The Rise of China and the International Monetary System

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1. Introduction: Is a New International Monetary System Emerging?

The international monetary system in the post-World War II era underwent a dramatic transformation with the Nixon shock in 1971. That system, called the IMF-Bretton Woods regime, was a fixed exchange rate system based on the U.S. dollar as the world's sole key currency. In contrast, after 1973, a floating rate system came to prevail, under which the currencies of major industrialized nations floated against the U.S. dollar. Even after the shift to floating, the greenback has continued to play the role of the dominant international currency, and many developing countries, including those in the Asian region, have continued to regard the U.S. dollar as the target for exchange rate stability and reserve holding—that is the key currency.[1] Even though the United States turned into the world's largest net debtor country, registering huge current account deficits in the 1980s, that did not shake the US dollar's position as the most dominant global key currency.

In 1999, the international monetary system was transformed for the second time owing to the creation of a common European currency, the euro, by 11 advanced European countries.[2] Advanced European countries completed market integration in 1993, giving rise to the European Union (EU) that matched the U.S. economy in size. Most of these countries then moved to create the euro that could challenge the US dollar, and has transformed the world's international monetary system into a multi-key currency regime. Other industrialized countries (Japan, the U.K., Canada, Australia, etc) have had their currencies floated against the dollar or the euro, but they have not provided international currencies that would match these two major currencies. The eurozone financial crisis in 2010-12 revealed fundamental deficiencies of its system, and the member countries began to address the issue particularly by working toward the creation of a banking union and a fiscal union.

The global financial crisis of 2007-09 and the subsequent eurozone crisis may have the potential of providing the trigger of the third transformation of the international monetary system. The global crisis originated in the US capital market in the background of persistent current account deficits in the US and a rise of emerging market economies such as the BRIC countries, particularly China. The rapid rise of China has been accompanied by the internationalization of its currency, the renminbi (RMB), which may eventually become one of the global key currencies to support a future tripolar monetary system.

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[1] An international currency is a national currency provided by an industrialized country which is open with regard to trade, investment and finance, and used for transactions in international trade, investment and finance—the holding of assets and liabilities. Of major international currencies, those against which other countries stabilize their own currencies' exchange rates or hold as foreign exchange reserves, are called a key currency.

[2] The number of participants in the euro became 12 in 2001 with the joining of Greece. Today 17 countries participate in the eurozone.

In Asia in recent years, a *de facto* economic integration has been in progress, giving the region a character of being an increasingly autonomous economic zone. Among Asian countries, some are gradually moving away from the official or unofficial dollar-peg system, but the US dollar has been basically the most important international currency—as a target for exchange rate stabilization and reserve holding—in the region. The reason is that although the Japanese yen became a full-fledged international currency, it has not been functioning as a regional key currency that matches or exceeds the role of the US dollar. In this context, by achieving its spectacular development and growth China surpassed Japan's economy in size in 2010, continues to grow at high rates, and is expected to surpass the US economy in size in the first half of the 2030s.[3] So the question is whether a new currency zone is emerging in Asia under the leadership of the RMB, or whether Asia will maintain its structure more or less half built into the dollar zone for a long time to come.

With these issues in mind, this paper attempts to put in perspective the international monetary system in the first half of the 21st century. The paper is organized as follows. Section 2 suggests the possibility that the long-term decline of the US dollar as the most dominant global key currency is indeed a long-term phenomenon and gradual, and explains why this might be the case. It also argues that the euro will likely come out of the current financial crisis with stronger institutions to support the single currency and thus will remain an important global currency. Section 3 discusses the implications of the rise of China as the world's No. 2 economy, with the prospect of becoming No. 1 by 2035, for the RMB as an international currency. It provides less optimistic perspectives of the RMB than several authors (Angeloni, et al, 2011; and Suramanian, 2011). Section 4 argues that rising regional economic interdependence in Asia calls for relatively stable intraregional exchange rates and Asia will need to adopt a strategic approach for achieving it. This includes measures to support RMB internationalization and creation of a regional currency basket, called an Asian currency unit (ACU). Section 5 concludes the paper.

2. Resilience of the US Dollar and the Euro

Resilience of the US dollar as the dominant international currency

The relative share of the US economy has been shrinking in the world economy, first due to the post-WWII recovery of Europe and the rise of Japan, and more recently due to the rapid emergence of the BRIC countries (Brazil, Russia, India and China) in the world, particularly China. In addition, the US has been running persistent current account deficits, has become the largest net debtor nation in the world, and is now suffering from the consequences of the global financial crisis, which originated in its subprime mortgage market. As a result, the role of the US dollar as the global key currency has been declining over time, but at the same time its role has been surprisingly resilient. The demise of the US dollar as the most dominant global key currency has been predicted many times before, but it still functions as the most dominant global currency. Even in the midst of the global financial crisis, the value of the US dollar rose because of the global demand for US dollar liquidity. This is testimony to the fact that the US dollar is the most important global currency at a time of a large-scale financial crisis and it is still held as the most preferred international assets, including as foreign exchange reserves.

