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# Why Does Euro's Survival Matter? Financial Integration in East Asia and European Union

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**[Abstract]** A breakup of Euro Zone appeared likely in the aftermath of the Global Financial Crisis (GFC), while EU has long been model regional integration to East Asia. Recognizing different political-economic contexts between East Asia and EU, what can we learn from the experiences of Euro Zone so far? This paper tries to answer the question by examining regional financial integration in two regions in view of international macroeconomics. *Financial globalization* since the 1990s plays the key role there. We can summarize our observations as follows:

East Asia's fundamental strength shown throughout GFC implies weak motivation to promote further regional financial integration toward a monetary/fiscal union as EU. The global *sudden stop* of capital inflow by GFC seriously damaged vulnerable links in Euro Zone, although crisis-driven policy innovations seem to strengthen its macro-financial policy framework. As to the future role of Euro Zone, at issue is the volatility intrinsic to the global financial market, which would aggravate the asymmetry across currencies, potentially harming resource allocation and growth. Post-Bretton Woods flexible exchange rates could not wipe away, but magnify this asymmetry (i.e. US dollar dominance). The Euro and Euro Zone could challenge this fundamental flaw of the present international monetary system.

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## Introduction

A breakup of the Euro Zone appeared likely in 2011-12, although this regional institution may be too big to fail. In fact, the Euro Zone is also known to have poorly performed as an optimal currency area and something has to be done for better adjustment between its member economies. This line of arguments has become more acute since the Global Financial Crisis (GFC)[1] erupted in 2008.[2]

Looking back, EU used to have been model regional integration. Somewhat similar ideas in East Asia, apparently provoked by EU, can be found in various forums within the Asia Pacific region such as PAFTAD, EAEC, PECC, APEC, etc.[3] They all aim at promoting regional integration through trade and direct investment. There, financial integration had been out of sight. In the context, monetary integration or the creation of currency union such as the Euro Zone was not even a remote goal in East Asia.

Meanwhile, more than decade-old efforts toward regional financial cooperation in East Asia originated from the Asian Financial Crisis (AFC) in 1997. In order first to alleviate the disastrous outcome of the crisis and then to avoid its repetition, a number of proposals were advocated by government officials, business people and academic scholars. The Asian Monetary Fund (AMF) and the Chiang Mai Initiative (CMI) are among them. They are not, however, to propose any alternative exchange rate regimes such as a common currency or full monetary integration like the Euro Zone.

How is this regional financial cooperation in East Asia related to monetary integration in EU, then? Regional financial cooperation preconditions both free capital mobility and monetary policy autonomy and intends to prevent from destabilizing exchange rate volatility and to minimize its impact. In contrast, monetary integration pursues for regional exchange rate stability at the cost of individual monetary policy autonomy, which implies a total regime change from one to the other from the

[1] As of now, the *Great Financial Crisis* appeared to replace the *Global Financial Crisis*. Fortunately, both will go with GFC.
[2] Shambaugh (2012) discussed three interlocking crises in the Euro Zone, i.e. a banking crisis, a sovereign debt crisis and a growth crisis, and O'Rourke and Taylor (2013) analyze the crisis in the context of the history of monetary unions.
[3] PAFTAD (Pacific Forum for Trade and Development) was formed in 1968 by a group of academics, EAEC (East Asian Economic Caucus) proposed in 1990 by then Prime Minister of Malaysia, PECC (Pacific Economic Cooperation Council) established in 1980 by business, academic and governmental people, and APEC (Asia-Pacific Economic Cooperation) established in 1989 as an inter-governmental forum.

viewpoint of East Asia.

Now, observing the EU currency unification and its impact on regional financial integration, does this suggest the counterpart unification in East Asia? The rationale for the EU regional integration has long been discussed from both economic and political aspects. First, the EU integration intends to promote economic growth by improving microeconomic resource allocation through trade and investment liberalization as well as capital market deregulation and to maintain macroeconomic stability through imposing policy disciplines under currency unification. Second, the EU integration also intends not only to maintain regional security through closer economic interdependence within the region[4], but also to intensify the presence and power of EU in the international political economic systems.

Recognizing very different economic and political contexts between East Asia and EU, what can we learn from the experiences of the Euro Zone so far? Is it possible to create a common currency such as the Euro in East Asia? Noting that AFC in 1997 started from plummeting Thai bahts. if we have a common currency in East Asia, could we have prevented from the Crisis? Indeed, the closely knitted economic interdependence through trade and direct investment or real (non-financial) integration in the region might provide some rationales for even monetary integration. In order to achieve this monetary integration, what conditions must be met in East Asia?

On the other hand, many economists argue that, as told from the start, the Euro crisis such as the one after GFC will continue, without far more labor mobility and larger fiscal transfers across member economies (e.g. Feldstein, 2015). Against this pessimism, are there any possibility for the Euro Zone to strengthen economic union through wider and thicker trade and investment integration in regional product markets? Particularly, if we look at the far larger political economic differences across East Asia as compared to the Euro Zone, can this surviving large monetary union overcome their political economic diversities with structural reforms as US has done since the 19$^{th}$ century?[5] And further on, what is the implication for their future

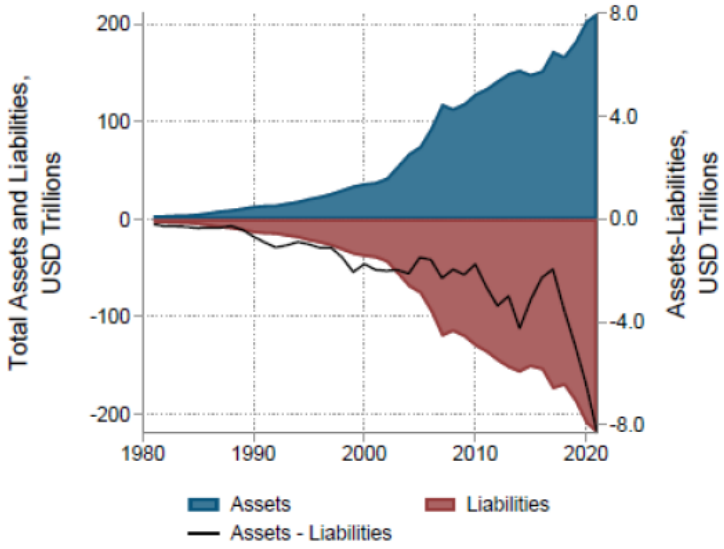
[4] "Nations with a common currency never went to war against each other (Helmut Kohl)."
[5] Particularly when we notice the significant political economic chasm in the present US itself.

survival to ongoing global economic integration?

In this chapter, we would like to put some thoughts to these questions, based on several frameworks for regional financial integration from the viewpoint of international macroeconomics. *Financial globalization*, i.e. increasing cross-border holdings of financial assets/liabilities (such as foreign direct investment, bonds and equities, and bank assets and liabilities) since the 1990s is the key to the following arguments. In fact, this concept was not familiar, or more exactly, not well recognized when regional integration was planned in EU and even when AFC hit East Asia.

Entering the 21st century, "the signs of financial globalization are everywhere. Cross-border financial capital flows grow decade by decade ..... Interest rates seem to move in near lockstep ..... few countries enjoy financial autonomy. (Chinn and Ito, 2023)" Figure 1 shows that the value of world gross financial assets and liabilities has increased dramatically in the last decades, to more than twice as large as world GDP in 2020. Notice that this very recent history of financial globalization is also the history of world–wide financial crises, which characterize the macroeconomic turbulences of East Asia and Euro Zone, on which we are going to discuss.

Figure 1. Financial Globalization:
Cross-Border Assets/Liabilities, 1980-2021



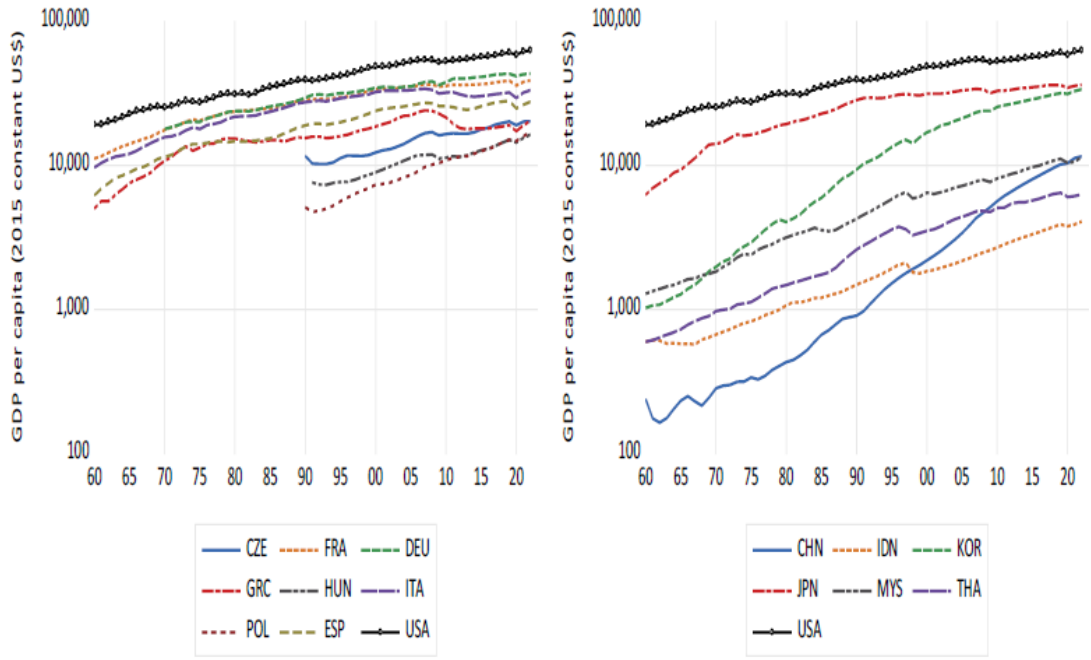

Source: Florez-Orrego et al., 2023, Figure 2.

