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RMB Appreciation and U.S. Inflation Risk

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The value of the Chinese renminbi (RMB) has increased more than 21 percent against the U.S. dollar since 2005 (see the chart). This would be good news for the United States if increased costs of Chinese imports (as a result of the appreciated RMB) made U.S. consumers purchase fewer Chinese goods and reduced its trade deficit with China. However, U.S. imports from China have been increasing. Between 1999 and 2010, the share of Chinese goods among total U.S. imports has increased from 6.9 percent to 16.1 percent, and the share of Chinese imports among total U.S. consumer expenditures has increased from 1.3 percent to 3.6 percent. Furthermore, the U.S. trade deficit with China increased from $67 billion to $263 billion between 1999 and 2010, a fourfold increase.

Some critics believe that the rising trade deficit has hurt the U.S. labor market and economic growth (i.e., by exporting U.S. manufacturing jobs to China) and was caused primarily by an undervalued RMB relative to the dollar. In response, some politicians and economists have recommended a 25 to 40 percent tariff on Chinese imports to correct the trade imbalance.[1] China has allowed the RMB to appreciate gradually since 2005 because of international pressures. Nevertheless, since then U.S. trade deficits with China have still continued to increase. As of 2010, China is the second-largest trading partner (country) of the United States, next to Canada. What does RMB appreciation imply for the U.S. economy?

Because it is so much cheaper to produce goods in China than in the United States, Chinese-made goods cannot be easily substituted with American-made goods over the medium term. Hence, RMB appreciation would increase import prices without bringing many job opportunities back to the United States.

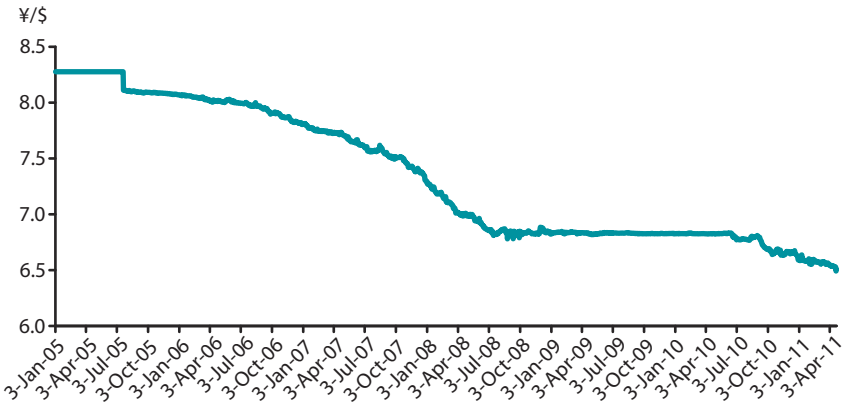
Fair (2010) estimates the macroeconomic effects of RMB appreciation on the U.S economy using a multi-country model.

If oil prices continue to rise and the RMB continues to appreciate, the U.S. inflation rate may increase at a faster pace in the near future. And this would have an unwelcome impact on consumers' wallets.

His estimates suggest that in 2008 a 25 percent appreciation of the RMB would increase the U.S. domestic price level by 0.5 to 1.5 percent. Similarly, Auer (2011) argues that the increasing importance of cheap imports from China was a major contributing factor to the low-inflation environment in the United States over the past decade. Given that nearly a sixth of all manufactured goods sold in the United States are actually made in China, Auer estimates that a 25 percent appreciation of the RMB spread over 10 months is equivalent to a temporary 5-percentage-point shock to producer prices.

We can also do a back-of-the-envelope calculation on the impact of RMB appreciation on the U.S. consumer

Exchange Rate of the RMB (¥) against the U.S. Dollar ($)



SOURCE: Federal Reserve Board/Haver Analytics.

price index (CPI). Suppose (i) all imports from China are final consumption goods, (ii) the quantity of imports from China does not decrease (or increase) after the appreciation of the RMB, (iii) the basket of consumption goods for computing the CPI also does not change, and (iv) any changes in the value of the RMB will have a one-to-one pass-through effect on prices of imported Chinese goods. Given these assumptions, a 25 percent increase in the value of the RMB would increase the CPI by 0.9 percent because Chinese goods account for 3.6 percent of U.S. consumption expenditure and the prices of this portion of the consumer basket increase by 25 percent ($3.6 \times 0.25 = 0.9$ percent). That is, the CPI would be nearly 1 percentage point higher. As for the core CPI, the figure is likely to be much larger.[2]

So, how does this calculation relate to the average U.S. consumer? If oil prices continue to rise and the RMB continues to appreciate, the U.S. inflation rate may increase at a faster pace in the near future. And this would have an unwelcome impact on consumers' wallets. ■

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[1] See Krugman (2010). For counterarguments, see Wen (2011).

[2] The core CPI equals CPI less food and energy. China does not export food or energy to the United States, so most Chinese goods are contained in the core CPI basket.

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