China's Strategy for Developing Its Currency

Lawrence J. Lau, Ph. D.

Ralph and Claire Landau Professor of Economics, The Chinese Univ. of Hong Kong and

Kwoh-Ting Li Professor in Economic Development, Emeritus, Stanford University

The Future of RMB in the Global Financial Markets The Potential of the London and Hong Kong Offshore RMB Centres London, 14th June 2012

Tel: (852)3550-7070; Fax: (852)2104-6938

Email: lawrence@lawrencejlau.hk; WebPages: www.igef.cuhk.edu.hk/ljl *All opinions expressed herein are the author's own and do not necessarily reflect the views of any of the organisations with which the author is affiliated.

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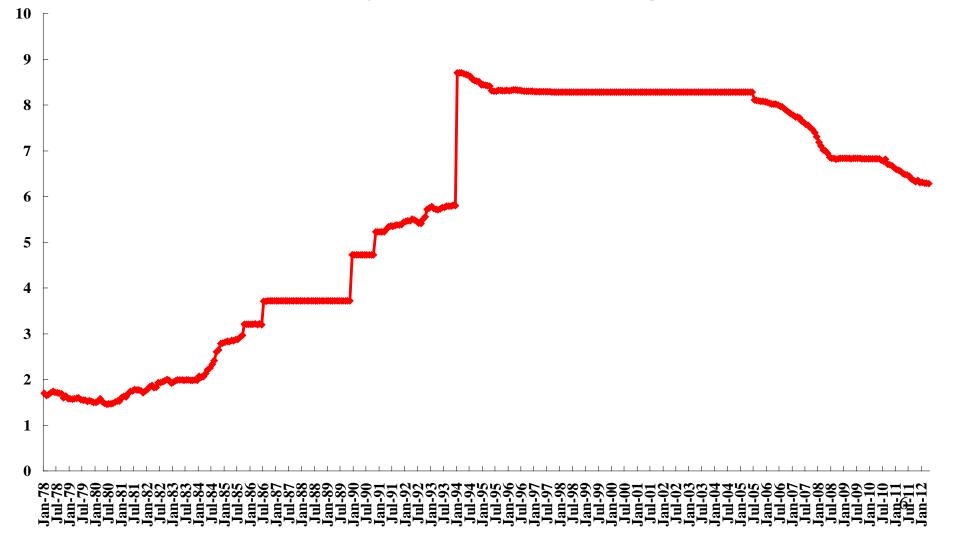
- China has made tremendous progress in its economic development since it began its economic reform and opened to the World in 1978.
- Between 1978 and 2011, Chinese real GDP grew almost 22 times, from US\$333 billion to nearly US\$7.5 trillion, in 2011 prices to become the second largest economy in the World, after the U.S.
- By comparison, U.S. GDP, at US\$15.1 trillion, was approximately 2 times Chinese GDP in 2011.

- Despite its rapid growth, China is still a developing economy in terms of its real GDP per capita.
- Between 1978 and 2011, Chinese real GDP per capita grew 15 times, from US\$346 to US\$5,555, in 2011 prices. By comparison, the U.S. GDP per capita. at US\$48,236, was approximately 8.7 times Chinese GDP per capita in 2011.
- In 2011, China became the second largest trading country in the world, after the U.S., with total trade amounting to US\$3.64 trillion. It was also the largest exporting country, with exports of US\$1.90 trillion and the second largest importing country, with imports of US\$1.74 trillion, also after the U.S.

- The Renminbi has been current accounts (including trade in both goods and services) convertible since 1994, when China undertook a major foreign exchange policy reform, coupled with a significant devaluation at the time.
- The Renminbi has also over time become essentially long-term capital accounts convertible. Capital movements related to inbound and outbound foreign direct investment, and foreign portfolio investment in the forms of "Qualified Foreign (or Domestic) Institutional Investor (QFII or QDII)" as well as the repatriation of principal and profits are readily approved.
- However, it has not yet become fully short-term capital accounts convertible. There still exist both inbound and outbound controls on capital movements perceived to be short-term in nature in China. 5

The Nominal Yuan/US\$ Exchange Rate, 1978-Present

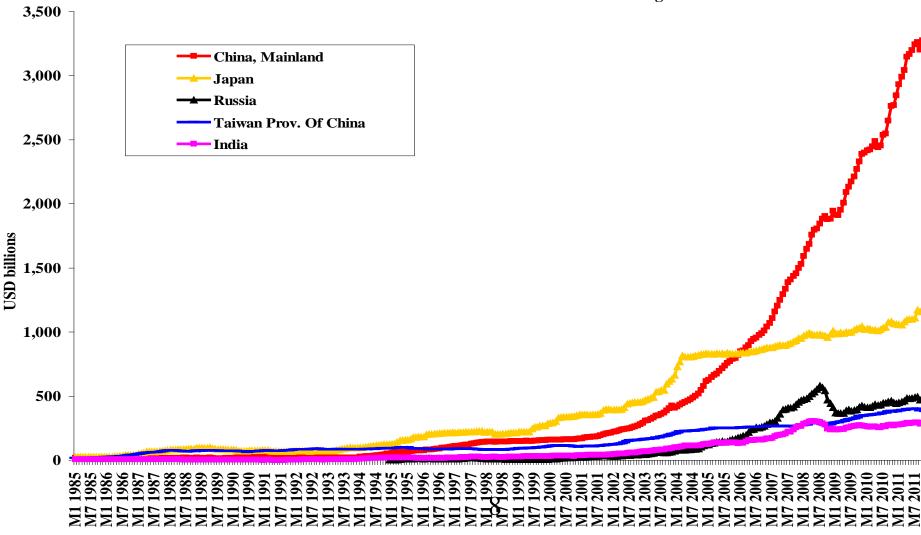
Nominal Exchange Rate of the Renminbi, Yuan/US\$, 1978-present



- Today, the People's Bank of China, China's central bank, has the World's largest foreign exchange reserves, in excess of US\$3.2 trillion, with the Bank of Japan a distant second.
- It is also the largest foreign holder of U.S. Treasury securities, at over US\$1 trillion at the end of 2012Q1.

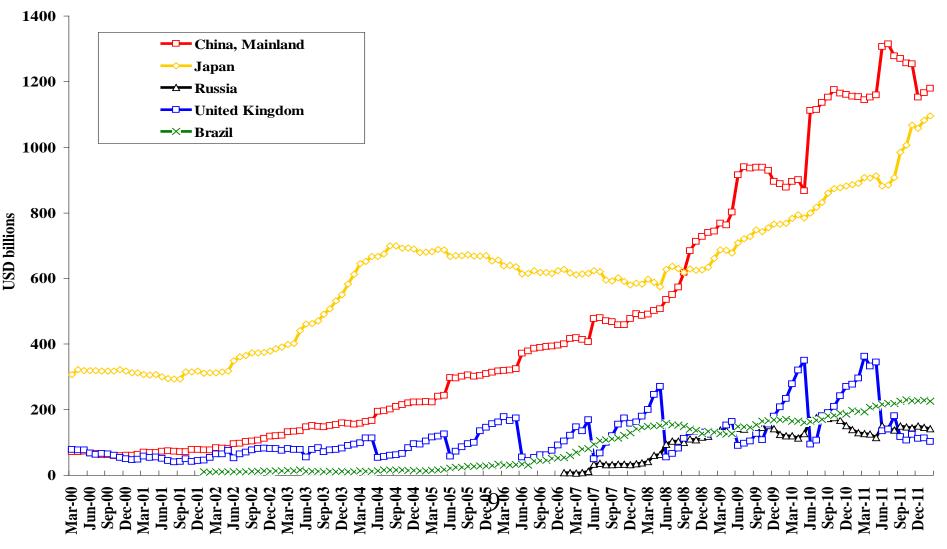
Total Foreign Exchange Reserves minus Gold, Selected Countries and Regions