Textbook economics tells us that, in a *perfect* capital market, international capital flows could improve economic welfare through *intertemporal* trade and asset trade. First, intertemporal trade through net capital flows enables domestic investment with higher returns to be financed by foreign savings at lower interest rates, enhancing dynamic (over time) efficiency of resource allocation on one hand, and enables consumers to smooth their consumption levels despite income fluctuations again over time on the other. Second, international asset trade through gross capital flows enables risk diversification, enhancing static (cross country) efficiency of global resource allocation and minimizing fluctuations in income and consumption.

In reality, however, net capital flows often do not finance domestic investment with higher returns (Gourinchas and Jeanne, 2007, and Rodrik, 2009). Volatile net flows often do not contribute to consumption smoothing, and rather often generate negative shocks to domestic consumption. Similarly, gross capital flows often do not diversify investment risks, and rather magnify risks with their pro-cyclicality, generating booms-and-busts accompanied with serious sustained stagnation (Prasad, 2009).

Figure 2 shows a brief history of economic development in selected economies in the Euro Zone and East Asia since 1960 by their GDP per capita. Two observations come up. First, apparently the two are distinct groups in that the Euro Zone is a rich countries club at the level of beyond US$10,000 (constant 2015 US$) in 1990 with modest economic growth and East Asia here is an emerging markets club at less than US$10,000 with exceptionally rapid growth. Second, we detect a sharp regionally common economic downturn in 1997-1998 in East Asia, and, in 2008-2009, a sharp and prolonged downturn in the Euro Zone and a less sharp and short-lived one in East Asia.

Figure 2. GDP per capita, Euro Zone and East Asia, 1960-2022




Data: World Bank, World Development Indicators.

In the following, Section 1 reviews why AFC led to these frameworks for regional financial cooperation by clarifying how exchange rate regimes interacted with financial globalization in East Asia, and then narrates more in detail how international financial flows affected East Asia in terms of both international financial linkages and domestic financial intermediation, respectively. Section 2 overviews a short history of regional financial cooperation in East Asia, its implication for macro-financial systems and the perceptions of international policy advisors on financial globalization.

Then, we move from regional financial cooperation in East Asia to regional monetary integration. After reviewing a conceptual framework of optimal currency area (OCA), Section 3 sketches how some preconditions for OCA are met in the case of US, EU and East Asia before the introduction of the Euro. US is better fit as expected, but we see little difference between EU and East Asia. In Section 4, achievements and limits of the Euro Zone before GFC are discussed. We reaffirm good news on financial front and bad news on non-financial front (economic growth), while noting a constraint on monetary policy and fiscal policy.

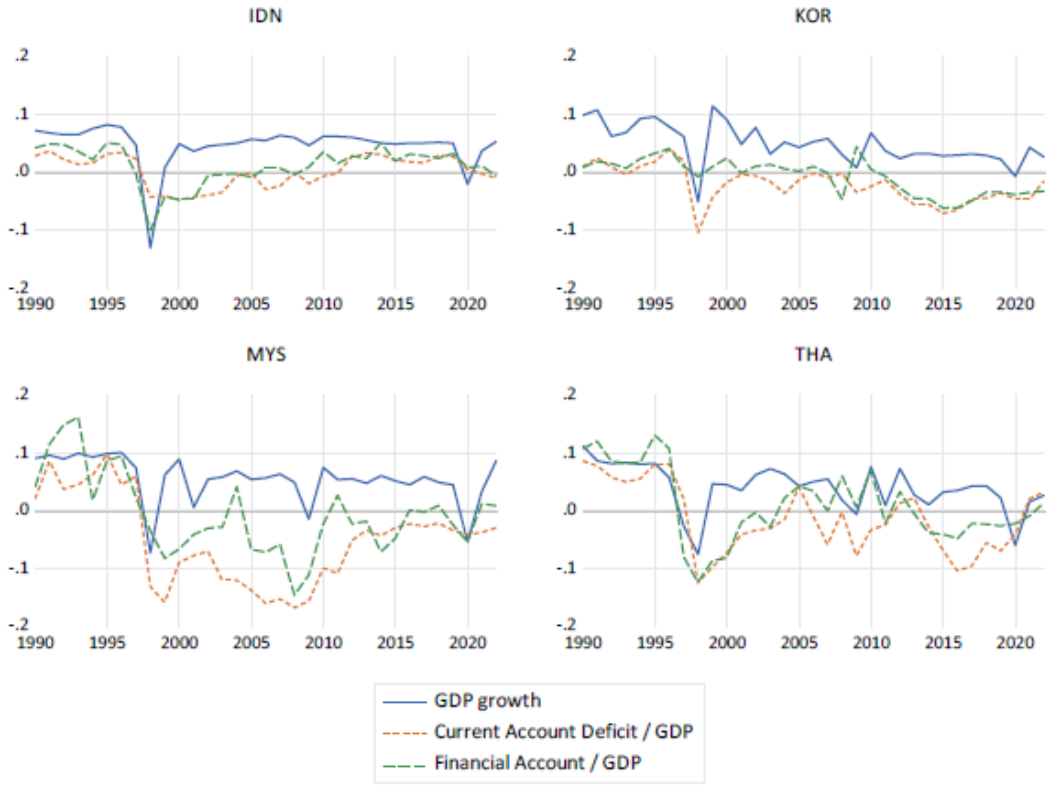
Section 5 summarizes the impacts of GFC on both Euro Zone and East Asia, highlighting their contrasting performances in view of financial globalization. The global sudden stop seriously damaged vulnerable links in Euro Zone, while East Asia recovered quickly under their un-orthodox policy frameworks. Whether crisis-driven policy innovations in Euro Zone could help strengthen its macro-financial policy framework remains to be seen. Section 6 sheds light on the impact of GFC on the Euro as an international currency. The Euro is not just a common currency, but a challenge to the US dollar's dominance in the international financial system. Finally, Section 7 summarizes the lessons learnt from EU by East Asia and then considers the future role of the Euro and Euro Zone in the context of global economic integration.

## 1. Asian Financial Crisis

The Asian financial crisis (AFC) was distinct from previous currency crises repeated in Latin American and other emerging market economies since the 1980s. These crises came from almost chronic macroeconomic instability in these economies. Both persistent fiscal and current account deficits, chronic domestic inflation and occasional currency overvaluation eventually induced currency speculation and capital flights, resulting in relatively low and volatile economic growth. By contrast, in AFC, their sustained high economic growth and macroeconomic stability ironically aroused two problems.

First, not current account deficit, but excessive financial account surplus (or foreign capital inflow) ultimately called on reversals of foreign capital flows. That is, excessive capital inflows well over current account deficits seemed to finance even inefficient domestic investments, which turned into non-performing loans. Figure 3 shows that the financial account surplus (FAY in the Figure) in Indonesia, Korea, Malaysia and Thailand kept exceeding the current account deficit (CADY) before the Crisis in 1997. Under the circumstance, the monetary authorities were forced to keep fending off the pressure for currency appreciation through foreign exchange market intervention and accumulation of foreign reserves.

## Figure 3. External Financing, East Asia, 1990-2022



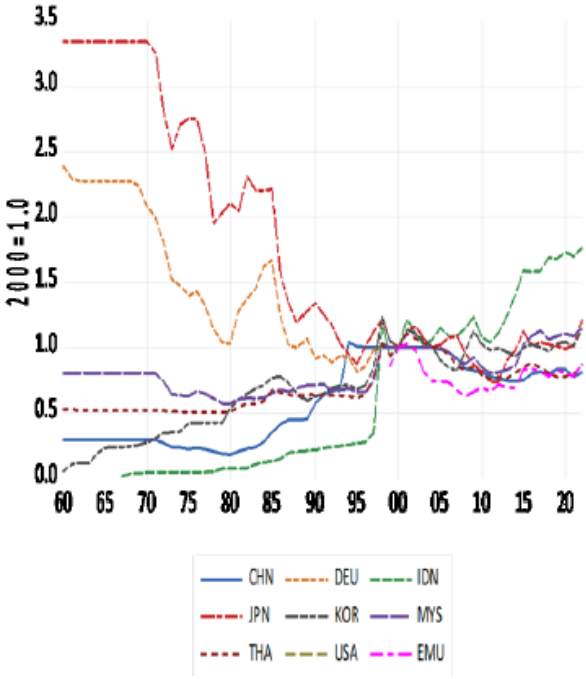

Data: World Bank, World Development Indicators.

