

Is Chinese Yuan Undervalued? A Multi-Currency Basket Approach

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ABSTRACT

We examine the valuation of Chinese currency had it not been pegged to the U.S. Dollar. To the extent that the Chinese Yuan can be predicted by the change of multi-currency basket including four currency values, such as Australian Dollar, Euro, U.K. Pound, U.S. Dollar, our regression analysis suggests that the Chinese Yuan is undervalued during the period of January 1999~October 2009. The results of Yuan undervaluation remain intact even after we change the composition of currency basket. We further explore the implication of this hard pegging both in short term and long term for China, United States and other countries. Finally, due to the global imbalance arising from China's huge trade surplus and huge trade deficit of U.S., we argue that removing hard pegging to the U.S. Dollar could be beneficial to China and the remaining part of the world in the long-term to alleviate the global imbalance problem.

Keywords: Chinese Yuan, undervaluation, currency basket, global imbalance

INTRODUCTION

The currency of China is called the Chinese Yuan or the Renminbi, which translates to "the people's currency". The People's Bank of China, the monetary authority of the People's Republic of China, issues the Renminbi. Popular press and most politicians are convinced that Yuan is undervalued which gives China an unfair competitive advantage. Previous research,

however, is largely mixed on this question and estimates from Yuan is fairly priced (Goh and Kim, 2006; Yang and Bajeux-Besnainou, 2006; Tatom, 2007) to Yuan is undervalued by as much as 50% can be found (Funke and Rahn, 2005; Sanford, 2005; Chang, 2007; Hannan, 2009; Morrison and Labonte, 2009; The Economist, 2010). Various studies suggest that based on Purchasing power parity (PPP), diverse economic models, Big Mac Index, and Starbucks tall latte Index, Chinese Yuan is about 30% to 50% undervalued. For instance, according to the Economist (2010), the Chinese Yuan is undervalued by nearly 50% below its PPP rate, based on the latest Big Mac Index.

In this paper, we take a different approach by examining the pricing of the Renminbi or Yuan to determine whether the Chinese Yuan is undervalued if Chinese currency had not pegged to the U.S. Dollar. Specifically, we choose a multi-currency basket including four currency values, such as Australian Dollar, Euro, U.K. Pound, and U.S. Dollar to determine whether the Chinese Yuan is relatively undervalued. Chinese Yuan had been “pegged” to the U.S. Dollar for most of the last two decades except during July 2005 to mid 2008. A fixed exchange rate such as this is also called a pegged exchange rate. Additionally, we examine the implication of this hard pegging both in short term and long term for China.

Pegging a currency has both advantages and disadvantages for the country doing the pegging. Pegging a currency can be a method to control inflation if the currency being pegged to has a low inflation rate. Also pegging promotes stability for a developing country assuming that pegged currency is stable. If these advantages hold true then one of the largest disadvantage is that it prevents a country from using their own domestic monetary policy. A country can maintain a Fixed Exchange Rate or Peg by two methods. The first is to buy or sell currency on the open market so that the pegged value is maintained on the open market. The second is for the government to control the currency exchange and make it illegal to trade currency at any other rate. China operates it peg by controlling the currency exchange and keeps pressure from black market or secondary trading by buying and selling currencies on the open exchange (<http://en.wikipedia.org/wiki/Renminbi>).

China's peg-to-Dollar became a positive stabilizing force and helped it in not getting affected by the Asian Currency Crisis in 1998. However, if the pegged currency suffers inflation and expansionary monetary policy then the peg becomes a disadvantage. This was the case for the collapse of the Bretton Woods System. After WWII the major world currencies were pegged to the U.S. Dollar and the Dollar was pegged to the price of gold at \$35/ounce. Runaway spending for the Great Society Programs and the Vietnam War created expansionary monetary policy and rising inflation created an overvalued Dollar to the price of gold. President Nixon collapsed the Bretton Woods system in 1971. A free float of currencies evolved out of this system with the major world currencies. Another issue with pegging is there are no adjustments to the balance of trade, which leads to current account surpluses for China and large current account deficits for the U.S. This creates political tensions between both countries.