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[3] The Asian Development Bank projects China's GDP, at 2010 constant prices, to exceed US GDP in the first half of the 2030s.

Indeed many developing and emerging countries—particularly those in Central and South America, the Middle East, Africa and Asia—regard the US dollar as their key currency. No attempt is being made at institutionally unifying currencies in the Americas, but North, central and South America virtually constitute a US dollar economic zone. Most of the Central and South American countries have shifted to a floating exchange rate system, but they treat the US dollar as the most important international measure of value. Other developing countries, particularly those in Asia, have also deemed the US dollar as their international standard of value.

The US dollar is indeed a No. 1 international currency globally judged from various measures. For example, the currency distribution of foreign exchange market turnover reported in Table 1 shows that the share of the US dollar is again by far the highest at 85%, followed by the euro (39%), the yen (19%) and the pound (13%) in 2010.[4] Table 2 shows that the share of the US dollar held as foreign exchange reserves by the world's central banks is by far the highest at 62%, followed by the euro (25%), the UK pound sterling and the Japanese yen (4%) in 2011. In both measures, there has been a downward trend in US dollar shares, but the dollar's shares remain high.

Table 1: Currency Distribution of Reported Foreign Exchange Market Turnover[(a)]
(% shares of average daily turnover in April)

	1989	1992	1995	1998	2001	2004	2007	2010
US dollar *	90.0	82.0	83.3	86.8	89.9	88.0	85.6	84.9
Euro *	--	--	--	--	37.9	37.4	37.0	39.1
Japanese yen *	27.0	23.4	24.1	21.7	23.5	20.8	17.2	19.0
Pound sterling *	15.0	13.6	9.4	11.0	13.0	16.5	14.9	12.9
Deutsche mark *	27.0	39.6	36.1	30.1	--	--	--	--
French franc *	2.0	3.8	7.9	5.1	--	--	--	--
ECU and other EMS currencies *	4.0	11.8	15.7	17.3	--	--	--	--
Australian dollar *	2.0	2.5	2.7	3.0	4.3	6.0	6.6	7.6
Swiss franc *	10.0	8.4	7.3	7.1	6.0	6.0	6.8	6.4
Canadian dollar *	1.0	3.3	3.4	3.5	4.5	4.2	4.3	5.3
Hong Kong dollar	--	1.1	0.9	1.0	2.2	1.8	2.7	2.4
Swedish krona *	--	1.3	0.6	0.3	2.5	2.2	2.7	2.2
New Zealand dollar *	--	0.2	0.2	0.2	0.6	1.1	1.9	1.6
Korean won	--	--	--	0.2	0.8	1.1	1.2	1.5
Singapore dollar	--	0.3	0.3	1.1	1.1	0.9	1.2	1.4
Norwegian krone *	--	0.3	0.2	0.2	1.5	1.4	2.1	1.3
Mexican peso	--	--	--	0.5	0.8	1.1	1.3	1.3
Indian rupee	--	--	--	0.1	0.2	0.3	0.7	0.9
Russian rouble	--	--	--	0.3	0.3	0.6	0.7	0.9
Chinese renminbi	--	--	--	--	0.0	0.1	0.5	0.9
Emerging market currencies[(b)]	--	8.8	8.5	13.5	15.1	15.3	20.1	19.5
All Currencies	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0

Note: (a) Because two currencies are involved in each transaction, the sum of the percentage shares of individual currencies totals 200% instead of 100%. Data are adjusted for local and cross-border double-counting.
(b) Defined as the residual after accounting for developed economy currencies (with asterisks, *).
Source: BIS.

[4] As two currencies are exchanged in market trading, the sum of currency shares is 200% in foreign exchange market turnover. Note that the Chinese RMB accounts for only 0.9% in this measure in 2010.

Table 2: Share of International Currencies as Official Foreign Exchange Reserves

	1990	1995	2000	2005	2010	2011
US dollar	50.3	59.0	71.1	66.9	61.8	62.2
Euro	--	--	18.3	24.1	26.0	25.0
Pound sterling	3.2	2.1	2.8	3.6	3.9	3.8
Japanese yen	8.2	6.8	6.1	3.6	3.7	3.5
Swiss franc	1.3	0.3	0.3	0.1	0.1	0.1
Deutsche mark	17.4	15.8	--	--	--	--
French franc	2.3	2.4	--	--	--	--
Netherlands Guilder	1.0	0.3	--	--	--	--
ECU	9.6	8.5	--	--	--	--
Other	6.7	4.8	1.5	1.7	4.4	5.4
Total allocated reserves ($US Billion)	100.0	100.0 (1,034)	100.0 (1,518)	100.0 (2,844)	100.0 (5,126)	100.0 (5,645)
Unallocated reserves ($US Bill)	n.a.	355	418	1,476	4,101	4,557

Source: IMF

There are several reasons for the U.S. dollar to continue to play the role of being the world's most dominant international currency. First, the U.S. is still the most dynamic, largest economic power in the world as the source of global innovation and technology advancement. The U.S. economy has maintained higher economic growth over a long period of time, exhibiting greater flexibility and potential for growth higher than that in Japan or Europe. US capacity to attract capital from abroad, financing its current account deficits, means that the U.S. is judged to "deserve financing" by global investors.

