

Monetary Mercantilism and Economic Growth in East Asia

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Abstract

It is often recognised that competitive or undervalued exchange rate levels matter for economic development. However, in addition to the price and cost competitiveness, volatility affects investment because volatile exchange rates create uncertainty. Governments can use foreign exchange management to stabilize exchange rates at a competitive level in order to foster economic growth. However, this policy, which I call monetary mercantilism, prevents the development of domestic financial markets. As a consequence, monetary mercantilism renders emerging economies fragile and vulnerable to financial crisis. The paper shows that emerging economies in Asia have been following monetary mercantilist strategies, even after the financial crisis in the late 1990s.

Monetary Mercantilism and Economic Growth in East Asia

Stefan Collignon¹

How can exchange rate policies support economic growth? Neoclassical growth theory would deny that monetary variables can make a positive contribution, because economic growth is determined by real variables like technological progress, productivity and capital accumulation (Barro, 2001). Only to the degree that nominal exchange rates influence real exchange rates may they affect economic growth. But if markets work efficiently, this would only be a transitory effect. The literature has emphasized the growth-impeding effects of distorting real exchange rates, when price rigidities and inconsistent macroeconomic policies cause *overvaluations* (Razin and Collins, 1997). However, for Rodrik (1986) disequilibrium exchange rates can sometimes also make a positive contribution to industrialisation. In a more recent paper (2007), he has provided evidence that currency *undervaluations* stimulate economic growth. This can be explained by a disproportionate effect of undervaluations on tradable goods and governments can therefore use the real exchange rate as a policy variable. One of the instruments used for affecting real exchange rates is the interaction between monetary policy, currency interventions and capital account management. From this perspective, nominal exchange rate policies can have important consequences for economic growth. However, while the real exchange rate can be interpreted as the relative price of goods, the nominal exchange rate is an asset price. Such prices are formed by market expectations and are subject to considerable volatility unless authorities intervene. High volatility creates uncertainty to the detriment of growth. A growth-supporting exchange rate policy must therefore focus on the nominal exchange rate level, as well as its movements.

According to the orthodox view, flexible exchange rates facilitate rapid adjustment to equilibrium. Fixed exchange rates are considered a moral hazard because the authorities' commitment to maintain a certain nominal rate would allow private investors not to face the full risk of their investment decisions. The Asian financial crisis in 1997/8 has been seen as an example for such misguided exchange rate policies. The IMF therefore recommended after the crisis that emerging economies in Asia should adopt exchange rate arrangements, which "allow substantial exchange rate flexibility" (Mussa et al., 2000). Nevertheless, as soon as the

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crisis was over, most East Asian countries have returned to pegging to the US dollar (McKinnon and Schnabl, 2004; see also Figure 3, below).

This fact raises two questions: First, why do so many countries choose policies, which go against the consensus of neoclassical economics? Is there a theoretical argument that is ignored by orthodox policy recommendations? Second, what are the consequences of fixing exchange rates and what conclusions should be drawn for policies? In this paper I will focus on the growth implications of fixed exchange rate regimes. I argue in the first part that a regime of stable, competitive exchange rates, which I call *monetary mercantilism*, will foster rapid economic growth in the real economy, but it will also impede the emergence of a well-developed banking system. I then analyse in the second part the policies pursued in East Asia, look at the consequences for the global economy and then recommend greater currency cooperation between Asia and Europe in order to facilitate the necessary adjustment of the US economy. I concentrate on East Asia because it is rapidly emerging as the new growth pole in the world.

The paper was written before the US financial crisis. I believe that the collapse of an important part of the American banking system has actually reinforced the need for a more efficient banking system in Asia and therefore confirms the relevance of this analysis.

The economic rational of exchange rate pegging

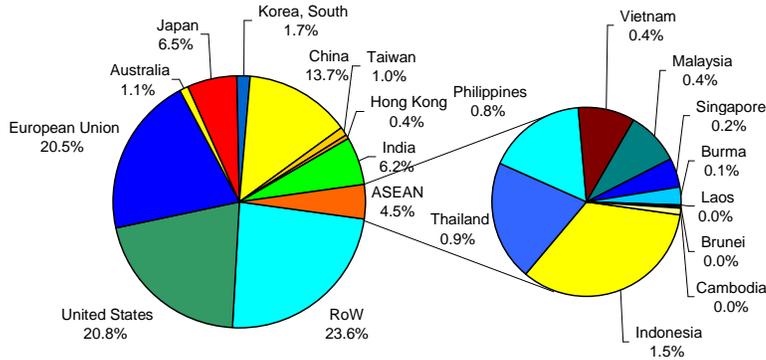
The emergence of currency blocs

Asia is a major bloc in the world economy, both in terms of size and economic growth. Japan, China, ASEAN and India together represent more than a third of the world economy; Asia, the United States and the European Union cover over three quarters of world GDP. With an (arithmetic) average growth rate of 5.08%, Asia has caused more than half of global economic growth in 2006, while the US contributed 17% and Europe only 8.1%.²

² Data from CIA Factbook, 2007

Figure 1

Country Shares in World-GDP
2005



Source: CIA Factbook, 2005

Asia is not only a huge and fast growing economic area. Despite being fairly heterogeneous, with large differences in per capita income, population sizes, economic and cultural developments it is one of the most highly integrated regions in the world with numerous policy coordination mechanism. The process of East Asia integration takes place within mainly three regional frameworks: ASEAN,³ ASEAN+3 (i.e. ASEAN plus Japan, China and Korea) and the East Asia Summit (EAS).⁴ India has given priority to South Asian integration, notably through SAARC, which is economically less developed (Wilson and Otsuki, 2007). Because of the growing importance of India in the world economy, I have added India to East Asia (ASEAN+4) in this study. Asian economic integration has focused for decades on expanding regional trade by free trade agreements and facilitating cross-border flows of Foreign Direct Investment (FDI) by removing obstacles. Since the financial crisis in 1997/8, new forms of monetary integration have also been explored. The *Chiang Mai Initiative* (CMI) launched in 2000 consists of swap arrangements aimed at providing short-term liquidity support to participating ASEAN+3 countries facing balance of payments problems. In 2001, ASEAN+3 Finance ministers agreed on *Monitoring Short-Term Capital Flows* by bilaterally exchanging

³ Established in 1967, ASEAN now encompasses 10 South-East Asian countries: Brunei, Burma/Myanmar, Cambodia, Indonesia, Laos, Malaysia, the Philippines, Singapore, Thailand and Vietnam. Only the original 5 founding members, abbreviated as ASEAN-6, (Thailand, Singapore, Indonesia, Malaysia, and the Philippines) can be considered as emerging market economies in the proper sense.

⁴ For an overview of the different arrangements see European Commission, 2008

information on cross-border flows. The ASEAN+3 *Economic Review and Policy Dialogue* (ERPD) was created in 2002 to exchange information on economic situations and policy issues in the region. The *Asian Bond Markets Initiative* (ABMI) in 2002 aimed at developing regional bond markets in East Asia. As a consequence of this sustained integration process, inter-Asian trade flows are now exceeding the importance of traditional markets in the United States and Europe. Half of ASEAN exports go to and nearly 70 % of ASEAN imports come from ASEAN+4 countries. See Table 1. Asia is also a major export markets for the United States, who send 20.7% of their exports there, and for Europe which directs 15% of the exports outside the European Union into the region. Asia is nearly three times more important than Europe as a foreign supplier to the US market, and twice as important for Europe.

TABLE 1- Import and export shares for Asian countries (2006)

Exporter	Export destination									
	China	Japan	Korea	India	ASEAN	ASEAN+4	USA	EU12	RoW	World
China		9.5	4.6	1.5	7.4	22.9	21.0	14.2	41.8	100.0
Japan	14.3		7.8	0.7	11.8	34.6	22.8	10.8	31.9	100.0
Korea	21.3	8.2		1.7	9.9	41.0	13.3	10.3	35.3	100.0
India	6.6	2.3	2.0		10.0	20.8	15.0	15.3	48.9	100.0
ASEAN	8.7	10.9	3.7	2.5	24.8	50.6	13.9	12.1	23.3	100.0
Usa	5.3	5.8	3.1	1.0	5.5	20.7		15.0	64.2	100.0
EU12	1.9	1.3	0.7	0.7	1.5	6.1	8.1	59.1	26.7	100.0
EU12external	4.7	3.3	1.7	1.8	3.6	15.0	19.8		65.2	

Import source	Importer							
	China	Japan	Korea	India	ASEAN	ASEAN+4	Usa	EU12
China		20.5	15.7	9.4	11.3	56.9	15.9	5.7
Japan	14.6		16.8	2.5	12.3	46.2	7.9	2.4
Korea	11.3	4.7		2.6	5.0	23.6	2.5	1.2
India	1.3	0.7	1.2		1.6	4.8	1.2	0.7
ASEAN	11.3	13.8	9.6	9.7	24.9	69.4	6.0	2.4
ASEAN+4	38.6	39.7	43.3	24.2	55.1		33.6	12.4
Usa	7.5	12.0	10.9	6.3	10.5	47.2		5.8
EU12	9.6	7.8	8.0	11.8	9.8	47.1	13.2	53.9
RoW	44.3	40.5	37.8	57.6	24.6		53.2	27.9
World	100.0	100.0	100.0	100.0	100.0		100.0	100.0

The emergence of integrated trade areas requires some form of exchange rate stability. Assuming that prices are sticky at least in the short to medium term, variations in nominal exchange rates will cause distortions in relative prices between tradable goods in different countries and between tradable and non-tradable goods within a given country. These distortions affect the allocation of resources. Thus, with the increasing integration of goods markets, monetary integration becomes a more urgent issue.

The institutional arrangements for stabilizing exchange rates were at the core of the Bretton Woods System in 1944. Policy makers sought to avoid undesirable volatility in exchange rates

and prevent competitive devaluations (“beggar thy neighbourhood”) that characterized the inter-war period. When the Bretton Woods system ended in 1971, it was not replaced by a market-led pure float, but by a new system more appropriately described as *bloc-floating*. Bloc-floating characterises a world in which regional currencies are pegged to major anchor currencies, which float freely against each other. (For the theory and implications of bloc-floating see Collignon, 2002).