In July 2005, before China adopted a managed float of the Yuan, the U.S. Congress was vocal about pressing a 27.5 percent punitive tariff across-the-board on all Chinese imports (<http://www.washingtonpost.com/wp-dyn/content/article/2005/07/21/AR2005072100351.html>). This political pressure and the ever expanding Chinese economy allowed the People's Bank of China to initiate a managed float from 8.28 Yuan/Dollar which was instantly changed to 8.11 Yuan/Dollar and reached a high of 6.7899 Yuan/Dollar a 21.95 percent appreciation in 2008. It was political pressure and trade tensions between the U.S. along with market pressure that initiated the changes to Chinese currency policy. During the Financial Crisis of 2008, China

reinitiated the direct peg to the U.S. Dollar starting in May of 2008 (6). This occurred mainly because China saw a 25.7 % drop in exports and 23 million unemployed migrant workers. China depreciated the currency only about 3% during the Financial Crisis from the highs in 2008 (<http://www.forbes.com/2009/03/31/china-yuan-Dollar-markets-currency-pegging-g20.html>) and the current price stands at 6.82698 Yuan/Dollar, which is only a 17.5 percent appreciation from the 2005 peg. The switch back to the full peg to the U.S. Dollar was to weather the storm from the financial market meltdown in the U.S. and around the world. Now China is dealing with a double edge sword of the U.S. Dollar peg (<http://www.bloggingstocks.com/2008/01/07/china-learned-that-yuan-Dollar-peg-is-a-two-edged-sword/>). As the U.S. Dollar depreciates, as it is at record lows with world currencies, the price of everything China buys increases. This is driving inflation throughout China which is becoming difficult to control. To make an analogy from Bretton Woods, an expansionary monetary policy in the U.S. as we currently see with this administration and any inflation, which could be coming soon, may require the Chinese to freely float the Yuan and permanently remove the Dollar peg.

The question remains is the Yuan undervalued? This paper goes into further details on our analysis and valuation of the Chinese Yuan. The 2005 – 2008 managed float showed that the market is willing to appreciate the Yuan. This 22% appreciation in less than 3 years provides empirical evidence that the market expects the Yuan to appreciate. Consistent with the casual observations, our empirical results suggest that the Chinese Yuan is undervalued during the period of January 1999~October 2009 to the extent that the Chinese Yuan can be predicted by the change of four currency values, including Australian Dollar, Euro, U.K. Pound, U.S. Dollar.¹

IS CHINESE YUAN UNDERVALUED?

Hannan (2009) suggests that “in future discussions on how to rebalance the global economy, currency issues may be a topic. The twin aims of coordinated efforts to correct structural problems in the global economy would be to boost domestic demand in countries that have recently run large trade surpluses, i.e., China, and boost savings in those countries that have recently been consuming more than they produce. Economists argue a stronger Yuan is an essential part of that rebalancing. The IMF said there are indications the U.S. dollar is being used as a funding currency for carry trades, a strategy in which investors borrow in currencies that are expected to have low interest rates over the medium-term to buy currencies that are expected to have higher interest rates”.

This section explores Chinese Yuan valuation question from two separate angles. First, it looks at macro economic factors to analyze if Yuan should appreciate. Second, it compares Yuan against other major currencies and creates a regression model to estimate Chinese Yuan value. Both these approaches suggest that Chinese Yuan is undervalued and it will appreciate if not pegged to U.S. Dollar.

Economic Factors

¹ Our untabulated results suggest that Yuan undervaluation remains robust even after we change the composition of our multi-basket benchmark using other currencies, such as Canadian Dollar or Switzerland Franc instead of Australian Dollar.

The currency value of a country is determined by the country's economic growth, productivity, foreign exchange surplus, foreign investments, political stability and interest rate. Currency is expected to appreciate when there is an economic growth, rise in productivity, rise in exports, an increase in foreign direct investment inflow and building up of Central bank foreign reserves. Almost all of the above factors were positive for China for the past five years. When China partially floated Yuan between July 21, 2005 and July 21, 2008, Yuan appreciated from 8.276/Dollar to 6.827/Dollar. From July 2008, China again pegged the Yuan to the U.S. Dollar. But all the factors that determine the value of currency show that Yuan would have continued to appreciate had Yuan not been pegged to the U.S. Dollar.

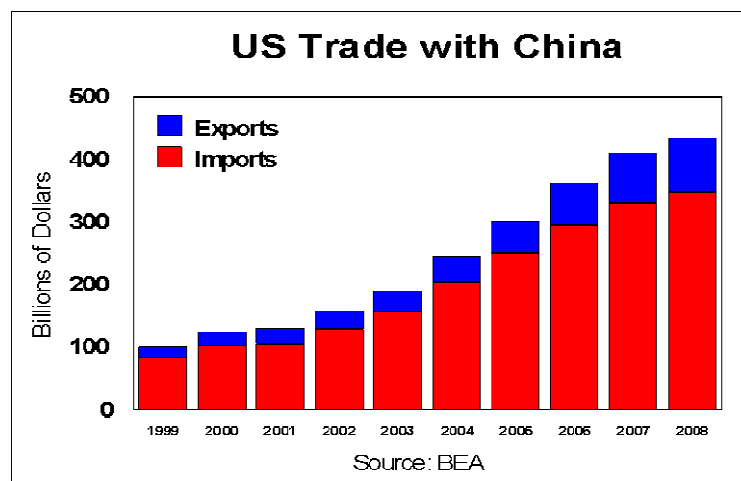
TABLE 1: GDP Growth of China and U.S.