Second, these excessive capital inflows were enabled by their (officially flexible) exchange regimes. In view of several real (i.e. excluding the effect of inflation differences) exchange rate indicators, we do not see significant overvaluations in East Asian currencies, so that overvaluation could not be the cause of capital reversals through expected depreciation. Rather, at issue is not the exchange rate levels, but their being maintained virtually constant for a long while since the early 1980s (Figure 4), whose exchange rate regimes were called as *a virtual dollar peg*[6]. For example, the Thai bahts had been maintained at 25 bahts per US dollar for almost 15 years since the last devaluation in 1983 before the crisis[7]. Along with the deregulation of capital

[6] Officially, their exchange rate regimes were announced as flexible exchange rates.
[7] Note here that the exchange rate stability is only with the US dollar. As Figure 4 shows, the Japanese yen exchange rate against the US dollar fluctuated to a significant degree. More or less exchange rate stability of East Asian currencies implies that they floated with the US dollar against other major currencies including the Euro and the Japanese yen.

(financial) account started in the 1990s, this exchange rate stability under the virtual dollar peg had given wrong signals to the market, inducing excessive risk taking, i.e. excessive unhedged external borrowing in foreign currencies, specifically in US dollar.

Figure 4. Nominal Exchange Rates, East Asia, 1990-2022
(local currency/US$, 2000=1, increase=depreciation)




Data: World Bank, World Development Indicators.

**External financing**

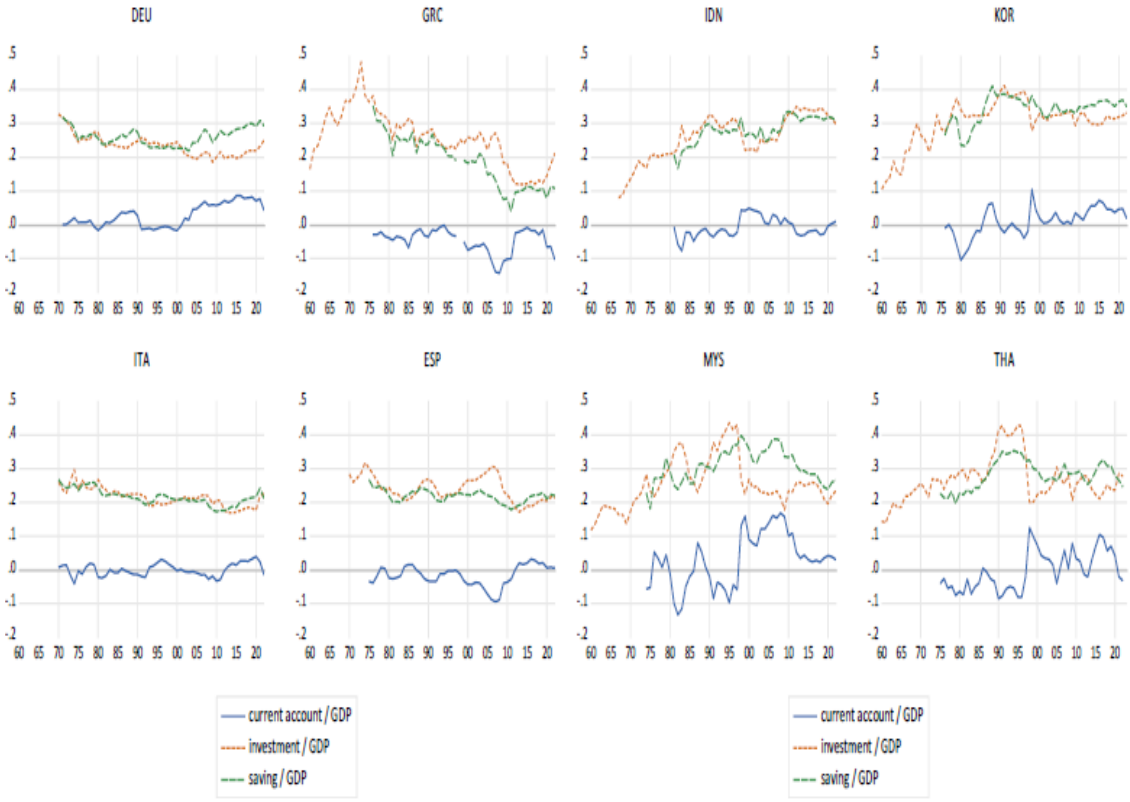
With the help of the financial deregulation trend in both host and investor countries, foreign capital explosively flowed into emerging markets including East Asia in the 1990s. The size of the foreign capital inflow relative to GDP in the mid-1990s tripled since the 1980s. After AFC in 1997, their composition shows a long-term shift from other investments (loans) to foreign direct investment (FDI) primarily, and then portfolio investment secondly[8]. The factors behind the trend include liberalization policies on capital account and economic growth in host countries on one hand, and

[8] Among the three main categories of financial flows, FDI (foreign direct investment) is regarded as most stable and least volatile, while portfolio investment and other investment including bank loans could be volatile depending on investors' risk perception and bank profitability, respectively.

the globalization of production networks of multinational corporations, the growth of institutional investors due to capital accumulation, and the global securitization trend and business cycles in investor countries on the other hand.

Capital inflows to East Asia in the 1990s, however, were *excessive* in dual senses. First, East Asian domestic saving rates had been at 30 to 40 percent of GDP then, being significantly higher (roughly by 10 percent) than in other emerging market economies in Europe and Latin America (Figure 5). Second, since current account deficits simply suggest their domestic investment exceeded domestic saving, this financial account surplus beyond current account deficit went beyond already high domestic investment, up to even unproductive investment, fueling real estate bubbles. In this sense, these capital inflows were excessive.

Figure 5. Domestic vs. External Financing, Euro Zone and East Asia, 1990-2022




Data: World Bank, World Development Indicators.

**Macroeconomic policy trilemma**

What was wrong with the choice of exchange rate regimes? It is well known that among three macroeconomic policy targets, i.e. exchange rate stability, perfect capital mobility and autonomous monetary policy, only two can be simultaneously attained. According to this *macroeconomic policy trilemma*, in order to maintain autonomy in monetary policy, we must give up either exchange rate stability or perfect capital mobility[9]. Namely, it follows that the Thai policy authorities had tried inconsistent policy management. There are reasons, however, to stick to the virtual dollar peg.

In the case of developing economies, it is generally difficult to borrow in local currencies in the international capital market[10], so that foreign currency borrowing requires the stability of nominal exchange rate to minimize exchange rate risks to minimize the volatility of local currency values of external debt. In addition, effective external debt management requires no small institutional costs. Consequently, until the Asian crisis in 1997, very few developing economies adopted pure floating (flexible) exchange rates in practice, which is called as *fear of float* (Alesina and Wagner, 2003).

After a cascade of skyrocketing exchange rate depreciations in 1997-1998 shown in Figure 4, emerging markets in East Asia had to choose between capital controls (China and Malaysia) and floating exchange rates (the rest) in order to maintain monetary autonomy, out of this macroeconomic policy trilemma. After the crisis, the net debt flows (i.e. portfolio and other investments) to East Asia turned negative (total net financial outflow), but non debt flows (FDI) have kept supplementing their ever high domestic saving (Enya, Kohsaka and Sugimoto, 2019). Since East Asia required less net foreign saving, it resumed a *virtuous cycle of investment and growth* with fairly high investment, domestically financed after AFC.

[9] The trilemma results from an *interest rate arbitrage* between domestic and foreign financial assets. With perfect capital mobility, if investors are *risk-neutral* on exchange rate changes, they would invest in both domestic and foreign assets until when a domestic interest rate (a rate of return on domestic investment in domestic currency) becomes equal to the sum of a foreign interest rate (a rate of return on foreign investment in foreign currency) and an expected depreciation rate of an exchange rate between the two currencies. Then, if the exchange rate is fixed and does not change, both domestic and foreign interest become equal each other. Therefore, given the foreign interest rate, there would be no room for the monetary authorities to control the domestic interest rate in an open economy under perfect capital mobility.

[10] This characteristics is called as original sin (Eichengreen and Hausmann, 1999).

**Domestic financing**

Until AFC, these ample domestic savings had financed corporate business investments almost exclusively through financial intermediaries, particularly commercial banks rather than through alternative channels of investment finance, i.e. capital markets for corporate stocks and debentures. Generally, in developing economies, capital markets are underdeveloped as compared to financial intermediaries with various institutional reasons (Levine, 1997) as discussed toward the end of this Section. As a matter of fact, before AFC, the degrees of financial intermediation, measured by domestic credit to the private sector, reached more than 160 percent of GDP in Malaysia and Thailand and more than 60 percent of GDP in the other East Asian countries, which were exceptional in developing economies.