Second, the US dollar-based financial market is liberal, open, deep, broad and liquid without any other parallel in the world, which was an important source of resilience of its value in the height of the Lehman shock in the fall of 2008. As a result, the cost of using and holding it remains low for domestic and foreign investors on account of the "economies of scale" and "network externalities."

Third, even though the U.S. is now a large net debtor county as a result of cumulative current account deficits, it can continue to run current account deficits. Because investment income (interest, dividend, etc.) foreign investors receive from the US is relatively small in amount, in comparison to investment income U.S. investors receive from overseas, the U.S. balance of investment income is not in the red. Since the U.S. enjoys a rate of return on its foreign investment far higher than that of foreign countries' investments in the U.S., its balance of investment income is close to zero, despite being the world's largest net debtor country.

Fourth, once the US dollar has established its role as a global key currency, it can keep its status unchanged for a considerable period of time due to the "law of inertia" even if other conditions have changed. Moreover, the central banks in countries amassing balance of payments surplus—Asian countries, for example—tend to avoid the rise of their currency values against the dollar, prompting them to support the dollar's value by purchasing dollar assets as foreign exchange reserves.

In this way, the U.S. dollar remains the world's most dominant currency, which plays the role of a key currency for a large number of developing (and some developed) countries. The dollar's status, however, is structurally being eroded by the birth of the euro, and its receding to some extent seems inevitable over a long run. In fact the US

Federal Reserve will not be able to play the role of a world central bank (McKinnon 2005), which would set monetary policy from a global perspective, provide the US dollar liquidity to facilitate global economic growth, pursue adjustment to correct persistent current account deficits, and act as the global lender of last resort in the event of a financial crisis in some part of the world economy. Instead, the US Fed has adopted monetary policy largely from domestic perspectives, which has often caused substantial dollar depreciation, exploiting its "exorbitant privilege" (Eichengreen 2011). It is unlikely, however, that the continuation of the U.S. current account deficit and the expansion of its net external debt will cause a collapse of the US dollar or remove the dollar from the position as a dominant international currency in the short to medium run.

The creation of the euro and the eurozone financial crisis

Of all European countries, none matches the U.S. in economic size by itself. Even Germany, the largest economy in Europe, is only one fourth of the U.S. in economic size though the volume of foreign trade is comparable.[5] Countries of such a relatively smaller economic size got together to launch the process of economic integration in the 1950s, which evolved into the EU over a period of 40 years, and eventually created the euro, an international currency that would rival the dollar, through monetary unification.

The process leading up to the introduction of the euro in 1999 was a history of international cooperation for regional economic integration. The six western European countries—including Germany, France and Italy—formed the European Economic Community (EEC) in 1958 and united it with the European Coal and Steel Community (ECSC) and the European Atomic Energy Community (EURATOM) into the European Community (EC) in 1967, and completed the customs union in 1968. Until 1971, each country had had its currency's value pegged to the US dollar under the IMF-Bretton Woods regime and maintained mutually stable exchange rates. But as a result of the shift to a floating rate system in 1973, each country broke away from the stabilization of its currency vis-à-vis the dollar. In Europe, the idea that wide fluctuations of currency values against one another were not desirable led to the adoption of the so-called snake system in order to stabilize exchange rates vis-à-vis each other. In 1979, the European Monetary System (EMS) was launched to reinforce it institutionally, under which regional monetary cooperation was advanced through: (a) a rigorous mechanism for regional exchange rate stabilization (ERM); (b) a very short term liquidity mechanism to support exchange stabilization; and (c) the creation of the common European Currency Unit (ECU). In 1993, the European Union (EU) was established following the completion of market integration. The U.K., Denmark and Sweden joined around that time, forming a 15-nation EU in 1995.