China	2000	2005	2007	2008
GDP (current US\$) (billions)	1,198.48	2,235.91	3,382.27	4,326.19
GDP growth (annual %)	8.4	10.4	13	9
U.S	2000	2005	2007	2008
GDP (current US\$) (billions)	9,764.80	12,376.10	13,751.40	14,204.32
GDP growth (annual %)	3.7	3.1	2	1.1

Data source: World Bank, World Development Indicators - Last updated November 20, 2009

Table 1 indicates that China's GDP grew from 1.2 trillion in 2000 to 4.3 trillion in 2008, which is close to 300% growth. For the same period U.S. GDP grew from 9.7 trillion to 14.2 trillion, which is 45% increase.

TABLE 2: Trade Deficit of U.S. with China



Year	Trade Deficit in Billions of U.S. Dollar
2003	\$124.07
2004	\$162.25
2005	\$202.28
2006	\$234.10
2007	\$258.51
2008	\$268.04

Table 2 suggests that U.S. trade deficit with China grew from \$125 Billion in 2003 to 270 Billion in 2008. Foreign direct investment in China grew from \$38 billion in 2000 to \$138 Billion in 2008, a 250% increase. Per capita income increased from \$2330 in 2000 to \$6020 in 2008. China has a stable political environment since 1990. China's foreign reserve increased from \$623 Billion in January 2005 to \$2.3 trillion in September 2009. All the economic factors

indicate that Chinese Yuan value should strengthen and leads us to believe, that had it not been pegged to U.S. Dollar, the Chinese Yuan would have appreciated.

Data and Regression Analysis

To analyze the appreciation and depreciation of U.S. Dollar and Chinese Yuan independent of each other, we used IMF's world currency (WSDR) as a reference. Our data is obtained from "IMF rates database" for value of Australian Dollar, Euro, U.K. Pound, U.S. Dollar and Chinese Yuan in terms of world currency from January 1999 till October 2009 (see Table 3). In total, we have 19,215 daily observations of 5 exchange rates.

TABLE 3: Value of Australian Dollar, Euro, U.K. Pound, U.S. Dollar and Chinese Yuan data obtained from IMF Rates Database

Date	Australian Dollar (AUD)	Chinese yuan (CNY)	euro (EUR)	U.K. pound sterling (GBP)	U.S. Dollar (USD)
4-Jan-99	0.435044	0.0861985	0.83557	1.17316	0.708771
5-Jan-99	0.440735	0.0861985	0.832468	1.16863	0.70608
6-Jan-99	0.43863	0.0861985	0.830646	1.17732	0.707354
7-Jan-99	0.447667	0.0861985	0.824587	1.17159	0.708895
8-Jan-99	0.450607	0.0861985	0.828255	1.16726	0.7104
11-Jan-99	0.449107	0.0855146	0.819126	1.16351	0.708035
12-Jan-99	0.45649	0.0863237	0.823354	1.16292	0.714717
13-Jan-99	0.450946	0.0856923	0.833214	1.16986	0.709481
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13-Oct-09	0.571244	0.0922234	0.935851	0.995286	0.629609
14-Oct-09	0.572963	0.0918946	0.933567	1.00352	0.627355
15-Oct-09	0.578251	0.0918403	0.931922	1.02007	0.626966
16-Oct-09	0.579161	0.0919908	0.933804	1.02267	0.628021
19-Oct-09	0.575847	0.0918962	0.935987	1.02188	0.627421
20-Oct-09	0.581527	0.0916963	0.937241	1.02739	0.626038
21-Oct-09	0.577979	0.0917326	0.93455	1.03783	0.626332
22-Oct-09	0.579382	0.0917347	0.939437	1.03576	0.626291

Note: We first calculate the average of the WSDR value for each currency and normalize each data point with this average. We divide each exchange rate by average (or normalize the exchange rate) simply to bring all the exchange rate numbers within the certain range.