Then, AFC hit hard the very channel of domestic financing for investment. Because banks themselves and/or their customers (corporate firms) borrowed from abroad in foreign currencies, the reversal of capital flows (*sudden stops*) as well as the resulting deterioration of their balance sheets due to abrupt and large exchange rate depreciation pushed them to the brink of bankruptcy, because these foreign currency debts were not hedged against exchange risks.

Coping with this emergency, financial intermediaries disposed of nonperforming loans, wrote off own capital and stopped supplying new credits. Thus, the post-crisis recovery of economic growth was realized virtually without private credits. Namely, despite this financial *disintermediation*, the corporate business sector resumed investment and growth through retained earnings from favorable export sales and/or through burgeoning bond issuance in the underdeveloped capital markets.

Financial markets in East Asia have mostly recovered their overall pre-crisis levels by 2007, although with some significant differences across sectors and economies. Banks have been restructured and prudential regulations have been strengthened. Meanwhile, one-time post-crisis developments of private bond markets have been slowed down.

Banks have become healthier and more efficient and corporate firms have improved their balance sheets significantly (Gill and Kharas, 2007). This has not led to the

recovery of bank loans to firms, however. Banks have remained risk-averse since the crisis so that corporate firms cannot but resort to either internal self-finance or capital markets. Capital markets in East Asia have yet been characterized by the deficiencies in information for accurate pricing, the high transaction costs and the lack of a diversified investor base. Institutional reform needed includes shareholder protection, creditor rights, regulatory capacity, legal infrastructure and the lack of credit rating agencies.

## 2. Regional Financial Cooperation

Immediately after the 1997 Asian financial crisis (AFC), several frameworks for regional financial cooperation have been pursued and realized. Among them are the Asian Monetary Fund (AMF, 1997), the Chang-Mai Initiative (CMI, 2000), and the Asian Bond Market Initiative (ABMI, 2002).

Among these three, the AMF was not materialized. Like the IMF, the AMF was to maintain the stability and sound management of monetary and financial systems in the region and to support macroeconomic adjustments in regional economies in trouble. Some worried about the duplication with the IMF and possible moral hazard of borrowing economies, and others were reluctant because of some other geopolitical reasons.

Over some time, however, key functions presumed in the AMF, i.e. swap agreements of official foreign exchange reserves, macroeconomic policy dialogues, and monitoring of short term capital flows, were instituted within the CMI. The CMI, which is of short-run nature, is a framework for regional financial cooperation to prevent the resurgence of the Asian crisis. On the other hand, the ABMI is a framework of long-run nature, which is to nurture the regional capital market (corporate stocks and bonds) in order to circulate existing ample savings in local currencies as an alternative to financial intermediaries such as banks within the region without exchange rate risks.

**Restructuring regional financial systems**

AFC exposed several weaknesses of the macro-financial systems in East Asia,

despite their exceptionally high economic growth. The regional financial cooperation is to tackle these weaknesses by restructuring microeconomic structures and macroeconomic management (IMF, 2000). As to microeconomic aspects, efforts have been made, particularly focusing on underdeveloped capital markets along the line of ABMI to enhance transparency and accountability of financial transactions, to assess their standards and codes, and to better identify financial sector vulnerabilities. Generally, they are intended to contribute to better-informed decision-makings for lending (financial intermediaries) and investment (capital market).

Restructuring macroeconomic management includes external debt management and alternative exchange rate regimes. Before the Asian crisis, the policy authorities in East Asia had not exactly grasped who borrowed how much in what terms from abroad, which helped generating maturity and currency mismatches in external borrowing, unexpected reversals of foreign capital flows and excessive currency depreciation. In addition to external debt management, exchange rate regimes had to be fundamentally reshaped. It has become well known that their *virtual dollar peg regime* suffers from fundamental flaws as explained below.

In the 2000s before GFC, the persistent U.S. external imbalance and the possible dollar crash aroused worries, expressed in such terms as *saving glut* and/or the *global imbalance*. (IMF, 2005). The saving glut is nothing but investment shortage in other words, and the global imbalance stands for persistent current account deficit of the United States on one hand and persistent current account surplus in Germany, Japan, East Asia and oil exporters on the other. Particularly, in post-AFC East Asia, the persistent external surplus (current account surplus) resulted not from excess saving but from underinvestment constrained by the malfunctioning domestic financial system.

As such, AFC made one big epoch in the history of the international financial market, which embodied opportunities and risks of financial globalization toward the end of the 20$^{th}$ century. The crisis exposed intrinsic vulnerabilities of the global capital market under the globalization trend, and resulted in income losses, job losses and bankruptcies in a number of nations in East Asia, accompanying some spillovers

to Latin America as well as Russia. The regional financial cooperation in East Asia is an effort to compensate for these vulnerabilities intrinsic to the international capital market (Obstfeld, 2015), to bring back to the original track the most dynamically growing and changing region in the world, i.e. East Asia, and to build up a regional safety net to preempt similar crises.

**Market fundamentalism**

Since the 1980s, developing economies have been advised to liberalize financial markets and to open up capital (financial) accounts to accept foreign investments. It had been said that capital flows are productive, while capital controls are both inefficient and ineffective (Forbes et al., 2015).

International capital flows could finance domestic investment beyond domestic saving constraints, but they could also magnify economic fluctuations and booms-and-busts, as already warned in the 1980s by Diaz-Alejandro (1985)[11]. Throughout the lost decade of Latin America in the 1980s and the AFC in the 1990s, however, IMF has kept insisting financial liberalization, capital account opening-up and exchange rate flexibility as part of the mantra of general market liberalization (Kohsaka 2022). In the AFC in 1997, to be blamed was not financial liberalization, but fixed exchange rates and crony capitalism (Krueger 2004).

Eventually, after the GFC, they admit that international capital flows could lead to economic disasters. Nowadays, they support policy measures to restrain the volatility of capital flows by capital controls and foreign exchange market interventions, but with some conditions, reluctantly (IMF 2013, p. 113). The empirical literature has not been able to conclusively establish the presumed growth benefits of financial integration. (Kose et al. 2009).

Even though IMF admitted the danger of excessive capital inflows and the necessity of capital flow management (Ostry et al. 2011), they still believe that the basic priority of macroeconomic policies should be flexible exchange rates, minimum public debt and macro-prudence, not selective policy tools such as foreign exchange market

[11] In the context of financial liberalization in Chile in the 1970s as well as in the Mexican crisis in 1982-83.

intervention nor capital controls. Policy authorities could fail, but markets could as well. Particularly, financial markets could fail and, in fact, have failed from time to time. Actually, they tend to magnify the volatility of financial flows to emerging market economies (EMEs)[12].

## 3. Monetary Integration

How is the current regional financial cooperation related to monetary integration, then? We must remember the macroeconomic policy trilemma discussed earlier. One of the three targets among exchange rate stability, perfect capital mobility and monetary policy autonomy must be given up. Regional financial cooperation preconditions capital mobility and monetary policy autonomy and intends to prevent from destabilizing exchange rate volatility and to minimize its impact. In contrast, monetary integration pursues for regional exchange rate stability in exchange for individual monetary policy autonomy, which is a total regime change. Of course, regional exchange rate stability does not mean exchange rate stability with major currencies outside the region such as the US dollar. How large is the cost of giving up the monetary policy autonomy in exchange for regional exchange rate stability?

**Optimum Currency Area (OCA)**

The theory of *optimum currency area* discusses conditions which determine the scope of an area best for one currency. Through changing a relative price of domestic goods to foreign goods, exchange rate changes help equilibrate domestic demand and supply (expenditure switching). We trade off between the transaction cost to have multiple currencies and exchange rate changes, and the benefit to allow for exchange rate adjustments among the currencies. If the cost is larger, a common currency could be preferable, but, if the benefit is larger, we had better maintain monetary policy autonomy or exchange rate policy with multiple currencies.

Alternatively, focusing on macroeconomic linkages *within* the area, we may put it as

[12] Policy authorities of EMEs know this very well, particularly those in East Asia. Making better use of tactics and euphemism, they manage to control tools and channels of international investors under the name of capital flow management measures, not of capital controls (Qureshi et al., 2011). This is really a clever way of handling both international business persons insisting vested interests and policy advisors insisting perfect market myth (Kohsaka, 2022).

follows: First, the higher the positive correlation (symmetry) of demand and supply shocks within the area, the less needed exchange rate adjustments (expenditure switching), thus a common currency is desirable. Second, the faster the adjustment to the shocks through factor markets as well as policy responses within the area, the less needed exchange rate adjustments, then a common currency is preferable.

**Comparative macroeconomic linkages by region before AFC**

Using a multi-country (region) structural Vector Autoregression (VAR) model[13], Kohsaka (2000) compared estimated intra-regional (within an area) macroeconomic shocks in real GDP and GDP deflator and simulated after-shock adjustment speeds across three areas, i.e. the United States (8 sub-regions), EU (7 countries) and East Asia (7 countries) during the period of 1970-95[14].

The result can be summarized as follows: 1) The correlations of shocks were significantly higher in the United States (as large as 0.6-0.8) than in the other two areas (0.2-0.4). 2) The speeds of adjustments after shocks were significantly larger in the US than in the other two areas. 3) As to both the correlations and the speeds, there were not much difference between EU and East Asia.

