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Prominent Economists' views: China's exchange rate - fixed or hloating?

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Abstract. China's economy has slowed down in the last several years, with annual GDP growth falling from 10.6 percent in 2010 to 6.7 percent in 2016. In February 2016 Zhou Xiaochuan, the governor of the People's Bank of China (PBOC), announced a new goal of having a "stabilizing yet flexible" exchange rate to replace the previous policy of de facto gradual appreciation against the U.S. dollar. Observers have since become more uncertain of the PBOC's next step. Economists have argued for years about the exchange rate system China should adopt—a currency board with a fixed exchange rate, a pegged system such as China had before 2005, or a flexible exchange rate, which could range from managed floating to free floating. What do contemporary economists think about the issue of the exchange rate system? What do they think should be the PBOC's next move? What opinions do they voice about the new role of China's currency as a component of the International Monetary Fund's Special Drawing Right? I collect and analyze the views of several leading economists on the benefits and costs for China of various exchange rate policies.
Keywords. China, RMB, exchange rate, fixed, floating, currency board, SDR.
JEL. E16; E58; F31.

1. Introduction

The "impossible trinity" (or "trilemma") of exchange rate policy states that having a fixed foreign exchange rate, freedom in domestic monetary policy, and free capital movement at the same time is impossible. As it applies to China, it means that the People's Bank of China (PBOC) cannot have the power to control interest rates and the exchange rate while allowing free capital flows. Governments can choose to forgo one of the three objectives to achieve the other two. As an example, consider the formula for uncovered interest parity,

$$i_{\$} = i_{€} + \frac{E^{e}_{\$/€} - E_{\$/€}}{E_{\$/€}}$$

When the exchange rate is rigid and expected to remain so, Ee = E, then i, the interest rate, cannot be determined freely.

The PBOC can choose to peg the dollar (USD) value of the renminbi (RMB), in which case the money supply adjusts as money is created or destroyed (perhaps with long lags resulting from sterilization) to match supply and demand in the market in which the RMB and USD are exchanged. The PBOC more or less did so from 1997 to 2005, pegging the RMB at 8.27 yuan per USD. In 1997, pegging to the USD not only brought stability to RMB, but facilitated the internationalization of China's trade. In 2005, China moved away from the

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pegged rate, thinking that doing so would eventually help it move to further financial liberalization in the future. The PBOC adopted a managed floating exchange rate based on money supply and demand with a basket of foreign currencies. “The daily U.S. dollar-RMB trading price on the interbank spot foreign exchange market floats within a 0.5 percent range around the middle trading price for U.S. dollars.” Unlike most managed floats, China’s saw the currency appreciate rather than depreciate. The appreciation helped to keep domestic inflation at a reasonable level. At the same time, it did not hurt exports, because China’s productivity was increasing fast. The RMB appreciated to a maximum of 6.0395 per dollar in January 2014.

China has had capital controls administered by the PBOC continuously since the 1930s. The State Administration of Foreign Exchange (SAFE) functions as a bureau under the People’s Republic of China, separate from the PBOC. Some of SAFE’s major functions include to study policy suggestions on the reform of the foreign exchange administration system; to study and implement policy measures for the gradual advancement of the convertibility of the RMB under the capital account and the cultivation and development of the foreign exchange market; to provide suggestions and a foundation for the People's Bank of China to formulate policy on the RMB exchange rate; drafting relevant laws, regulations, and departmental rules on foreign exchange administration; and releasing standard documents related to the carrying out of these responsibilities. Beginning on January 4, 2016, the PBOC implemented two rules to accelerate the development and boost the opening up of the foreign exchange market. First, it extended the hours during which market management systems apply and market makers can offer quotations. Second, “qualified overseas players approved to provide RMB purchases and sales services can access the interbank foreign exchange market, and participate through the trading system of the CFETS [China Foreign Exchange Trading System] in the trading of all listed trading categories allowed in the RMB purchase and sales business. Foreign players shall participate in the trading under RMB purchase and sales in the interbank foreign exchange market, in accordance with laws and regulations.”

According to recent data, China’s foreign reserves consist of 65 percent USD, 26 percent euro, 5 percent sterling, 3 percent Japanese yen, and 1 percent other currencies. The structure is similar to the global structure of official foreign currency holdings according to the IMF’s Composition of Foreign Exchange Reserves (COFER) data.

Chinese official reserve assets from January to May 2016 were as follows (in 100 million yuan):

Table 1. *Offical reserve assets*

官方储备资产（2016. 01-2016. 05）
Official reserve assets

项目 Item	2016.01		2016.02		2016.03		2016.04		2016.05	
	亿美元100 million USD	亿SDR 100million SDR	亿美元 100million USD	亿SDR 100million SDR	亿美元100 million USD	亿SDR 100million SDR	亿美元100 million USD	亿SDR 100million SDR	亿美元100 million USD	亿SDR 100million SDR
1. 外汇储备 Foreign currency reserves	32308.93	23403.85	32023.21	23181.02	32125.79	22803.34	32196.68	22716.43	31917.36	22751.33
2. 基金组织储备头寸 IMF reserve position	37.60	27.24	107.25	77.64	107.24	76.12	106.51	75.15	104.22	74.29
3. 特别提款权 SDRs	102.73	74.42	102.80	74.42	104.85	74.42	105.48	74.42	104.41	74.43
4. 黄金 Gold	635.70	460.49	710.06	514.05	714.85	507.41	747.51	527.41	704.75	502.36
5. 其他储备资产 Other reserve assets	-2.05	-1.48	-3.30	-2.39	1.72	1.22	5.16	3.64	5.71	4.07
合计 Total	33082.92	23964.52	32940.02	23844.74	33054.45	23462.51	33161.35	23397.05	32836.43	23406.48

Figure 1. *RMB to USD exchange rate, 1994-July 2016*

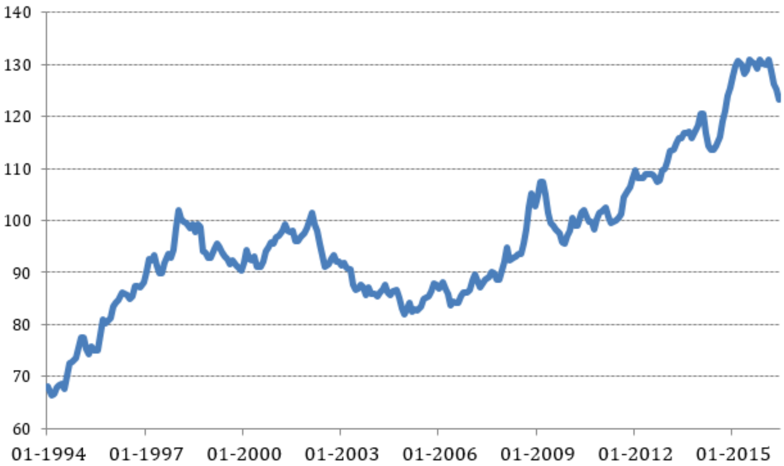

Figure 2. *Effective real exchange rate of RMB (2010 = 100)*
Source: Bank for International Settlements

