

Currency internationalisation: an overview

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Introduction

An international currency is one that is used and held beyond the borders of the issuing country, not merely for transactions with that country's residents, but also, and importantly, for transactions between non-residents. In other words, an international currency is one that is used instead of the national currencies of the parties directly involved in an international transaction, whether the transaction in question involves a purchase of goods, services or financial assets.

It is important in this context to distinguish between a country that is host to an international financial centre and one that has an international currency. Singapore is a major international financial centre: banks located there, including the affiliates of foreign banks, conduct international business for their clients and themselves, including currency trading. In fact, in terms of the volume of currency trading, Singapore ranked fifth among all countries in the most recent *BIS Triennial Central Bank Survey of Foreign Exchange and Derivatives Market Activity*; its total foreign exchange turnover was exceeded only by those of the United Kingdom, the United States, Switzerland and Japan (BIS (2008)). For many years, however, the government of Singapore strongly discouraged use of the Singapore dollar as an international currency – one in which foreign entities may issue or trade securities.

Dimensions of internationalisation

An international currency is one that performs some if not all of several tasks. Consider, first, the invoicing of merchandise trade. Although some countries invoice large fractions of their exports in their own national currencies, many others do not. In 2007, for example, some 77% of US exports to Japan were invoiced in US dollars, but 72% of Asian exports to Japan were also invoiced in dollars, not in the Asian exporters' currencies, with almost all of the rest being invoiced in yen. Moreover, in that same year, 35% of EU exports to Japan were invoiced in euros, but 48% were invoiced in yen. Turning to Japan's exports, we find that 40% of its exports to Asian countries were invoiced in yen, with the bulk of the rest being invoiced in dollars. But the yen is far less heavily used in the invoicing of Japanese exports to the United States, where the dollar dominates, and it is used much less than the euro in invoicing Japanese exports to the European Union, where the euro is more heavily used. These numbers have been fairly stable for the last few years, save for the share of the euro in the invoicing of Japanese imports from the member countries of the European Union, which rose sharply in 2001, soon after the introduction of the single currency (though not at the expense of the yen, the dollar or the pound sterling).²

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² See Papaioannou and Portes (2008), Table 5. Unfortunately, the table does not indicate which currencies lost shares to the euro in 2001. (They may perhaps have been invoiced in the currencies of individual euro area countries before the changeover to the euro, as the contracts involved may have been made before the changeover.)

There are, of course, exceptions to these patterns. Most importantly, exports of standardised commodities traded on organised exchanges are invoiced mainly in the currencies used on those exchanges, with petroleum being the most prominent example.

Consider, next, the issuance of bonds and other securities. Some such instruments are denominated in the issuer's currency, but many are denominated in the currency of the prospective buyer and, more importantly, many are issued in third countries' currencies. In all three cases, however, they may be held and traded outside the issuer's country. It is useful to distinguish three types of "international" securities.³ Some are issued on foreign markets by domestic or foreign entities and are called eurobonds, even when they are not denominated in euros. Soon after the introduction of the euro, however, the volume of euro-denominated issues came to exceed the volume of dollar issues. These two types of securities are listed in panels (2) and (3) of Table 1. Other bonds are issued domestically by foreign entities and may be designed to attract foreign buyers (eg by exempting them from withholding taxes on the interest payments). They are listed in panel (4) of Table 1. They are called yankee bonds when issued in the United States, samurai bonds when issued in Japan, kangaroo bonds when issued in Australia, and panda bonds when issued in China (of which the first two were issued in 2005 by the International Finance Corporation and the Asian Development Bank, subject to a subsequent understanding that the renminbi proceeds would have to remain in China).

Table 1
How securities are issued

(1) Issued by and to domestic entities and traded domestically and internationally	(2) Issued by domestic entities to foreign entities and traded internationally
(3) Issued by and to foreign entities and traded internationally	(4) Issued domestically by foreign entities and traded domestically

NB: The issues listed in panels (1) and (4) are denominated in the currency of the country in which they are issued. Those listed in panels (2) and (3) may be issued in the borrower's currency if it is a widely traded currency but are typically issued in a major international currency such as the dollar or euro.