Total Reserves minus Gold of Selected Countries and Regions



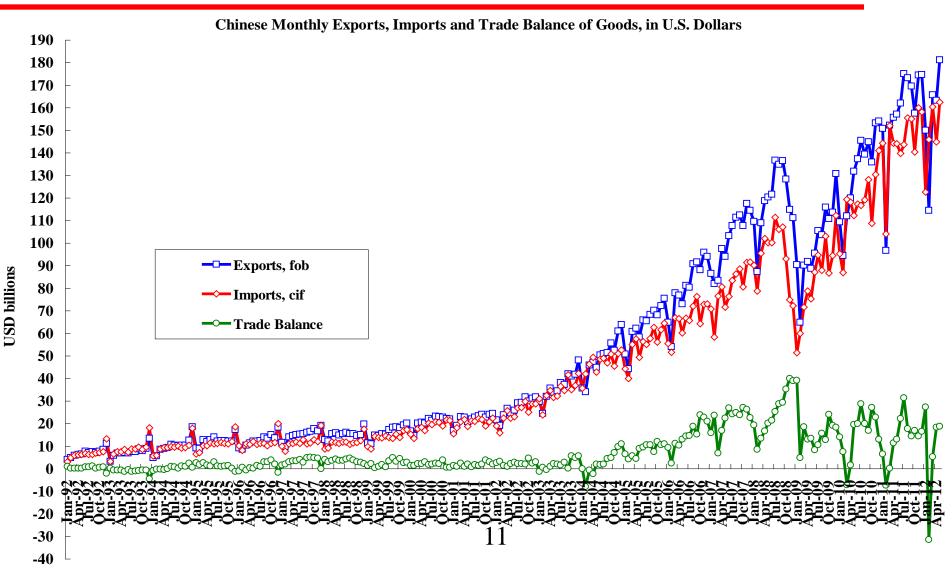
Major Foreign Central Banks' Holdings of U.S. Treasury Securities

Major Foreign Central Bank's Holders of U.S. Treasury Securities



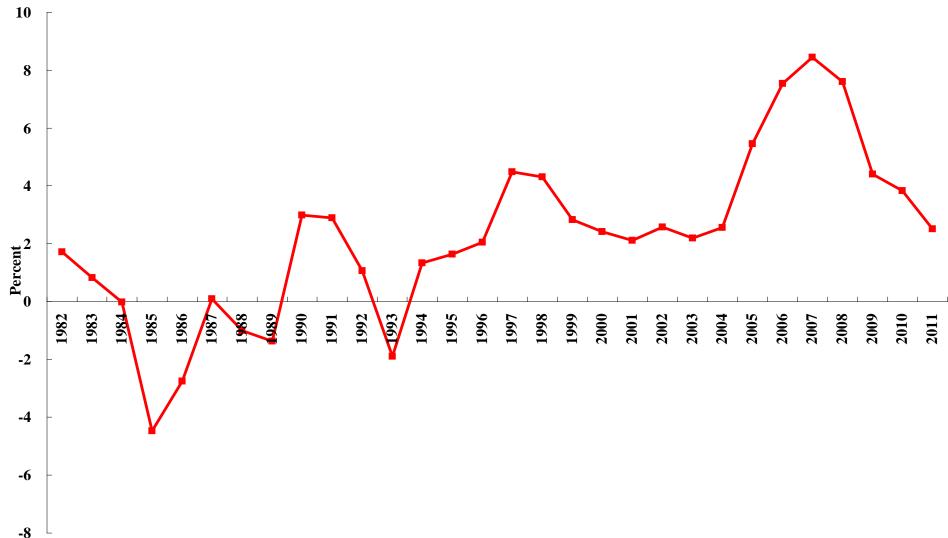
- Much of the Chinese foreign exchange reserves has been built up through its trade surpluses vis-a-vis the World since 2005, through income earned abroad, and through foreign investment and hot money inflows. It should be noted that China did not have much of a trade surplus vis-a-vis the World only a relatively modest level of foreign exchange reserves before 2005.
- The Chinese trade surplus began to decline in 2008, to just 2 percent of its GDP in 2011. If current trends continue, the goal of essentially balanced international trade can probably be achieved no later than 2015, as provided by China's Twelfth Five-Year (2011-1015) Plan, without necessarily any large adjustment in the nominal Yuan/UaS. Dollar exchange rate. ¹⁰

Chinese Monthly Exports, Imports and Trade Balance, US\$ Billions



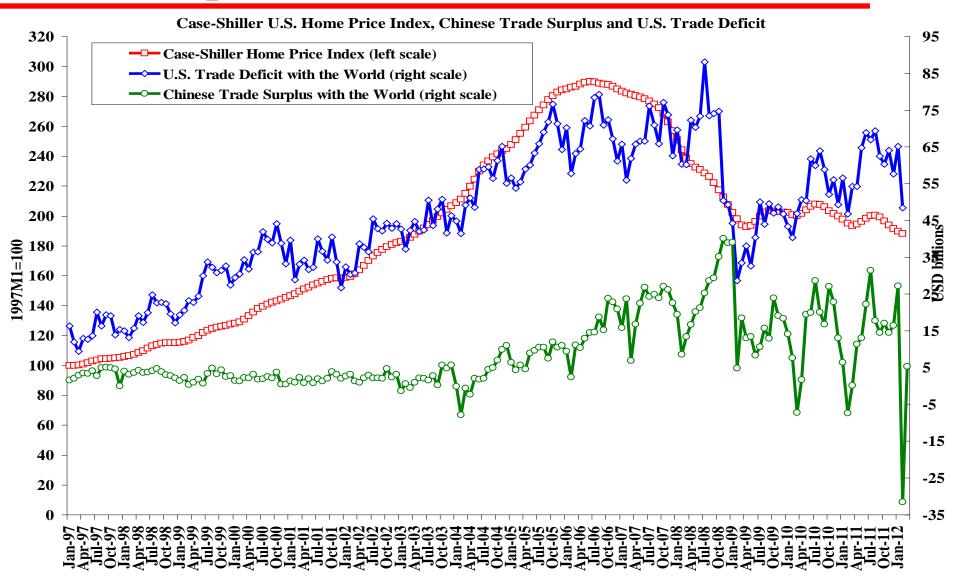
Chinese Trade Balance of Goods & Services as a Percent of GDP, 1982-

Chinese Trade Balance of Goods and Services as a Percent of GDP



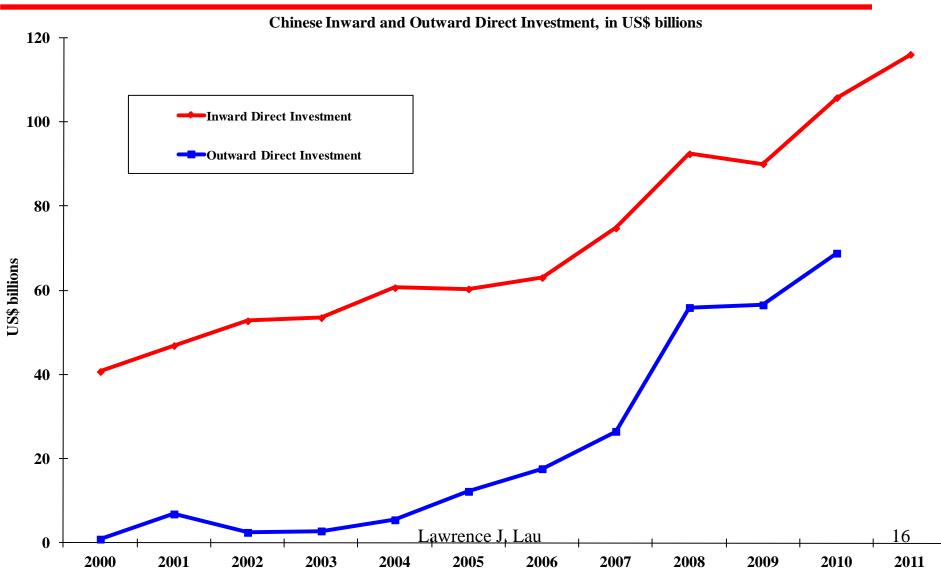
- There have been allegations that the Chinese trade surpluses were the source of global imbalances that caused the global financial crisis.
- However, this was not possible as the U.S. housing price bubble, as measured by the Case-Shiller U.S. Home Price Index, already began to rise in the late 1990s, reaching a peak in 2006, whereas China only began to have a significant trade surplus in 2005, which continued rising until 2008.
- Moreover, the Case-Shiller U.S. Home Price Index correlates almost perfectly with the U.S. trade deficit vis-avis the World.