Using this data, we have computed the change (appreciation or depreciation) in currency value over this period reported in Table 4. In our regression analysis, rather than running the regression on the raw data, we normalized the data. We first calculate the average of the WSDR value for each currency and normalize each data point with this average. For example, we calculate the normalized data by dividing the value of AUD on 3-Jan-94 (which is 0.502266) divided by the average of AUD (which is 0.491009887). We divide each exchange rate by average (or normalize the exchange rate) simply to bring all the exchange rate numbers within the certain range. Without this, the value of Chinese Yuan ranges from 0.0725536 to 0.100283, but U.K pound varies from 0.91313 to 1.34088. In addition, when we plot the graph it was difficult see the changed of Chinese Yuan compare to U.K pound and U.S. dollar. Also, we are

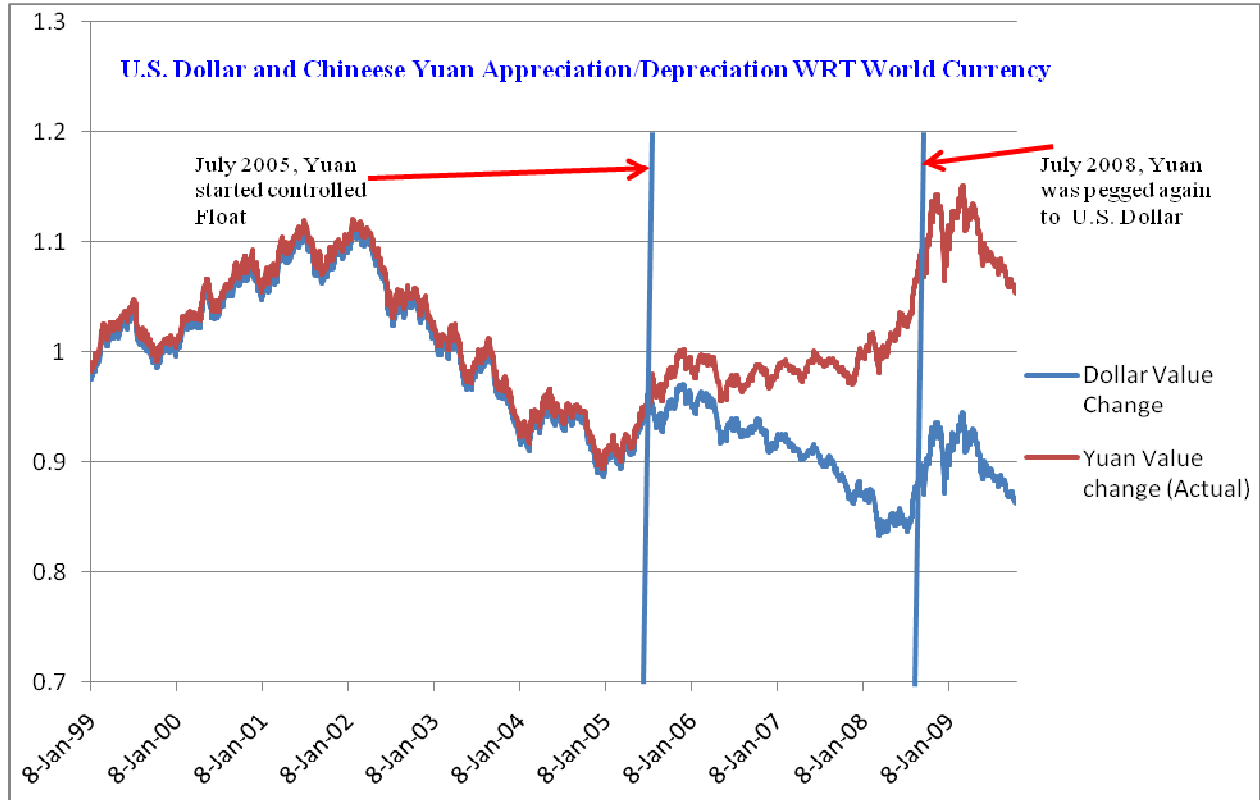
interested in the Yuan value change (appreciation/depreciation) over time rather than actual value itself. We use this normalized data from July 2005 till July 2008 to compute the predicted value of Yuan. Chinese Yuan is the dependent variable and AUD, EUR, GBP and USD are independent variable. We have plotted the U.S. Dollar and Yuan changes from January 1999 until October 2009.