The process of internationalisation

A national currency can be regarded as an international currency if most of the following conditions hold. Note that the first condition is stated strongly, as a constraint on the government of the country under consideration, whereas the word "able" is used thereafter to convey a double meaning: that the government does not prohibit certain activities and that the relevant foreign parties, whether private or public, permit or facilitate the activity described. Note, further, that the conditions listed below need not be met simultaneously or abruptly. Some forms of internationalisation, such as the use of a country's currency for invoicing trade, including trade between third countries, are likely to grow gradually with the increase in the volume of trade and the use of a country's national currency in the invoicing of trade.

³ This taxonomy draws on McCauley (2006), who traces the internationalisation of the Australian dollar.

First, the government must remove all restrictions on the freedom of any entity, domestic or foreign, to buy or sell its country's currency, whether in the spot or forward market. This condition clearly requires that the issuing country's government remove any restrictions on foreign exchange trading by domestic and foreign entities, as well as any limitations on the freedom of foreign entities to hold the domestic currency and derivative instruments denominated in it. This condition, however, need not require that the government abolish all restrictions on the freedom of domestic entities to hold foreign currency assets or to incur foreign currency debts, nor does it bar the country's financial regulators from limiting the long or short foreign currency positions of domestic financial institutions. Indeed, it may be necessary and appropriate for the regulators to keep a close watch on the size of the foreign currency positions of domestic banks.

Second, domestic firms are able to invoice some, if not all, of their exports in their country's currency, and foreign firms are likewise able to invoice their exports in that country's currency, whether to the country itself or to third countries. The extent to which they can actually do that, however, may be limited by the sorts of goods they export, the market power of individual firms, and conventions prevailing internationally, such as the use of organised markets for trading petroleum and other primary commodities.⁴

Third, foreign firms, financial institutions, official institutions and individuals are able to hold the country's currency and financial instruments denominated in it, in amounts that they deem useful and prudent. To the extent that foreign official institutions exercise this option on a significant scale, the country's currency will function as a reserve currency, but very few currencies are capable of playing that role on a significant scale. At mid-2008, the countries that report to the International Monetary Fund the currency composition of their official reserves held 62.5% of those reserves in dollars, 27.0% in euros, 4.7% in pounds sterling, and 5.7% in Swiss francs, yen and other currencies.⁵

Fourth, foreign firms and financial institutions, including official institutions, are able to issue marketable instruments in the country's currency. These may include both equity and debt instruments, not only in the country's domestic markets but also in foreign markets, including, of course, the foreign firms' own countries' markets. The volume of foreign issuance in the domestic market may, of course, be regulated by the country's government, as long as it does not discriminate against foreign issuers. If issued in the country's domestic markets, those instruments must, of course, conform to domestic law, and disputes must then be adjudicated in that country's domestic courts. If issued abroad, they must conform to the laws of the countries in which they are issued, and disputes must be adjudicated in those countries' courts.

Fifth, the issuing country's own financial institutions and non-financial firms are able to issue on foreign markets instruments denominated in their country's own currency. In that case, of

⁴ There is a large literature on this subject. See, for example, Bacchetta and van Wincoop (2005), Engel (2005) and Goldberg and Tille (2006). That literature, however, has focused mainly on optimal invoicing rather than actual practice, and has taken little account of the length of time that elapses between the placing of an export order and the payment date. When that interval is short, exchange rate risk can usually be hedged in the forward market at very low cost. When that interval is long, as is the case with custom-built goods, forward cover may not be available, and the risk of an exchange rate change in the interim may affect the participants' currency preferences. The importance of this matter is illustrated by the recent announcement by COSCO Corporation, a Chinese shipbuilding firm, that it will quote new contracts in renminbi (*Beijing Review*, 1 May 2008).

⁵ The reporting of reserve composition is voluntary, and countries that do not report accounted for almost 38% of total currency reserves in mid-2008. (It may safely be inferred from the size of this percentage that China and some of the large oil-producing countries belong to that group.) The IMF's tabulation, moreover, does not include the currency composition of assets held by sovereign wealth funds.

course, those instruments must conform to the laws of the country in which they are issued, and disputes must then be adjudicated in that country's courts.