If we interpret the above result straightforwardly, it follows that the US is more fit to common currency compared to the other two areas. However, since the US has established itself as a common currency area for a long while, it may not be adequate to directly compare with the other two areas that had never experienced a common currency. More interesting is the third point above, which suggests that there was no significant difference in shock correlations as well as after-shock adjustment speeds within the areas between EU and East Asia before the Euro zone. In other words, if EU is eligible for a common currency, why not East Asia?

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[13] Based on the framework of Blanchard and Quah (1989). By identifying aggregate output and price as stochastic autoregressive processes, both supply and demand shocks are estimated and the impulse responses of output/price to the shocks are shown for individual countries (regions). Then, their correlations across countries (regions) are calculated and their adjustment speeds are compared. Comparing 11 EU countries for 1962-88 and 8 US regions for 1966-86, Bayoumi and Eichengreen (1993) conclude that EU may not suit to monetary union, but that only its core members surrounding Germany could do, being as comparable to US regions in terms of both less asymmetric shocks and larger after-shock adjustment speeds.

[14] EU, here, includes Austria, Finland, France, Italy, Ireland, Spain, Sweden and United Kingdom. East Asia includes Indonesia, Japan, Korea, Malaysia, Singapore, Philippines, Thailand.

## 4. Monetary Integration in European Union

Now, does the EU currency unification suggest the counterpart one in East Asia? To answer the question, we, first of all, need to examine the performance of the EU currency unification.

The rationale for the EU regional integration has been discussed from both economic and political aspects. First, the EU integration intends to promote economic growth by improving microeconomic resource allocation through trade and investment liberalization as well as capital market deregulation and to maintain macroeconomic stabilization through imposing policy disciplines under currency unification. Second, the EU integration also intends to intensify the presence and power of EU in the international economic systems. We focus, here, on the first economic aspect of the integration, among which we particularly try to examine the sustainability of Euro as the core of the EU monetary integration.

**The Euro Zone: pre-GFC developments**

Let us briefly review macroeconomic developments of the Euro Zone, i.e. the twelve EU economies before the global financial crisis (GFC), in comparison with the other industrial economies including the United States. Since the introduction of the Euro as a single currency for the Zone in 1999, we may be able to summarize that it was successful in financial aspects, but not that much in real (non-financial) aspects.

First, we can observe significant achievements in inflation control and financial integration. Indeed, the Euro Zone has witnessed closer linkages of interest rates and stock prices and the *home bias* in portfolio selection rapidly faded away, which suggests that financial markets are being more closely linked one another and financial deepening proceeded further in the Zone.

Second, on the other hand, the real sector achievements in terms of economic growth remained less than those in previous periods and those in non-Euro Zone EU members. In addition, the growth differences among Euro Zone economies were non-negligible and even tended to increase further. Of course, we note that we must take into account of the influence of cyclical factors due to the IT bubble burst of the World economy in the year 2000. Nevertheless, the relatively weak achievements in

comparison with non-Euro Zone EU members appear to imply some policy agenda to be considered below.

**Structural Problems**

Structural problems in labor market and fiscal policy have long been among the top priorities in macroeconomic policy agenda in EU. Usually in comparison with the United States, such structural characteristics of the EU economies as strong labor unions and extravagant social welfare systems have been pointed to bring along rigidities in real wages and fiscal expenditures, supposedly hampering adjustments needed for cyclical and structural impediments.

In addition, related to macroeconomic management, despite the achievements in inflation control, we may better look at the risk of inflation targets being too low. If this is the case, it may have deflationary impact on some member economies and constrain their investments, leading to weak overall growth. More importantly, the very adoption of a common currency may significantly constrain macroeconomic management in monetary and fiscal policies. We consider this next.

**Constraint on monetary policy**

Since the introduction of a common currency successfully unified interest rates in the Euro Zone, the European Central Bank (ECB) manage the short term interest rate (Euro interbank rate) as a monetary policy instrument to attain macroeconomic stability in the Zone. This is parallel to the Federal Reserve Board (FRB) managing the Federal Fund (FF) rate in the United States.

Their ways of monetary policy management contrasted to some extent when facing the IT bubble burst, though. While both the EU and the United States experienced rapid macroeconomic slowdowns in the period of 2000-2001, the FRB lowered the FF rate by 4.5 percent quickly and actively on the one hand, the ECB did the same only by 1.5 percent and that less quickly and actively on the other[15]. Of course we cannot claim that this difference in monetary policy management is all to blame for the difference in economic growth performance, but, if the contrasting monetary

[15] Even with this quick and active monetary policy, FRB, admittedly, failed to contain the financial bubble generated by subprime loans, which triggered GFC.

management comes from the currency unification, this may suggest no small problem.

When we look at the economic growth performance and the real interest rates in the Euro Zone in 2000, the interest rate was the highest in the lowest growing Germany, while it was the lowest in the highest growing Ireland. Just like this, we can find some other cases where slower growing economies faced higher real interest rates, and faster growing economies faced lower real interest rates. This simply suggests that, despite increasing importance of common shocks among member economies (Stravrev, 2007)[16], there is institutional reasons for monetary policy in the Euro Zone to be slow and inactive.

**Constraint on fiscal policy**

Naturally, our next question is if fiscal policy as an alternative policy instrument for macroeconomic stabilization compensates for the constraint of monetary policy. Fiscal consolidation in EU went over the peak in the mid-1990s (IMF, 2001). Indeed, the introduction of a common currency intends to bring in disciplines to macroeconomic policies among member economies and to constrain the policy authorities (or political systems) from indulgent and myopic monetary and fiscal policies. Despite much progress in fiscal consolidation in the 1990s, however, fiscal indicators such as fiscal deficits and government debts have not been strong enough to substitute for monetary policy. Namely, fiscal policies cannot well afford to cope with individual macroeconomic shocks even in a complementary way to monetary policy, particularly in some troubled economies.

As a matter of fact, the policy authorities in the Euro Zone have been under the Growth and Stability Pact (GSP) which constrains a room for fiscal policy so that there is little scope for active fiscal management. Incipiently, as far as the GSP is to introduce a rule-based macroeconomic management instead of discretionary one, the resulting fiscal constraint remains non-negligible part of the common currency regime.

**The cost of EU currency unification**

[16] Stavrev (2007) found that, since the introduction of the Euro, common macroeconomic shocks became dominant among members on one hand, and idiosyncratic shocks remained generating persistent dispersions on the other. It might suggest that a common monetary policy effectively coped with common shocks, while individual fiscal policy struggled with idiosyncratic shocks.

Nobody can tell for sure that the frustrating macroeconomic performance in the Euro Zone since the currency unification has something to do with the currency unification itself. But, presuming a common currency, it is apparent for monetary policy not to be able to cope with asymmetric shocks among member economies, so that the fiscal transfers under region-wise aggregate fiscal policy are indispensable (Feldstein, 2015). In addition to harmonize fiscal institutions such as expenditure compositions, taxation, social welfare, and to accelerate fiscal consolidation, it would be necessary to enlarge the inter-country transfers and to introduce the *fiscal federalism*[17].

## 5. Global Financial Crisis

The Global Financial Crisis (GFC) since 2007 has played a profound impact not only on economic performance of economies including East Asia and EU, but also on their economic policy frameworks. In fact, its disastrous effect on EU reminded us of the repetition of a type of the Asian Financial Crisis (AFC) in 1997 even in the context of advanced economies on the one hand,[18] while the resilience of East Asia this time led to new insights for future policy management under financial globalization on the other.

**Sudden stop in advanced economies**

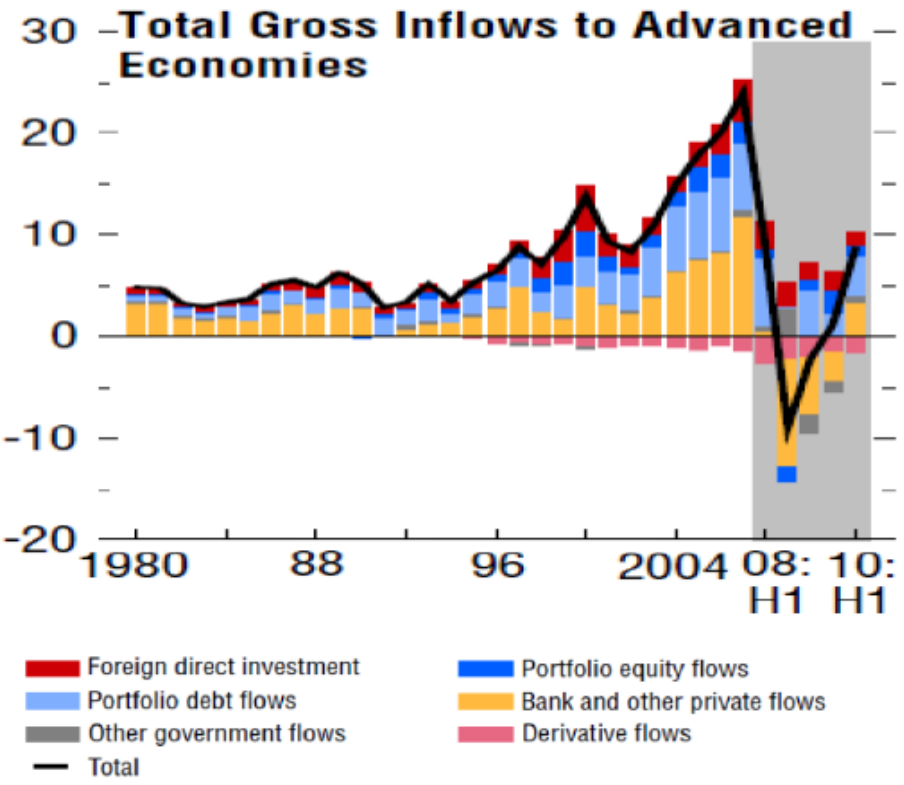
Prior to GFC, later hard-hit economies in EU, i.e. Greece, Ireland, Italy, Portugal and Spain (GIIPS), witnessed vigorous domestic credit growth as well as huge international banking inflows ("other investments"). Although some economists in international financial institutions put or praise it before GFC as an *income convergence*, it turned out to have been based on irrational exuberance, feeling free from exchange rate risks due to a common currency. As a matter of fact, after the Lehman collapse in 2008, we did observe how a *sudden stop* of international financial