TABLE 4: Computed Change (appreciation or depreciation) of Currency Value

Date	(AUD)	(EUR)	(GBP)	(USD)	(CNY)	CNY Projected
4-Jan-99	0.8860188	1.025984404	1.0079013	0.9763084	0.9899231	1.0106069
5-Jan-99	0.8976092	1.022175503	1.0040095	0.9726017	0.9899231	1.0021669
6-Jan-99	0.8933221	1.019938295	1.0114753	0.9743565	0.9899231	1.0008767
7-Jan-99	0.9117271	1.012498536	1.0065525	0.9764792	0.9899231	0.9980046
8-Jan-99	0.9177147	1.01700242	1.0028325	0.9785523	0.9899231	1.0074904
11-Jan-99	0.9146598	1.005793052	0.9996107	0.9752946	0.982069	0.9896056
12-Jan-99	0.9296961	1.010984553	0.9991038	0.9844988	0.9913609	1.0113403
13-Jan-99	0.9184051	1.023091505	1.0050662	0.9772864	0.9841098	1.012382
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13-Oct-09	1.1634063	1.149118004	0.8550838	0.8672654	1.0591144	1.033365
14-Oct-09	1.1669073	1.146313513	0.8621579	0.8641606	1.0553384	1.0247853
15-Oct-09	1.1776769	1.144293641	0.8763766	0.8636248	1.0547148	1.0208717
16-Oct-09	1.1795302	1.146604522	0.8786103	0.865078	1.0564432	1.0256803
19-Oct-09	1.1727809	1.149284996	0.8779316	0.8642515	1.0553568	1.0269247
20-Oct-09	1.1843489	1.150824765	0.8826654	0.8623465	1.0530611	1.0263354
21-Oct-09	1.1771229	1.147520524	0.8916348	0.8627514	1.053478	1.0212453
22-Oct-09	1.1799803	1.153521202	0.8898564	0.862695	1.0535021	1.0286281

Note: Chinese Yuan is the dependent variable and AUD, EUR, GBP and USD are independent variable.

Figure 1 shows the change in U.S. Dollar and Chinese Yuan value with respect to the currency basket. As we can see from Figure 1, from 1990 to till July 2005, changes in U.S. Dollar value is exactly matched by Chinese Yuan because the Yuan was pegged to the U.S. Dollar. From July 2005, Chinese Yuan was in “controlled float”. As we can see from the Figure, Chinese Yuan started to appreciate while U.S. Dollar was depreciating. From July 2008, Chinese Yuan was again pegged to U.S. Dollar. From July 2008, changes in Chinese Yuan exactly match U.S. Dollar changes.

Figure 1: U.S. Dollar and Chinese Yuan with respect to World Currency

Using the data between July 21, 2005 and July 21, 2008, the period in which the Chinese Yuan was not pegged, we came up with a model that predicts the changes in Chinese Yuan if it is not pegged to the U.S. Dollar. We performed a regression analysis using the value of Australian Dollar, Euro, U.K. Pound and U.S. Dollar to compute the predicted value of Chinese Yuan.

TABLE 5: Regression Results of Chinese Yuan on Four Other Currencies

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	-1.63731	0.091266	-17.94	1.86E-60
Australian Dollar	0.100622	0.010521	9.563835	1.47E-20
Euro	1.158658	0.04067	28.48904	1.1E-122
UK Pound	-0.12897	0.00772	-16.7051	9.74E-54
US Dollar	1.536379	0.053904	28.50202	8.8E-123
Adjusted R ²	0.767907			
<i>F value</i>				645.3531
<i>Significance F</i>				6.3596E-245

Note: Our regression shows how each currency appreciate/depreciate overtime (not on the actual exchange rate itself). Since the data we used for regression is how the currency appreciates/depreciates overtime, the equation we got for Yuan shows how Yuan appreciates/depreciates with respect to the four currencies (AUD, EUR, GBP and USD).

Based on our regression analysis reported in Table 5, we come up with the following equation for Yuan. Our regression shows how each currency appreciate/depreciate overtime (not on the actual exchange rate itself). Since the data we used for regression is how the currency appreciates/depreciates overtime, the equation we got for Yuan shows how yuan appreciates/depreciates with respect to the four currencies (AUD, EUR, GBP and USD),

$$\text{Yuan} = -1.637306545 + (0.10062243 * \text{Australian Dollar}) + (1.158658412 * \text{Euro}) + (-0.128966173 * \text{Pound}) + (1.536379053 * \text{U.S. Dollar}), \text{Adjusted } R^2 = 0.7679$$

