



# Policy Brief

Stanford Institute for Economic Policy Research

## Exchange Rates, Wages, and International Adjustment: Japan and China versus the United States

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The pages of the financial press in Europe and America are full of grave editorializing on the need for a major depreciation of the dollar to correct the “unsustainable” current account and trade deficits of the United States. Much of this international moralizing directs the East Asian countries to stop pegging their currencies to the dollar—or, in China’s case, to allow a large appreciation of the renminbi before moving to unrestricted floating. The message is that, in order to reduce their trade surpluses and thereby reduce America’s trade deficit, the East Asian economies and many European ones should let their currencies appreciate against the dollar.

### The Exchange Rate and the Trade Balance

Unfortunately, this conventional wisdom is wrong. The common presumption that an exchange rate change by itself has a predictable effect on a country’s trade balance is incorrect. In particular, a deep devaluation of the dollar would have (is having) unacceptable worldwide macroeconomic consequences *without* correcting the U.S. trade and current account deficits. Among financially open economies, sustained exchange rate changes must reflect relative monetary policies expected in the future: relatively tight money and deflation in the appreciating countries, and relatively easy money and inflation in the country whose currency depreciates.

The high-saving countries in Asia and Europe (and Canada), all creditors of the low-saving United States, face the specter of a growth slowdown or outright deflation should their currencies appreciate. For example, the repeated appreciations of the yen

February 2005

<sup>1</sup> I would like to thank Hong Qiao of Stanford University and Gunther Schnabl of the University of Tübingen for their great help in preparing this paper.

from 1985 to 1995 created the bubble in Japanese land and equity values from 1987 to 1990 and then, with the inevitable collapse of the bubble, threw Japan into a deflationary slump in the 1990s. With the 60 percent appreciation of the euro against the dollar in 2002-2004, continental Europe is facing slower economic growth—although not yet as protracted as the earlier Japanese experience.

These exchange-rate-induced growth slowdowns or slumps in the appreciating economies sharply reduce their demand for imports. At the same time, their exports become more expensive in world markets. Because the fall in exports is coupled with a fall in imports, the net effect on trade balances is unpredictable. The ever-higher yen from 1971 to 1995 was coupled with increasing Japanese trade surpluses. All that is predictable is that the appreciating country will suffer deflationary pressure. If hot money flows out of dollars into the currencies of creditor countries in Asia and Europe, these countries will find it more difficult to avoid actual appreciation and unwanted deflation.

Conversely, if deflationary pressure in creditor countries is muted because of orchestrated joint appreciations of their currencies against the dollar, this would induce an outburst of unacceptably high inflation in the United States. For example, President Nixon's well-telegraphed depreciation of the dollar in August 1971 touched off a flight from dollar assets and also the high and volatile U.S. inflation of the 1970s.

Exchange rate changes are not the answer to U.S. trade deficits and Asian trade surpluses. Today's major distortion in the world's financial system is America's saving deficiency, large fiscal deficits by the federal government and meager household saving, coupled with a virtually unlimited dollar line of credit on which to borrow from the rest of the world. Heavy U.S. borrowing in international markets is then transferred in terms of real resources by foreign countries running trade surpluses with the United States. The U.S. current account deficit forces Canada and countries in Asia, Europe, and now even Latin America into current account surpluses.

## **The Exchange Rate and International Competitiveness**

At least some of the critics of Asian countries' pegging to the dollar would agree that low saving in the United States, rather than misaligned exchange rates, is the root cause of the trade imbalance. However, suppose a country with very high productivity growth such as China trades with countries with much lower productivity growth. Japan and Europe have overall trade surpluses, and the United States has an overall trade deficit, but all of these countries now have much lower productivity growth than China's. Isn't exchange rate flexibility with ongoing appreciation of the renminbi more or less necessary to balance international competitiveness by offsetting the productivity differential between China and its slower growing trading partners? Indeed, because of foreign unease, China has promised that the yuan/dollar exchange rate will become more flexible in the future.