[17] Fiscal federalism denotes here the system of transfer payments by which a central or centralized government shares its revenues with local or lower levels of decentralized government for their expenditures.

[18] Identifying the root cause of the EU crisis as "financial integration and excessive credit flows", Rey (2012) wrote, "What happened next followed a scenario well known to economists familiar with crises in emerging markets with hard currency pegs."

flows could occur even in advanced economies, particularly in those with some financial and other vulnerabilities (Figure 6).

Figure 6. Global Sudden Stop



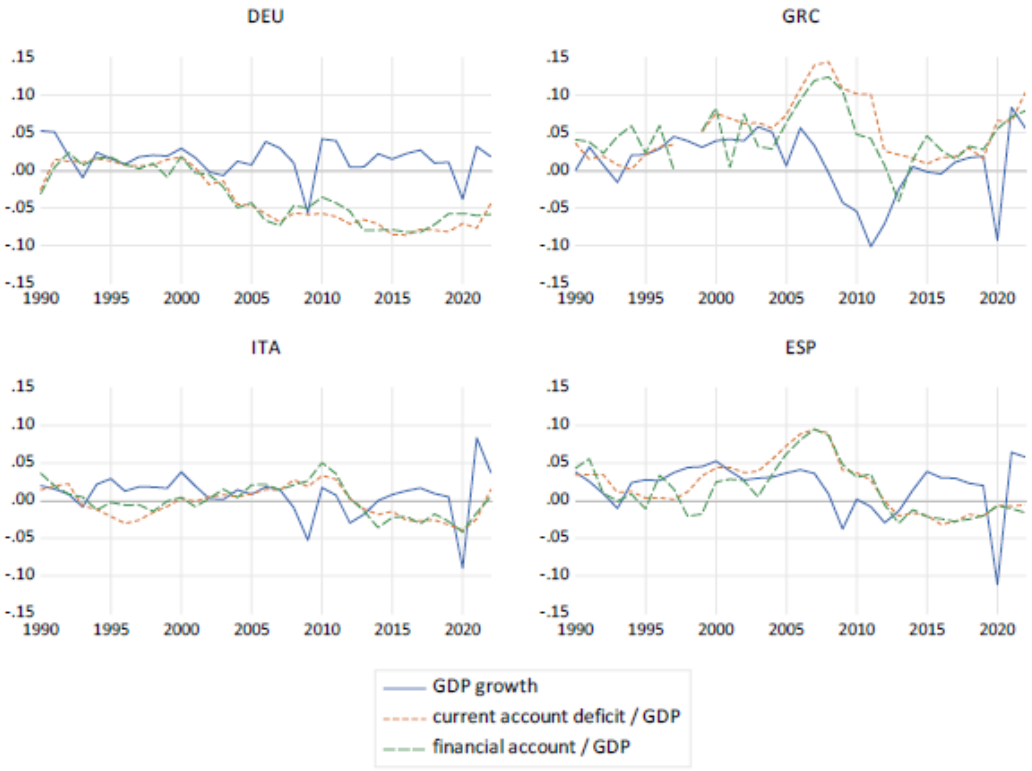

Note: calculated as the sum of capital flows divided by the sum of nominal GDP.
Source: IMF, *World Economic Outlook*, April 2011, Figure 4.1.

Figure 6 shows that gross financial inflows to advanced economies witnessed a sheer *sudden stop* and/or a reversal of financial inflows led by "Other bank and private" investments and then by portfolio investments. As often seen in emerging market economies in the past, the inflows were simply dried up by a half in the first half of 2008, then totally changed their directions back home in the latter half and remained so until two years later, called as the *Great Retrenchment* (Milesi-Ferretti and Tille, 2011).

This sudden stop harshly exposed nightmarish worsening of financial account balances due to free falls of portfolio and other investment inflows and resulting in

growth slowdowns as in Greece, Italy and Spain (Figure 7), which remind us the situation of East Asia during AFC in Figure 1 vividly. Again, we are reminded that this is the shadowy side of financial globalization.

Figure 7. External Financing, Euro Zone, 1990-2022




Data: World Bank, World Development Indicators.

On top of this, we realized that a common currency, *without* a policy option of currency depreciation within the Euro zone, enforces harsh austerity measures through a painful and long real adjustment in employment, particularly under fiscal tightness and low inflation imposed by the EU policy authorities.

Even though AFC gave us an appropriate chance to reappraise the cost and benefit of financial globalization, it was postponed until GFC. In fact, the "deeper" financial integration was still believed to alleviate real economic adjustments to cope with such external shocks as AFC (Fisher, 2003). Truth is, GFC was born out of financial globalization itself, which without doubt enhanced access to foreign finance for

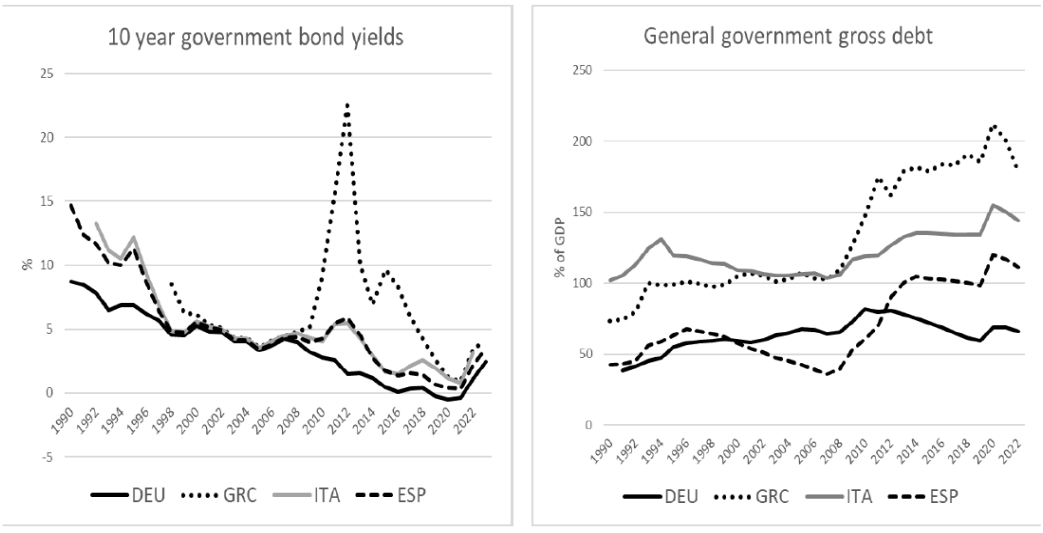
domestic investment. It turned out, however, that increasing foreign finance did not necessarily improved productivity growth, nor stabilize macroeconomic fluctuation.

We should remember what happened in East Asia in the late 1990s. Foreign finance tends to run away when in need, while it tends to flow in too much when not in need, thus magnifying cyclical fluctuation. We should also remember that deeper financial integration might not be a solution, because financial markets are intrinsically subject to information asymmetries, as well as being exposed to subjective as well as objective risks.

**The day after**

Without enough fiscal space to support the financial system in trouble, those GIIPS economies must confront *doom loop*, where governments tried to borrow to support failing banks, while banks suffer from the falling value of the government bonds they held. Until GFC, monetary integration succeeded in bringing about the convergence of government bond yields, but they diverged significantly when heavy external indebtedness and narrow fiscal space (as shown in Figure 8) suddenly aroused skepticism about fiscal sustainability, for example, known as (possible) *Grexit*.

Figure 8. Fiscal Impact and Space, Euro Zone, 1990-2022




Data: Federal Reserve Economic Data (FRED).

This capital flight was barely soothed down by some emergency measures and new policy tools as quantitative easing (QE) or its unlimited purchase of sovereign bonds,

i.e. Outright Monetary Transaction (OMT) by ECB as well as strengthened sovereign bail-out fund, by 2015, as visible in Figure 8.