This equation suggests that if AUD appreciates by 1 unit then Yuan appreciates by 0.1 unit, and if Euro appreciates by 1 unit, Yuan appreciates by 1.15 units and so on. We have the appreciation/depreciation value of AUD, EUR, UKP and USD till October 2009 and by using the above equation, we can predict the appreciation/depreciation of Yuan in terms of AUD, EUR, UKP and USD.² The underlying assumption is that Yuan value change can be predicted using the value change of these 4 currencies. Obviously, to get better/accurate equation, we can use more currencies, but there should be some correlation between Yuan and those currencies. The regression analysis shows how they are related. Using this equation, we calculated the changes to Chinese Yuan value from January 1999 till October 2009. Based on adjusted R^2 of 0.768, we believe that our model has reasonably reliable prediction accuracy.

Figure 2 shows the actual value of the U.S. Dollar, the actual value of Chinese Yuan and the predicted value of Chinese Yuan from above regression model. For the period between July 2005 and July 2008, the actual change in Chinese Yuan matches the projection from the model. This model suggests that Chinese currency should have depreciated in early 2009 had China not pegged it back to Dollar. This matches with our expectation that during the international flight-to-safety period of 2009, when Dollar was appreciating other currencies, including Chinese Yuan would have depreciated.

However in late 2009, when Dollar started depreciating, model suggests that Chinese Yuan, along with other currencies should be appreciating. This leads us to believe that currently Chinese Yuan should have been appreciating had it not been pegged to the U.S. Dollar. To the extent that the Chinese Yuan can be predicted by the change of four currency values, we show that the Chinese Yuan is undervalued. In the following section, we explore global implication of this finding both in the short term and in the long term.

THE CONSEQUENCES OF CHINESE YUAN UNDERVALUATION

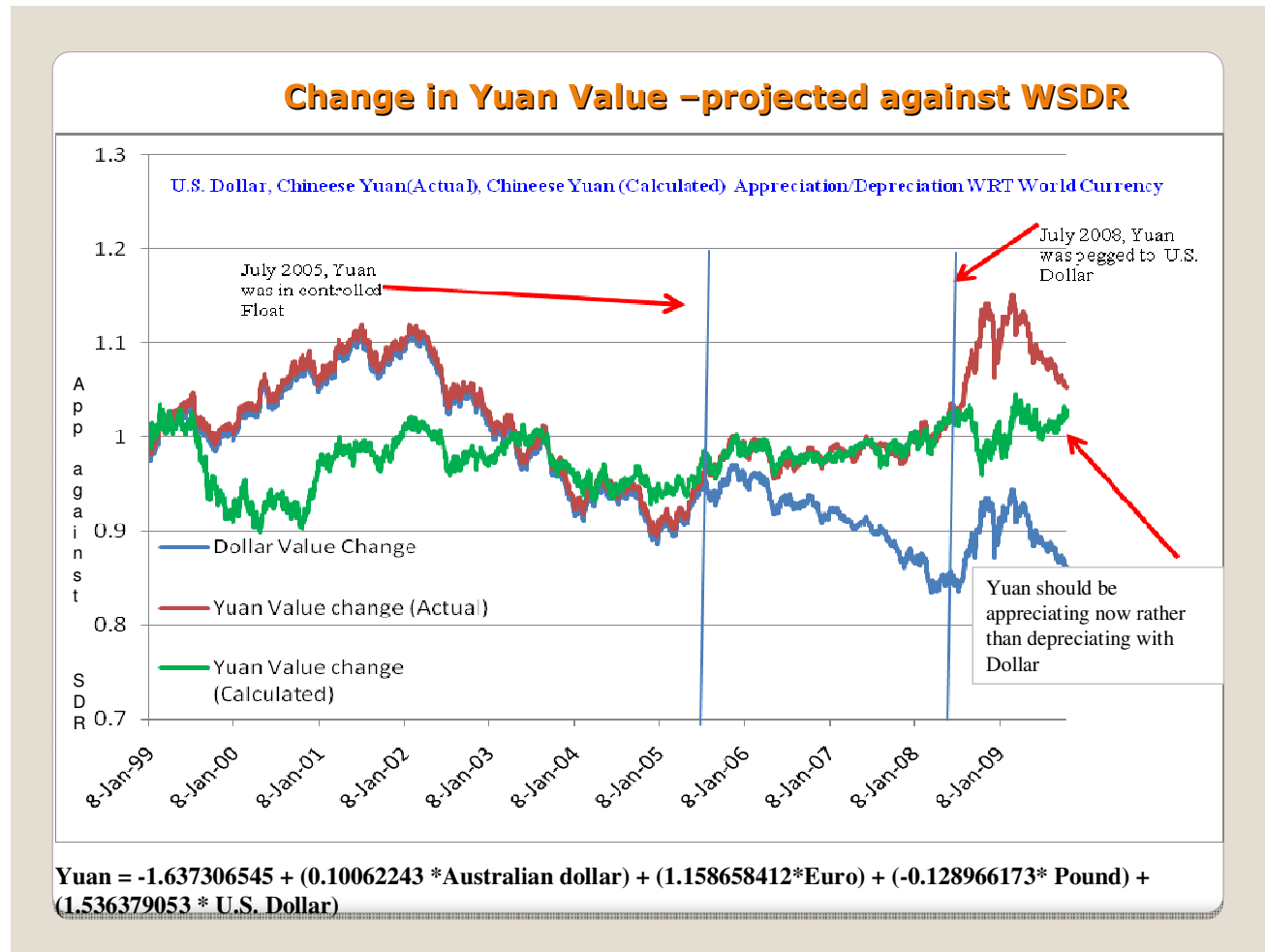
Winners and Losers of Chinese Yuan Currency Policy