Sixth, international financial institutions, such as the World Bank and regional development banks, are able to issue debt instruments in a country's market and to use its currency in their financial operations. This may not directly benefit the country involved, although it will provide domestic financial institutions with a larger supply of highly rated securities.

Lastly, the currency may be included in the "currency baskets" of other countries, which they use in governing their own exchange rate policies. But that is also true of currencies that do not qualify as international currencies.

Currency internationalisation in Asia

Before assessing the benefits and costs of currency internationalisation, it is worth looking briefly at the extent of it in Asia. Table 2 uses a crude measure: the volume of cross-border spot foreign currency transactions reported by foreign exchange dealers and other domestic entities in each country. The first column lists their spot transactions with other countries' dealers, financial institutions and non-financial entities as a percentage of their total spot transactions, while the second column extracts the spot transactions of domestic dealers with the same three groups of foreign counterparties. Five countries stand out in the first column as doing most of their spot transactions with foreign entities: Singapore, Hong Kong, New Zealand, Australia and Japan. In those countries' spot markets, cross-border trades by domestic entities account for more than three quarters of all spot transactions. By contrast, in most of the other countries listed, cross-border transactions typically account for some 40% of all spot transactions, with Malaysia and Taiwan at the high end of this group and China at the very bottom. A similar pattern obtains with regard to cross-border transactions by dealers. Here, Singapore, New Zealand, Japan, and Hong Kong top the list, with Australia, Taiwan and Indonesia not very far behind.⁶

Yet the percentages in Table 2 cannot measure decisively the relative degree of currency internationalisation. The ranking of transactions with foreign counterparties, especially dealers' transactions, is bound to be affected by cross-country differences in patterns of payment for exports and imports of goods and services, even the volume of emigrants' remittances to family members left behind in their home countries.

⁶ Although Japan ranks high in both columns of Table 2, whereas China ranks low, this paper pays scant attention to the internationalisation of the yen and much attention to the internationalisation of the renminbi. The first reason for this is that Japan's relative role in the world economy is apt to decline relative to that of China, partly for demographic reasons. The second is that most of the literature on the internationalisation of the yen was published several years ago, suggesting a decline in interest in the subject. Furthermore, the focus of Japan's economic diplomacy has come to rest on regional monetary cooperation in Asia, rather than the unilateral internationalisation of the Japanese currency. There is, by contrast, a rapidly growing literature on the internationalisation of the renminbi.

Table 2
Cross-border Spot Transactions by Domestic Entities
 (percentages of total trading)

Country	All Domestic Entities	Domestic Dealers
Australia	76.1	79.3
China	2.3	0.0
Hong Kong	86.0	91.1
India	42.1	41.5
Indonesia	43.4	72.8
Japan	75.9	92.8
Korea	36.5	38.8
Malaysia	50.4	62.3
New Zealand	78.6	94.2
Philippines	18.0	94.1
Singapore	90.1	95.2
Taiwan	49.2	77.8
Thailand	42.6	66.3

Source: Based on data from the April 2007 BIS survey of foreign-exchange turnover.

The benefits of currency internationalisation

The benefits of currency internationalisation accrue largely to a country's private sector and are fairly obvious. Furthermore, they may be larger for a relatively small economy than for a large one. First, internationalisation gives the country's exporters an opportunity to limit exchange rate risk, and this benefit may be significant in the case of goods for which payment is made long after the goods are ordered.⁷ Insofar as the internationalisation of their country's currency broadens and deepens the markets for it, domestic firms may be more readily able to invoice their exports in their own currency, thus shifting exchange rate risk to their foreign customers. Second, it permits domestic firms and financial institutions to access international financial markets without incurring exchange rate risk and to borrow more cheaply and on a larger scale than they can at home. Third, internationalisation offers new profit opportunities to private sector financial institutions, although this benefit may be offset in part by the entry of foreign financial institutions into the domestic financial market, to the extent that the government permits it. Finally, a larger, more profitable financial sector may better serve the domestic non-financial sector by reducing the cost of capital and widening the set of financial institutions that are willing and able to provide it.