Case-Shiller U.S. Home Price Index, Chinese Trade Surplus & U.S. Trade Deficit, Bill. US\$



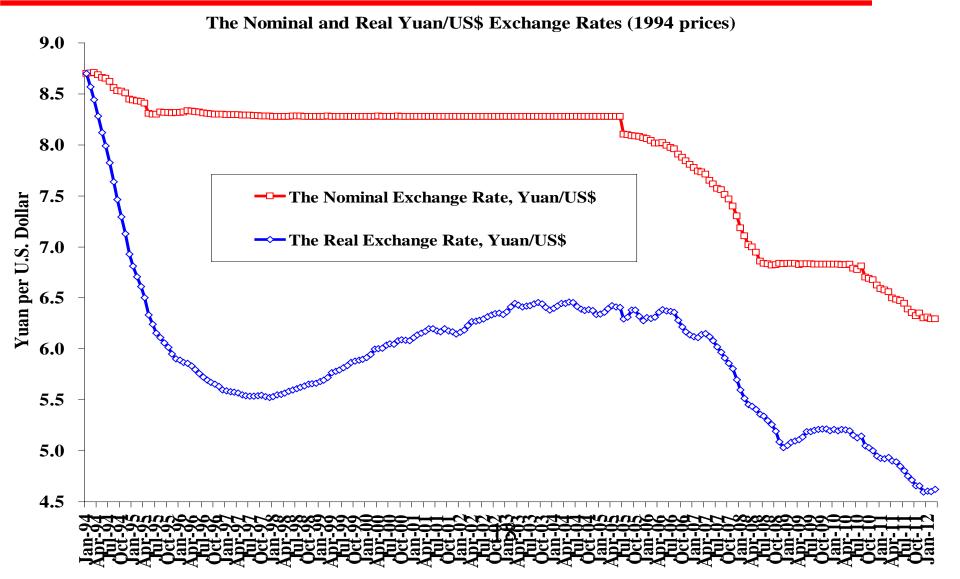
 Chinese outbound investment, both direct and portfolio, has also been increasing since the mid-2000s. If current trends continue, China may well become a net foreign direct investor in a couple of years, reversing the direction of one of the sources of increase of its foreign exchange reserves. • China may also become a net foreign portfolio investor in time as channels for Chinese portfolio investment overseas increase (including "Qualified Domestic Institutional Investors," an International Board on the Shanghai Stock Exchange, and Exchange-Traded-Funds (ETFs)). Chinese investors can benefit from a one-time geographical diversification of their investment portfolios given the opportunity. Lawrence J. Lau 15

Chinese Inbound and Outbound Direct Investment, in US\$ Billions



Partly in response to the trade surpluses vis-a-vis the World, the Renminbi/US\$ exchange rate has been appreciating in both nominal and real terms since mid-2005, interrupted briefly by the intensified continuation of the global financial crisis brought about by the collapse of Lehman Brothers in September, 2008. Cumulatively, the Renminbi has appreciated, in real terms, more than 30% since mid-2005.

The Nominal and Real Yuan/US\$ Exchange Rates



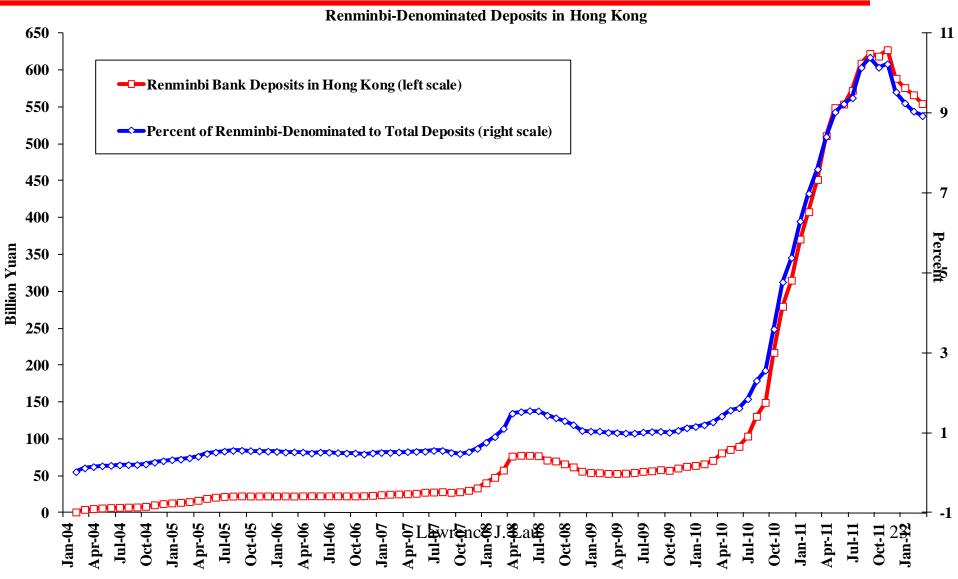
- Since China began its economic reform and opening in 1978, the U.S. Dollar has been used as the principal medium of exchange for Chinese cross-border transactions.
- In fact, the U.S. Dollar has been used as the principal medium of exchange for almost all cross-border transactions in East Asia.
- This is because very often two trading partner countries do not wish to accept each other's currency, but both will accept the U.S. Dollar. So that short of strict bartering, in the absence of the U.S. Dollar, their trade will not take place. Thus, the U.S. Dollar, as a medium of international exchange, provides a genuinely useful service, enabling trade that otherwise would not have occurred.

- The willingness to accept and to hold a non-local currency depends on whether the currency is convertible, but it does not need to be fully or freely convertible, in the sense of a total absence of capital controls on the part of the non-local currencyissuing country.
- A person or a firm may be quite willing to accept and to hold a non-local currency, fully convertible or not, if he (it) knows that the next person (firm) he (it) comes across is also likely to accept the currency.
- And the more people there are who accept a currency, the more additional people there will be who are also willing to accept the currency. This is known as a "network" effect or externality. The U.S. Dollar benefits from this an network" externality.

• Thus, even though the Renminbi is not de jure fully or freely convertible, it has gradually become de facto convertible in some economies in East Asia because of its wide general voluntary acceptance. The Renminbi is today widely accepted and used in Hong Kong, Macau, Laos, Myanmar, and other border areas as a medium of exchange and a store of value even though it is not legal tender in these places. Chinese visitors to Hong Kong use the Renminbi freely in the streets to pay for goods and services. • One reason for the high degree of confidence in the Renminbi in these countries and regions is the high level of Chinese foreign exchange reserves. If necessary, the Renminbi will ultimately be redeemable in terms of a "hard" foreign currency such as the US\$ and the Euro. In any case, the Renminbi is accepted and used by at least 1.34 billion people.