Until the creation of the euro in 1999, the Deutschmark was the main alternative reserve currency to the US dollar and the anchor for monetary policies in the European Monetary System. Other countries in Latin America and Asia kept relatively fixed unilateral pegs to the USD. Today, the US dollar bloc is the most important currency bloc in the world, while many European and Mediterranean countries have followed their trade flows to the EU, and they have linked their currencies to the Euro. Some states peg their currencies to a basket containing international key currencies mainly dollar and euro. Although the Japanese yen may be included in these baskets, it has never become an anchor for other Asian countries on its own, despite the fact that the Japanese economy was at least as important as Germany. The major difference between Europe and Asia is probably the lack of will for political integration that was the driving force behind European unification (Eichengreen and Bayoumi, 1999).

Thus, despite the prevailing consensus among economists that exchange rate flexibility is preferable over fixed rates, few countries let their currencies float. After the crisis of the European Monetary System in 1992, many economists believed that sustainable exchange rate arrangements tend to corner solutions of either irreversibly fixed or freely floating exchange rate regimes. Flexible exchange rates were supposed to increase the autonomy of monetary policy for countries, which were adopting inflation targeting. Since then, reality has not matched theory. Currency boards and dollarization have not prevented misalignments and speculative attacks (Argentina has been the most spectacular example), and freely floating exchange rates are rare. Calvo and Reinhart (2002) have shown that many, if not most, less developed countries fear and resist free floating and peg their currencies to some international key currency for a multitude of reasons. Bénassy-Quéré, Cœuré and Mignon (2005) have looked at 225 countries and estimated that during the 1999-2004 period only 9 countries had no currency anchor at all; 8 countries had linked their currencies to the Euro, 22 (including Singapore and Taiwan) pegged to a currency basket, and the rest of the 86 countries they studied were pegging their exchange rate to the US dollar. No country attached its currency to

the Japanese yen. A different approach for measuring currency blocs was developed by Fratzscher (2002); he looks at the degrees of monetary policy independence of peripheral currencies from dollar, euro and yen with respect to interest rate transmission and announcement effects of monetary policy surprises and finds Hong Kong, Indonesia, Malaysia, and Thailand to be dominated by the USD. Only Singapore has a greater dependency on the Japanese yen. The euro had no major influence on Asian currencies during the sampling period (1992-2001). He also found that flexible exchange rates did not increase monetary autonomy if countries' policies lacked credibility or were highly integrated in the world economy.

Why do countries peg their currencies? Derived from the European example, exchange rate theories in the 1990s often recommended pegging to a low-inflation key currency in order to make monetary policy more credible and to import price stability. While this may explain why European countries linked their monetary policy to the Deutschmark in the 1980s and 90s, it is not a convincing story for US dollar pegs. Inflation has been lower in Japan and Euroland than in the US and some dollar peggers, like China and Singapore, have lower inflation rates than the United States. See Table 2. If price stability is the objective for exchange rate pegging, Asia should peg to the yen or the euro. However, there are two other explanations for the revealed preference for exchange rate stability, one related to trade, the other to the insufficiently developed banking system in less developed countries.

Table 2. Inflation differentials to USA

	<i>1990-1997</i>	<i>1998-2007</i>
Japan	-1.98	-2.82
Singapore	-0.91	-1.85
China	13.74	-1.47
Euro	-0.05	-0.63
Thailand	1.88	0.23
India	6.63	2.86
Philippines	6.81	2.92
Korea	21.37	5.52
Indonesia	5.20	12.62

The trade argument for currency pegging

The trade argument is strongest for small open economies. Mussa et al. (2000) have shown that bilateral exchange rates with areas representing a small portion of a particular country's trade are more volatile than those with a more important trade partner. Especially small countries stabilize their exchange rates with respect to major trade partners. Rose (2000) has found that the stability of monetary unions has a significant and high impact on increasing trade volumes, while exchange rate volatility has a negative effect. Exchange rate stability therefore contributes to economic growth, because trade expansion requires investment into production and marketing in domestic and foreign markets.⁵ Collignon (2002) has formalized the argument in a model, where risk adverse investors require higher returns on capital for investment projects, which are affected by exchange rate volatility. The higher the uncertainty caused by volatility, the higher the required return and therefore the lower the volume of investment. Exchange rate volatility is in its effect comparable to a tax on foreign trade and investment.⁶ The argument can be extended to domestic investment. Interest rates in floating currency countries are often more volatile than in fixed rate economies (Frankel, 1999; Eichengreen and Hausmann, 1999). This will complicate the development of a long-term bond market, as these financial assets will have unstable prices and uncertainty on future return will be high. Exchange-rate and interest-rate volatility will lead investors to demand a higher return on domestic-currency assets, jacking up the level of interest rates and lowering the growth potential. Therefore, if governments wish to maximize their growth potential, they need to reduce exchange rate volatility.

However, volatility is only one aspect that affects investment related to transborder transactions. The *level* of the exchange rate determines relative prices and therefore relative returns on capital. A competitive exchange rate keeps domestic costs low relative to foreign prices and increases returns on capital. Growth-enhancing exchange rate strategies must therefore aim at pegging domestic currencies to the currency of the major trade partner(s) at a rate that gives them a competitive advantage.⁷ Rodrik (2007) has argued that currency

⁵ Barro (2001) also confirms the importance of investment and the openness of the economy for the acceleration of economic growth.

⁶ Muller and Verschoor, 2007 provide evidence that for 25% out of 3634 Asian publicly quoted companies the return on capital has been significantly affected by exchange rate volatility.

⁷ Assuming same technologies and preference structures, the neutral exchange rate level would be purchasing power parity. In reality, this level is likely to deviate from ppp because of different factor proportions in production and different relative price structures in different economies. For a ppp-based estimate corrected for the Balassa-Samuelson effect, see Rodrik, 2007

undervaluations may support growth as the higher return would compensate for institutional weaknesses or market failure. This is possible. But the exchange rate-induced competitive advantage is particularly important when the new investment yields economies of scale, as New Trade Theory postulates (Helpman, and Krugman, 1985). In this case a temporary real exchange rate distortion will lead to a durable cost advantage for the new production locations (Collignon, 1991). Production will not switch back when the real exchange returns to a more balanced level and the temporary undervaluation of the exchange rate produces the permanent effect of higher productive capacities.⁸ Sustained accelerated economic growth requires that this incentive structure lasts for a considerable period of time. This is an argument in favour of exchange rate stability, because flexibility would eliminate the growth enhancing distortion more rapidly. Furthermore, exchange rate volatility creates uncertainty, which would restrain actual investment (the “option value of waiting” increases) and the growth effect resulting from undervaluation could be cancelled. For example during the financial crisis in 1997-98, export revenues of many East Asian countries did not increase in spite of massive depreciations of the afflicted economies (Dattagupta and Spilimbergo, 2000). A successful long term growth strategy therefore requires *a stable, competitive exchange rate level with minimal volatility relative to a large potential market*. I will call such strategy *monetary mercantilism*.

The success of a strategy of monetary mercantilism hinges crucially on the country’s capacity to keep domestic prices stable relative to the relevant trade partner(s). A highly elastic supply of labour may contribute to keeping wage cost pressures under control, but other macroeconomic policies must supplement labour market developments.⁹ Provided the right set of policies keeps inflation low, a fixed exchange rate can support rapid economic growth, because it stabilizes the domestic industry’s competitiveness and reduces the “volatility tax”. Examples for such development strategies can be found in Western Europe and Japan after WWII and more recently in the emerging economies in East Asia. Figure 2 illustrates the argument. It shows the level of unit labour costs relative to the USA. Under the fixed, but adjustable regime of Bretton Woods, most European and the Japanese currency were competitively undervalued against the USD. This gave them a comparative advantage, which

⁸ This hysteresis effect may be one reason, why econometric studies based on structural VAR models find little evidence for the impact of exchange rates in the Chinese trade balance. See: Yin Zhang, Guanghua Wan, 2008.

⁹ During the 1990s theories that used the exchange rate as a commitment device were prominent. However, evidence points to the fact that restoring price stability in high inflation member states of the European Monetary System was achieved by old-fashioned stabilization policies. See Collignon, 1994

allowed the rapid integration into the world economy. Once the fixed exchange rate system of Breton Woods collapsed,¹⁰ Europe's and Japan's high growth rates also vanished. But monetary mercantilist strategies have also been successful in many other countries (Rodrick, 2007).

These models of competitive exchange rates focus on the *level* of the exchange rate for trade and current account purposes. However, they assume implicitly that the capital stock in exporting countries is underemployed, so that additional exports respond flexibly to profit opportunities without additional investment. But if the focus is on trade-related *investment*, and also on FDI, then the issue of *volatility* becomes crucial, for uncertainty will increase the required return on new investment projects.

A number of authors have suggested that countries wishing to stabilize exchange rates for trade purposes should peg to a basket of their main commercial partners (Williamson, 2000, Ogawa and Ito, 2001; Kawai, 2002). The optimality of the exchange rate regime is defined as minimizing the fluctuation of trade balances, when key currencies fluctuate exogenously. But if we consider trade to follow investment decisions, there is also another argument. If international key currencies fluctuate, but regional currencies are pegged to one of them (the dollar), exchange rates to the other key currency (the euro) become more volatile and this uncertainty becomes an obstacle to investment and trade.¹¹ To overcome the uncertainty, a stronger devaluation relative to the euro is required in order to raise returns on capital for Asian exporters and European importers. Of course, it is also clear that if a large number of currencies in the basket are pegged to a key currency, the effective exchange rate would become more stable and this would support economic growth provided the real effective exchange rate is undervalued. However, it can be shown that in order to reduce the "volatility tax", a peg to a large single currency is always superior to a basket peg (Collignon, 2003).