The benefits to the public sector and to the public at large are less obvious. Currency internationalisation may, of course, allow a country's government to finance part or all of a

⁷ See footnote 3 for a recent Asian example.

budget deficit by issuing domestic currency debt on international markets, rather than issuing foreign currency instruments. It may, likewise, allow a government to finance part, if not all, of a current account deficit without drawing down its official reserves. This benefit is not confined exclusively to reserve currency countries such as the United States, whose government debt is one of the principal reserve assets held by foreign central banks and governments. The issuance on international markets of private sector debt denominated in domestic currency can likewise finance part, or all, of a current account deficit.⁸

Some political scientists have argued that the international role of the dollar has greatly enhanced the international hegemony of the United States, and that the international role of the pound sterling has enhanced the political influence of the United Kingdom in an earlier era.⁹ Their argument has emphasised the benefits conferred by reserve currency status and, in the case of the United States, its disproportionate influence on the policies and activities of international financial institutions, such as the International Monetary Fund. It is not clear, however, that the other dimensions of currency internationalisation have enhanced the political or economic influence of the United States, and it is even less clear that the prominent role of the City of London has enhanced the political or economic influence of the United Kingdom, apart from its influence on its own colonies.

The costs of currency internationalisation

There are three potential costs to the internationalisation of a country's currency. First, it is incompatible with the simultaneous pursuit of a fixed exchange rate and a domestically oriented monetary policy. Second, a country whose currency and domestic currency instruments are widely held abroad may suffer a large depreciation of its currency if foreign holders come to believe that the country's asset prices may fall sharply. Third, internationalisation may pose new risks to the domestic financial system due to the issuance of foreign debt to a country's residents.

The first cost is akin to what Robert Mundell once described as the "impossible trinity", by which he meant a fixed exchange rate combined with unfettered capital mobility and a domestically oriented monetary policy. Currency internationalisation does not necessarily involve the removal of all restrictions on capital movements; a government may continue to impose restrictions on residents' dealings in foreign currency instruments. Nevertheless, internationalisation broadens the scope for residents and non-residents to buy and sell domestic currency instruments, limiting the ability of the central bank to influence domestic interest rates and the domestic money supply by open market operations.

This limitation is not severe in the case of the United States or the euro area, where domestic markets for government debt are very large, even though foreign holdings are also large. It may be more severe in countries with smaller debt markets relative to the size of their real economies, and they may have to forgo the use of monetary policy to influence domestic economic activity or, alternatively, abandon exchange rate stabilisation. Hong Kong has adopted the first option: the Hong Kong Monetary Authority forgoes the use of monetary

⁸ Advocates of currency internationalisation sometimes cite seigniorage as a separate benefit of currency internationalisation. It arises in the international context when a government can issue debt on foreign markets below the interest rate it must pay on debt issued domestically, or when its banknotes are widely held abroad, giving the government what amounts to an interest-free loan. Thus, China earns seigniorage to the extent that renminbi notes circulate in neighbouring countries. But it is not likely to be a significant benefit, save in the case of dollar and euro banknotes, which are widely held and used abroad, often for illicit purposes such as drug trafficking.

⁹ See, for example, Andrews (2006) and Cohen (2006); also Steil and Litan (2006).

policy to influence domestic economic activity – it exchanges unlimited quantities of Hong Kong dollars for US dollars at a firmly fixed exchange rate. Singapore has adopted the second option: the Singapore Monetary Authority relies on exchange rate changes to influence domestic economic activity, rather than relying on interest rate changes for that purpose.

The second cost is sadly familiar. A country whose domestic currency debt is widely held abroad, whether or not it was issued abroad, may suffer a large depreciation of its currency if foreign holders come to believe that the country's asset prices may fall sharply. They may sell their claims, then sell the proceeds of their sales in the foreign exchange market, causing the country's currency to depreciate. It is thus akin to the risk that arises when a country has a large foreign currency debt and its creditors come to believe that it will be unable to honour it because its foreign exchange reserves are too small – that is what happened to Thailand in 1997. Much may then depend on the way that a country with an international currency copes with a confidence problem, ie whether it allows its currency to depreciate when foreigners (and residents) reduce their holdings of domestic currency assets, or whether it holds foreign currency reserves large enough to limit the depreciation. In either case, however, foreign sales of domestic currency assets will depress their prices, and the country's domestic investors will suffer losses, even if the monetary authorities prevent the country's currency from depreciating. And the larger the foreign holdings of the country's domestic currency debt relative to the size of its financial market, the greater the potential harm to the country's domestic investors and to its domestic economy.