2. Fixed vs. Pegged vs. Floating Exchange Rate for China

As Professor Steve Hanke has written, the late Milton Friedman thought that there are three distinct types of exchange-rate regimes: floating, fixed, and pegged. Most economists think "fixed" and "pegged" are interchangeable terms for exchange rate. However, Friedman saw them as different concepts. Pegged rates systems occur when monetary policy aims for more than one goals at a time. Pegged rates are disequilibrium systems, lacking an automatic response mechanism, which results in conflicts between monetary and exchange rate policies.

Type of regime	Central bank?	Exchange-rate policy?	Monetary policy?	Source of monetary base	Conflicts between exchange-rate and monetary policy?	Balance-of payments crises?	Exchange controls?
Floating	Yes	No	Yes	Domestic	No	No	No
Fixed	No	Yes	No	Foreign	No	No	No
Pegged	Yes	Yes	Yes	Domestic and foreign	Yes	Yes	probably

Friedman advocated fixed exchange rates for many developing countries. He was skeptical about floating exchange rates for them because he thought that many developing countries' central banks lacked the ability to adopt a rule-based internal anchor.

China is the largest developing country. Since China's economy is heavily politicized, many proposals for reforming exchange rate policy are political instead of economic. Many proposals for reforming exchange rate policy are political instead of economic. Being a very large exporter, having huge foreign reserves, and having had its currency recently join the SDR basket differentiate China from other nations with pegged or fixed currency systems.

In light of the considerations just mentioned, what do some leading economists who have expressed views on the subject think is an appropriate exchange rate policy for China, and why? I set out to choose a group of economists diverse both in ideas and place of residence, so as to gather varying perspectives on the subject.

Steve Hanke is at the Johns Hopkins University in Baltimore, Maryland, where I am a student. He is a professor of applied economics and co-director of the Institute for Applied Economics, Global Health, and the Study of Business Enterprise. Professor Hanke is a well-known currency and commodity trader. He writes regularly for the Cato Institute, Forbes, ZeroHedge, and other sources. He also has a Twitter account with almost 50,000 followers that was ranked as one of the top "Twitter accounts stock-market investors need to follow in 2016." Given Professor Hanke's academic and professional background in applied economics, he is not only an expert in examining exchange rate systems and currency boards for developing countries, but also in the Asian economy.

At Professor Hanke's suggestion, I researched Hong Kong economists who have commented on the RMB. After reviewing Web sites and conferences, I found Francis Lui and Y.F. Luk. Because many mainland economists may face political consequences for talking about the PBOC and Chinese RMB policies, many of their comments are filtered and they may not speak as freely as Hong Kong economists. I chose Lui and Luk since both are principal professors of the University of Hong Kong, and have written published papers on the RMB exchange rate system.

I also searched the blog aggregator website EconAcademics.org, which is hosted by the Research Division of the Federal Reserve Bank of St. Louis. Using the search terms "RMB" or "China," I found Michael Pettis's blog, China Financial Markets. Pettis is a well-known Beijing-based economist theorist and financial strategist, whose focus area is Asian financial markets. He has worked on Wall Street, as a merchant banker, and as an equities trader. He is a professor at Peking University's Guanghua School of Management, and he is also an expert analyst, editor, and participant in the world financial system. He also has experience in U.S. universities, so his view is well-rounded, containing both global and Chinese perspective.

At EconAcademics.org, Steven Cecchetti and Kermit Schoenholtz's blog Money and Banking also triggered my interest. Cecchetti is a professor of international economics at Brandeis International Business School. He has worked as an economic advisor and as head of the Monetary and Economic Department at the Bank for International Settlements. He also served as a Director of Research at the Federal Reserve Bank of New York. Kermit Schoenholtz is a professor of management practice in the department of economics at New York University's Stern School of Business. He has served on the Financial Research Advisory Committee of the U.S. Treasury's Office of Financial Research and was Citigroup's global chief economist from 1997 to

2005. Both Cecchetti and Schoenholtz have experience not only in academia and the U.S. government, but also in banking.

Searching through National Bureau of Economic Research (NBER) working papers, the leading working paper series in economics, I discovered Jeffrey Frankel's papers on the RMB. Frankel is a James W. Harpel Professor of Capital Formation and Growth at Harvard Kennedy School, and he also directs the Program in International Finance and Macroeconomics at the NBER. He is an expert in American and international economic policy, and has conducted research in the fields of international finance, currencies, monetary and fiscal policy, commodities, regional blocs, and global environmental issues. He has also served on the Council of Economic Advisers.

Through the NBER working papers, I also found Menzie Chinn, a professor of economics at the University of Wisconsin-Madison. He has been a visiting scholar at the International Monetary Fund, the Federal Reserve Board, and the European Central Bank. He is also an editor of the Journal of International Money and Finance and an associate editor of the Journal of Money, Credit and Banking, two of the leading specialist journals in monetary economics.

Through the NBER website I also found Brad Setser, until recently the deputy secretary for international economic analysis in the U.S. Treasury in between stints as a senior fellow at the Council of Foreign Relations. Setser also had an earlier period of working in the Treasury during the Clinton Administration. His blog Follow the Money is known for its attention to Chinese economic data, including foreign reserves, and to financial markets.

These economists seemed to be a sufficiently prominent and diverse group to study in the limited time I had for this paper. I consulted them and some others not listed here in mid 2016, and I thank every economist who responded to my questions in the form of e-mails or verbal comments. All of your help and guidance is appreciated.

3. Examination of Each Economist's Opinion

For the economists listed above, I will examine their views on the following matters:

1. What are the next steps the PBOC will and should take, including about capital controls?
2. Will the PBOC depreciate the RMB, and if so, to what level?
3. What do you think the most appropriate exchange rate regime is for China in the short term? In the long term? How will the RMB's exchange rate affect the Chinese U.S. economies?
4. What is the impact of the growing internationalization of the RMB? (Many economists mentioned the effect of joining the SDR basket.)