The introduction of a common European currency, the euro, in 1999 meant the unification of monetary policies which had been under the control of numerous central banks into the European Central Bank (ECB). The driving force of European economic integration was the resolve never to put Europe to the devastation of war, with Germany and France working together to jointly play the major role in economic and currency integration. The role played by Germany's Bundesbank was especially large, as Germany took leadership in policy coordination that led to currency integration by pursuing a stable monetary policy as an anchor country of Europe and gave foundation

[5] In 2011, the size of GDP at current US dollars was $3.6 trillion for Germany and $15.1 trillion for the US, while the volume of trade was $1.5 trillion for both Germany and the US (IMF, *WEO database*, October 2012).

to the ECB. With ten eastern European countries newly joining the EU in 2005 and another two later, the EU has become a 27-nation entity. With the sole exception of the U.K., all of the EU member countries (9 member states) that are yet to join the eurozone are pegging or stabilizing their currencies to the euro either officially or unofficially, thereby allowing the euro to influence the monetary policies of adjacent neighboring countries.[6]

The eruption of the eurozone financial crisis is the largest threat ever to the viability of the single currency project and, more broadly, European economic integration efforts. The crisis was brought about by the financial imbalances accumulated in the periphery countries of the eurozone—the so-called PIIGS (Portugal, Ireland, Italy, Greece and Spain)—due to their over-spending and damage to the banking system during the first ten years of the euro system. Either the government (Greece) or the private sector (Ireland and Spain) spent excessively as the real interest rates declined sharply and capital inflows easily allowed these countries to finance current account deficits. Commercial banks were not resilient in Portugal and public sector governance was in doubt in Italy.

European commercial banks invested in sovereign debt and/or extended cross-border loans within Europe. Once the sustainability of sovereign debt was questioned in Greece, investors massively unloaded the debt in the market, putting upward pressure on the interest rates for Greek and other PIIGS sovereign debt. The result was a combination of sovereign debt and banking crisis in PIIGS as commercial banks were exposed to sovereign debt. And the banking crisis raised the cost of bank interventions, thereby adding fiscal burden to further raise the size of sovereign debt. When the crisis broke out, a troika of the EU, the European Central Bank (ECB) and the IMF was formed to financially support the crisis countries, but the support was inadequate; in addition at least initially the ECB was reluctant to provide substantial liquidity to the financial market and the banking system as the lender of last resort through purchases of PIIGS sovereign debt.[7] Essentially, there was a lack of institutional mechanism to contain intra-eurozone financial imbalances and to respond to a sovereign debt and banking crisis.

Realizing this problem, the eurozone authorities began to strengthen institutions to support the monetary union through the creation of a banking union, a fiscal union, and the European Stability Mechanism (ESM). A banking union is designed to introduce an integrated, Europe-wide banking supervision, resolution and deposit insurance. A fiscal union will likely be a limited one at least for the time being, including the fiscal compact that limits member countries' fiscal deficits and the sharing of financial risks among member states with regard to ESM operations.[8] The ESM is designed to provide fiscal funding in the event of a member country's fiscal crisis and banking crisis. Given the

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[6] In February 2005, Russia rescinded the pegging of the ruble to the US dollar and moved to a currency basked system—an exchange rate policy that attaches importance to the euro. In May that year, the proportion of the euro in the basket was raised from 20% to 30%.

[7] Later the ECB under the leadership of Mario Draghi began to adopt the Long-term Refinancing Operation in late 2011 and early 2012 and the Outright Monetary Transaction in the second half of 2012, both of which allowed the ECB to play a more substantial role as a lender of last resort in the eurozone.

[8] A more substantive fiscal union would call for a eurozone-wide fiscal policy, sufficient intra-eurozone fiscal transfers to offset cyclical shocks, and the issuance of common euro bonds to finance fiscal deficits.

large cost of a euro break-up, the authorities are expected to come up with a rational decision to make these institutions workable and effective in containing the ongoing crisis, and will prevent the euro system from collapsing. As a result, the euro will likely remain an important global key currency in the foreseeable future.

3. The Rise of China and the RMB

Rise of China as the world's economic power

Having surpassed Japan in economic size in 2010, China is expected to exceed the U.S. by 2035 at 2010 constant prices (Figure 1). Many other emerging economies—like Brazil, India and Russia—are also expected to become rich nations comparable to today's OECD countries on a per capita GDP basis over the next few decades. The likelihood of this scenario has to be received with caution given the possible growth constraints coming from resource and energy availability, environmental loads, domestic political and social stress, and international tensions and conflict. Taking such constraints into consideration but still assuming this optimistic scenario, China sooner or later will come ahead of the U.S. and the EU in economic size. The natural question, then, is whether the RMB will grow into a global key currency that matches, or even exceeds, the US dollar or the euro.

[Figure 1]

For any emerging country currency to become an international currency and one of the global key currencies, the country needs to:

- become a large high-income country with a healthy market economy;
- achieve full capital account convertibility;
- introduce full flexibility of the exchange rate of the currency;
- develop liberal, open and liquid financial markets, with sufficient depth and breadth, for assets denominated in the currency of the country;
- gain trust of global investors in the domestic institutions through an established rule of law and sound economic policy frameworks; and
- overcome "network externalities" and incumbency "inertia" created by the existing global key currency, the US dollar.