The third cost is the risk to the domestic financial system posed by the issuance of foreign debt to a country's own residents. This cost once seemed to be quite small but looms much larger now, as we count the cost to foreign investors of the financial tsunami that swept out from the shores of the United States in 2008, following the onset of the subprime mortgage crisis. The floating of domestic currency debt on foreign markets, one of the three forms of internationalisation listed in Table 1, may not do grave damage to the domestic financial system of the issuing country if the issuing entity defaults on its debt, although it may limit temporarily the ability of other domestic entities to issue debt to foreigners. But the issuance of foreign debt in a country's domestic market may inflict widespread damage when the issuing entity can no longer meet its obligations, even when the debt instruments involved are not widely held, because it may impair the holders' ability to meet their own obligations to other domestic financial institutions.

A fourth cost resembles the third but has broader macroeconomic implications. The issuance of foreign debt to a country's residents, as well as the issuance of domestic debt in foreign markets, may lead to more volatility in domestic interest rates and the exchange rate when global markets are hit hard by a financial crisis in a major country, even if the crisis is of lesser magnitude than the current financial crisis. There are, of course, many channels through which a crisis in a major economy is bound to affect other countries, but the internationalisation of a country's currency, whether it involves the issuance of foreign debt in a country's domestic markets or the issuance of domestic debt in foreign markets, will most certainly raise a country's vulnerability to external shocks manifest in international financial markets.

This appears to be happening to several emerging market countries that have issued foreign currency debt on international markets and, at the time of writing, are suffering sharp declines in their export earnings due to reductions in the volume and prices of their principal exports. They are likely to have grave difficulties servicing their external debts, and some may be forced to restructure those debts, including debts incurred by the private sector.

The debt crisis of the 1980s was due in large part to the inability of public sector debtors to service and repay their foreign currency debts to foreign banks. The Asian crisis of the late 1990s was due in large part to the inability of private sector debtors to service their foreign debts because their national governments had insufficient reserves. The current financial

crisis is affecting both public and private borrowers who have issued debt on international markets, and some of their countries are likely to require large-scale assistance from the International Monetary Fund and other bodies to meet their obligations. Some, indeed, have already done so.

A cautionary note may be in order here. A country with an international currency must make every effort to preserve it, as it can be hard to restore its role once it is impaired. In the years after the Second World War, New York was a major centre for the issuance of other countries' bonds. In 1963, however, the United States imposed a so-called Interest Equalization Tax on US purchases of foreign securities in order to limit capital outflows and reduce its balance of payments deficit. The unintended but long-lasting result was a migration of international bond issuance and trading from New York to London and thus a decline in the share of US financial institutions, which was not fully reversed thereafter. A country should not embark on the internationalisation of its currency and financial sector until it is confident that it can sustain its role in international financial markets.

Currency internationalisation and regional integration

There have been two collective attempts by East Asian countries to foster regional monetary integration: the Chiang Mai Initiative (CMI) of 2000 and the creation of two Asian Bond Funds (ABFs) in 2003 and 2004.

The CMI produced a network of bilateral currency swap agreements on which a participating country could draw if it encountered a balance of payments crisis. It is now in the process of multilateralisation, but a number of obdurate problems must be solved before that process is completed; they involve the governance of the swap network and the setting of the terms and conditions under which a participating country will be able to draw on the currency pool created by the multilateralisation of the swap agreements.

The two Asian Bond Funds can perhaps be viewed as modest multilateral steps towards currency internationalisation, although they were viewed primarily as measures to promote the integration of Asia's bond markets and thus compensate for the small size of the individual national markets.¹⁰ The first was a USD 1 billion fund to be used for buying dollar-denominated bonds issued by Asian governments. The second established a set of bond funds to invest and trade in local currency bonds. Both have been described as learning exercises aimed at detecting and removing obstacles to the regional integration of national bond markets.¹¹ Regional integration, in turn, was seen as a way of compensating for the small size of those markets.