3.1. Jeffrey Frankel (Harvard University, ex Council of Economic Advisers)

Frankel has written several working papers on the RMB exchange rate, including "On the Renminbi: The Choice between Adjustment under a Fixed Exchange Rate and Adjustment under a Flexible Rate" and "New Estimation of China's Exchange Rate Regime." In "On the Renminbi," he argued that China, unlike other countries, might not enjoy the freedom to choose the exchange rate regime that suits its circumstances. "Nevertheless, several arguments support the view that the de facto dollar peg may now have outlived its usefulness for China." One of the seven reasons Frankel listed was that "A large economy like China can achieve adjustment in the real exchange rate via flexibility in the nominal exchange rate more easily than via price flexibility." Considering China's size and its internal balance, there are pros and cons in choosing either a fixed (pegged) or a floating exchange rate system. Frankel thinks that the two advantages for a fixed system in China are: (1) A fixed exchange rate acts as the nominal anchor to prevent inflationary monetary policies and expectation thereof. (2) Fixing the exchanges rate with the U.S. dollar can facilitate trade with other countries that use the dollar.

Frankel has also claimed that the first advantage can be substituted by other candidates for a nominal anchor such as "nominal GDP, the CPI, and an export price index."

Frankel thinks that especially a country as large as China, it is very important for the nominal exchange rate to play a role in external adjustment. The advantage of a flexible exchange rate include "the freedom to depreciate when the balance of payments is in deficit" and price level in the short run adjust partially to changes in the exchange rate.

To clarify Frankel's opinion on the advantages of a floating system, and his overall suggestion for China, I e-mailed him this question:

> In your 2005 paper, you analyzed the advantages of fixed and floating systems for China. More than ten years have passed, and the RMB has gained some strength and can stand on its own with the control of the PBOC; however, the real value of RMB is very complicated and not yet determined. Facing this unknown value of RMB and potential monetary instability, what do you think about substituting PBOC with a pegged system or fixed system to the USD? In other words, would a currency board work better for China than the current central bank system? What is your opinion?

He replied,

> My own view is no, not for China. In fact I think everyone would be better off if they had moved to a float five years ago (at a time when the balance of payments was strong).

He also recommended reading some of his recent writings on the RMB. In his 2015 article "Misinterpreting Chinese Intervention in Financial Markets," Frankel argued that Chinese authorities often intervene strongly in the financial market. "In the foreign exchange market, the People's Bank of China intervened heavily during the decade 2004-13, buying trillions of dollars in foreign exchange reserves and thus preventing the yuan from appreciating as much as it would have if it had floated freely." The PBOC has allowed the RMB to fluctuate each day within a 2 percent band, but not to fluctuate much from one day to the next. Frankel points out that both Chinese political leaders and the PBOC are pushing the RMB toward depreciation. Frankel wrote, "peering within the country's decision-making process, it is likely that China's political leaders were primarily motivated by the desire to support the weakening economy while the People's Bank of China was primarily motivated by its longer-term reform objectives."

Frankel makes the point that "China is far from a free-floating currency, let alone from full convertibility of the yuan. Convertibility would require further liberalization of controls on financial inflows and outflows." Indeed, the Chinese government's intervention regarding the RMB exchange rate prevents the RMB from being a "freely floating" currency, and limits the ability of market forces to determine the exchange rate.

In another 2015 article, "Chinese Currency Manipulation Not a Problem," Frankel claims that the usual situation wherein China was trying to keep the foreign-exchange value lower by selling domestic currency and buying foreign currencies changed in 2014. "The overall balance of payments turned negative in the second half of the year, and the PBOC actually intervened to dampen the renminbi's depreciation."

Frankel's recommendation for the PBOC is to "start a new period of monetary stimulus." His reasoning is that "The upward pressure on the dollar relative to the RMB reflects the U.S. economy's relatively strong recovery, which has prompted the Federal Reserve to end a long period of monetary easing, and China's economic slowdown, which has prompted the PBOC to start a new period of monetary stimulus."

3.2. Steven Cecchetti (Brandeis University, ex BIS) and Kim Schoenholtz (New York University)

Cecchetti and Schoenholtz's blog Money and Banking covers a wide range of topics, from capital controls to bank runs. It includes a recent post about the RMB, "China's Awkward Exchange Rate Regime," written in February 2016. Cecchetti and Schoenholtz argue that considering China's leading economic role in Asia, the RMB has become one of world's three largest currency blocs. They then describe three options for the RMB, not necessarily mutually exclusive.

1. Free floating: "Over the long run, China would almost certainly be better off with a floating currency that can help absorb the kinds of shocks that are driving its reserve levels sharply up or down." Cecchetti and Schoenholtz also argue "the most important reason to doubt an RMB float is the evident discomfort of China's policymakers with market volatility."
2. Role in a recapitalization: "if China does have to re-capitalize its banks, as many suspect, the most likely response is a government bailout that need not trigger monetary easing."
3. The internationalization of the RMB through joining the SDR basket added additional pressure from abroad to open China's capital account. "The third option is that policymakers could further tighten capital controls"

In conclusion, they predict, "China's current exchange rate regime is too awkward to operate for much longer without some modification. If foreign exchange reserves continue to plunge, the most likely path is a further tightening of controls, well before any large-scale devaluation or a currency float... Ultimately, China will have to choose between a truly rigid fixed exchange rate and a floating one in which the authorities lose control." They recommend that the PBOC further tighten controls before any large-scale devaluation or currency float.

I e-mailed Professor Cecchetti and Professor Schoenholtz the following question:

> In your blog, you discussed the difference between Singapore adopting the currency board and China adopting one. Why cannot China, as one of the world largest economies, adopt a currency board? What would be the cost and influence on China and US, and the rest of the world?

Cecchetti replied:

> In the post to which you refer, Kim Schoenholtz and I are not discussing the option of a currency board for either Singapore or China. We mention the fact that, because of its small size, Singapore has an option of choosing a managed exchange regime– which is not a currency board. In the long run, we believe that China is unlikely to have this option.

Following up, I asked:

> Would you mind expanding on why you think, "in the long run, China is unlikely to have this option"? Is it because of its large size or political reasons? What do you think the PBOC should do this year and in the future to boost growth?

Cecchetti responded:

> Yes, experience suggests that the size of an economy matters for the choice of exchange rate regime. As for Chinese monetary policy, we are not in a position to make provide advice beyond the well-known principles that guide our textbook on Money, Banking, and Financial Markets and our blog (www.moneyandbanking.com).