- In Hong Kong, Renminbi bank deposits held by its residents, including both individuals and firms, have grown rapidly in the past couple of years to almost 9% of total bank deposits in all currencies, attesting to the willingness of Hong Kong residents to accept and to hold the Renminbi (see the following Chart).
- Thus, the elimination of all forms of capital controls has not been necessary for the Renminbi to be used as a medium of exchange and a store of value outside Mainland China. There can be wide general acceptance of the Renminbi even in the absence of its full convertibility.

Renminbi-Denominated Deposits in Hong Kong, Billion Yuan



- Similarly, whether a currency can be used in the denomination and settlement of international trade and capital transactions depends on its acceptability to the parties of the transactions. It will be acceptable if there are other ready potential users of the currency.
- Thus, for example, an overseas exporter to China may be quite willing to accept Renminbi as payment as long as it knows that importers of Chinese goods and services in its country can use the Renminbi balances to pay for the imports.
- A non-local currency will be even more acceptable if the central bank issuing the currency is committed to its redemption or exchange into other "hard" currencies such as the US\$, Euro or Yen, with other central banks through prior agreements.

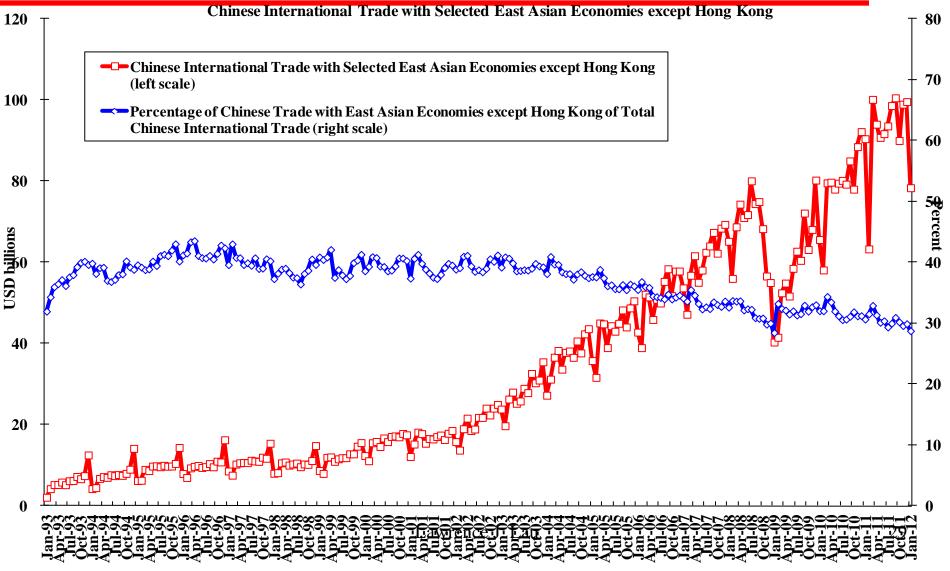
- Chinese exporters and importers in selected provinces, municipalities and regions have been permitted to settle their cross-border trade transactions in Renminbi in Hong Kong since 2009 on a voluntary basis, by mutual agreement between the exporter and the importer in each case. The practice has been extended to the whole of Mainland China by the end of 2011.
- More recently, the use of own local currencies of the trading partner countries for settlement of international trade transactions, for example, among China, Japan and South Korea, has also become an option.

- Settlement in Renminbi is welcomed by both exporters and importers because it reduces transactions costs and exchange rate risks. For example, an importer on the Mainland can pay an exporter in Thailand directly in Renminbi, without having to convert it into U.S. Dollars first and hence also without having to assume any exchange rate risk. While it is true that a Thai exporter may have to convert the Renminbi into Thai Baht, there is only one currency conversion, from Renminbi to Baht, instead of two currency conversions, first from Renminbi to US\$ and then from US\$ to Baht.
- Moreover, the Thai exporter may prefer to denominate its exports to China and settle in Renminbi, because the Renminbi is expected to appreciate relative¹ to^u the US\$ over time.

- Similarly, an exporter on the Mainland may prefer to denominate and settle in Renminbi because it reduces both transactions costs and exchange rate risk.
- One may raise the question of why importers elsewhere will want to agree to denominate and settle their imports from China in Renminbi since it is expected to appreciate over time. However, if the importers in a country are faced with the choice between denominating and settling in Renminbi or denominating and settling in U.S. Dollars but at a 3 percent higher price, they may well want to consider the Renminbi option, especially if exporters in that country can generate Renminbi balances that can be used by the importers to pay for the imports, 27

- Approximately US\$1.11 trillion, or 30%, of Chinese international trade is conducted with East Asian economies other than Hong Kong. (Hong Kong is a major export destination of Mainland China; however, a large proportion of its imports from China is re-exported from Hong Kong to other destinations around the World.)
- Potentially, the Renminbi can be used as a settlement currency by Chinese exporters and importers with their trading partners in East Asia on a voluntary basis. With some of the trading partners such as Japan and South Korea, the invoicing and settlement currency can become one of the own local currencies of the trading partners, selected by agreement between the exporter and the importer themselves. With other trading partners, the choice will most likely be between the US\$ and the Renminbi.

Chinese International Trade with East Asian Economies except Hong Kong

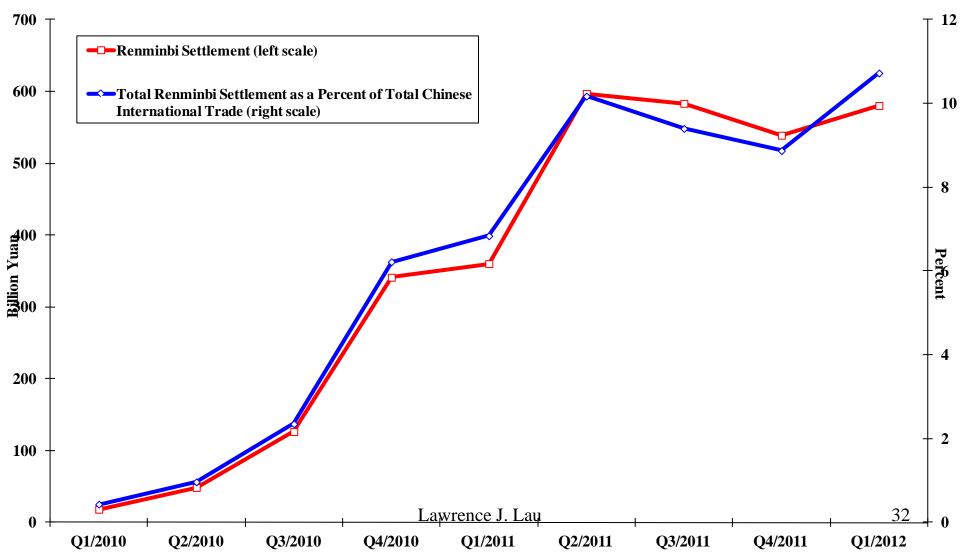


- If part of the Chinese imports from East Asia can be invoiced and settled in Renminbi, the requirement of foreign exchange reserves for transaction purposes at the People's Bank of China, especially U.S. Dollars, can be significantly reduced; and the People's Bank will be able to reduce its holdings of foreign exchange reserves.
- Similarly, Chinese exports to East Asia can also be invoiced and settled in Renminbi. To the extent that the importers in these East Asian economies can obtain Renminbi (for example, from their exporters), they may also be willing and able to pay for their imports from China in Renminbi.
- If all of this happens, the US\$ assets held in the foreign exchange reserves of the East Asian central banks and monetary authorities for transactions <u>purposes</u> can also be reduced.