Indeed, change only happens during a crisis. The Euro is a survivor, when it enters its third decade (Economist, 2019). As Mario Draghi said: First, the European Central Bank has developed new policy tools on the monetary side to contain divergence between member economies' borrowing costs against asymmetric shocks among them. Second, more often from now on, EU must confront common, external shocks, such as a pandemic, energy, war, or other disasters, as a stronger fiscal union, incentivizing toward fiscal federalism, on the fiscal side (Economist, 2023).

But, we should note that the new policy tools are pure and simple monetization of fiscal deficits which has been not only long abhorred by Bundesbank, but could potentially undermine the credibility of Euro. The latter point is crucial, because it is the ultimate raison d'etre of the Euro Zone as we will discuss in Section 6.

**Comparative growth performances**

Prior to GFC, AFC-hit emerging economies in East Asia had abandoned virtual US dollar-peg exchange rates long ago, strengthened prudential policy on financial institutions and disciplined macroeconomic management adopting inflation targeting. Their policy management was, however, far from orthodox in the sense that they have kept managing exchange rates with active foreign exchange market intervention and controlling the composition of international financial inflows sometimes with explicit and implicit capital controls.

GFC hit hard East Asia, too. Economic downturns in the US and EU affected East Asia significantly, mainly through trade flows, instead of capital flows. In fact, the sudden stop of international financial flows was more or less short-lived and East Asia has relied less on such volatile financial inflows as portfolio and other investments. Above all, they are net creditor economies, relying less on foreign saving (international financial inflows). They have more fiscal policy space and autonomous monetary policy.

As already shown in Figure 1 in Introduction, emerging economies in East Asia experienced sharp declines in GDP per capita due to AFC in 1997-98, which took them

3 to 7 years to recover their previous peaks. This contrasts to their situation in GFC. It took only 1 year for them to get back to the original growth path. Emerging economies in East Asia have successfully coped with the global economic slowdown, using unorthodox policy tools, i.e. managed float with capital controls. This time is very different from that of 1997 (Kohsaka 2020).[19]

What about the Euro Zone? Except for Germany and Austria who came back to the previous peak of GDP per capita by 2012, most of them could barely do so in 2015 or later. Particularly, while Spain came back as late as in 2017, Greece and Italy can hardly show even a symptom of recovery by 2019 or before Covid-19. Then, what's the use of a common currency area?

## 6. Euro's Survival

Since GFC, the fall of the Euro as *international currencies*[20] started (Florez-Orrego,et al. 2018). Its global use since 1999 steadily grew in various aspects of international transactions and became non-negligible in comparison with the US dollar before GFC. The fall was relatively large in international financial asset trade, then in foreign exchange trading and relatively small in international trade and foreign exchange reserves. Its use as anchor currency remains about the same as in 1999 (55 economies, 2015), while the dollar use increased from about twice as large to 14 economies more since GFC.

The trouble in the Euro zone, particularly in its sovereign debt markets, must have triggered this fall of the Euro. The strong liquidity of the US dollar shown at the time of GFC must have supported this shift. The fall of the Euro or the fact that global investors voted for the dollar as the only safe currency, without doubt, strengthens *exorbitant privilege* of the US economy, i.e. they could borrow at lower costs, being less exposed to exchange rate risk than the rest of the world.

[19] While they have minimized reliance on foreign financial resources and diversified across categories of capital toward less volatile flows, the private sectors have also done the same through their *financial internalization*, i.e. less borrowing and more self-financing (Kohsaka, 2015).
[20] Currencies which have large shares in use as in international trade, international finance, foreign exchange reserves, foreign exchange trading and anchors for pegged or managed exchange rate regimes.

We must note here that the fact above gives us one important raison d'etre of the Euro zone under financial globalization. As we have discussed so far, financial globalization revealed that we are still living with very *imperfect* capital markets across the globe.

In a *perfect* capital market, we would have *real interest parity* without default risk. Then, physical capital would accumulate until the marginal productivity of capital equals the real interest rate eventually. Without credit constraints and/or financial frictions across borders, real interest rates would become equal everywhere on the globe, i.e. real interest parity holds globally.

In practice, despite financial globalization, real interest rates generally differ to a non-negligible degree across national borders. Remember that nominal government bond yields of Euro zone economies had remained converged across borders before GFC, although they diverged each other particularly in the post-GFC crisis, even under a single currency (Figure 8).

Three factors prevent real interests from parity across borders in general (Chinn and Ito, 2023). First, *political risk*, i.e. the risk of imposition of capital controls and other regulations on cross-border capital flows, can hamper capital mobility and then real interest parity. Second, since investors are not *risk-neutral* against a perfect capital market presumption, they show *home biases* in portfolio selection and demand risk premium on foreign asset holding, which would hamper interest rate parity to hold. Third, since real exchange rates are not constant as presumed by Purchasing Power Parity (PPP), but co-vary with nominal rates in reality even in the long run, the resulting non-zero expected real exchange rate changes would intervene in real interest rate parity. In a word, there are every reasons why real interest rate parity do not hold across borders and/or why international investors try to minimize the exposure for the exchange rate volatility and seek for safe assets[21]. Thereby, the *exorbitant privilege*.

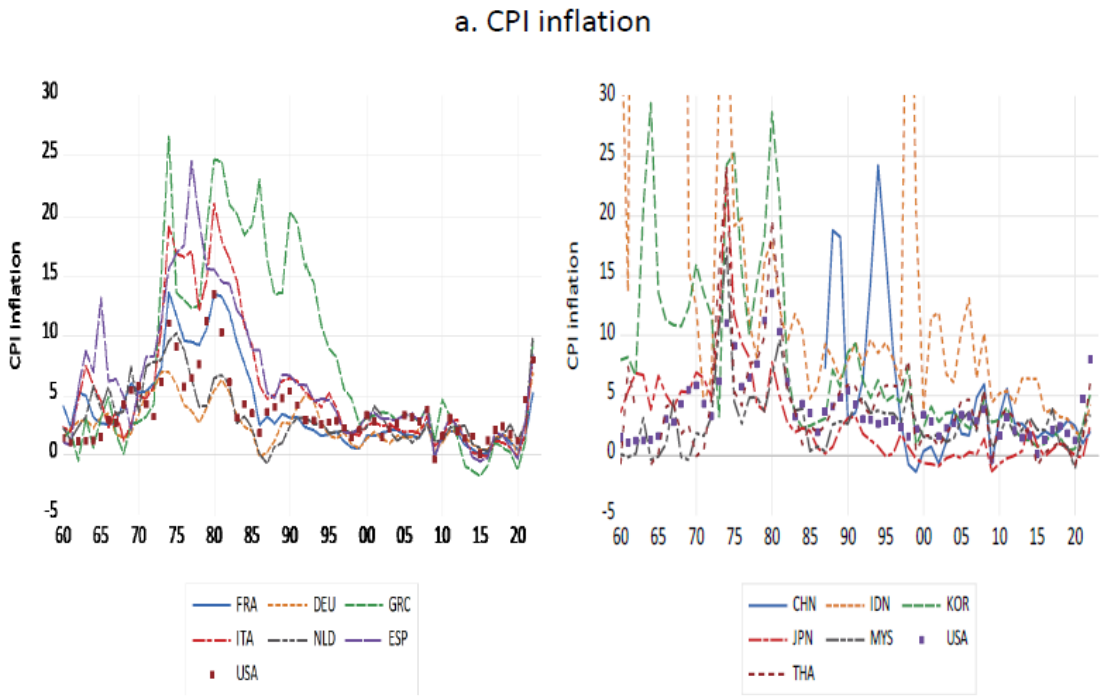
The Euro Zone enables regional investors to reap some exorbitant privilege. And

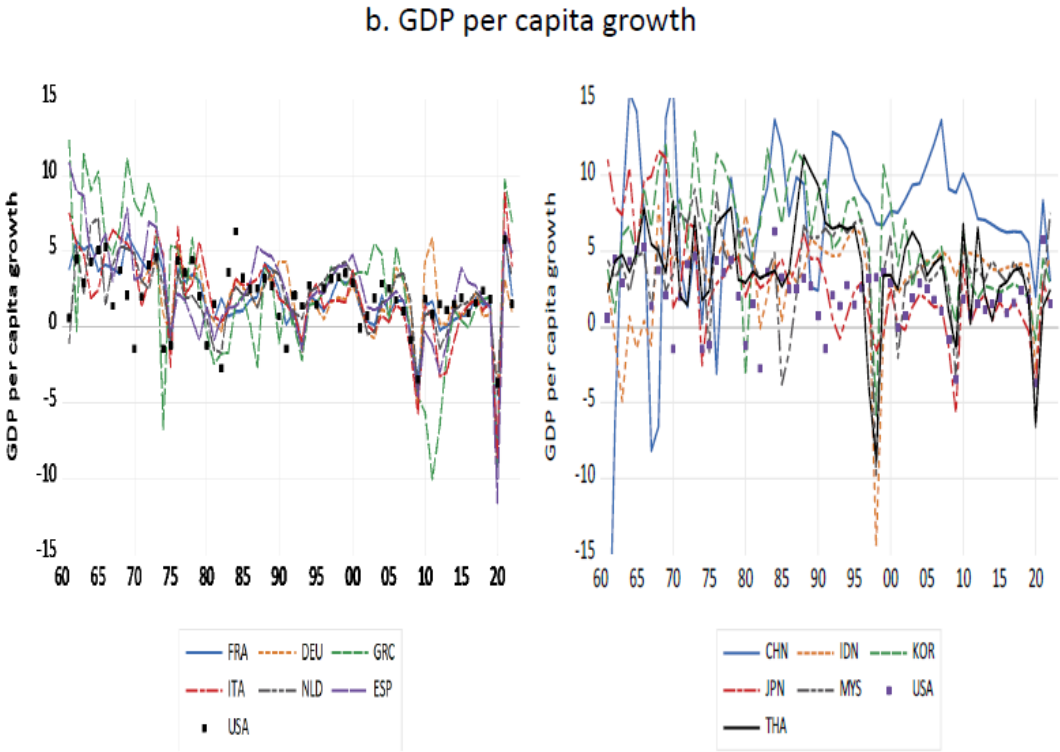
[21] Itskhoki and Mukhin (2023) argued that the *exchange rate disconnect* or the lack of correlation between exchange rates and other macro variables comes from the volatility of cross-border asset demand.

