBC has also made use of other monetary policy instruments such as reserve requirements for domestic banks and credit ceilings. When announcing the raise of benchmark rates on one-year yuan loans to 5.58 per cent from 5.31 per cent and the rate on one-year deposits to 2.25 per cent from 1.98 per cent, the PBC said in a statement that “[t]his interest rate rise [...] is to make bigger use of economic measures in resource allocation and macro-adjustment” (Xu 2004), indicating the country’s intention to increasingly deploy her economic policy instruments.

<sup>10</sup> It does not imply, however, that there are no costs involved in abandoning the national currency. First, monetary union brings about the loss of the exchange rate as an instrument for coping with idiosyncratic shocks to the national economy. Second, there would still be the political cost of giving up formal monetary independence, i.e. the loss of monetary policy autonomy *illusion*. Furthermore, giving up *de jure* independence could involve diplomatic costs in the form of political dependency on foreign nations. Thirdly, the exit costs of a monetary union can be assumed to be much higher than the exit from a conventional exchange rate peg.

the common policy. Through a pooling of sovereignty, each member of the currency union would have a stake in the central bank's policy. In contrast, continued dollar pegging (or dollarization), while basically requiring the same sacrifices in domestic policy autonomy as monetary union, means that all monetary policy influence is abandoned (permanently).<sup>11</sup>

A delicate problem would be the institutional setup of a common central bank and the apportionment of power in an East Asian monetary union. A representation structure akin to the EMU with equal rights between all members is unrealistic if either China or Japan were involved, making such an arrangement less attractive for the smaller Southeast Asian countries because of a potential dominance of the big member countries. Conversely, neither Japan nor China (nor Korea) would be likely to accept an overrepresentation of the small Southeast Asian member countries the way Germany did in Europe.<sup>12</sup> A solution would be probably easier to find if only ASEAN countries were involved, even though they are highly heterogeneous, too.<sup>13</sup>

Because the exit costs of a common monetary union are very high, a quick rush into monetary unification is not advisable if the potential partner countries have not had the chance to develop mutual trust as well as an understanding of each other's policy preferences.<sup>14</sup> Therefore, a gradual approach to monetary unification would be preferable as it would allow East Asian countries to closely get to know their potential partners. A gradual move toward monetary union in East Asia could first involve a regional (coordinated) adoption of currency

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<sup>11</sup> On the advantages of multilateral monetary union over dollarization see Alexander and von Furstenberg (2000).

<sup>12</sup> On the power structure within EMU see Berger and De Haan (2002).

<sup>13</sup> Volz (2006b) discusses the factors that push ASEAN countries toward greater integration.

<sup>14</sup> Like Friedrich Schiller versed in *The Song of the Bell*: "Whoe'er would form eternal bonds should weigh if heart to heart responds."

baskets<sup>15</sup>, flanked by a strengthening of financing facilities under the Chiang Mai Initiative and a further enhancement of regional surveillance mechanisms. A further option would be the introduction of a parallel basket currency for all participating countries, which could be used as invoicing currency for trade and bond issues.<sup>16</sup> By time, the composition of the baskets could be harmonized amongst East Asian countries, and exchange rate bands could be introduced, developing a more formal regional exchange rate system. If countries are still committed to regional monetary unification after having experienced what close monetary and exchange rate cooperation really means, they could eventually form an East Asian monetary union.

#### **4. Conclusion**

The paper has dissected the common notion that monetary integration is automatically equivalent to a loss of monetary autonomy. By analyzing monetary policy decisions of national central banks, it has shown that the EMS member countries (except Germany) had already abandoned monetary and exchange rate autonomy long before entering EMU, and that Germany has in fact been the only country that actually lost sovereignty through EMU. Virtually all other euro countries have regained a voice in monetary policy decisions through EMU membership. Likewise, the paper has argued that the East Asian dollar standard has created a situation in which East Asian countries (except Japan) have largely abandoned monetary policy autonomy. Through a process of multilateral monetary integration that could potentially culminate in the creation of a common currency, East Asian countries could potentially resume some degrees of shared monetary independence.

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<sup>15</sup> Schnabl (2006) analyzes currency baskets as a way to diversify exchange risk in East Asia and finds hints for a move of several East Asian countries toward a basket strategy. For proposals for currency baskets in East Asia see Williamson (1999, 2006) and Ogawa and Ito (2002).

<sup>16</sup> See Eichengreen (2006).

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