The proportion of Mainland Chinese international trade settled in Renminbi has grown rapidly, from almost nothing in 2010Q1 to over 10% by 2012Q1 (see the following Chart). In absolute value, some US\$350 billion of Chinese international trade is now settled in Renminbi annually. • This proportion may be expected to increase further in the future, especially as a bureaucratic problem having to do with VAT tax rebates for Chinese exports that in effect prevented some Chinese exporters from accepting Renminbi for payment has been resolved.

Renminbi Settlement of Cross-Border Trade, Billion Yuan and Percent

Renminbi Settlement of Cross-Border Trade

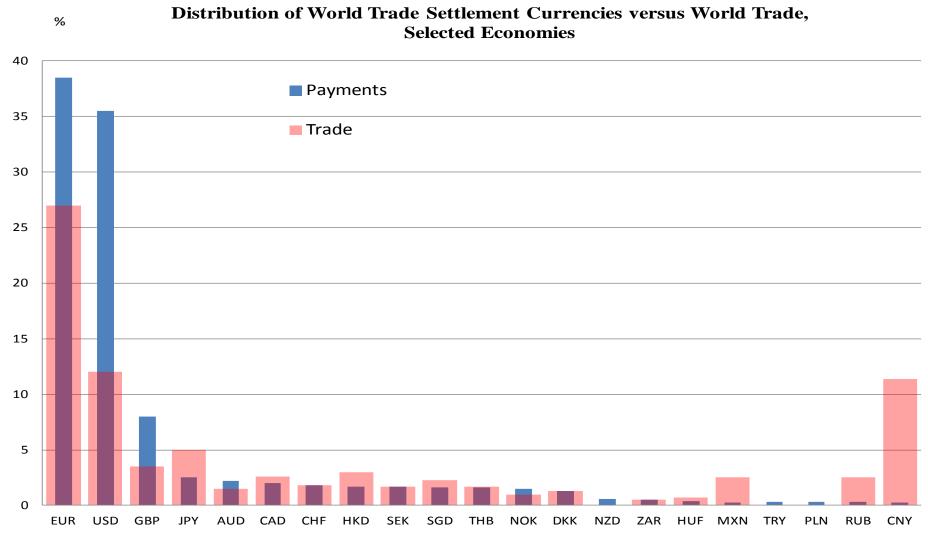


• Thus far, trade settlement in Renminbi is predominantly for Chinese imports. In order for Renminbi settlement to be more widely used by Chinese exporters, overseas importers must be able to have access to Renminbi themselves. This will take some time but as exporters to China in these economies choose to be paid in Renminbi, their Renminbi balances will in principle be available for the importers. • Moreover, as mentioned above, it can be anticipated that Chinese exporters will eventually offer two prices—one in Renminbi and one in U.S. Dollars (which would take into account the expected appreciation of the Renminbi) for overseas importers to choose so as to minimise their exchange rate risks.

- Currently, the cost of hedging against exchange rate fluctuations of the Renminbi is high and can only be done in the non-deliverableforward market (for example, in Singapore) and only for relatively short durations.
- This is yet another reason why even though it is now possible for the settlement of Chinese trade transactions in Renminbi, only a relatively small proportion, 10%, of Chinese trade is denominated and settled in Renminbi.
- The use of the Renminbi as a trade settlement currency may be facilitated by an offshore (deliverable) forward market for Renminbi established by or under the authority of the People's Bank of China with participation restricted to bona fide exporters and importers to and from China with active current-account transactions.

- There is actually plenty of room for the expansion of the use of Renminbi for cross-border trade settlement by Chinese exporters ad importers.
- In the following chart, the share of each major country in world trade is compared to the share of its currency used in world trade settlement in 2010. Even though China accounted for more than 10% of world trade, Renminbi accounted for less than 1% of world trade settlement, while the U.S. had a similar share of world trade as China, the U.S. Dollar accounted for more than 35% of world trade settlement.
- In this regard, the Japanese Yen was also under-represented in terms of its use as a settlement currency relative to its share of world trade—approximately half of Japanese international trade is settled in Japanese Yen (other sources suggest an even lower percentage—32%).

Distribution of World Trade Settlement Currencies versus World Trade

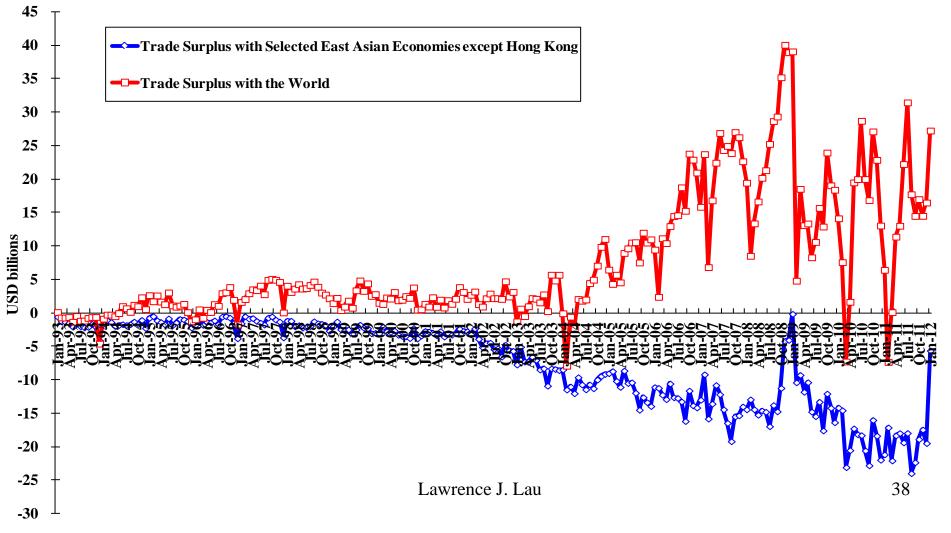


Source: SWIFT Value Analyser. Trade (import/export) 2010, in value., WTO working paper, Daiwa

- It is also possible for the Renminbi to be used for the settlement of some cross-border transactions among East Asian economies eventually because almost all of them have large trade surpluses vis-à-vis Mainland China and hence will have ample supplies of Renminbi to settle trade transactions among themselves potentially if they so choose.
- However, if trade settlement in Renminbi becomes a widespread practice among East Asian economies, it may also lead to an increase of the demands of these central banks for Renminbi-denominated assets to be held as part of their foreign exchange reserves.

Chinese Trade Surplus with the World and East Asian Economies except Hong Kong

Chinese Trade Surplus vs. Chinese Trade Surplus with Selected East Asian Economies except Hong Kong



◆ If other East Asian economies, such as Hong Kong, Indonesia, South Korea, Malaysia, Singapore and Thailand, begin to use either their own local currencies or the Renminbi as their settlement currency for trade amongst themselves, it would further reduce the demand for U.S. Dollars for international transactions purposes and hence the proportion of the foreign exchange reserves that the central banks or monetary authorities of these economies hold in terms of U.S. Dollar-denominated assets.

- The use of the Renminbi for the denomination and settlement of Chinese cross-border trade and capital transactions will gradually become very common, to the point that it may cover almost all of Chinese international trade with East Asian economies with the possible exceptions of Japan and South Korea. Chinese trade with East Asian economies other than Hong Kong in 2011 was US\$1.1 trillion.
- Chinese trade with the United States and Europe, with most oil exporting countries in the Middle East, and with India and Russia, will probably continue to be denominated mostly in either the U.S. Dollar or the Euro.
- Chinese trade with Africa and Latin America may well be partially denominated in Renminbi, especially Africa, as China becomes the major source of development^Lavidⁿand-⁴bans to Africa.