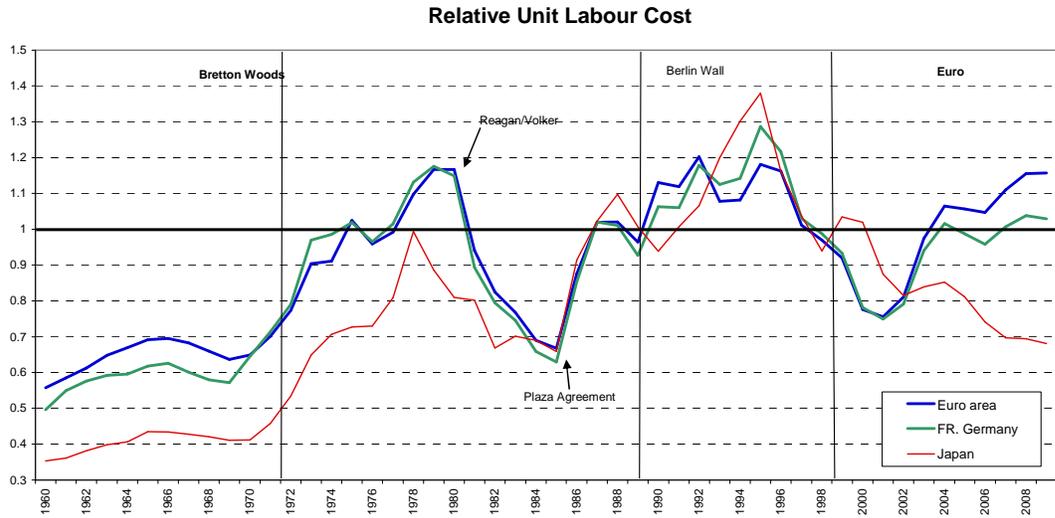
The advantage of the mercantilist strategy consists in developing the supply-side of emerging economies. By facilitating the integration into a large global market, it produces economies of scale and helps to build up skills and productivity through learning by doing. The wealth of

¹⁰ Arguably this was caused by American economic policies during the Vietnam war, but structurally monetary mercantilism by Europe and Japan contributed to the American current account deficits, which made the role of the USD in the system unsustainable.

¹¹ Collignon 2002 demonstrates that one of the consequences of bloc floating is higher volatility between key currencies.

such nations increases rapidly; but the flip-side of this wealth increase is the fact that a large part of it is held in securities denominated in foreign currency. Monetary mercantilism therefore prevents the development of deep domestic financial markets. This fact can become a source of financial instability.

Figure 2



The financial market argument for exchange rate pegging

One major difference between developed and emerging market economies is the depth of financial markets. While developed economies have deep and liquid markets, emergent economies' financial markets are incomplete. Fixed-interest bond markets are underdeveloped. Domestic firms tend to be small, lacking well-developed accounting systems, so that they are unable to issue bonds in their own name. Banks with market power may attempt to stifle the development of securities markets. Narrow markets do not reach efficient scales of transaction and are dominated by privileged personal relations rather than merit. Government bonds maybe rare, because either virtuous governments run balanced budgets, or bad ones have macroeconomic track records that inhibits potential buyers from making medium- or long-term commitments. Capital controls also may hamper the emergence of efficient financial markets. The quality of prudential supervision and regulation, the non-existence of a well-defined yield curve, the absence of institutional investors and rating agencies, and the inadequacy of trading, settlement and clearing systems all contribute to the weak development of bond markets. (McKinnon and Schnabl, 2004; Eichengreen and Luengnaruemitchai, 2004).

Eichengreen and Hausmann (1999) have called the incompleteness in financial markets “original sin”. This is somewhat strange as the Christian concept of an innate predisposition to sin is not exactly a concept dominating Asian culture, but it describes quite accurately a situation in which the domestic currency cannot be used to borrow abroad or to borrow long term. In other words, foreign investors are not willing to hold domestic financial assets in their portfolio and this leads local firms to a “sinful” currency mismatch. However, this sin is from the beginning engrained in the underdeveloped financial system. Domestic financial markets could only develop if domestic residents are willing to keep part of their wealth in domestic securities. But local bond markets are either inexistent or illiquid. They put a premium on holding wealth in domestic currency and thereby prevent the development of other financial products.

Furthermore, without properly functioning bond markets, it is difficult to build forward exchange markets and provide hedging instruments for local banks. This is a major reason for governments to peg their currency to a major international currency with deep and liquid markets. By promising to convert domestic currency against the key currency, governments implicitly provide a hedge: while there is no forward market, firms can reasonably count on changing domestic currency against dollars (and inversely) at a foreseeable rate. But this promise also renders their financial systems fragile and vulnerable when hit by shocks. Firms needing external finance can choose between borrowing in foreign currency and borrowing short term. If companies borrow in dollars to finance projects that generate domestic currency, devaluations can thrust them into bankruptcy. If, instead, they finance long-term projects with short-term domestic-currency loans, they may go bust when interest rates rise, and credits are not renewed. Unavoidably, investments will suffer from a mismatch between the currency denomination of assets and liabilities or a maturity mismatch when long-term investments are financed by short-term loans. These mismatches do *not* exist because banks and firms lack the prudence to hedge their exposures. They are the result of the underdevelopment of financial market, not of moral hazard. The problem is that a country whose external liabilities are denominated in foreign exchange is, by definition, unable to hedge.¹² Therefore, in order to cover short term external liabilities denominated in dollars, prudent monetary authorities maintain foreign exchange reserves in dollars.

¹² Assuming that there will be someone on the other side of the market for foreign currency hedges is equivalent to assuming that the country can borrow abroad in its own currency.

This strategy is relatively risk-free as long as there is an excess supply of foreign currency, i.e. as long as net foreign assets increase.¹³ Speculative attacks cannot break the peg, as the central bank can always provide domestic currency to satisfy demand for its own money. Excess supply of foreign currency monetizes the domestic economy. To control domestic money supply and maintain price stability, monetary authorities will seek to sterilize the inflow of foreign capital and domestic interest rates will remain structurally high (Cavoli and Rajan, 2006).¹⁴ As a consequence, monetary capital (i.e. the difference between the financial assets of the banking system and money) will not increase significantly and domestic capital markets will stagnate, because either domestic credit remains constrained by high interest rates, or because money supply increases rapidly. Wealth, defined as monetary capital (MC) plus currency, will grow with mercantilist policies, but domestic monetary capital (DMC), i.e. illiquid wealth denominated in domestic currency will remain stagnant. Yet, domestic monetary capital is the necessary condition for the functioning of a fully developed banking and financial system. The monetary mercantilist strategy will therefore develop the “real” economy but not domestic financial systems.

MacKinnon and Schnabl (2004) have distinguished between “high-frequency” (i.e. day-to-day or week-to-week) dollar pegging from “low-frequency” (i.e. month-to-month or quarter-to-quarter). Low-frequency pegging matters for trade and investment decisions, but high-frequency volatility is more relevant in financial markets. The return by many countries to soft dollar pegging after the Asian crisis is most evident at high frequencies of observation. The underdevelopment of capital markets in emerging economies provides a strong rationale for high-frequency (day-to-day) dollar pegging governments offset nonexistent hedges in forward exchange, by keeping the exchange rate stable. This would explain why Asian currencies have returned to exchange rate pegging after the Asian financial crisis.

But why are Asian countries pegging to the *US dollar*? No doubt the historic role of the United States in East Asia, as well as the size of the dollar zone in terms of world trade, is a strong argument. Furthermore, by choosing the USD as the nominal anchor, transactions with other large and volatile currencies, such as the euro or the yen, can be hedged by using the dollar as

¹³ Of course, the story is much less happy when there is excess demand for foreign currency - i.e. when exchange reserves are falling, as Thailand painfully found out in 1997.

¹⁴ The return on foreign exchange reserves is usually substantially lower than the cost at which the private sector can borrow short term money in foreign markets. Stiglitz (2006) has calculated that the opportunity cost of reserve holding amounts to 2% of developing countries' GDP four times the level of foreign aid of the whole world.

the vehicle currency.¹⁵ MacKinnon and Schnabl (2004) and Shioji (2006) propose that the choice of the dollar as an anchor currency in Asia is derived from the high percentage of dollar denominations in Asian invoicing. This is a reasonable argument, although one should keep in mind that the choice of an invoicing currency is the consequence of the peg rather than the other way round. The dominant role of the dollar as a financial vehicle is more likely to have emerged from the fact that the USD is traded in one of the deepest and most liquid markets. But while the dollar may still dominate the foreign exchange market, it represents no longer unequivocally the biggest financial market in the world. For example the euro-bond market has already surpassed the US market. (See Table 2 and for an analytical framework: Hartman and Issing, 2002). In principle it is therefore possible to imagine that the euro could fulfil certain functions, which were traditionally reserved to the US dollar.

Table 2

The Size of Financial Markets

	US dollar	Euro	Yen
Cross border interbank claims			
- stock end-March 2004 (bn USD)	6881.7	6333.8	785.2
Bonds and Notes			
- stock end-March 2004 (bn USD)	3200.3	5306	283.1
Stock market capitalisation			
- bn USD 2003	11,052.4	3,485.1	2,126.1
- <i>percent of GDP</i>	<i>106.4</i>	<i>52.4</i>	<i>53.2</i>
Foreign exchange markets	USD/euro	USD/ other cur.	
- daily turn over 2001 (bn USD)	354	706	
- in percent	33%	67%	

Source: BIS, World bank

¹⁵ Note that this is a financial market argument. For trade and capital investment purposes, hedging through a vehicle currency may be much more difficult, if not impossible.

Strategies for monetary integration in Asia

We will now analyse the exchange rate policies pursued by the governments of Asian emerging economies. We first look at evidence for monetary mercantilism from the trade side and then the banking side and terminate with policy conclusions.