Cecchetti's blog post says that the two options in principle for China are to either truly fix the nominal exchange rate or lose control and let the market determine it. However, in his e-mail replies, he said because China is the world's second-largest economy, in practice the option of having a currency board, which would fix RMB to the dollar, is unlikely. The size of Singapore's economy suggests that it has an option to maintain its current exchange rate targeting monetary policy or to adopt a currency board, which it had for much of the 20th century. China does not have the currency board option, and perhaps in practice not even the exchange rate targeting option any more either. In his view, despite of the benefits of stabilizing the RMB-USD rate, the size of the Chinese economy suggests a free-floating exchange rate regime.

3.3. Brad Setser (Council on Foreign Relations, formerly U.S. Treasury Department)

Setser's blog Follow the Money focuses on the global economy, the U.S. current account deficit, China, central bank reserves, and the global flow of funds. In a 2009 article called "China's Difficult Choices," Setser says Beijing is caught between "two very different imperatives." He says one imperative is to maintain a stable exchange rate relative to the dollar, which has meant that China has followed the dollar both up and down over the past few years. At the same time, he notes China is concerned about the risk associated with holding so many dollars. "China has been buying dollars because it didn't want an undervalued exchange rate to support its exporters and that has a price," he says. "And I think the difficulty for China is...that China never really explained to its own population that buying dollars to keep your exchange rate down meant that you were going to lose money."

More than a decade ago, Setser wrote a "China Trip Report" with Nouriel Roubini of the Stern School of Business of New York University, a former colleague of Setser at the U.S. Treasury Department during the Clinton Administration. They spent two weeks in China, interviewing people and giving speeches. Near the end of the report, they claimed that many decisions were still controlled by Chinese government, not the market. "In many ways, China is still not a modern market economy: its current boom reflect the power of the markets, but it also stems, in part, from the power of distorted markets. China is no longer ‘really’ Communist. But it is not ‘really’ capitalist either -- lots of key prices remain out of line as a result of government action.”

I e-mailed Setser the following questions:

> In your 2005 paper, “China Trip Report,” you analyzed China’s pegged system. More than ten years have passed. The RMB has gained some strength and can stand on its own with the control of PBOC; however, the real value of RMB is very complicated and not yet [market] determined. Facing this unknown value of RMB and potential monetary instability. What do you think about replacing the PBOC [in its current form] with a pegged system or fixed system to the USD?

He replied:

> You might want to look at my various papers on Argentina's crisis. I am not a fan of currency boards (I know Dr. Hanke thinks Argentina cheated and did not have a true currency board, but my view is a pure board would have been no better).
>
> Full convertibility for China via a currency board would not work. Would need to have a plan on how to cover all of M2 (and deposits are convertible to cash) without a domestic lender of last resort. Basically banks are way too big for China not to have a domestic lender of last resort. So not a fan of hardening up China's linkage to the dollar. Would prefer relying on controls during a transitional period while China does a recap, clears up bad loans.

In Setser’s writings on Argentina, he argues that distortions to Argentina’s political system and economy in the early 2000s arose as a result of the currency board:

Argentine banks got rid of precisely those assets that would (potentially) have performed in the event of a devaluation and government debt restructuring. They ran down their best assets -- their liquid offshore reserves -- to pay off depositors (and to pay off maturing cross border credits). They also reduced their peso lending to Argentine firms dramatically. Peso deposits fell more rapidly than dollar deposits (that, incidentally, does not mean dollar depositors did not run: some peso depositors shifted into dollars, and some dollar depositors ran). To stay matched, currency wise, the banks had to reduce their peso lending commensurately.

Neither Argentina’s political system nor its economy could adjust the situation. Sester argues that the top reasons for Argentina’s economic and political constraints included the currency board, strong dollar, dollarized banking system and dollarized domestic debt.

In conclusion, Setser is not a supporter of adopting a currency board, nor does he suggest linking the Chinese RMB with the USD for China.

3.4. Steve H. Hanke (Johns Hopkins University, ex currency adviser to many governments)

Hanke’s qualifications specifically relevant to China include his extensive experience as an adviser on currency reform to many governments that have implemented or considered currency boards or dollarization and his positions as senior advisor at the Renmin University of China’s International Monetary Research Institute in Beijing and contributing editor at Globe Asia Magazine.

Hanke disagrees with criticisms by Setser and others that the Argentine monetary system of the 1990s demonstrates the weaknesses of a currency board system (see the next section). He contends that what stops countries from adopting a currency board system is political reasons rather than economic ones. Since countries need to give up their monetary policy sovereignty under a currency board or dollarization, they are reluctant to do so. This is the case for China.

Hanke agrees with the view of the late Ronald McKinnon that China would be better off with a currency board, fixing its exchange rate with the U.S. dollar. McKinnon was an applied economist whose primary interest were international economics and economic development with an expertise in East Asia and Chinese economy, and he was considered an "Intellectual giant" at Stanford University, where he had taught since 1969. McKinnon had long argued the advantages of dollar links for Asian countries in his published books. In his Unloved Dollar Standard, McKinnon explained a paradox that "although no one likes the dollar standard, government and private market participants still consider it the best option." McKinnon saw three stages for China in using the dollar peg as a stabilizer. In stage one, the dollar peg acted as the nominal anchor for Chinese economy to dampen inflation. One example he used was that by 1997, inflation in China was close to the American level at 2 per cent per year.

In stage two, ever since China replaced Japan as the Asian giant in both volume of international trade and overall economic size, China's own monetary and financial stability became an anchor for the greater East Asian economy. "Thus China is not only the engine of high economic growth for its smaller Asian suppliers and customers, but is also a better anchor for reducing cyclical instability in East Asia." Therefore, having a stable relationship with the dollar helped reduce the fluctuations from the "political pressure from the United States for gradual RMB appreciation."

Stage three is a global extension of stage two: "a stabilizing Chinese anchor for the East Asian economies prevails in response to 'worldwide' macro shocks, that is, those originating in the center country of the world dollar standard—the United States."

Figure 3. *China's Inflation Rate, measured by CPI year-over-year (1986-2016)*

Even though there has been monetary turmoil, including in the dollar, many emerging countries are still mainly relying on dollar standards. One of the most important roles that the USD plays in the Chinese RMB/USD relationship is that in East Asia, imports and exports are often denominated in USD. The USD is frequently exchanged in international payments among international banks, and the Chinese government uses the USD as the intervention currency for smoothing fluctuations. So, according to McKinnon, "when China stabilizes the yuan/dollar rate, it is really stabilizing the rate against a much broader basket of currencies underlying interregional trade in Asia—and against dollar-based financial markets beyond Asia."