Clearly China has many positives in favor of developing the RMB into an important international currency. China's prospective economic size, which is large and perhaps will be the largest in the world economy, and its position as a dominant trading nation—in particular, a dominant importer—are conducive to the rise of RMB as an important international currency. In addition, the authorities have adopted policies to promote RMB internationalization by gradual liberalization of domestic financial system and opening of capital account. The authorities have been using Hong Kong to experiment RMB internationalization in capital accounts.

However, a currency that lacks a liberal, open financial market—such as the one that requires approval and discretionary judgment—cannot become a dominant international currency, in an age with competing international currencies with full capital account convertibility. In China, there is a widely held perception of heavy state intervention in economic affairs, lack of rule of law, and weak economic institutions, which can go against developing the RMB as a global key currency. Uncertainty as to when and how political transition may take place from a one-party system—that dominates political

decisions, government bureaucracy and business activities—to a multi-party democratic system with broad-based participation can be a negative factor working against full-fledged internationalization of the RMB.

Challenges for RMB internationalization

There is no question that the RMB will become an international currency, mainly because of China's expanding economy, its rising trade, and eventual capital account opening. However, achieving capital account convertibility is a critical challenge as the RMB use must go beyond border trade and in international capital flows. To do so, China must develop a liberal and well-regulated financial market (see Yu 2012). This means introduction of market-determined interest rates, creation of deep money and bond markets that provide stable yield curves, development of derivatives instruments for risk diversification, and substantial liberalization in entry and business scope in financial services. In addition, effective financial market regulation and supervision would have to be put in place to reduce financial imbalances, monitor international capital flows and maintain financial stability.

Several authors expect the RMB to be one of the global key currencies (see Angeloni, et al, 2011; and Suramanian, 2011). They focus on the rapid expansion of China's economy and share an optimistic view concerning the country's ability to undertake capital account opening. For the RMB to become a major, or even dominant, international currency, however, China needs to do more than capital account opening. It needs to create a truly liberal, open and liquid financial market for RMB assets—for example by making Shanghai a free and open international financial center—where all investors, domestic or foreign, can have free access to RMB assets of any maturity without restrictions. Such an open financial market needs to be supported by strong financial infrastructure with English as a working language and an adequate number of professionals. Having domestic financial firms that are globally competitive would certainly help. China must establish unambiguous rule of law and gain trust in domestic institutions—such as an effective judiciary system, an independent central bank with transparent decision making, a sound fiscal system embracing both national and local governments, and a prudent financial regulator.

All of these suggest that for at least several decades to come the RMB is unlikely to become one of the global key currencies. First, for the RMB to become an international currency, it must turn into an open economy with regard to trade, investment and finance and achieve capital account convertibility. This means that the international use, holding, and trading of the RMB must be free from capital and exchange controls. Given the present state of its financial system, a full liberalization and opening of the financial sector—particularly the banking sector—may require at least another 10 years.

Second, the RMB exchange rate must become fully flexible against major international currencies, such as the US dollar and the euro. By pegging or stabilizing the RMB against the US dollar, for example, the Chinese authorities would have to maintain capital and exchange controls or give up independent monetary policy. The impossible trilemma suggests that to achieve capital account convertibility and maintain monetary policy independence—requirements for realizing an independent monetary zone—the RMB rate has to become fully flexible.

Third, to convince global investors that the RMB can be trusted as a global currency, China needs to strengthen domestic institutions by establishing rule of law and a

credible macroeconomic policy framework, including making the People's Bank of China operationally and eventually politically independent. Given the current political regime where the power of the State Council and the National Development and Reform Commission over economic policymaking is so strong, it may take even longer time for this to happen.

Fourth, China faces an inherent problem of political and social transition to an open democracy, and no one knows how and when such a transition will take place, posing a great deal of political uncertainty. Without such a democratic transition, the RMB will unlikely play the role of a global key currency due to the lack of trust in the country's political system. For all of these to take place, several decades may be needed.

Finally, whether the RMB will grow into a global key currency that matches the dollar or the euro will depend on the future course of the economies in the U.S. and Europe. The RMB might not grow to a global key currency, if the US economy in particular continues to perform relatively well without serious and intermittent difficulties, because of the "law of inertia" built on the dollar's "network externalities." The global and the eurozone financial crisis indicate some signs of possible weak performance of the US economy over the next decades, but it is only a possibility under the present circumstances.

It of course may well be that the RMB will function as an important international currency toward minor countries in the neighboring region.[9] That does not mean, however, that the RMB will grow into an important international currency from a global or regional perspective within a short period of time.