Yet regional integration is not likely to proceed fast or far in East Asia. Analogies with European economic integration are common but misleading. The ASEAN countries have not yet formed a fully fledged customs union, and they are even further from forming a single market of the European sort, involving the free movement of goods, capital and labour. There has been de facto integration in Asia, but it is Sino-centric, not mainly multilateral, involving bilateral trade between China and other Asian countries. Fully fledged integration of the European sort cannot take place, even among a subset of the ASEAN countries, unless and until those countries are willing and able to create supranational institutions of the sort that Europe began to create soon after the Second World War. The multilateralisation of the CMI

¹⁰ On the small size of Asian bond markets and the reasons for it, see Eichengreen and Luengnaruemitchai (2004).

¹¹ See Ma and Remolona (2006).

may be a first tentative step in that direction, but only if the participating countries can agree to be bound by collective decisions rather than retaining the right to decide individually whether or not their countries' currencies can be used to assist another member country. When one looks beyond ASEAN, moreover, the prospects for fully fledged economic integration in East Asia become even dimmer.¹²

Achieving internationalisation

The obstacles to regional integration summarised above suggest that Asian countries can and should follow a different path, linking themselves individually to the global economy rather than focusing on regional integration, and currency internationalisation can play a role in that process, as it has for Australia and New Zealand.¹³ In the mid-1970s, Australian borrowers began to issue bonds offshore denominated in Australian dollars, but the individual issues were relatively small and resembled private placements. The volume and size of the bond issues did not begin to grow until 1983, when Australia allowed its currency to float and dismantled its exchange controls. Furthermore, the issuers included foreign as well as Australian entities. In 2005, for example, the three largest issues were floated by the New South Wales Treasury, the World Bank and a Dutch bank. In recent years, moreover, foreign borrowers have issued bonds in the Australian market denominated in Australian dollars (the so-called kangaroo bonds).

It must be emphasised, however, that the success of Australia as an issuer of eurobonds and host to the issuance of foreign bonds in its domestic market was facilitated by the existence of a well developed foreign exchange market, including, importantly, a swap market. The size and quality of that market may owe much to Australia's role as an exporter of standardised commodities priced in US dollars.

Although other Asian countries do not have this helpful attribute, Hong Kong and Singapore have well developed financial and foreign exchange markets, and could come to serve as entrepôts for the floating and trading of bonds issued by other Asian countries, especially renminbi bonds issued by financial institutions and non-financial firms, much as Hong Kong and Singapore now serve as entrepôts for the merchandise trade of Asian countries. There is already a renminbi bond market in Hong Kong. The growth rate of activity in that market, however, will depend on the willingness of the Chinese government to give Chinese banks and other private sector borrowers unrestricted access to that market, and on the speed with which potential borrowers become more creditworthy than they are today.¹⁴

Conclusion

Internationalisation is not an inevitable consequence of financial liberalisation, nor can a government guarantee that the steps it takes to liberalise its country's capital account will lead inevitably to internationalisation. Yet internationalisation may be a spur to the strengthening of the domestic financial system and enrich the menu of financial assets available to domestic investors. It may also allow domestic firms and financial institutions to

¹² The views expressed in this paragraph are developed more fully in Kenen and Meade (2008), Chapter 6.

¹³ The discussion that follows draws heavily on McCauley (2006).

¹⁴ This possibility is suggested by Chen and Peng (2007). Eichengreen (2006) goes further, suggesting that Hong Kong may eventually substitute the renminbi for the Hong Kong dollar.

borrow abroad at lower cost and in significantly larger amounts than may be available domestically. Finally, it will be a spur to the further development of the domestic financial system. It is, in short, a financial counterpart to the internationalisation of the real economy that has occurred with remarkable speed in so many East Asian countries.

The internationalisation of Asian currencies may be delayed by the severe international financial crisis that erupted in 2008, especially the floating of international bond issues. But the crisis need not delay the increased use of Asian currencies for the invoicing of Asian exports; it could indeed accelerate that process, as Asian firms seek to hedge against large movements in the currencies of their trading partners. As the crisis subsides, moreover, the process of internationalisation can be expected to resume.

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