In a 2016 article, "China Has Chosen Instability," Hanke argues that the Chinese government "have forgotten [this] golden rule: stability might not be everything, but everything is nothing without stability." Hanke emphasizes the importance of the stability of a currency. Hanke thinks that at this point, the RMB is full of high uncertainty and potential economic instability, and this uncertainty and instability is detrimental to a country's economy. He writes, "In terms of volatility, economic growth and inflation rates, China's performance has deteriorated ever since it dropped exchange-rate fixity." In addition, China's volatility in GDP and inflation rates will began to shadow those in America. As a result, linking the RMB with the USD will not only bring stability to China's currency, but also to the global economy.

In an economynext article, "China Yuan moves show futility of US Mercantilism: Steve Hanke," Hanke was being interviewed to discuss the volatility in China and Yuan's appreciation in failed to bid a lower trade deficit. Hanke said, "pressure from the U.S. and many nonsensical mercantilists' arguments caused China to abandon fixity in 2005...the wrong-headed thinking in Washington is that exchange-rate flexibility in China would result in an ever-appreciating yuan against the greenback."

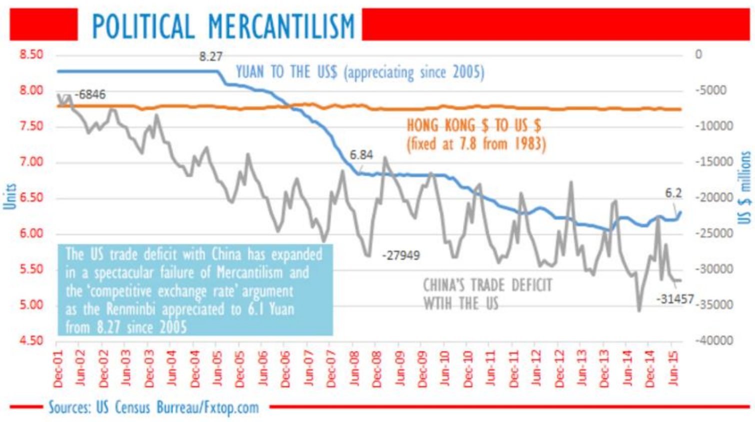

Figure 4. *Graph from FXtop.com*

Hanke disagrees with IMF and Washington's idea about a market-determined, flexible exchange rate: "That rhetoric is just a cover for Washington's real agenda: an ever-appreciating yuan."

"Indeed, the Chinese yuan has appreciated in nominal terms relative to the greenback over the past twenty years, and so has the Chinese contribution to the U.S. trade deficit," said Hanke. The U.S. has also been in a trade deficit every year since 1975. "This is unfortunate. A reduction of the trade deficit should not even be a primary objective of federal policy. Never mind. Washington seems to thrive on counter-productive trade and currency wars that damage both the U.S. and its trading partners... In short, the U.S. trade deficit is the result of a U.S. savings deficiency, not exchange rates."

An ever-appreciating currency can also harm the country concerned. Hanke says that volatility in economic growth and inflation have risen in

China since it abandoned the peg. “What should China do? First, Beijing should stop listening to Washington. Second, it should adopt a free-market, exchange-rate regime – like the currency board system in Hong Kong," Hanke says.

Hanke argues the Hong Kong currency board provides stability to the currency and Beijing should do the same. “Since 1983, the HKD/USD exchange rate has been fixed at 7.8, and the Hong Kong dollar has been fully convertible and fully backed by U.S. dollar reserves. By adopting such a fixed-rate regime, Beijing would dump instability and embrace stability.” In addition, a currency board would also make difficult for mercantilists to make false claims that the Yuan is “manipulated” or “undervalued.”

However, despite the potential economic benefits of a currency board in China, the decision to adopt such a policy would also be heavily political. Hence, I asked Hanke the following question:

Since in China, the RMB policy decision is more of a political choice than an economic one, what are the political implications for mainland to adopt a fixed system? Would China agree to have a fixed system because it will stabilize the currency or would China want more control over monetary policies?

He answered as follows and suggested further reading in his own and McKinnon’s works for supporting arguments:

China has, under international pressure and also without an understanding of what they are doing, been forced down the path of a more flexible exchange rate system. China has been told and it believes that the flexible system is the only one that is free market and will result in convertibility. This is not true. I have written many articles on this.

The U.S. wants China to have a flexible exchange rate and an ever-appreciating yuan. That’s just what the U.S. did with Japan and it was a disaster.

Chapter 13 of McKinnon’s Unloved Dollar Standard offered some details. McKinnon first reiterates his one of his arguments of the book: “because nations have been unable to agree on an alternative international money, I claim that the only feasible international monetary reform is one of rehabilitating the dollar standard.” Then he specifically pointed out the role of China in the dollar standard system. Since China has emerged as the world's largest trading nation and the biggest creditor of the United States, it is important to spell the relationship between the United States and China to operate and rehabilitate the dollar standard. “Despite some political and economic frictions with the United States, China has—more or less inadvertently—become a pillar of the dollar standard. Consider three aspects of this supporting role:

1. The “snowball” effect: The great expansion of Chinese trade with other emerging markets and countries producing primary products throughout the world, where the dollar is both the invoice currency for goods and the clearing currency for making international payments.
2. The macro stabilization effect: Since 1994, China has succeeded in following a countercyclical fiscal (credit) policy so as to stabilize its own GDP growth at a high.
4. The finance effect: China provides finance for large American fiscal deficits.

By adopting the dollar standard, not only will China have a more stable and better monetary system, but also, East Asia and the rest of the world will be more stable on a macro level. Thus, Hanke is and McKinnon was a supporter of a dollar standard in China because they argue that it will benefit China and the world economy more broadly.