It is important to pin down what the Chinese government should mean by greater exchange rate "flexibility." Allowing a slightly wider band around the central rate of 8.28 yuan per dollar, within which the market rate could fluctuate freely daily or weekly, would efficiently decentralize the foreign exchange market. Indeed, as capital controls are replaced by careful prudential regulation over net foreign exchange exposures of Chinese commercial banks, widening the band from 0.3 percent to, say, 1 percent on either side of the "parity" rate of 8.28 yuan per dollar—a 2 percent band—would make the foreign exchange market more flexible. The clearing of most international payments would devolve from the People's Bank of China (PBC) to the commercial banks, which could then create hedging markets in foreign exchange futures and options. If the band is fully credible, the PBC need seldom intervene except in crises to maintain it. But changes in the market exchange rate within such a narrow band would not significantly affect—or be intended to affect—China's competitiveness in international markets for goods or services.

As long as the American price level remains stable, more flexibility in the central exchange rate of 8.28 yuan per

dollar is neither necessary nor desirable for balancing international competitiveness with China's neighbors in the long run. International adjustment occurs by money wages naturally growing faster in the country with higher productivity growth. But this mechanism of differential wage adjustment, with more rapid wage growth in China than the United States, only works well when enterprises and workers in China are confident that the central yuan/dollar rate will remain fixed indefinitely, and China's inflation remains more or less aligned with that in the United States. Then Chinese employers in the rapidly growing tradables sectors, largely manufacturing, will vigorously bid for workers subject to the constraint of having to remain internationally competitive at the fixed nominal exchange rate. Money wages, particularly for the increasingly skilled workers, then rise in line with the high productivity growth.

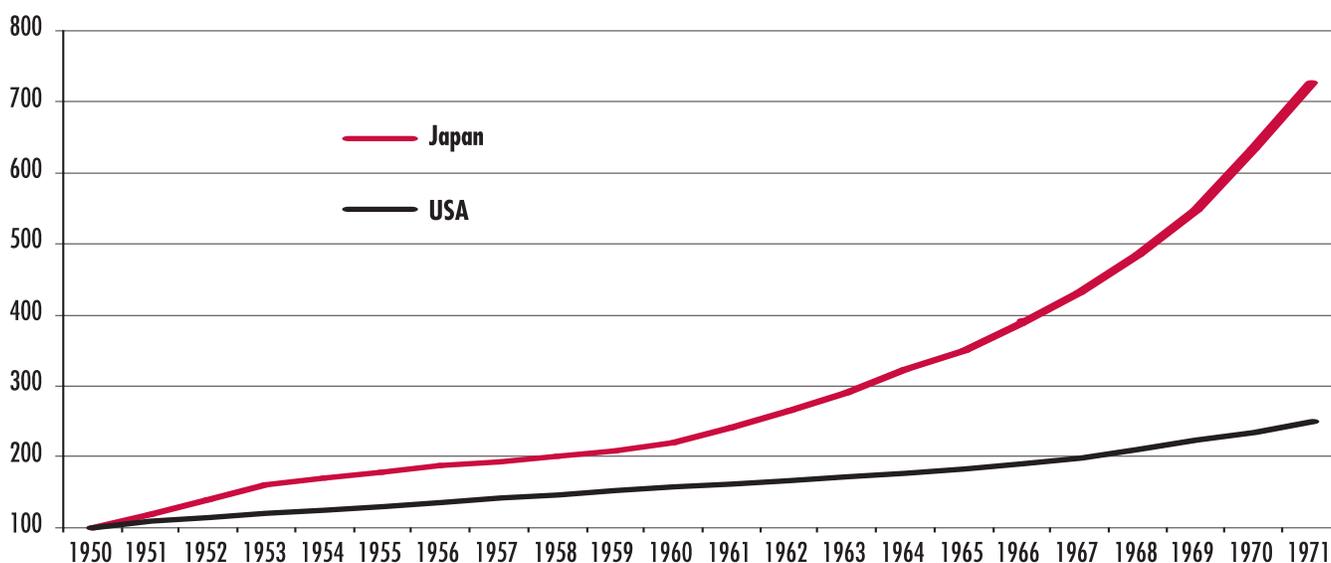
In the 1950s and 1960s under the Bretton Woods system of fixed dollar exchange rates, this wage-adjustment phenomenon was first articulated for high-growth Scandinavia. But high productivity growth in postwar Japan provides an equally striking example.