4. Asia's Choice: Strategic Cooperation

Market-driven economic and financial integration in Asia

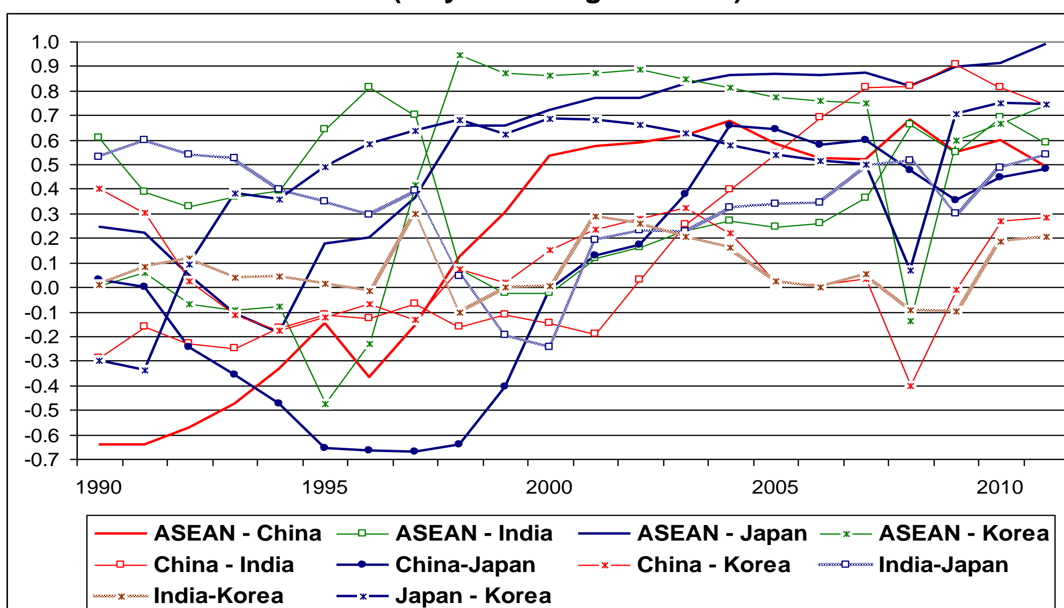
In Asia, market-driven economic interdependence has deepened through rising volumes of trade, investment and finance. With regard to trade, the deepening regional production network and supply chains supported by foreign direct investment (FDI) and production fragmentation have promoted intraregional trade in capital goods, semi-finished products (industrial materials, parts and components, and other intermediate goods), and final products. The trends have been accelerated initially by FDI by Japanese and other global multinational corporations and in recent years by Korean, Taiwanese, Malaysian, Thai and other emerging Asian companies. China has emerged as a major production host for Asia's manufacturers. As a result, more than half of trade in Asia is accounted for by intraregional trade. The production network in Asia has been built on the premise of the existence of US and European markets for finished products, but its dependence on these outside markets will likely be reduced due to the declines in demand in these markets following their financial crises.

In financial transactions, intraregional linkages between national financial markets across Asia have strengthened through commercial banks' foreign business and financial operations and institutional investors' foreign portfolio investment. These moves are enhancing the level of regional financial linkages of interest rates and stock market returns, though its level remains lower than the level of trade and FDI linkages.

[9] It is said that the RMB is used and held in the northern part of Laos and southern part of Mongolia, both neighboring small countries. Such tendencies will grow as China is a dominant trading partner for them.

Intraregional macroeconomic synchronization has also been deepening in the Asian region due to the growing real and financial connections. Real GDP growth rates in particular exhibit rising correlations across Asian countries. Figure 2 depicts international correlation coefficients in the GDP growth rates with rolling 10-year windows. The table clearly indicates that intraregional correlations in real economic activities in Asia have increased, suggesting rising synchronization of business activity fluctuations. Macroeconomic links between Japan and ASEAN are remarkably high and China has also developed strong macroeconomic synchronization with other Asian countries.

Figure 2: Correlation Coefficients of GDP Growth Rates for Asian Economies (10-year rolling windows)



Source: IMF, IFS CE-ROM and WEO database.

The heightened interdependence of economies in the region has come to require relative stability of intraregional exchange rates. For example, the bilateral nominal exchange rate between the yen and the Korean won has fluctuated widely, moving from a strong won (such as 7.6 won/yen in mid-2007) to a weak won (such as 15.5 won/yen at end-2008 and early 09) over the course of a few years (see Figure 3). Such wild fluctuations of intraregional exchange rates are clearly undesirable. However, Asian countries have not developed any mechanism to limit intraregional exchange rate volatility through policy coordination. The problem is that China and Japan, Asia's two giant economies, adopt different exchange rate regimes—with Japan fully floating exchange rates and China stabilizing the currency against the US dollar—and other countries adopt regimes in between the two. There has been some convergence in Asia's regimes towards greater rate flexibility, but the region is still characterized by exchange rate regime diversity.

Figure 3: Bilateral Yen-Won Nominal Exchange Rates, 1990-2011

Source: IMF, IFS-CD ROM.