The US-dollar standard in East Asia

East Asian countries have lived for a long time on a US-dollar standard. This regime has provided them with stability within the region and facilitated integration into the world economy by pursuing monetary mercantilism; it seemed to have unravelled during the Asian currency crisis in 1997/8 and re-emerged in the early 2000s. The Asian crisis had structural features related to the premature liberalisation of capital account restrictions and the subsequent surge in international capital inflows, which were suddenly reversed in 1997-98. It was also partly caused by the strong devaluation of the Japanese Yen relative to the dollar (Ogawa and Itao, 2002; McKinnon, and Schnabl, 2003), which demonstrates that the coexistence of two volatile key currencies can pose serious problems for third parties.¹⁶ The IMF has claimed that the policy of pegging to the USD was the main reason for the Asian crisis and recommended greater exchange rate flexibility. During the acute crisis most countries, with the exception of China and Hong Kong, have followed this advice.

When capital flows resumed, Asian authorities returned to pegging their currencies to the dollar, sometimes very strictly, sometimes allowing some limited volatility. Interestingly Japanese monetary policy also aligned the yen more closely to the USD. The unintended consequence was higher volatility between yen and euro.

¹⁶ Interestingly, the European currency crisis in 1992 also coincided with a strong devaluation in the USD relative to the Deutschmark. See: S. Collignon, *Europe's Monetary Future (Volume I)*, Pinter Publishers, London, 1994. Europeans quickly learned that pegging to a trade-weighted basket of currencies is not a solution to this problem

Figure 3

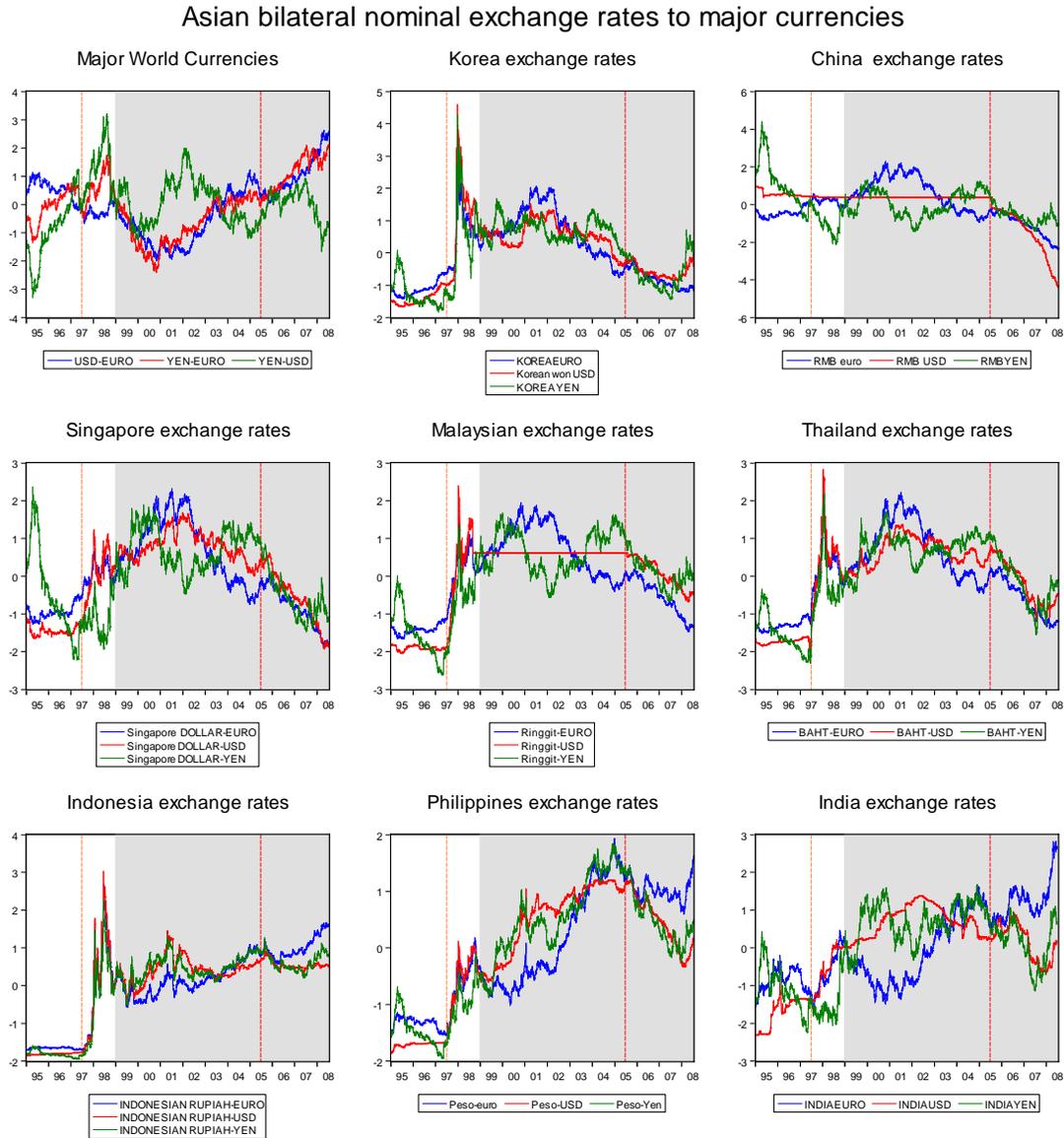


Figure 3 shows the daily exchange rates between the three major currencies US dollar, euro and yen, as well as the regional Asian currencies. The first vertical line indicates the outbreak of the Asian financial crisis with the Thai baht devaluation in July 1997. The second line marks the change in Chinese exchange rate management in 2005. The grey shaded area after 1999 represents the existence of the euro. Exchange rate flexibility is in general higher for the key currencies dollar, euro and yen than for small pegged local monies. As is well known, the euro weakened until the late 2001 and appreciated against the UDS after the Dot-com crisis reduced the attractiveness of portfolio investment in the USA. The Japanese yen kept a middle

position between euro and USD prior to the introduction of the euro in 1999. Thereafter, it first appreciated together with the USD against the euro, and then followed the weakening dollar after 2000. The higher correlation between dollar-euro and yen-euro exchange rates indicates that Japan chose to align the yen with the USD rather than the euro. This policy may have been motivated by the growing weight of Asian markets for Japanese trade and investment. In fact, figure 3 reveals that most other Asian currencies, maybe with the exception of the Singapore dollar and the Korean won, had a tendency to stabilize exchange rates with the USD. Only after 2005 do they seem to have developed a tendency to appreciate relative to the dollar.

China's exchange policy is of particular interest. From the mid 1990s until July 2005, the Chinese currency (Renminbi) was fixed to the US dollar at a rate of 8.27 RMB to the dollar. Succumbing to international pressure, the Chinese authorities changed their currency regime in 2005, allowing a gradual appreciation with very limited day-today volatility (Goldstein and Lardy, 2008).¹⁷ This change in Chinese exchange management has affected other currencies as well. Malaysia equally gave up its hard peg to the USD. Others allowed their currencies to follow the Chinese appreciation and lowered exchange rate volatility. Table 3 shows the coefficients for a regression of local currencies on several major key currencies, including the RMB after 2005.¹⁸ It reveals that since China changed from hard to a softer USD peg in 2005, allowing a RMB-USD appreciation, India, Singapore, the Philippines and Malaysia have effectively included the Renminbi into their basket of exchange rate pegs.

¹⁷ Morris Goldstein and Nicolas Lardy, China's exchange rate policy: an overview of some key issues; in: *Debating China's Exchange Rate Policy*, Peterson Institute for International Economics, 2008.

¹⁸ The methodology for calculating Table 3 follows Frankel and Wei (1994), Benassy-Quere, Agnes and Benoit Coeure (2001), and McKinnon and Schnabl (2004) using an "outside" currency—the Swiss franc—as a numéraire for measuring exchange rate volatility of any Asian country to detect the composition of their currency baskets, i.e., the relative weights used for the dollar, yen, euro and RMB in foreign exchange policies. Eichengreen (2006) has emphasized that using the Swiss franc will underestimate the real weight of the euro in the basket.

Table 3

Basket Peg Coefficients for Asian Currencies. imposing the condition of coefficient equal or larger than zero							
	China	India	Korea	Thailand	Singapore	Philippines	Malaysia
4Jan1999-22July2008							
usd/SFR	0.8	0.9	0.6	0.7	0.7	1.4	0.8
euro/SFR	0.4	1.2	1.3	2.0	0.9	2.7	0.5
yen/SFR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4Jan1999-20 July2005							
usd/SFR	1.0	0.9	0.7	0.9	0.9	1.6	1.0
euro/SFR	0.0	1.2	0.7	1.4	0.6	2.7	0.0
yen/SFR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21July2005-22July2008							
usd/SFR	0.4	0.7	1.2	0.5	0.2	0.0	0.3
euro/SFR	0.5	1.8	1.3	3.5	0.6	1.6	0.7
yen/SFR	0.0	0.2	0.0	0.0	0.0	0.0	0.0
renminbi/SFR		0.1	0.0	0.0	0.2	0.6	0.3
Source: Bloomberg and own calculations							

Figure 4 shows the volatility of exchange rates for the most important Asian currencies. Most studies use either fixed period or moving period standard deviations of the growth rates of the exchange rates as a measure of volatility (log first differences). I have preferred to calculate the conditional standard deviation in a GARCH(1,1) model as our measure for volatility. I have argued above that volatility is creating uncertainty and impedes investment. By definition, foreseeable shocks to exchange rates do not fit this criterion. Furthermore, moving average representations of annual, quarterly or monthly data sets and their standard deviations are somewhat arbitrary and contain memories of shocks for the chosen averaging period.¹⁹ By contrast, the GARCH representation indicates the unanticipated shocks to exchange rate dynamics. All our GARCH(1,1) models, using daily rates,²⁰ were significant within the usual 1% error margins.