As with any economic decision, China's current Yuan exchange policy has clear winners and losers across the world. As Yuan starts appreciating, when China allows it to float again, both

²On the other hand, the special drawing right (SDR) is the sum of 0.6320 US Dollars, 0.4100 euro, 18.4 Japanese yen and 0.0903 pound sterling. SDR is a weighted average of USD, EUR, JYN and UKP and all are positive. But in our model, Yuan has a negative correlation to UKP (-0.1289). So, if UKP appreciate, WSDR value increase (other 3 currencies held constant) but, Yuan will depreciate (other 3 currencies held constant). In SDR, the weight for USD, EUR, JYN and GBP is calculated based on economic factor, currency strength etc. But in our model, the weight for AUD, EUR, UKP and USD is calculated based on how Yuan behaved in the past.

domestically and international some sectors will benefit from this move while others will lose. Domestically, some sectors of U.S. economy will be affected positively while others negatively. On the positive side, as Chinese Yuan appreciates and imports from China becomes more expensive, the local U.S. manufacturers of these products will reap the benefits.

Figure 2: Changes in Yuan Value



As these sectors grow, the workers in these sectors will benefit from better employment opportunities. However these industries may not see full benefits if some of this manufacturing shifts to other low-cost countries like Vietnam or other ASEAN countries. The other sectors to benefit are the U.S. companies exporting to China. As Yuan appreciates their exports will become cheaper for Chinese consumer and businesses and this may increase demand for such products. Companies and individuals with substantial investments in China will benefit too as value of their assets grows. On the loser side, U.S. consumers are likely to be the first losers of the Chinese Yuan appreciation. As Chinese imports become more expensive, U.S. consumers will pay higher prices on all 'made-in-china' goods. Industries that use Chinese component in their products will be negatively affected by this change too as they pay higher prices and may be forced to raise prices resulting in lower demand for their products. Most of the highly

leveraged industries may become victim of higher interest rates if China stops recycling its excess U.S. Dollar surpluses back to the U.S. In recent history China has kept the interest rates low for most U.S. borrowers by investing most of its excess currency reserves in U.S. treasuries.

Chinese consumers will benefit from this appreciation as imports from other nations will become cheaper. However this move will negatively impact the Chinese export sector, which will see its competitiveness erode as their exports become more expensive. This appreciation will also be a losing proposition for the China's central bank, which currently holds around \$1 trillion reserve. Any appreciation of Chinese currency will lower the local value of the foreign currency held by the bank. China's neighboring countries are likely to be the winners of this upward revaluation. As imports from China become more expensive for the U.S. some of this will move to other countries with cheaper labor markets like Bangladesh, and Vietnam.

Short-Term Effects of Removing Yuan Peg to U.S. Dollar

If the Chinese Yuan were allowed to freely float, rather than being pegged to the U.S. Dollar, there would be many consequences. First of all, and most importantly, in the short-term, the value of the Chinese Yuan with respect to other currencies, including the U.S. Dollar, would appreciate. Since the U.S. is a major trading partner with China, as the U.S. is a major consumer of Chinese goods, this would have the effect of reducing the purchasing power of U.S. consumers to purchase Chinese goods, thus reducing demand for Chinese goods. This would cause a significant drop in the output of goods from China to the U.S. and other countries as well. This would have severe negative consequences for China, which relies on a huge workforce and high volume of low cost production. Since output would drop, Chinese manufacturers would be forced to lower wages and/or reduce the number of workers. This would cause an elevated unemployment rate and thus harm the Chinese economy and well being of the population. Many exporters would be forced out of business almost instantly. Since the Chinese Yuan is artificially maintained at a low value due to the peg to the U.S. Dollar, as described earlier in the paper, China is able to keep exported goods "cheap" in the eyes of foreign consumers by keeping the demand and volume of production high.