Strategic monetary and financial cooperation in Asia

We have argued that it will take time, or it may never be possible, for the RMB to become a nominal anchor currency in Asia. On the other hand, the Japanese yen will unlikely assume a leadership role in Asia's exchange rate arrangement despite the fact that it is the world's No. 3 or No. 4 international currency, following the US dollar and the euro and comparable to the UK pound sterling. Other Asian economies are too small to assume leadership in designing Asia's exchange rate regime. The problem, then, is that although achieving relative stability of intraregional exchange rates is increasingly desirable, no country alone is capable of taking the lead in this endeavor. This suggests the need to collectively develop strategic currency and financial cooperation by China and Japan, the two giant economies in Asia, supported by other emerging Asian countries to maintain relative stability of intraregional exchange rates (see Park [2010] for the importance of regional cooperation for promoting RMB internationalization).

Such strategic cooperation has already begun among China, Japan and Korea (CJK) to encourage the use of Asian currencies for international trade, investment and financial transactions. First, the three countries have agreed to increase the use of own currencies for bilateral trade, making the RMB, the yen and the won a significant invoicing and settlement currency for trilateral trade. This cooperation will be mutually beneficial and win-win. Second, they have also agreed to mutually hold sovereign debt as foreign exchange reserves. The crossing-holding of government bonds among the authorities as foreign exchange reserves is a viable option to cope with the dollar depreciation risk and to help accelerate currency internationalization in the three countries. The recent decision by Japan to purchase Chinese government bonds up to RMB 65billion clearly supports RMB internationalization, and this amount could be expanded. Finally, direct foreign exchange markets between the yen and the RMB have been established in Tokyo and Shanghai, following the creation of direct markets between the yen and the won on the occasion of the Japan-Korea Word Cup in 2002. Developing such direct exchange markets will likely reduce transactions costs as the

traders do not have to use the US dollar as a vehicle currency for such trading, which will mitigate dependence on the US dollar.[10]

CJK strategic cooperation will likely encourage the internationalization of the three countries' currencies as well as their financial markets. For example, being already one of the largest financial markets for currency trading, Tokyo could become an additional offshore market for the RMB that facilitates RMB internationalization and improves status of Tokyo as an international financial center. In this way, currency cooperation promotes Shanghai, Tokyo and Seoul as international financial centers (Table 3). On top of this, encouraging central bank competition to gain market credibility—in the way the German Bundesbank achieved it in Europe—is useful for monetary stability in Asia.

Table 3: Ranking of Global Financial Centers, March 2007-March 2012

Financial centers	Mar 2007	Sep 2007	Mar 2008	Sep 2008	Mar 2009	Sep 2009	Mar 2010	Sep 2010	Mar 2011	Sep 2011	Mar 2012
London	1	1	1	1	1	1	1	1	1	1	1
New York	2	2	2	2	2	2	1	2	2	2	2
Hong Kong	3	3	3	4	4	3	3	3	3	3	3
Singapore	4	4	4	3	3	4	4	4	4	4	4
Tokyo	9	10	9	7	15	7	5	5	5	6	5
Zurich	5	5	5	5	5	6	7	8	8	8	6
Chicago	8	8	8	8	7	8	6	7	7	7	7
Shanghai	24	30	31	34	35	10	11	6	5	5	8
Seoul	43	42	51	48	53	35	28	24	16	11	9
Toronto	12	13	15	12	11	13	12	12	10	10	10
Boston	14	12	11	11	9	18	14	13	12	12	11
San Francisco	13	14	12	17	17	17	15	14	13	9	12
Frankfurt	6	6	6	9	8	12	13	11	14	16	13
Geneva	10	7	7	6	6	9	8	9	9	13	14
Sydney	7	9	10	10	16	11	9	10	10	15	16
Shenzhen	--	--	--	--	--	5	9	14	15	25	32
Dublin	22	15	13	13	10	23	31	29	33	43	46

Note: Shenzhen cannot be ranked in and before March 2009 due to insufficient information.
Source: City of London Corporation and Long Finance, *The Global Financial Centre Index*, various issues.

China, Japan and Korea can strengthen regional monetary and financial cooperation, by building on cooperation over the past 15 years since the 1997-98 Asian financial crisis. They, together with the 10 ASEAN member countries, launched the Chiang Mai Initiative (CMI), a regional surveillance mechanism and the Asian Bond Markets Initiative (ABMI) within the framework of the ASEAN+3 (a group consisting of the 10 ASEAN members, China, Japan, and South Korea).

The CMI is a framework of currency swap agreements to help a country cope with liquidity shortage by providing it with short-term liquidity when such shortage is caused by speculative attacks or a currency crisis. The initial network of bilateral swap agreements has been multilateralized, with the total swap amounting to $240 billion. The condition for invoking the CMI without IMF programs was enlarged from 10% to 30% with the possibility of a further increase to 40%. A new precautionary liquidity

[10] Currently, the US dollar plays a vehicle currency role for currency transactions of the yen and the RMB. The yen/RMB exchange rate is determined by the cross-currency rates of yen-US dollar and RMB-US dollar rates where the dollar is used for settlement.

arrangement that prevents a currency crisis from developing has also been introduced. The regional surveillance is aimed at improving each country's policies in the region through peer pressure by mutually keeping watch of economic and financial conditions through policy dialogue among the ASEAN+3 countries. A new surveillance body, called the ASEAN+3 Macroeconomic Research Office (AMRO), was established to support the CMI and the surveillance process. The development of Asian bond markets aims at directly channeling Asian's savings to investment in Asia by developing a primary and secondary market of Asian currency-denominated bonds. These markets can contribute to the avoidance of double mismatching with regard to currency and maturity and the use of Asian currencies for international investment and financial transactions.