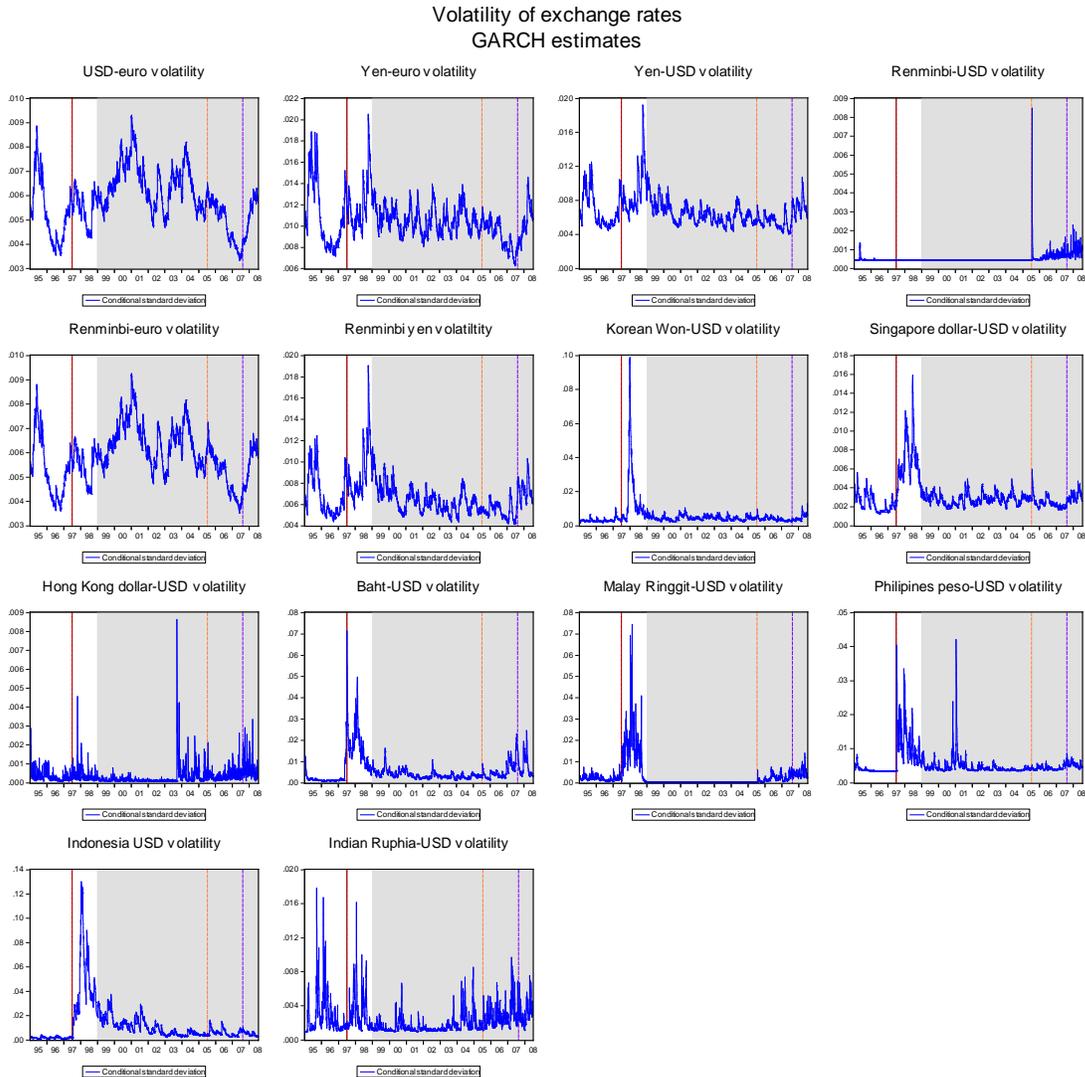
As for the key currencies we find that the yen-euro volatility is significantly higher than the yen-USD and also the USD-euro volatility. For most Asian currencies day-to-day volatility relative to the USD has flared up during the crisis and then subsided at the beginning of the decade, coinciding with the end of the Asian crisis and the introduction of the euro. It is

¹⁹ Given that all the exchange rates analyzed here have unit roots, comparing volatilities as the standard deviation of first log differences over different time periods is not legitimate, as the mean depends on the sample choice.

²⁰ 3530 observations included after adjustments Data from Bloomberg.

equally noteworthy that exchange rate volatility has increased across the board after the subprime crisis in the USA.

Figure 4



As we have argued above, volatility creates uncertainty, which would increase required returns and slow down investment. The relative stability of local currencies pegged to a monetary anchor reduces uncertainty with respect to all other regional currencies that have chosen a peg to the same anchor. It therefore supports integration within the region and with the anchor

economy.²¹ For Asia, the USD largely fulfils the function of a regional anchor, while the euro area remains at bay. Japan has drawn the consequence by aligning its exchange rate to the dollar. However, the heightened stability within the dollar-bloc makes not only the dollar-euro exchange rate more volatile,²² but also the relation between all Asian currencies and the euro. The exchange rate uncertainty relative to the euro would require higher returns on capital in the Asia-Europe relations. As I have argued above, Asian currencies will therefore have to become more strongly undervalued with respect to the euro than to the USD in order to compensate for the higher exchange volatility. Asian exporters and European importers will then achieve the required rates of return. Table 1 supports this statement, showing Asia as the most important supplier of imports for the European Union.

Estimating a fully-fledged investment function of emerging Asian economies would go beyond the scope of this paper. However, given the importance of China for international capital flows, I have recalculated month-by-month GARCH-volatility of the renminbi and estimated its impact on monthly foreign direct investment for China by using an unrestricted VAR model.²³ Our purpose is to find evidence for a negative relation with exchange rate volatility. Figure 5 shows the accumulated response to currency devaluations and unforeseen shocks in volatility relative to the yen and the dollar. We find that a devaluation of the RMB relative to the euro increases Chinese FDI, but a weakening relative to the USD lowers it. This contradictory behaviour may be explained by different strategic features: US firms may invest in China in order to be present in the large domestic market when US exports to China lose competitiveness, while Europe serves as a final export destination for a larger integrated Asian supply chain (Eichengreen and Hui 2007). Such an explanation would make sense in the context where Hongkong, Taiwan, Singapore and Japan are the main sources of FDI in China, although, this hypothesis would need further research. The relation between Chinese FDI and the Japanese yen, which fluctuates between euro and USD, is statistically indeterminate. Volatility in the RMB-USD, RMB-Yen and the Yen-USD exchange rates lower foreign investment. Thus, we may conclude that Chinese FDI benefits from exchange rate stability to

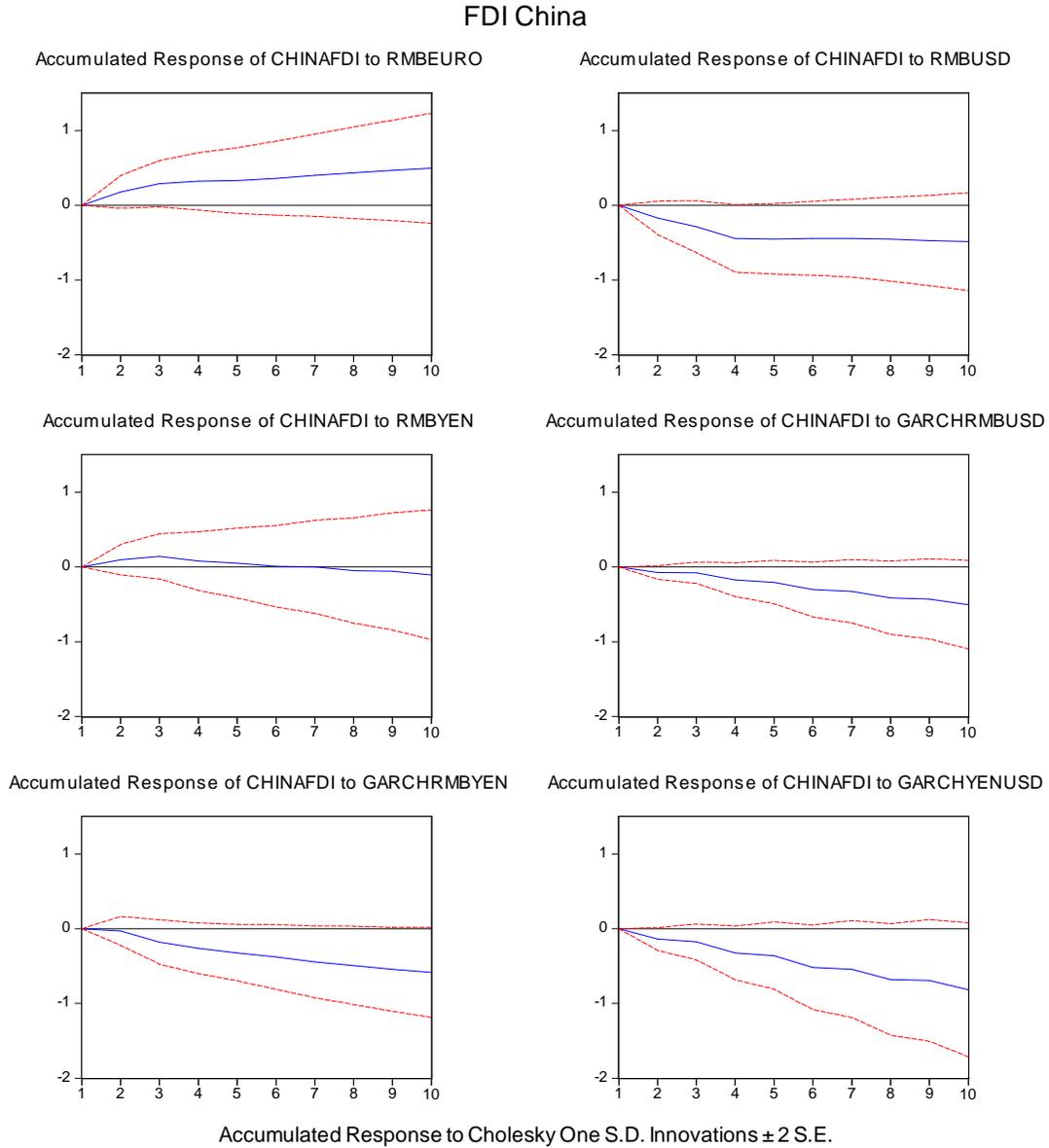
²¹ My argument is here about regional integration in a broad sense. I am aware that bilateral flows of FDI may be affected by specific market strategies which could lead exchange rate volatility to cause higher FDI if firms wish to produce for local markets without re-exporting. See Cushman, 1988.