- An alternative to the denomination and settlement of international transactions in a international reserve currency such as the U.S. Dollar is the denomination and settlement in the own currencies of the trading partner countries.
- In May 2011, the Ministers of Finance of China, Japan and South Korea, meeting on the sidelines of the Asian Development Bank annual meeting in Hanoi, issued a statement to the effect that they would study the use of their own currencies in trade settlement with one another.

China, Japan and South Korea, if they so wish, can denominate and settle international trade transactions among themselves in their own respective currencies. For example, on an entirely voluntary basis, Chinese exporters to Japan can quote their prices and invoice in either Chinese Yuan or Japanese Yen, as may be mutually agreed individually between them and the Japanese importers. The same applies to Japanese and Korean exporters—each of them can choose to invoice in the own currencies of either the exporting or the importing country.

Trade settlement in the own currencies of the trading partner-countries is straightforward if the bilateral trade is basically balanced. A problem arises only when there are persistent surpluses or deficits. The central bank of the surplus country will wind up holding the currency of the deficit country. What can be done to reassure the surplus country that it will not lose out by holding the currency of the deficit country for more than a short term?

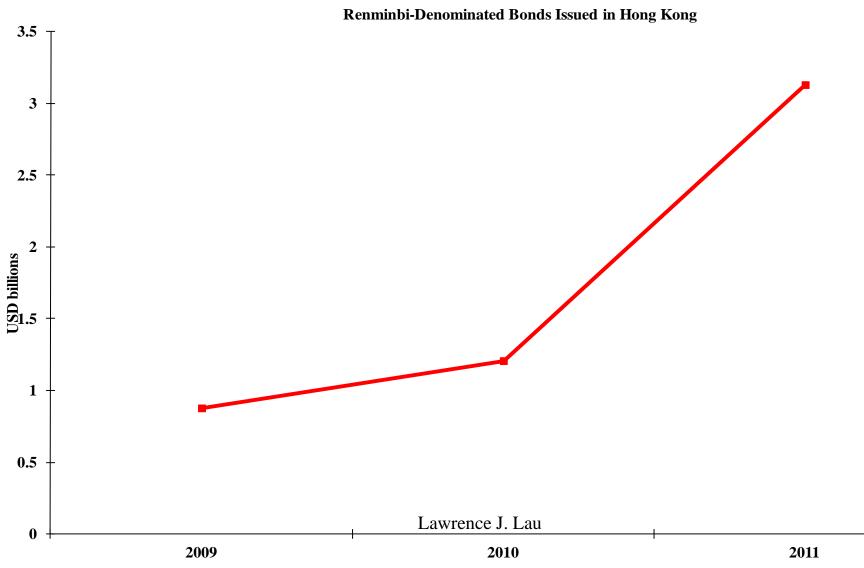
What is needed are credible commitments through mutual agreements by the respective central banks concerned to convert the currencies of their respective countries presented by another central bank into U.S. Dollars or Euros or any other so-called "hard" currencies, or even gold at a pre-agreed parity, or its own inflation-indexed bonds. • With such assurances, central banks will feel comfortable holding the currencies of the other countries for potential

transactions purposes.

- The benefits to China and its trading partner countries of using either the Renminbi or the latter's own local currency as an invoicing and settlement currency for cross-border transactions include:
- (1) Reduction of the transactions costs of cross-border transactions (one currency conversion rather than two);
- (2) Reduction of foreign exchange risk for exporters and importers of goods and services (one less currency risk);
- (3) Reduction of foreign exchange reserves held for liquidity and transactions demand purposes.
- The Yen and the Renminbi and some other East Asian currencies have come of age, just as the Western European currencies recovered in the aftermath of World War II—it is no longer necessary to rely on a third currency for invoicing and settlement purposes.

- Less straightforward is the use of the Renminbi as an international funding currency—that is, as a currency for loans and equity investment and other capital-raising exercises by individuals and firms in other countries. This will have to develop gradually and voluntarily.
- There have been Renminbi-denominated bond issues in Hong Kong by the Chinese Government, Chinese enterprises and foreign enterprises (the so-called "Dim Sum" bonds). (See the following Chart.) This market is likely to continue to grow in the future.

Renminbi-Denominated Bonds Issued in Hong Kong



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- However, the expansion of this offshore market may be constrained by a number of factors.
- First, since the Renminbi is expected to appreciate relative to the U.S. (and hence Hong Kong) Dollar in the long run, it is risky for a borrower to borrow in Renminbi unless it has or expects to have a stable source of revenue denominated in Renminbi, such as direct investors in the Mainland.

• Second, the Renminbi funds raised offshore do not automatically qualify to be repatriated to the Mainland to be used there. A specific approval by the People's Bank of China is required. Thus, even though the rate of interest for Renminbi in Hong Kong is much lower than that on the Mainland, there is not as much interest rate arbitrage as one may expect. Repatriation of Renminbi funds raised offshore back to the Mainland is regulated because it may disrupt the credit markets on the Mainland by virtue of the significantly lower rate of interest offshore, by at least 300 basis points.

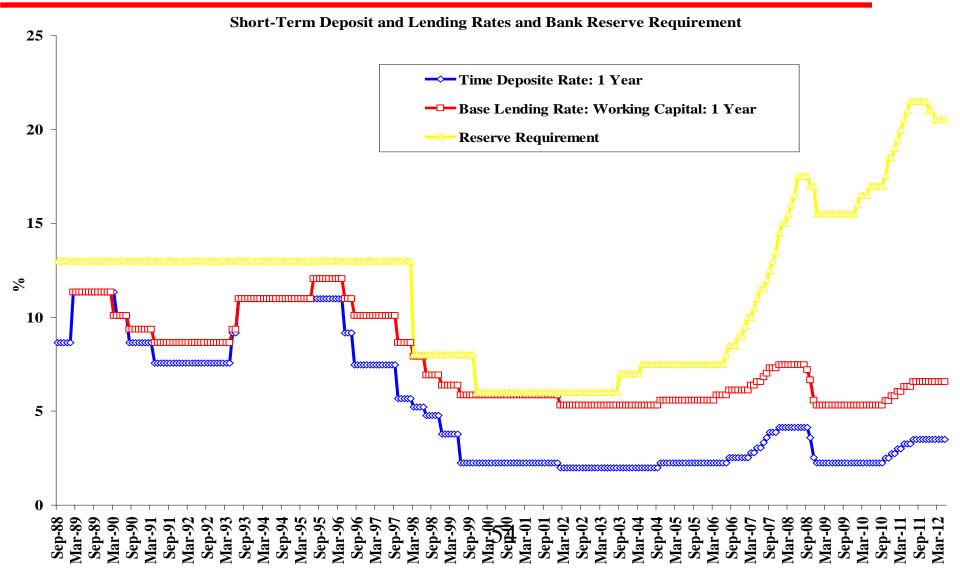
- Third, the pool of Renminbi deposits in Hong Kong is tiny relative to the overall Renminbi deposits. Renminbi deposits in Hong Kong amount to approximately US\$100 billion compared to a total Renminbi deposit base of US\$13 trillion on the Mainland. There is therefore a limit to how large the potential market for Renminbi funding in Hong Kong can become. • Thus, in the foreseeable future, the onshore and the offshore markets will likely remain reasonably segregated. Foreign firms interested in obtaining Renminbi funding to use on the Mainland are should consider raising it on the Mainland through equity or
 - bond issues or through loans if they cannot obtain prior approval for repatriation of offshore Renminbi.

• Until June of 2012, the China Banking Regulatory Commission has been setting maximum deposit and minimum lending rates on the Mainland, guaranteeing an interest rate spread of some 300 basis points for Chinese commercial banks. These maximum and minimum rates have now been relaxed, so that in principle, deposit rates can be increased to match the rate of inflation, which is a good thing. However, it is not likely that the "average" lending rate will come down much because of the chronic excess demand for credit in China.