ASEAN+3 financial cooperation can be further strengthened by making the AMRO a truly effective surveillance unit (though augmenting its financial and human resources, and providing greater independence in analysis and assessment) and by enhancing the CMI (through further expanding the financial resources available to each country, and raising the portion of CMI that could be used without IMF programs eventually to 100%). If these are done, a *de facto* Asian monetary fund would be created.

As discussed above, policy coordination toward stabilization of intraregional exchange rates in Asia has yet to start. It is indeed time to embark on serious policy dialogue for informal exchange rate policy coordination. The starting point is the recognition that to achieve macroeconomic and financial stability with volatile international capital flows, Asian economies need to have greater exchange rate flexibility vis-à-vis the US dollar and the euro. But this may cause large intraregional exchange rate fluctuations as has been observed in the case of the yen-won exchange rate. One useful way to avoid such volatile intraregional exchange rate movements would be for the Asian authorities to install similar exchange rate regimes. This would not require significant coordination of monetary and exchange rate policies among the Asian financial authorities once such regimes are chosen. Then the next issue is what sort of exchange rate regime should be chosen. We suggest a managed floating system with a currency basket—rather than the US dollar or the euro—as a reference for exchange rate stability. They may initially choose a basket of SDR plus emerging Asian currencies, which is also a basket of external currencies (the US dollar, the euro, and the pound sterling) and an Asian currency unit (ACU), and may reduce the weights attached to the external currencies over time so that they will eventually stabilize against the ACU.

Although such a course of action may be desirable, it is not easy to agree on rigid exchange rate policy commitments at least for now. What the authorities can do is to strengthen policy dialogue with a view to achieving relatively stable intraregional exchange rates. From this viewpoint, it is useful to create an ACU for the purpose of exchange rate surveillance in policy dialogue and development of Asian bond markets.

5. Conclusion: Perspectives for a Tripolar Currency System

The paper has argued that the world is heading toward a tripolar currency system, centered around the US dollar, the euro (assuming it survives), and an Asian currency (or a basket of Asian currencies). Despite a long-term decline of its position, the US dollar will likely continue to function as the most important global key currency. The euro is expected to survive the ongoing crisis, by strengthening its institutions to support the single currency arrangement, and thus continue to function as an important global key currency.

In the meantime, there is a strong likelihood that countries in Asia, where market-based economic integration is making progress and an independent economic zone is emerging, will form their own currency zone. Though the Japanese yen is the most important international currency in the region, its less-than satisfactory performance of internationalization over the last two decades suggests that it alone cannot lead in creating an Asian currency zone. Though the RMB is internationalizing rapidly, it is likely to take a long time for China to complete its transition to a market economy, create open, deep and liquid financial markets, fully liberalize its capital account, achieve significant institutional reforms (establishing rule of law, a credible judiciary system, an independent central bank, a sound fiscal system, etc), and achieve political democracy. This suggests that it will be long before the RMB grows into a global key currency that matches the dollar, the euro or the yen.

Thus the paper has argued that while the RMB will become an international currency over the next decade or two, it is premature to conclude that it will become the region's most dominant international currency and rank with the dollar and the euro, exceeding the yen, as one of the future tripolar key currencies. This suggests the importance of strategic cooperation among the Asian countries—particularly China and Japan—to promote regional currency internationalization, regional bond markets, and regional financial stability. For example, the authorities can work together to create an Asian monetary fund by scaling up the CMIM and the AMRO, to strengthen policy dialogue to avoid excessive volatility of intraregional exchange rates, and develop an ACU for regional surveillance and bond market development. Otherwise the US dollar might remain the most dominant international currency in the region.

What role should Japan play as the large economy in Asia with the world's No.3 or No.4 international currency? Japan must make its economy more open in terms of flow of goods, services, investment, labor and information, transform Tokyo into a truly international financial center, and provide a monetary anchor for Asian countries through stable monetary policy as Germany did in Europe in the past. More fundamentally, the country needs to restore sustained economic growth by addressing the fiscal debt issue, making the social security system sustainable, achieving greater trade and FDI liberalization through the Trans-Pacific Partnership (TPP) agreement, clarifying its long-term energy policy, and connecting Japan with emerging Asia through a Regional Comprehensive Economic Partnership (RCEP) among the ASEAN+6 countries. Without significant economic cooperation with entire Asia, it would be difficult to advance currency and financial cooperation in the region.

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