²² For the formal model deriving this insight, see Collignon, 2002.

²³ A technically more detailed and sophisticated analysis by Bénassy-Quéré, Fontagné, and Lahrière-Révil, 2001 for 42 countries finds a clear positive relation between currency devaluations and FDI and a negative relation between volatility and FDI. Eichengreen and Hui 2007 also find a negative relation between bilateral exchange rate volatility and FDI. Both these studies use different measures of volatility than our GARCH model.

the United States and Japan, but with respect to Europe the undervaluation of the exchange rate compensates for the increased volatility-induced uncertainty. China's integration into the world economy benefits from a strategy of monetary mercantilism.

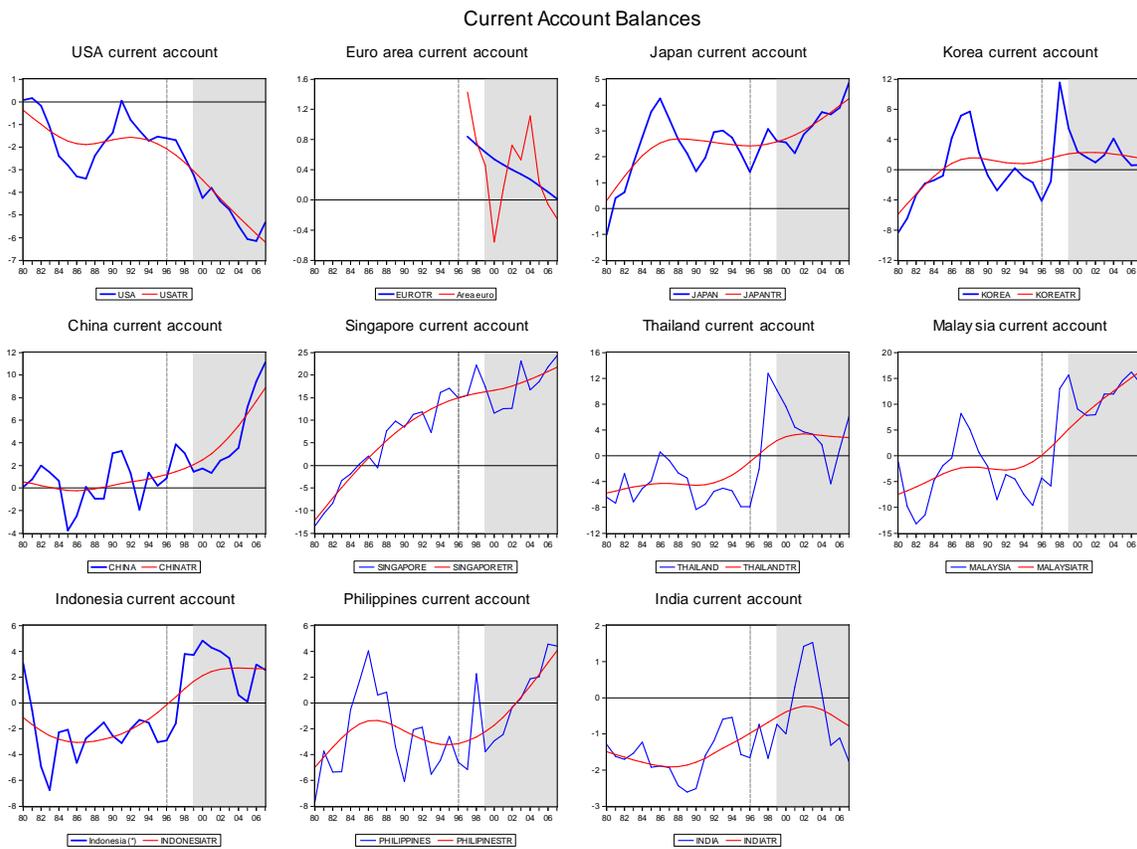
Figure 5



Another indicator whether a country pursues monetary-mercantilist strategies is the current account balance. It combines the effects of exchange rate stability and undervaluation. Figure 6 shows the current account balance for some Asian countries, for Euroland and for the United

States. We find Japan, China, Singapore and to a lesser degree Korea producing stable current account surpluses. Thailand, Malaysia, Indonesia and the Philippines have embarked on a similar strategy *after* the Asian currency crisis in 1997. But India does not follow such a policy. What are the consequences of this monetary mercantilism for the development of domestic financial markets?

Figure 6



Asia's return to original sin

I have argued that monetary mercantilism may help to develop the real economy, but not the financial system. We now look at some evidence. An indicator for the capacity of a country to borrow its own currency abroad, and therefore the development of its own financial markets, is *domestic monetary capital*. Monetary capital is defined as the difference between financial assets of the banking system and money (net foreign assets plus domestic credit by the banking system minus money; see Tobin and Gulop, 1998). If we use a narrow definition of

money, such as M1, we get a broad measure of monetary capital (MC). For our purposes of measuring the development of capital markets, a more narrow definition of monetary capital (MC2) is appropriate, using all liquid means of payment (M2). Monetary capital so defined indicates the amount of financial assets other than money that wealth owners are willing to hold. However, this general definition of monetary capital makes no distinction between currency denominations of financial assets. If the alternative to domestic currency is holding assets denominated in foreign currency, and if domestic financial markets are underdeveloped, then monetary capital denominated in domestic money (DMC) will still be small. We therefore define *domestic monetary capital* as monetary capital minus net foreign assets; again, this can be calculated narrowly (DMC2) by using M2 or more broadly (DMC) by M1.

Figure 7 shows the evolution of monetary capital for some selected economies in Asia.²⁴ The first graph gives the picture for the United States as a benchmark. Most of monetary capital is denominated in dollars and this is a sign of the deep and well-functioning financial markets. Narrow monetary capital (using M2) has doubled from 20 % to more than 40 % of GDP over the last decade. All our other graphs repeat this American indicator as a benchmark. In the Euro area the ratio of MC2 to GDP is twice as high as in the USA.²⁵ Japan went through a major financial bubble prior to the financial crisis in 1996. During those years, monetary capital inflated to figures twice the Euro area. Since then they have come down to levels comparable with the US economy. In the emerging market economies of East Asia, monetary capital (including net foreign assets) is clearly rising in countries pursuing an aggressive monetary mercantilist strategy like Korea, China, Hong Kong and Singapore. In the ASEAN countries who ran current account deficits prior to the crisis and who were therefore particularly affected by the crisis in 1997, the ratio of monetary capital to GDP had a tendency to come down after 1998, despite the fact that the current account balance improved considerably. Hence, domestic credit fell after the crisis, as trust in local currencies was undermined. If ever there was hope for redemption, East Asia has returned to original sin. The adequate policy response has been to switch back to (softly) pegging the USD.

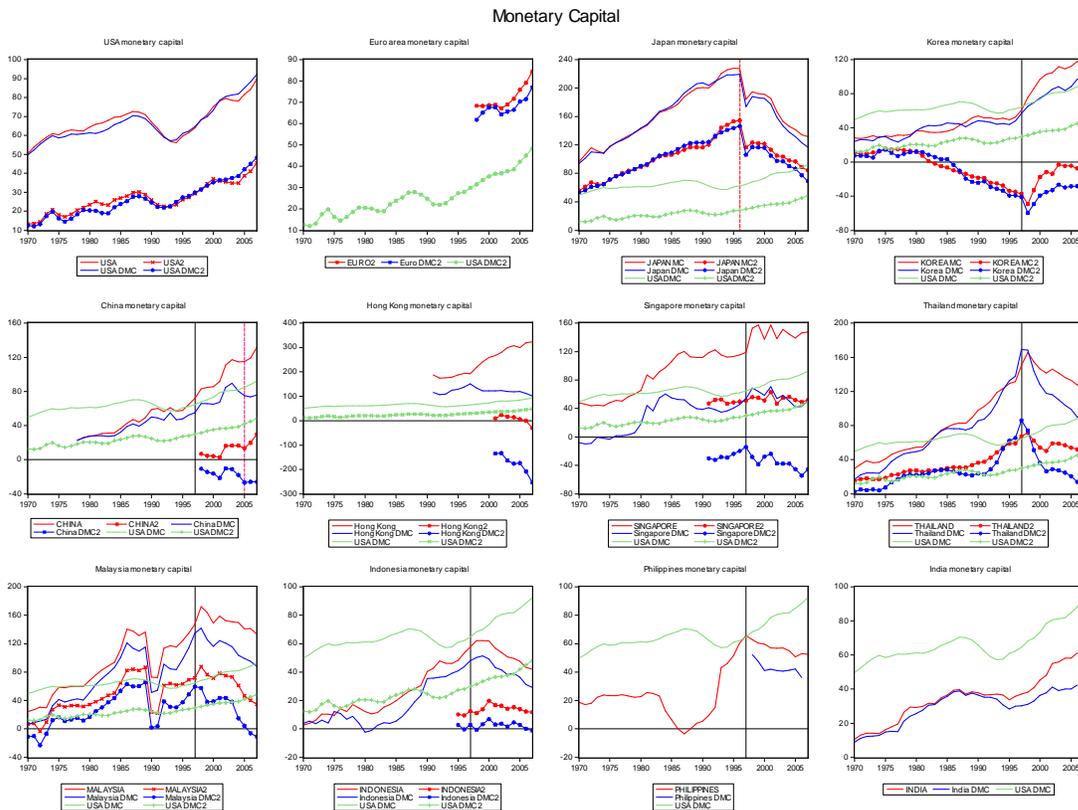
Narrow domestic monetary capital (DMC2) has always been negative or close to zero in all countries, with the exception of Thailand, although it has fallen there, too. In Korea, the DMC2 position has improved after the crisis, but remains negative. Not unexpectedly, narrow

²⁴ All data are from IMF International Financial Statistics.