- One reason why interest rate liberalisation per se in China may not necessarily lead to an efficient outcome—that is, with credit going to those most deserved—is the chronic excess demand for loans. If a borrower does not plan on repaying a loan when a project funded by the loan fails, his demand for the loan will be higher than otherwise. A high interest rate is not a deterrent to such borrowers.
- Such borrowers include those who are only agents acting for principals since agents do not need to suffer the full consequences of a bad outcome. They also include state-owned enterprises, with any bad loans made good by the government eventually. They also include borrowers who are heavily leveraged.

- The fact that the Chinese commercial bank reserve requirement has been raised to such a high level, over 20%, is evidence that a high interest rate alone is insufficient to discourage the demand for credit. In fact, under existing rules, lenders can already charge up to four times the minimum lending rate if they wish to do so.
- Another piece of evidence is the common practice of "relending" by enterprises that can obtain credit from banks to other enterprises that cannot at much higher rates of interest.

Short-Term Deposit and Lending Rates and Bank Reserve Requirement



- The chronic excess demand for credit in China also provides an explanation of why "interest rate parity" may not be expected to work in China. In principle, in the absence of capital controls, the rate of interest in China should be equal to the rate of interest in the U.S. less the expected rate of appreciation of the Renminbi relative to the US\$, so that the rate of interest in China should be lower than that in the U.S.
- Granted that there are still capital controls in China, so that the conditions for "interest rate parity" are not fully satisfied, the Chinese rate of interest has been and remains considerably higher than the U.S. rate of interest. 55

- Central banks consider many factors when they decide on the currencies and their relative proportions to hold as their foreign exchange reserves: safety, liquidity, transactions demand for trade and investment, credit worthiness, the relative investment opportunity and rate of return, and diversification.
- In particular, the "network" effect is important—central banks like to hold their foreign exchange reserves in currencies that other central banks also like to hold, thus greatly facilitating settlement among them.
- That is why foreign exchange reserves are typically held in U.S. Dollars, Euros, Japanese Yen, and Swiss Francs. 56

- While the Renminbi is not fully convertible in the sense of total absence of inbound as well as outbound capital controls, it may nevertheless be maintained as part of foreign exchange reserves by a central bank of another economy as long as there is a credible commitment by the People's Bank of China to convert any Renminbi balances presented by a foreign central bank into U.S. Dollars or Euros or any other so-called "hard" currencies.
- The huge foreign exchange reserves of the People's Bank underpins such commitments. Foreign central banks can then hold the Renminbi balances for potential transactions purposes with China or other economies willing to accept the Renminbi. Lawrence J. Lau 57

The People's Bank of China already has bilateral currency swap agreements in place with the central banks or monetary authorities of Argentina, Belarus, Hong Kong, Indonesia, South Korea, Malaysia, Mongolia and others and more such agreements are expected.

• There are both pros and cons for a country's currency to be used by other countries as a major international reserve currency. • The "benefit" to the issuing country of a major international reserve currency is seigneurage: The issuing country can pay for its imports by printing money (or what amounts to more or less the same thing, bonds). The citizens of the exporting country can either keep the foreign currency received themselves or sell it to its central bank. The central bank puts the foreign currency it purchases into its foreign exchange reserves and continues to hold it as assets in the form of deposits or bonds. So the issuing country is able to acquire real goods of real value with essentially pieces of paper which it can print at will—a great Lawrence I Lau advantage. 59

Reserves are normally accumulated and held in the receiving country for a long time, to the benefit of the issuing country. It is only when the receiving country decides to spend the money to buy goods and services from the issuing country or elsewhere that the issuing country has to export real goods and services to the receiving country or elsewhere in exchange.

• The "cost" to the issuing country is that in order to really benefit from the seigneurage, it must in general run a trade deficit or become a long-term net purchaser of foreign assets. (If it has a chronic trade surplus, it does not need to print money (or bonds) to pay for its imports and other countries will have a hard time acquiring its currency.) And the larger the trade deficit, the larger is the benefit. However, a country with mercantilist tendencies does not like to run trade deficits and hence may not want its currency to become a major international reserve currency.

- A further "cost" is the possibility that as a currency becomes widely held by the central banks of other countries as part of their foreign exchange reserves, it is subject to the risk that the foreign central banks holding its currency and assets denominated in its currency may decide at some point, for economic as well as non-economic reasons, to stop holding this currency and sell all the assets denominated in this currency that they hold, potentially creating havoc to the exchange rate, the interest rate and the financial markets of the country issuing the currency.
- Of course, if the issuing country is "too big to fail," as in the case of the United States, it is another matter altogether. The other central banks in the World cannot afford to liquidate their US\$-denominated assets without incurring significant losses themselves.

• A currency can be fully convertible without becoming a major international reserve currency, that is, without being widely held by central banks in significant amounts. For example, the Hong Kong Dollar and the Singapore Dollar are both fully convertible, but are not major international reserve currencies, in part because of the lack of demand by other central banks. • The Japanese Yen is fully convertible but the Japanese Government has not promoted its use by other countries as a major international reserve currency. Japan does not wish to have a persistent and large trade deficit and other economies will not be able to earn large quantities of Japanese Yen. Japan also wishes to avoid the risk of the other central banks, especially those of East Asia, potentially dumping its bonds on the market because of political considerations.

- Whether the Renminbi will eventually become a major international reserve currency remains to be seen, as there are both costs and benefits for a country's currency to be used by other countries as a major international reserve currency.
- At the present time, Hong Kong, Singapore and South Korea have all been considering investing part of their foreign exchange reserves in Yuan-denominated securities to diversify their portfolios, even though the Yuan (Renminbi) is not yet fully convertible.

- When will the Renminbi become capital accounts convertible?
- The Renminbi is de facto long-term capital accounts convertible. The capital flows for both inbound and outbound direct investment are readily approved (once the projects themselves are approved). So are applications for "Qualified Foreign (or Domestic) Institutional Investors." • It also seems likely that an international board will be set up soon on the Shanghai Stock Exchange for the shares of firms outside of the Mainland to be listed. Exchange-Traded-Funds (ETFs) for both Mainland and non-Mainland shares are also being contemplated on the Hong Kong and Shanghai Stock Exchanges 65

- However, short-term capital flows, both inbound and outbound, if left unregulated, can greatly increase the volatility of the exchange rate, to the detriment of the Chinese economy, and as a minimum, complicate macroeconomic management and monetary policy. The principal challenge is how the short-term capital flows can be regulated under capital accounts convertibility.
- The Chinese economy has been a victim of speculative short-term capital inflows (hot money) despite the existence of controls on certain categories of capital movements, which have proved to be quite "leaky." The increases in the Chinese foreign exchange reserves have been running much higher than the Chinese trade surpluses and other current income from Chinese investments overseas and net foreign investment in China in the past several years.

• The observed exchange rate volatility worldwide today is actually largely unrelated to international trade flows or to direct investment flows, which have been quite stable on the whole. It may be related, in part, to short-term portfolio investment flows. However, it is mostly caused by the volatile short-term speculative international capital flows. • Moreover, exchange rate volatility in itself also in turn attracts further speculation from hedge funds and other speculators taking advantage of the volatility to speculate on short-term exchange rate changes, and hence may lead to even more short-term international capital inflows or outflows and even greater exchange rate volatility.

- But the most compelling argument against short-term crosscurrency international capital flows is that they are socially counter-productive, in addition to increasing the volatility of exchange rates and disrupting the real economy.
- The theory of comparative advantage shows that two economies trading with each other voluntarily will both benefit, although possibly to varying degrees. This is the intellectual basis for supporting international trade, and in particular, free international trade.
- It is also well demonstrated that foreign direct investment undertaken in the absence of special privileges for the investor will always benefit both the investor-country and the investeecountry. The same argument applies to long-term foreign portfolio investment.