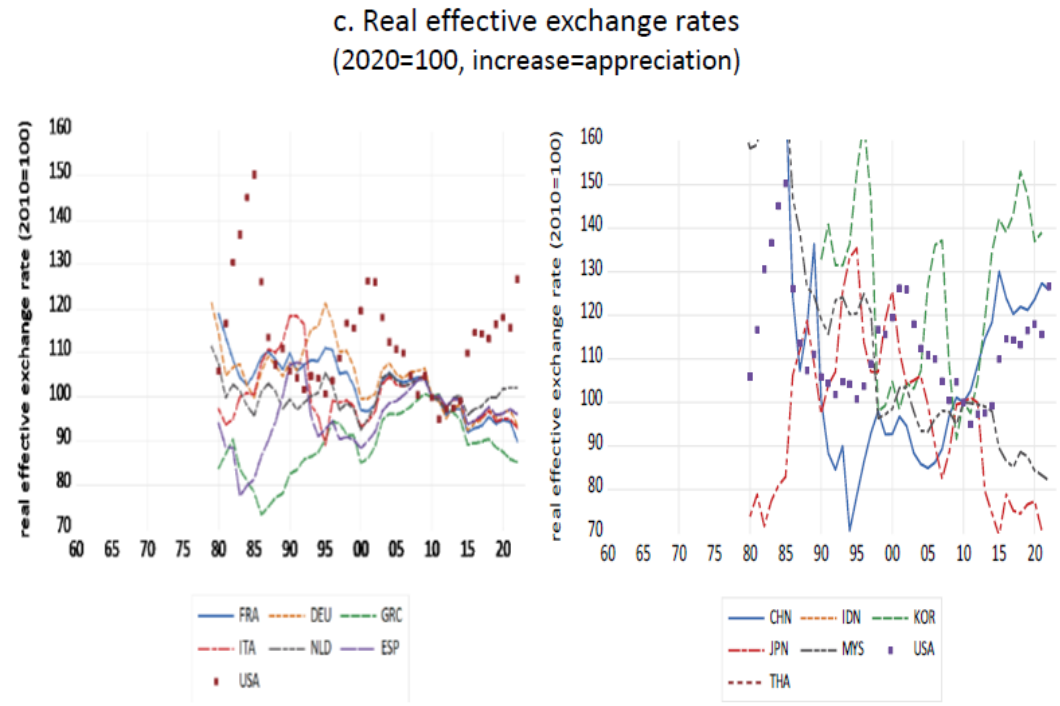
when it could enlarge, it would compete with the dollar for the privilege. As a precondition, then, EZ must prove to be a sustainable currency zone.

At least, in fact, the Euro Zone looks better shaped than East Asia to currency unification. Look at Figure 9, which shows, EZ (France, Germany, Greece, Italy, Netherland, Spain) has shown significant symmetry of macroeconomic fluctuations, being better fit to a single currency area as compared to East Asia (China, Indonesia, Japan, Korea, Malaysia, Thailand).

Figure 9. Macroeconomic Fluctuations: Euro Zone and East Asia, 1960-2022






Data: World Bank, World Development Indicators.

Figure 9 also shows that, despite huge global macroeconomic shocks such as those of dot.com, GFC, and covid-19, EZ's coherence in inflation is visibly stronger and that in GDP per capita growth is also mostly stronger except for Greece than in East Asia.

Also, real effective exchange rates in East Asia fluctuate to a far larger extent as well as in a far more asymmetric way compared to EZ, suggesting that monetary integration is impossible in East Asia, at least for the time being. Referring to the previous result (section 4) on comparative macroeconomic shocks before the Euro, we can identify some remarkable developments in the Euro zone both quantitatively and qualitatively as a monetary union[22].

## 7. Whither Financial Integration

After all, what can East Asia learn from the experiences of the Euro Zone? Point is the motivation for economic management under the common currency[23]. In the past decades, East Asia has demonstrated praiseworthy macroeconomic stability and growth. They have more or less successfully controlled inflation and attained comparably high economic growth through individually pursuing own more or less disciplined policy managements. Although this very fact caused excessive capital inflows to the region and the resulting AFC was regarded as most unexpected by the rest of the world, the swift recovery from the crisis showed the fundamental strength of East Asia.

This fundamental strength, however, implies weak motivation to improve economic performance via regional integration as compared to EU. Even without monetary integration, East Asia has shown unprecedented economic performances under de facto regional integration through trade and foreign direct investments or wide and deep regional value chains. Maybe they have incentives to prevent from recurrences of crises, but little motivation for monetary integration nor a fiscal union.

The most worrying would be the potential costs of losing individual monetary autonomies under currency unification. East Asia contains members of different

[22] Following Bayoumi and Eichengreen (1993), Bayoumi and Eichengreen (2017) find that, while the US remains better suited to an optimal currency area than the Euro Zone, the gap between EZ core and its periphery (GIIPS) appears smaller than before the Euro. Nevertheless, they also warn against the view that the EZ's asymmetric-shocks problem will solve itself endogenously.

[23] Furthermore, the coherence of political wills among members would be indispensable to the realization of monetary integration. The EU succeeded in establishing the resolute political will to have a resolute presence as a group in the international economic system. Even the EU has taken more than thirty years to attain the goal. There appears no condition for East Asia to spare time and energy enough to attain the same goal.

development stages, divergent industrial and external trade structures. When they face diverse economic shocks, the cost of losing monetary autonomies and effective policy instruments might be large[24]. Furthermore, the economic rationale of fiscal federalism beyond sovereignty to compensate for the loss of monetary autonomy there may be dubious, and its political feasibility looks nil.

The post-WWII world economic architecture, i.e. the Bretton Woods (BW) regime, consisted of trade liberalization under fixed exchange rates (US dollar-gold standard) on one hand and constraints on capital flows on the other. Their founders were afraid that free capital mobility tends to destabilize exchange rates and to magnify business cycles in real economic activities. In fact, under the regime, many advanced and some emerging market economies enjoyed steady economic growth with expanding international trade, while some suffered from occasional currency devaluations and macroeconomic adjustments due to speculative capital flows despite capital controls.

When US suddenly and unilaterally gave up sustaining US dollar per gold due to her own persistent economic over-expansion in the early 1970s, the BW regime collapsed and the world economy plunged into floating exchange rate regimes. Then, financial liberalization started vigorously since the 1980s.

To think about the future role of the Euro or Euro Zone, at issue is the exchange rate volatility, which is not necessarily related to macroeconomic fundamentals, called as the *exchange rate disconnect* (Itskhoki and Mukhin 2023). It is an obstacle for real interest rate parities to hold and to realize efficient capital allocation across currency areas. Post-BW flexible exchange rates could not wipe away the asymmetry across currencies, which had been intrinsic to the virtual dollar standard in the BW regime. Financial globalization could not reduce this volatility, but sometimes aggravated it. Financial globalization could not flatten the privilege of some currency, but

[24] In the context of EU, however, losing monetary autonomy may NOT necessarily be a cost of integration, but a gain (Fratzscher and Stracca [2008]). The constraints imposed by EMU on domestic economic policies could even remove a source of uncertainty, i.e. policy shocks. We have witnessed cases where domestic policies are more a source of shocks and uncertainty particularly in countries with institutional vulnerabilities.

strengthened it[25]. The birth of the Euro is to challenge this fundamental flaw of the present international monetary system.

Furthermore, the idea of one common currency is probably to go beyond Europe. Fiscal federalism is, too. For global economic integration to lead to better global allocation of resources and then global economic growth, financial globalization had better be managed by global monetary integration with the help of global fiscal federalism across sovereign states (Rodrik, 2000). With this in mind in the long shot, the Euro Zone could play a role of a pilot experiment and/or a special economic zone of one currency across multiple fiscal entities (sovereign states). Hence, the Euro's survival matters.

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