²⁵ Data for M1 are not available in the IMF IFS.

domestic capital is also negative for China, Hong Kong and Singapore, who were less affected by the 1997/8 crisis, but have pursued the most aggressive mercantilist strategies. While these countries are accumulating wealth by getting integrated into the world economy, they do not hold this wealth in domestic financial assets; instead they either keep it in foreign currency (USD) or they monetize domestic financial assets. For the Philippines and India, we do not have data for M2, but the time series for broad MC are significantly below the equivalent US benchmark and are likely to exhibit similar DMC patterns as the other countries. Hence, this evidence confirm that monetary mercantilism does not develop strong domestic financial markets. Our data suggest that all East Asian countries, with the obvious exception of Japan, live in original sin. Under those circumstances, pegging to a key currency is a necessity for maintaining economic growth.

Figure 7



A Eurasian currency bloc?

If monetary mercantilism helps developing the real economy in emerging Asia, it has also consequences for the more developed industrial countries. The mirror image of the monetary-

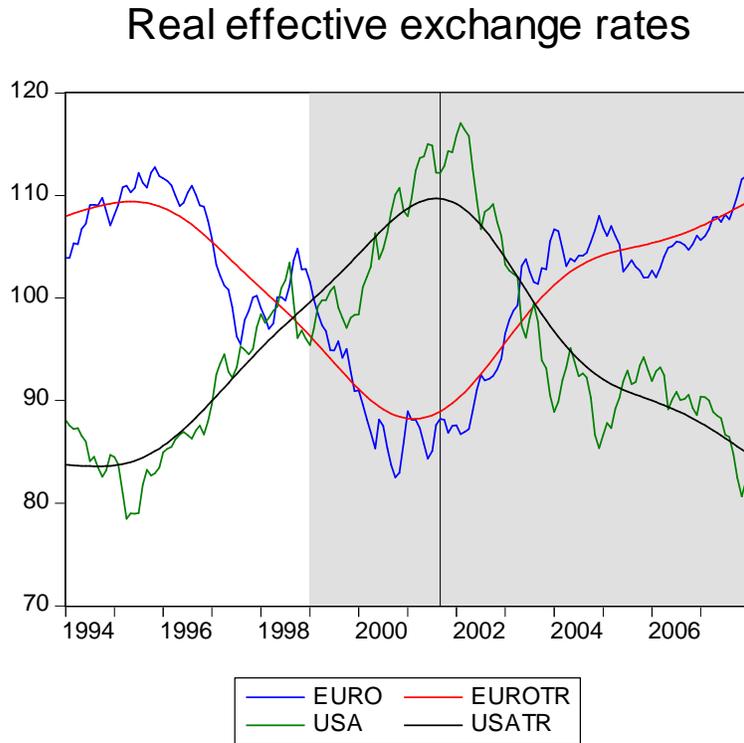
mercantilist strategy is the rapid deterioration of the current account balance in the USA and increasingly also in Euroland (See Figure 6). The American current account deficit has reached over 6% of GDP, which given the size of the US economy, is huge in absolute terms and threatens the stability of global financial and goods markets. Monetary mercantilism contributes to global imbalances that need to be adjusted.

Adjusting the global economy requires a reduction of the US deficit by reducing demand and/or devaluing the USD. If the adjustment mechanism is primarily through reduced consumption and investment in the United States (which may well be the consequence of the financial crisis), it would harm growth in the world economy, and particularly in East Asia, unless someone else takes over the role of consumer of last resort. Who could assume this role? There is no single obvious candidate. Contrary to claims frequently made in the political arena that Europe's growth is demand constrained, the Euro area is in fact fairly close to equilibrium: Inflation is not excessive, fiscal deficits have come down, unemployment has been falling and the current account is close to balance. A modest increase in demand might accelerate European growth, but the effect would not be large enough to make up for reduced American spending. The real counter part to the US current account deficits is Japan and China. Both economies could benefit from increased domestic consumption.

However, exchange rate policies matter for growth-oriented adjustment policies. A real depreciation of the USD is necessary to stimulate American exports. But given the large number of currencies pegged to the US dollar, a depreciation of the US real effective exchange rate implies an appreciation of the Euro as its mirror image (Figure 8). But more than half of the US current account deficit originates in trade with dollar peggers. Assuming similar price elasticities, all other currencies, and particularly the euro, would have to appreciate more than twice as much as they would if the dollar could depreciate against all currencies in order to re-establish equilibrium.²⁶ For Europe, appropriate exchange policies are probably most difficult to achieve. The price for the necessary adjustment in the world economy would essentially be paid by Europeans. The consequences are loss of European competitiveness, lower investment and growth, hence the opposite of what the global economy needs. The problem, of course, is embedded in the structure of the world economy and has little or nothing to do with the monetary policies pursued by ECB.

²⁶ For a formal model of the consequences of bloc floating for key currencies and their volatility see Collignon, 2002.

Figure 8



What can be done? No doubt, the correction of the American current account deficit would require more flexibility in exchange rates relative to the dollar, especially for East Asian countries, for it is here that a large part of the US current account deficit is realised. However, as pointed out above, more flexibility in bilateral exchange rates, i.e. high volatility would have the effect of a tax on international commercial and financial transactions. If Asian countries moved to a free float, this tax would not only apply to exchanges with the United States of America; it would destabilize the whole dollar bloc, in particular the growing trade and financial integration within East Asia.

If the US needs more exchange rate flexibility to facilitate its adjustment process, but local currencies in Asia require sustained stability to foster development, Asia needs to find a different currency standard. Given the weakness of local financial markets there is no currency other than the yen that could assume this role. But an abrupt termination of the monetary mercantilist strategies would throw Asia into turmoil. Economic growth would slow down dramatically, as it did in Europe and Japan after President Nixon decided to let the USD float

in 1971. Productivity would decelerate, unemployment would rise. Given the high amount of non-performing loans in Chinese banks' balance sheets, a major financial crisis would follow. Thus, going cold turkey on flexible exchange rates is no option for Asia.

An alternative strategy would be to gradually grow out of monetary mercantilism. Asia could maintain a stable and competitive exchange rate by collectively re-pegging from the US dollar to either a single currency like the Yen or the Euro or to a currency basket. At the same time it needs to build up domestic financial markets. Ogawa and Ito (2002) rightly emphasize the need for policy coordination amongst Asian economic partners.

The choice of pegging to a single currency or a basket is controversial. Williamson (2000), Kawai (2002), and Ogawa and Ito (2002) have proposed currency baskets for East Asia with increasing weights of the Japanese yen and the Euro, and less in US dollars. Currency baskets have the advantage that they would stabilize trade-weighted effective exchange rates. But they do not solve the problem of minimising investment uncertainty and exchange rate hedges in economies with underdeveloped financial markets (Collignon, 2003; MacKinnon and Schnabl, 2004).

Choosing either the euro or the yen also has draw-backs. For many Asian economies, Europe is more important as a trade partner, Japan as an investor. The share of borrowing from Japan is higher than euro debt (Collignon, 2007). Pegging to the yen would allow low interest borrowing from Japan, but it would handicap trade and investment with Europe. Pegging to the euro alone would increase the cost of capital coming from Japan, but privilege the penetration of European markets.

These difficulties could be overcome if East Asian currencies would peg to *a basket, whose components have fairly stable exchange rates among themselves*. From a financial stability point of view, it would contain large proportions of euros and yen. In order to support the adjustment of the US economy, it would significantly reduce the weight of the USD. Pegging to a basket would require two conditions to be optimal:

1. The basket weights would have to be fairly equal across Asian countries in order to maintain stability within the Asia bloc.
2. The exchange rates between the basket currencies should become more stable than with respect to the US dollar. This would imply that Japan and Europe started coordinating their

exchange rate policies to achieve greater stability between yen and euro and let the USD move flexibly to accomplish the necessary adjustment.

Condition 2 implies a major policy shift for Japan, which has aligned its exchange rate policies to the USD after the Asian crisis. This policy made sense as long as the rest of Asia was working with a dollar-standard. However, if more flexibility is now required to adjust the US economy, both Japan and the rest of Asia would suffer.

Re-aligning policies to the euro and improving broad macroeconomic policy coordination with the Euro Area would allow the rest of Asia to continue their rapid economic growth by continuing monetary mercantilism, but now with respect to the Euro-bloc rather than the dollar zone. Yen-euro stability would allow them to use both these currencies as efficient hedging tools. For the US economy the advantage of a Eurasian basket peg solution is also clear: it would facilitate the reduction of the current account deficit, without necessarily causing a severe reduction in domestic demand.

Table 3 has revealed the increasing importance of Renminbi for ASEAN exchange rate policies, but as long as China is lacking fully developed and liquid financial markets, it remains unable to provide the hedging qualities necessary for an anchor currency. I therefore do not recommend that other Asian currencies include the Renminbi into their baskets at this stage. However, if China also pegs to a yen-euro basket with minimal fluctuations, regional exchange rates would be stabilised, and as China's domestic financial market is building up, Renminbi could slowly be included into the Eurasian basket.