## Japan's Dollar Exchange Rate in Historical Perspective

When the yen was fixed at 360 to the dollar from 1950 to 1971, the importance of relative wage adjustment between Japan and the United States was pronounced. From 1950 to 1971, Japan's annual real output growth was substantially higher than that of the United States, which led Japanese labor productivity of 8.92 percent to be far in excess of the 2.55 percent in the United States. However, the balancing item was average money wages that grew at a robust rate of 10 percent per year in Japan and only 4.5 percent in the United States. Figure 1 shows the dramatic rise of Japanese money wages relative to American wages during the Bretton Woods periods of fixed dollar exchange rates.

Keeping the yen at 360 per dollar effectively anchored Japan's price level for tradable goods. In the 1950s and 1960s, the Japanese wholesale price index (WPI) rose less than 1 percent per year, whereas the American WPI rose a bit more than 1 percent. Because the bulk of world trade was invoiced in dollars, fixing an exchange rate to the dollar was (is) a stronger anchor for the price level than the size of Japanese bilateral trade with the United States would suggest.

**Figure 1**  
**Nominal Manufacturing Wage Growth for US and Japan, 1950-1971**



In Japan's high-growth era, fashioning a purely domestic monetary anchor would have been more difficult. As in China today, restrictions on domestic interest rates proliferated; and the rate of growth in narrow money was high and unpredictable—more than 16 percent per year from 1950 to 1971, as Japanese households rebuilt their financial assets after the war. Thus, having the Bank of Japan simply key on the dollar exchange rate was the most convenient instrument for stabilizing Japan's price level.

For two decades after the introduction of floating exchange rates in August 1971, productivity growth in Japan remained high relative to that in the United States. Japanese exports made major inroads into American markets for steel, autos, machine tools, semiconductors, and so on. In the midst of numerous trade disputes, the U.S. government reacted by continually trying to "talk" or force the yen up on the presumption that an appreciating yen would improve America's external competitiveness. Indeed, the yen rose all the way from 360 in 1971 to touch 80 to the dollar in April 1995 and threw Japan into a deflationary slump.

The deflation also reduced growth in Japanese money wages. It essentially destroyed the natural wage-adjustment mechanism for balancing international competitiveness

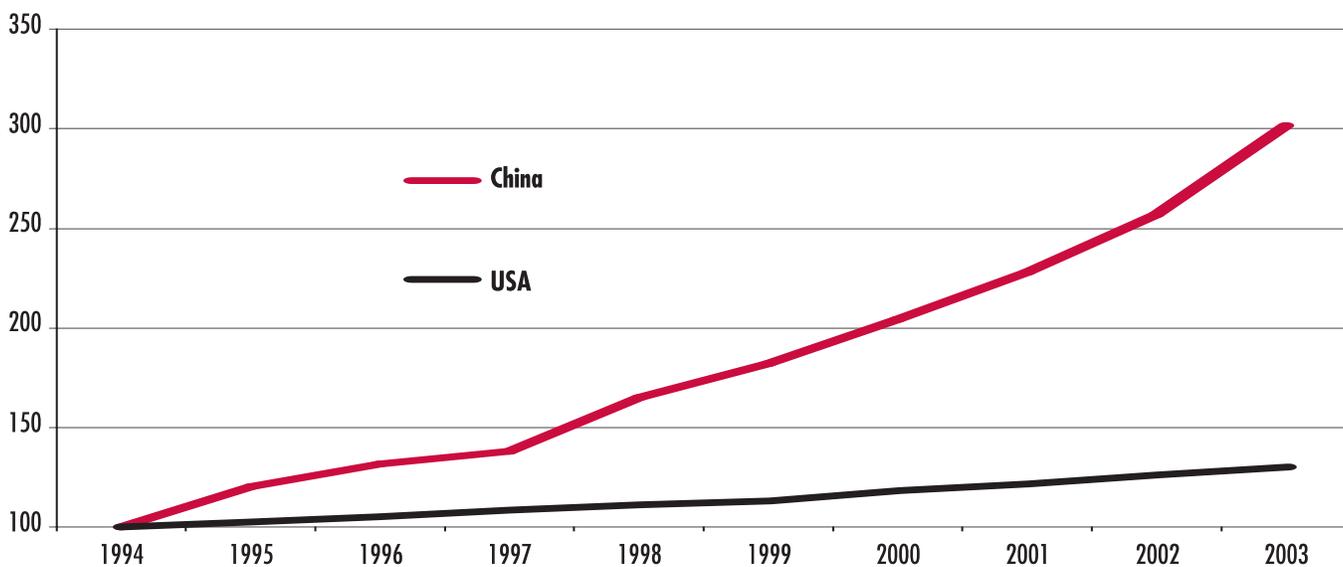
that had held when the exchange rate was fixed. So, besides damaging the Japanese economy in a macro-economic sense while failing to reduce its trade surplus, the erratically appreciating yen undermined the natural process of relative wage adjustment for balancing international competitiveness.