Many economists have pointed to the troubles of Argentina's monetary system of 1991-2001, known to Argentines as the "convertibility system," as evidence that larger economies, at least, should avoid currency boards. However, economists who have studied the system intensively contend that the convertibility system was not a currency board. Kurt Schuler of the Treasury Department (writing in an unofficial capacity), remarked that "Argentina's convertibility system never established a separate body to act as a currency board, nor did it establish a separate division within its central bank or even a separate balance sheet." The central bank retained its own structure system and added a few new rules. The Convertibility Law of 1991 allowed the central bank to count Argentina's government bonds payable in foreign currency as reserves. There was no tendency for the system to become like a currency board. For example, the central bank's claims on the government (a type of domestic asset), increased from around 20 percent of total assets at the end of 2000 to 50 percent at the end of 2001. An orthodox currency board does not hold domestic assets. Many economists were unaware of the differences between a currency board and the convertibility system. As a result, they wrongly applied criticisms of currency boards to Argentina.

Hanke, with whom Schuler worked closely on currency boards in the 1990s, warned from an early date of the flaws in the convertibility system. Some months after the convertibility system began on April 1, 1991, he wrote a Wall Street Journal article titled "Argentina Should Abolish Its Central Bank." Hanke commented that "although monetary and currency reforms have been common, Argentina have had about as much confidence in these reforms as unreformed alcoholics have in their ability to kick the habit. The Central Bank, therefore, has little credibility, and to protect themselves from inflationary expropriation Argentines substitutes dollars for austral with a vengeance." Hanke suggested the currency reform designed by Economics Minister Domingo Cavallo needed to be amended. Hanke only saw one working solution: a solution that would solve Argentina's monetary problems permanently—a currency board. With a currency board, the credibility problems would disappear and Argentina could establish a stable and strong foreign exchange rate with the US dollar, which would soothe Argentina's interest and inflation rates.

In 1999, after Argentina's economy had experienced some fallout from Brazil's currency crisis of that period but before its own problems became severe, Hanke and Schuler wrote a paper proposing that Argentina officially dollarized. They pointed out the Argentine system was not an orthodox currency system. Rather, it had a number of deviations from an orthodox currency board, which "result in less than a perfect unification of the peso and the U.S. dollar."

They argued further that "Argentina have shown the characteristics they want in a currency are those that the dollar has: low inflation, full convertibility, the prospect of continued good performance in the future, and international acceptability." They contended that the public did not have a full understanding about dollarization or the workings of a currency board system.

One common misunderstanding about dollarization is that "it would deprive Argentina of flexibility in monetary policy." They claimed that this objection was only a theory, contradicted by the empirical evidence. They cited evidence that "Annual growth rates in developing countries without monetary flexibility—those with currency boards or dollarized systems—were over 50 percent greater than in those with central banks and monetary flexibility during the 1950–93 period." In addition, the objection that dollarization would take away the Argentine central bank's ability to act as a lender of last resort was not accurate. He supports it by "the facility [that] can provide emergency liquidity….is something called the Contingent Repurchase Facility." They criticize the objection that Argentina would be hurt if dollar became unstable by saying Argentines would be free to use other currency if they wished, although the dollar would at least initially be the most widely used currency. They conclude their argument for dollarization by saying "Dollarization is not 'too simple' for Argentina. On the contrary, the more financially sophisticated Argentina becomes, the greater the value of a simple and transparent monetary system."

They added, "The important thing is that dollarization would improve the odds that Argentina would continue to follow sound policies, much as the Convertibility Law greatly improved the odds that Argentina would implement sound policies in the first place." They also wrote a detailed specific proposal of suggested steps for Argentina's central bank to undertake. As Hanke sees it, the criticisms he made of the majority view of the convertibility system have largely been ignored, and not refuted.

3.4. Michael Pettis (Peking University, Guanghua School of Management)

Pettis' work and research mainly focuses on "monetary policy, trade policy, and the development of the banking and financial markets in China." Pettis has analyzed the level of the RMB and what would need to change for China to be better off in a blog article, "Do Markets Determine the Value of the RMB?" In his opinion, "The RMB almost certainly would decline in value today without PBOC intervention, but this does not indicate at all that the RMB is overvalued…. The RMB, it turns out, remains undervalued, although I suspect not by very much." Pettis supports a market-based economy, in which he thinks the most effective and efficient way to determine the exchange rates is to let the market decide. However, his post claims that legal and regulatory arrangements within the financial system usually prevent automatic adjustments from occurring immediately. In China's case, with current arrangements, the exchange rate could not be freely determined by the market. "An important characteristic of a market is its systemic ability to adjust, whether quickly or not. If there is a distortion in the price of any good or service, the price of other goods and services automatically adjust to return the market to what is assumed to be an optimal stage." This assumption is valid under a market-based economy without excessive government intervention.

This leads to the following argument:

> Why economists who argue that the value of currencies like the RMB should be fixed – usually in terms of other major currencies, such as the dollar, or in exchange for commodities, the longest serving of which has been cowries, followed by gold – can also

> argue that markets should determine all prices without being inconsistent. If the central bank pegs the value of its currency to another currency, as the PBOC pegs the value of the RMB to the USD, all other relevant variables, most importantly the interest rate, will automatically adjust so that the economy will presumably get the full benefit of the market's superior ability to process information.

The argument holds true under the impossible trinity, which states that it is impossible to have a fixed foreign exchange rate, freedom in domestic monetary policy, and free capital movement at the same time. Pegging the exchange rate allows the interest rate to adjust according to the market, establishing a market-driven economy, and the prices of goods and services automatically adjust. In other words, Pettis states the pros for pegging the yuan to a strong and stable currency such as the dollar is that it allows the economy to have a free interest rate.

Pettis also points out the two cons of pegged exchange rate system:

> Volatility is transformed, not eliminated. Pegging the RMB to the USD, for example, does not eliminate the volatility associated with expected changes in the USD value of the RMB. Instead the volatility shows up as higher volatility in China's money supply, higher volatility between USD and non-USD currencies, greater trade imbalances...
>
> Interventions are effectively forms of wealth transfer. Pegging the RMB to the dollar at a low rate, transfers wealth from importers to manufacturers in the tradable goods sector. But while it reduces currency volatility, it increases volatility in the money supply.

Pettis claims that fluctuations can be transformed into other sectors, but cannot be fully eliminated:

> What is more, as the PBOC attempts to control the interest-rate component of this volatility by fixing interest rates, there is even more volatility in China's money supply, both in the present, in the form of inflows and outflows, and in the future, as it is "stored" in the form of rising bad debt... Because regulators can never choose how much volatility they will permit, at best they can choose the form of volatility they least prefer and try to control it by transferring it elsewhere.