Other possible short-term effects of change from pegged currency to a freely floating Yuan include reduced bubbles in shares and in property and reduced global imbalances, including the U.S. trade deficit (Economist, 2009). This would also help China gain control of its monetary policy again as removing the peg to the U.S. Dollar will separate China from the monetary policy of the United States. This is beneficial to China since the country's currency value would no longer be subject to the whims of the policymakers in the United States, which recently has a loose monetary policy that could be detrimental to a growing economy such as China's. China would also be able to rebalance its economy in that it would become less dependent on exports. Since demand from foreign consumers would drop, and the purchasing power of Chinese citizens would increase, there would be a more of a shift towards domestic consumers in China purchasing Chinese goods as well as foreign goods. This would allow China's growth to be more sustainable and less dependent on foreign consumers and less affected by changes in demand for Chinese goods from abroad.

Changing the Chinese Yuan from a peg to the U.S. Dollar to a freely floating currency would also have the short term effect of reducing the U.S. trade deficit (which is about USD165.8 Billion from January to September of 2009). Some people argue however, that this reduction in the trade deficit is overestimated, since there is some belief that as Chinese goods

are still needed by American consumers, the American buyers would just pay more for about the same amount of goods from China. The net effect though can be seen as basically the same as levying a tax on U.S. consumers in order for them to purchase Chinese goods. Since removing the peg to the U.S. Dollar would cause appreciation of the Chinese Yuan, this would make U.S. goods easier to purchase for Chinese consumers, thus stimulating demand for U.S. goods and helping to reduce unemployment levels in the United States.

Removing the Chinese Yuan peg would also benefit the global economy. For example, this would benefit the economies of many countries surrounding China that are strongly dependent on manufacturing exports because demand for their goods will increase since Chinese goods will be perceived as relatively more expensive. The lowered degree of intervention by the Chinese Central Bank would also cause lowered holdings of U.S. currency reserves, so China would be less susceptible to U.S. Dollar depreciation. Also, in the short run, an appreciation of the value of the Chinese Yuan would cause an uptick in the amount of investment and speculation in China as the currency value is going up.

Long-Run Effects of Change from Peg to Freely Floating Yuan

There are also long run effects removing the peg to the U.S. Dollar. There would ultimately be a strong benefit to China and the global economy, largely because there would be a movement towards China becoming more of a consumer society, consuming more foreign goods and becoming more active on the global stage. This would stimulate the economies of both China and the rest of the economies of the world, with more volume of trade that is not restricted and hindered by the negative effects of an artificially valued currency. China is a very large economy with a quickly increasing economic and political presence in the world, and as such cannot afford to be attached to the policies and whims of another country. It must grow into an independent power that is not dependent so heavily on manufacturing exports. The savings rate in China is quite high, and it would benefit both China and nations across the globe if Chinese consumers had greater purchasing power. A higher valued Chinese Yuan will also help increase profit squeeze for Chinese corporations (Economist, 2009). This would reduce the savings rate in China and allow for more freely flowing currency throughout China and the rest of the globe. All of these long-term effects will help China move from a developing nation to an economic powerhouse with far-reaching positive effects throughout the world. Because the global imbalance arising from China's trade surplus and trade deficit of U.S. is so influential, we argue that removing hard pegging to the U.S. Dollar could be beneficial to China and the remaining part of the world in the long-term to alleviate the global imbalance problem.

CONCLUSION

Chinese Yuan is currently pegged to the U.S. Dollar and as a result, as U.S. Dollar depreciates due to various macroeconomic factors unique to United States, the Chinese Yuan is also depreciating vs. other foreign currencies. We argue that China should remove this hard pegging to single currency (USD) and let market forces determine the true value of the Chinese Yuan. This paper estimates that such an action will result in Chinese Yuan value appreciation. Such an appreciation will be beneficial for China in the long run as it will help build Chinese domestic sector, reduce dependence on export, remove its dependence on U.S. currency policies,

and ultimately allow China to develop its currency as a strong international currency. Yuan appreciation also helps mitigate the global imbalance problem.

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