Although the yen has not appreciated on net balance since 1995, it has fluctuated widely against the dollar. Without the assurance of a fixed exchange rate anchor, re-establishing growth in Japanese money wages to accurately reflect (potential) productivity growth remains problematic.

### Wage Adjustment in China under a Fixed Exchange Rate

Unlike Japan, China has kept its exchange rate stable since 1994—and did not have the earlier misfortune of being pushed into a deflationary slump from an appreciating currency. From 1994 through 2003, money wages in manufacturing increased by about 13 percent in China and by just 3 percent in the United States. This 10 percentage-point wage-growth differential approximately reflected the differential growth of labor productivity: unofficially about 12.3 percent in China versus 2.7

**Figure 2**  
**Nominal Manufacturing Wage Growth for US and China, 1994 to 2003 (Base Year 1994 = 100)**



percent in the United States since 1994. Under the fixed yuan/dollar exchange rate, the appropriate wage-adjustment mechanism for balancing international competitiveness seems to be alive and well.

Figure 2 shows China's dramatically higher growth in money wages in manufacturing relative to the United States over the past decade. Within China, wages in all sectors were rising fast—with wage growth in manufacturing about the median for the economy as a whole.

China's exchange rate stabilization in 1994 followed a major depreciation of the renminbi associated with the unification of the official exchange rate at the much higher "free-market" swap rate. The official rate jumped from 5.5 to 8.7 yuan per dollar. Because much of China's trade—particularly in manufactures—had been transacted at the higher swap rate, this jump in the official rate overstates the effective devaluation. Nevertheless, because of a temporary burst of domestic inflation from 1993 to 1996, the "real" devaluation was negligible. But the nominal devaluation certainly exacerbated the inflation. By 1996, the renminbi had appreciated slightly to 8.28 yuan to the dollar, where it has remained ever since. Chinese price inflation then settled down after 1996 and seems have converged close to the American level. The fixed rate regime now serves China as a nominal anchor for its price level much like the fixed yen/dollar rate served Japan in the 1950s and 1960s.

For the increasingly integrated East Asian economies in the new millennium, China's fix at 8.28 yuan per dollar has become the key to intra East Asian exchange stability. All the others more or less peg to the dollar and thus to each other. If this fixed rate system continues, adjustment in relative wage growth in the other East Asian economies becomes the main vehicle for balancing international competitiveness.

Currently, the weakest link seems to be Japan. The yen/dollar rate has not been credibly fixed within a narrow range despite massive interventions by the Bank of Japan to prevent the yen from appreciating. The fear of future yen appreciation and further deflation is still rife—and money wages are not adjusting properly. So the first order of business for the Bank of Japan is to come up with a more credible dollar fix for the yen that would better stabilize intra East Asian exchange rates while ameliorating deflationary fears in Japan itself. For more on that story, see my new book, *Exchange Rates under the East Asian Dollar Standard*, just out (2005) from the MIT Press.

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His fields of interest are international economics and development finance. McKinnon has written over 100 articles and several books, which include: *Money and Capital in Economic Development* (1973); *Money in International Exchange: The Convertible-Currency System* (1979); *The Order of Economic Liberalization: Financial Control in the Transition to a Market Economy*, 1993; *The Rules of the Game: International Money and Exchange Rates*, 1996; *Dollar and Yen: Resolving Economic Conflict Between the United States and Japan* (with Kenichi Ohno), 1997; and *Exchange Rates under the East Asian Dollar Standard: Living with Conflicted Virtue*, in 2005.

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***SIEPR Policy Briefs***  
are underwritten by a generous grant from the Taube Family Foundation.



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A publication of the  
Stanford Institute for Economic Policy Research  
Stanford University  
579 Serra Mall at Galvez Street  
Stanford, CA 94305  
MC 6015

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