It is not a decision between whether to eliminate volatility by adopting pegged exchange rate regime, but to choose between to have volatility in which sector when adopting a pegged exchange rate regime. Hence, as the decision-maker selects which group to bear the cost of volatility, it "is usually a political choice and not an economic one... Government interventions in the currency usually aim at creating wealth transfers to subsidize favored sectors or at suppressing volatility that penalizes favored sectors, or both. The analysis of their impacts is never complete until we have also worked out the impact on those sectors from whom wealth has been transferred or to whom volatility has been transferred.

At this point, the issue of having a pegged system is more than just an economic matter—it is also deeply political. In China's case, the PBOC and SAFE are both organs of the Chinese government. Ultimately, the Chinese government makes the decision.

Later in his article, Pettis proposes two hypothetical goals for PBOC, the political one and economical one.

Pettis writes, "If we have political goals, for example wealth redistribution, or the protection of certain types of industries until they are sufficiently competitive, we would probably want to start with an idea of the economically optimal exchange rate on a fundamental basis and then move it in one direction or the other." Then he argues that the political goal in China specifically is to "eliminate some of the distortions in the Chinese economy that weaken domestic demand and systematically misprice economic inputs, most notoriously capital." However, this is dangerous since it leaves China with a dependence on debt, excess capacity and inventory, and a state sector in which incentives to innovate and create value are overwhelmed by political incentives.

> If eliminating these distortions is indeed the goal, I would argue that the correct exchange rate would probably be one that is determined by the country's economic fundamentals, i.e. one that matches supply and demand for dollars in the real economy – or perhaps a little stronger than that in order to help the rebalancing process.
>
> If on the other hand the goal is to ensure that China has sufficient reserves, I would argue that the correct exchange rate would probably be one that is determined by the country's overall balance of payments. In the past a country's money supply was often a function of its gold or silver reserves, and economic performance could be severely impaired by a shortfall of specie reserves.

3.5. Menize Chinn (University of Wisconsin-Madison, visiting scholar at IMF)

Menzie Chinn's writings on China's exchange rate system include "The Overvaluation of RMB Undervaluation" and "China's Current Account and Exchange Rate," as well as a number of posts on his blog Econbrowser. In the latter paper he reached these conclusions:

> We find, first, that the Chinese currency, the renminbi (RMB), is substantially below the value predicted by estimates based upon a cross-country sample, when using the 2006 vintage of the World Development Indicators.
>
> Second, we find that Chinese multilateral trade flows respond to relative prices -- as represented by a trade weighted exchange rate -- but the relationship is not always precisely estimated. In addition, the direction of the effects is sometimes different from what is expected a priori.
>
> Finally, we stress the fact that considerable uncertainty surrounds both our estimates of RMB misalignment and the responsiveness of trade flows to movements in exchange rates and output levels. In particular, the results for trade elasticities are sensitive to econometric specification, accounting for supply effects, and for the inclusion of time trends.

In an interview with Allison Nathan in Goldman Sachs Global Macro Research, Nathan asked, "what lessons can we draw from past currency attacks

and defenses—successful or not—in other countries when thinking about the PBOC's policy choices?"
Chinn answered,

> It is unfortunately difficult to draw lessons from other countries that have experienced attacks on their currencies because China's circumstances differ in many respects from these historical precedents. First, China has a current account surplus, which is not typical for a country facing a run on its currency. This means that even if China has capital outflows, there will still be some offsetting inflow of foreign currency just by virtue of the fact that they export more than they import. This is a critical difference from countries that rely on capital inflows to offset the deficit in their current account balance. For these countries, if capital inflows cease or reverse and access to borrowing disappears, policymakers end up in a bind—they have no choice but to curtail imports until they match exports.
>
> Second, China has an incredibly large stockpile of foreign exchange reserves, which means that even if the current account-related foreign currency inflows are not sufficient to offset outflows, they can use their reserves to offset depreciation pressures.
>
> Third, they have a vast arsenal of capital controls that they could quickly tighten if need be. These three factors suggest that the market should not be particularly anxious about the potential for a sudden devaluation.

Wondering whether Chinn would think fixing RMB would further internationalize the RMB and improve Chinese currency stability, I e-mailed him the following question:

> According to your interview, you compared China and Japan as exporter countries. What are the strengths that the RMB has yet the yen lacks, in terms of future economic and currency power? In your paper, you also analyzed why RMB is not undervalued. If you were to fix RMB with USD, at what rate do you think is the most optimal for China and US?

His reply was as follows:

> The RMB lacks a sophisticated, market-oriented, and open financial system. As long as the financial system is largely government owned, subject to rules of uncertain enforcement, then it is unlikely that assets denominated in RMB will be widely demanded, aside from facilitating trade.
>
> I would *not* fix the RMB. If the desire is to further internationalize the RMB, the capital/financial account will have to be further opened. A fixed exchange rate, autonomous monetary policy, and an open capital/financial account are not consistent (i.e., the Trilemma holds).
>
> For details on these views, see my posts on the Trilemma on Econbrowser, and on RMB internationalization, also on Econbrowser.

Chinn has wrote in his blog, "The Next Global Recession: Made in China?" the following caution and forecast for China:

> If one views the government as committed to keeping growth above a certain threshold, then one is willing to countenance the possibility that authorities will sacrifice reform for continued stimulus, and short term growth will not collapse, even if longer term prospects might suffer. If one believes the government will hold true to a program of financial liberalization and rebalancing toward domestic sources of growth, then growth could very well fall far below the 6% in the short term. Count me skeptical of the latter outcome.

In the case of China, one's view of whether the government will control or liberate the growth rate influences the short term and long term growth rate.

3.6. Francis Lui (University of Hong Kong)

Francis Lui is a Hong Kong based economist and has been interview about the economic relationship between Mainland China and Hong Kong, including rethinking about the pegged monetary system. In an interview with the Hong Kong Trade Development Council, Lui was asked whether re-pegging the Hong Kong exchange rate is an alternative solution to improving the Hong Kong economy.

Since Hong Kong has adopted a currency board – which Liu does not consider to be an eternal institution- I wanted to clarify his opinion on pegging the RMB with USD, which would result in one advantage for Hong Kong: fostering economic transactions between Hong Kong and Mainland China by reducing currency risk. Thus, I asked him the following question:

> Many economists have argued and analyzed the advantages for fixed and floating system for China. More than ten years have passed since China pegged to the USD, and the RMB has gained some strength and can stand on its own with the control of PBOC since then. However, the real value of the RMB is very complicated and not yet determined. Facing this unknown value of the RMB and potential monetary instability. What do you think about substituting PBOC with a pegged system or fixed system to the USD? In other words, would a currency board work better for China than the current central bank system? What is your opinion?