- However, there is no similar argument in favour of shortterm cross-currency international capital movements, with the exception of short-term trade-related financing (but then the benefit flows from the trade itself). It is simply an article of faith that the freer the movement of capital, the better for the economy.
- Moreover, short-term non-trade-related capital inflows that can be withdrawn at short notice do not really benefit the destination country. On the contrary, they may cause significant harm, as the East Asian currency crisis of 1997-1998 and numerous Latin American currency crises amply demonstrated.

- The problem with short-term cross-currency capital inflows is that they cannot be usefully deployed in the destination country. When they are used to finance long-term investment in the destination country, they invariably lead to trouble because of the maturity mismatch which is further exacerbated by the currency mismatch.
- However, as they flow in and out of the destination country, they cause the exchange rate of the destination country to become excessively volatile, inhibiting the flows of crossborder trade and long-term investment.

- It is also not clear what good short-term capital outflows do to the origin country. (Under "Quantitative Easing II" of the U.S., if the liquidity created by the U.S. Federal Reserve Board had stayed in the U.S., it might have done the U.S. economy some good; but since most of it flowed out of the U.S., it is not clear whether and if so how it benefitted the U.S. economy.)
- Thus, short-term capital flows should be discouraged at the same time that long-term capital flows, both inbound and outbound, should be encouraged.

- What are some possible measures for regulating short-term cross-currency capital flows?
- It is in general not easy to distinguish between long-term and short-term cross-border capital flows. Possible regulatory devices include: sequestration or "quarantine" of inflows for a minimum period of one-year before they can be put to use or repatriated; imposition of a withholding tax on short-term income and capital gains; etc. One particular device is the imposition of a Tobin tax on currency conversions, to be discussed below.

- The Tobin tax, originally suggested by the late Prof. James Tobin, Nobel Laureate in Economic Sciences, may be defined as a tax of say 0.5% (or 1%) on all spot conversions of one currency into another that are not related to current-account transactions.
- Thus, currency transactions related to the exports or imports of goods and services will be exempted from the Tobin tax. In practice, even capital account transactions below a certain threshold level, say 2 million Yuan (approximately US\$320,000 at current exchange rate), should also be exempted.
- The Tobin tax is intended to put a penalty on short-term purely financial round-trip excursions from one currency into another.

The Tobin tax is a rather effective way of "taxing," and hence discouraging, short-term cross-currency capital flows. If every time a foreign currency is converted into Renminbi or vice versa, a tax of say 0.5% is levied, then a round-trip within a month would amount to an effective cost of 12% per annum, whereas for a direct investment with a long time horizon of say 5 years, the tax will amount to only 0.2% per annum, virtually nothing.

- By discouraging and minimising unnecessary short-term crosscurrency capital flows, the potential volatility of exchange rates can be reduced. Stable relative real exchange rates can in turn encourage the growth of international trade, long-term cross-border direct investment and division of labour among economies. Long-term investors, both direct and portfolio, have an interest in a relatively stable Renminbi exchange rate.
- Expectations of relatively stable exchange rates will in turn discourage speculative short-term cross-currency capital inflows and outflows, further enhancing the stability of exchange rates.
- Thus, the use of regulatory devices for short-term capital flows such as the Tobin tax may enable full capital account convertibility to be achieved eventually.

The Renminbi Exchange Rate Determination Mechanism

- Full convertibility however, does not, imply a freely floating exchange rate mechanism. For example, the Hong Kong Dollar is freely and fully convertible, but it has been rigidly pegged to the U.S. Dollar since 1983.
- Thus, even if the Renminbi becomes fully convertible (subject to a tax or other control over short-term inflows and outflows), China is likely to maintain a "managed floating exchange rate mechanism." China must maintain the flexibility to manage its exchange rate—it is too important a price to be left completely to a market full of potential short-term speculators.
- China should remember what happened to the "market-determined" exchange rates of East Asian economies during the East Asian currency crisis of 1997-1998 as well as the volatility of the Euro/US\$ rate since September 2008. Lawrence J. Lau

The Renminbi Exchange Rate Determination Mechanism

- Markets for the direct exchange between the Renminbi and currencies other than the US\$ and the Euro are in the process of being developed, for example, between the Yuan and the Japanese Yen, the Yuan and the Korean Won, and the Yuan and the Russian Ruble. Direct exchange can reduce transactions costs and benefit traders in both the exporting and the importing countries.
- A direct exchange market with sufficient volume can reduce reliance on the cross-rates. For example, the Yuan/Yen exchange rate today is probably determined by dividing the Yuan/US\$ rate by the Yen/US\$ rate since the market for the two latter rates are much "thicker." However, if eventually there is sufficient volume for direct exchange between the Yuan and the Yen, the Yuan/US\$ rate or the Yen/US\$ rate may be determined in part by the Yuan/Yen rate. Ultimately, it is a matter of the relative volumes for eign currency markets.⁷⁷

The Renminbi Exchange Rate Determination Mechanism

- The total volume of spot Renminbi trading in offshore markets, including Hong Kong, Singapore, London and New York, may be estimated at US\$2.7 billion per day. The volume in London alone is approximately a quarter of the global turnover of offshore Renminbi trading.
- For comparison, the total volume of spot Renminbi trading in onshore markets may be estimated at US\$15 billion a day.
- As a benchmark, total Chinese annual international trade amounted to US\$3.64 trillion, or approximately US\$10 billion per calendar day, in 2011.
- In 2010, the annual total value of foreign exchange transactions worldwide was US\$1.5 quadrillion, compared to a total value of international trade of US\$20^{wtrithlion}.

The Potential for Hong Kong-London Cooperation

- London has an important role to play due to its developed financial markets and its location. It is in Europe, the largest trading partner of China, and in a time zone that supplements conveniently both Hong Kong and Shanghai.
- London can use the Hong Kong market to balance the excess supply of or demand for Renminbi in the London market and to settle any differences.
- London will need to achieve critical mass for the Yuan/Euro direct exchange, which depends in turn on the choices of invoicing and settlement currencies in trade between China and Europe.
- The Shanghai market will eventually have an important role to play as well. Ultimately, China will have more than one international financial centre of its own. 79

- The Renminbi will be used more and more in the denomination and settlement of Chinese international trade with East Asian economies and perhaps even in the settlement of trade among East Asian economies, on a voluntary basis. Chinese trade with the U.S. and Europe will probably continue to be denominated and settled in U.S.\$ and the Euro respectively.
- However, it is not at all clear whether it is in China's best interests to have the Renminbi become a major international reserve currency like the U.S. Dollar and the Euro. To become a major reserve currency that is widely held by central banks elsewhere in the World, China will likely have to run a significant trade deficit. Moreover, there is also the risk of other central banks deciding to dump the currency at inopportune times.

There are, however, other alternatives for the settlement of international transactions than the use of Renminbi as another major international reserve currency such as settlement in own local currencies between trading-partner countries.

- Adjustment of the relative exchange rates can depend on many factors: the long-term trade balance, the rate of inflation relative to those of other major trading partners, public confidence, etc. It is expected that the Chinese international trade with the World will be essentially balanced in the near future.
- Relative stability of the Renminbi exchange rate is beneficial to the continued development of the Chinese economy, to the other East Asian economies and to the World, so long as Chinese trade is essentially balanced. It facilitates the development of cross-border trade and investment. It also enhances the potential benefits from using the Renminbi as a store of avalue.

- However, it is not in China's long-term interests to have the Renminbi pegged rigidly to the U.S. Dollar, or for that matter, to a basket of foreign currencies.
- China must retain the flexibility to manage its exchange rate—China should therefore maintain a "managed floating exchange rate mechanism."