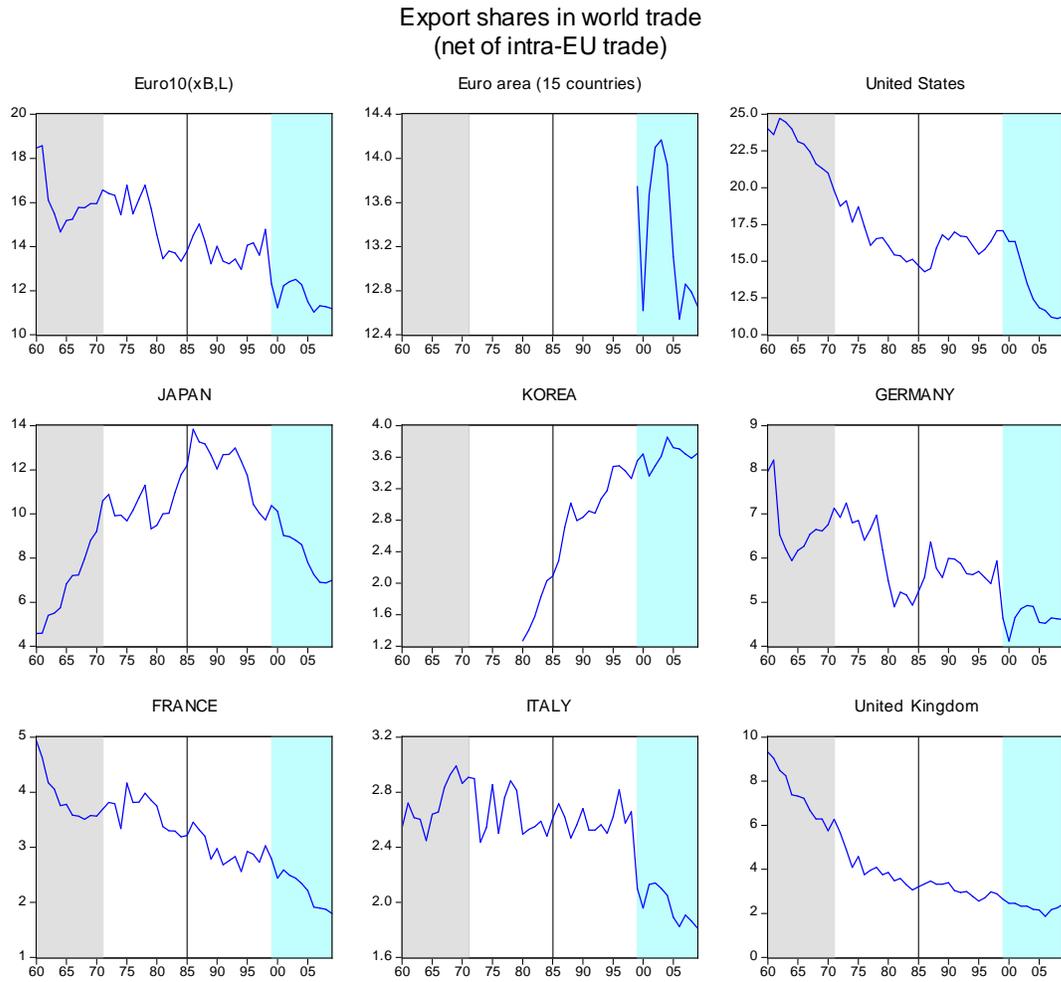
How feasible is such a policy? Institutionally, there are no barriers: the Treaty of European Union stipulates that exchange rate policy is a matter of economic and not monetary policy, so that ECOFIN and the Euro group could agree on policy issues. Asian countries could unilaterally peg to the Euro or a basket if they so wish. In practice, however, such policy shift would require preparation by ASEM (the informal Asia-Europe Meeting of 27 EU and 13 Asian countries that provides the forum for high level policy dialogue). However, the most important ingredient is political will and this is an increasingly rare good in Europe today.

But would the pursuit of Asian monetary mercantilism not come at the expense of economic growth in Europe and Japan? For Japan a stable relation with the euro implies the loss of

competitive depreciations against the euro, which would be the result of following the dollar weakness during the adjustment process. But it would not affect the much more important trade and investment relations with other Asian countries. Europe benefits from not having to assume the full burden of the American exchange rate adjustment, because the burden of this shift would be shared with Asia.

However, these incentives are not enough to make the new policy viable. Especially in Europe many policy makers fear globalisation and competition from Asia. They blame Asian monetary mercantilism for the loss of world market shares, European unemployment and the strains on Europe's welfare systems (Tremonti, 2008). Nevertheless, these fears are unfounded. Although it is true that most industrialised countries have seen a deterioration of their export shares in the world market (see Figure 9), development has followed a long term trend for half a century. In fact it probably reflects nothing else but a desirable diversification of the world's trade portfolio and the realisation of comparative advantages.

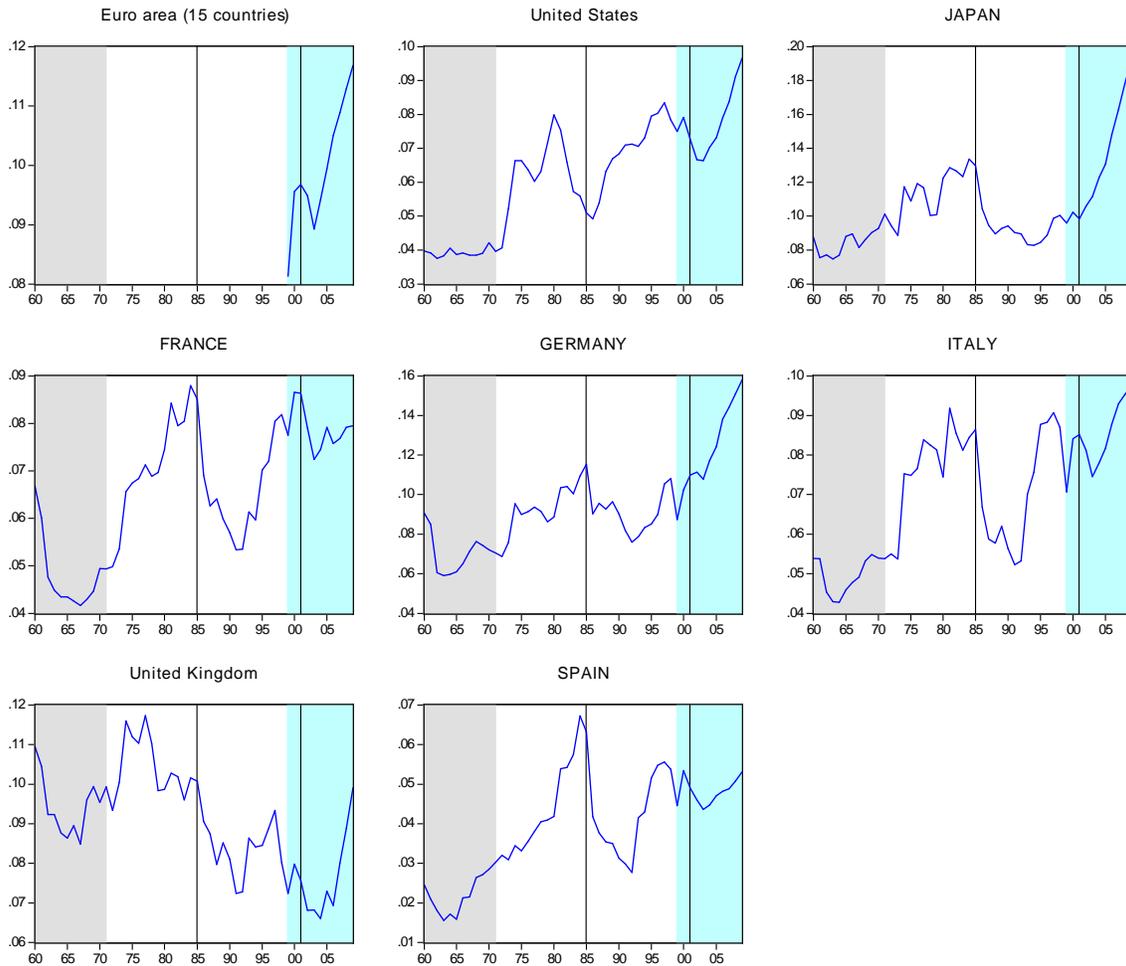
Figure 9



That the loss of world market share was not due to bad economic performance by industrialist countries is clear from Figure 10, which shows that the export to GDP ratio has often risen despite falling market shares. Foreign trade contributes to higher productivity and economic growth and by becoming the anchor for Asian monetary mercantilism, Europe will undergo structural change. It is therefore important that adequate macro and micro economic policies facilitate this change, so that welfare costs are minimized.

Figure 10

The export to GDP ratio in major economies



In this respect, the financial market dimension of the yen-euro peg gains crucial importance. A peg of Asian currencies at competitive rates to the Euro would produce results similar to what has supported US growth for over decade: Asian peggers would accumulate foreign reserves, particularly in Europe. Behaving prudently, they would have to hold the reserves in euro or yen. This would stimulate financial markets and lower interest rates in long-term capital markets. It would open Europe up for the opportunities of globalization, while at the same time fostering the growth that is needed to reduce unemployment. Monetary policy would have to remain prudent and conservative in order to prevent that low interest rates in capital markets fuel an asset price bubble.

Pegging to Eurasian basket with fairly stable exchange rates between the components euro and yen could be used to build up stronger financial markets in Asia. The Chiang Mai Initiative and the Asian Bond Market Initiative are first examples of successful regional monetary

coordination. In this context the idea of creating an Asian currency unit (ACU), inspired by the European currency unit (ECU), which was at the core of the European monetary system during the 1980s, has been discussed. In Europe private banks started to issue ECU-denominated bonds, which proved highly attractive in smaller EU member states with underdeveloped markets. Similarly, ACU-denominated bonds could overcome some of the weaknesses of emerging bond markets in Asia. The currency composition of the ACU would have to include the Japanese yen, so that these bonds are also more stable in terms of exchange rate and interest rate volatility with respect to the euro. This should increase their attractiveness and contribute to the development of deeper and more liquid financial markets in Asia.²⁷ With the development of properly functioning financial markets, Asia will also gradually transform monetary mercantilism into more equilibrium oriented macroeconomic policies.

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²⁷ Nevertheless, Eichengreen and Luengnaruemitchai, 2004 emphasize the importance of other structural reforms such as an enforceable legal structure for financial products, credible supervisory authorities, market transparency etc.

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