His reply was:

> For a small economy, sometimes a currency board would work very well. An important condition for this to happen is that the business cycles of the small economy and the anchor economy are roughly synchronous with each other. In the case of China, it is a huge economy. Its business cycles are also quite different from those of the US. Politically, it does not want its economy to be too much affected by US monetary policies. So I don't think that pegging the RMB to the USD would work in the long run.

Lui's opinion is similar to Cecchetti's: the size of Chinese economy is unlikely to allow a currency board to occur. In addition, because the Chinese economy has different economic cycles from the United States, it might not be beneficial for either the United States or China to fix their exchange rate relations. Furthermore, pegging or fixing the exchange rate will not benefit the Chinese government politically. Even if following the United States' monetary policy would have a positive result, the Chinese government will not do so because of the political frictions between China and the United States. Chinese government policy-makers aim to be politically and monetarily independent from the United States.

Figure 5. *CNY/HKD Exchange Rate (2007-2016)*
Source: XE currency charts

4. Conclusion

After examining the opinions of seven prominent economists (Frankel, Cecchetti, Sester, Hanke, Pettis, Chinn, and Lui) on the Chinese exchange rate regime, I have summarized their views in a table below.

Both Lui and Cecchetti reject the idea of adopting a currency board in Beijing because of the size of Chinese economy. Unlike Singapore and Hong Kong, Mainland China has a very large economy and so it is able to have an independent monetary policy. Lui points out that the business structure of China differs from that of the U.S., which also hinders China from having the dollar standard. China is also more likely than Singapore to have political differences with the United States that will make it wish to have an independent monetary policy.

Frankel and Pettis analyze China's situation from perspectives of both a floating exchange rate system and a fixed exchange rate regime. Frankel claims it is better to not fix the relationship between USD and RMB. Pettis thinks the Chinese government is the decision maker eventually, despite of the volatility and instability in each sector.

Sester is not a supporter of currency boards, citing the failure of the Argentine monetary system in 2001-02. Even though he agrees the Argentine currency board was not orthodox, he claims an orthodox one would have been no better. By extension, Sester thinks that full convertibility for China via a currency board would not work; China's financial system needs recapitalization and fixing the RMB to the USD will not reach the goal. Chinn likewise does not support the idea of a fixed exchange rate system in China in the recent years. He thinks the financial system is underdeveloped and not market-oriented—it is largely owned by the Chinese government, and it is uncertain and unclear of their movement and decisions.

Hanke disagrees with the idea that the flexible system is the only one that is free market and will result in convertibility. A currency board in China would not only provide stability within Chinese economy, but also East Asia's and worldwide. In addition, a currency board will make difficult for mercantilists to make false claims that the RMB is “manipulated” or “undervalued.” Thus, Hanke suggests a currency board for China.

Economist	Preferred Exchange Rate Regime	Reasoning	Recommendation
Jeffrey Frankel	Not fixed.	Although RMB is not free-floating, a fixed exchange rate will not be more beneficial. The cost and benefit for China to adopt a pegged or fixed system under current economic situation.	The Chinese authorities do often intervene strongly in the financial market. Start a new period of monetary stimulus.
Steven Cecchetti	China would almost certainly be better off with a floating currency that can help absorb the kinds of shocks that are driving its reserve levels sharply up or down.	China's policymakers are uncomfortable with market volatility. Because of its small size, Singapore has an option of choosing a managed exchange regime – which is not a currency board. In the long run, China is unlikely to have this option.	Chinese policymakers could further tighten capital controls.
Brad Setser	Not a fan if currency boards. Full convertibility for China via a currency board would not work. Chinese economic decisions are heavily influenced by political consequences.	Argentina's crisis resulted from having a currency board and illustrates the weaknesses of currency boards. Having a more orthodox currency board would not have improved anything. Because China's financial system needs recapitalization, in a currency board system foreign reserves would have to cover M2 without a domestic lender of last resort. Hardening China's link to the dollar is a not good idea.	China will likely rely on financial controls during a transitional period while it cleans up its financial system.
Steve Hanke	China has been forced down the path of a more flexible exchange rate system by the IMF; it is not true that the flexible system is the only one that is free market and will result in convertibility. He favors McKinnon's opinion. China and the United States could become partners to improve financial stability if China fixes the exchange rate with the dollar.	Stability is the key. Fixing to the dollar would have these benefits: 1. Stabilize China's economy. 2. China's monetary and financial stability would anchor the greater East Asian Economy. 3. A stable Chinese anchor for the East Asian economies prevails in response to "worldwide" macro shocks.	The public needs a better understanding of currency board system's functionalities before making serious conclusions. Beijing would be better served by adopting a currency board, like Hong Kong's. Hanke offers two recommendations for China. First, Beijing should stop listening to Washington. Second, it should adopt a free-market, exchange-rate regime – like the currency board system in Hong Kong.
Michael Pettis	Chinese government decides. PBOC and SAFE both perform under the control of the Chinese government. Ultimately, the government makes the decision of which sector will bear the volatility.	Pros of pegging to USD: All other relevant variables, most importantly the interest rate, would automatically adjust so that the economy would presumably get the full benefit of the market's superior ability to process information. Cons for pegging: Volatility would be transformed, not eliminated. Pegging would reduce volatility of the exchange rate but increase volatility in the money supply.	If the goal is political, eliminate some of the distortions in the Chinese economy that weaken domestic demand and systematically misprice economic inputs, most notoriously capital. If the goal is to ensure that China has sufficient reserves, the correct exchange rates should be one determined by the country's overall balance of payments.
Menzie Chinn	Does not suggest fixing the RMB to the dollar.	China lacks a sophisticated, market-oriented, open financial system. As long as the financial system is largely government owned, subject to rules of uncertain enforcement, it is unlikely	To further internationalize the RMB, the capital/financial account will have to be further opened.

		that assets denominated in RMB will be widely demanded, aside from facilitating trade.	
Francis Lui	Pegging the RMB to the USD is unlikely to work in the long run. Even if following U.S. monetary policy would have positive results, China will not do so because of the political frictions between China and the United States.	For a small economy, sometimes a currency board can work well. An important condition for this to happen is that the business cycles of the small economy and the anchor economy are roughly synchronous. China is a huge economy. Its business cycles are also quite different from those of the US. Politically, it does not want its economy to be too much affected by U.S. monetary policy.	Does not specify recommendations for Chinese policymakers; however, he thinks the Chinese are trying to implement policies that are independent from the United States.

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