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Devaluing the dollar: A critical analysis of William Cline's case for a New Plaza Agreement

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Abstract

In his new book "The United States as a Debtor Nation" William Cline estimates that a 28% real effective real depreciation of the U.S. dollar would reduce the U.S. current account deficit from a projected 7.5% of GDP to 3% of GDP. We argue that his projection, which is based on an elasticities model of the U.S. balance of trade, is highly misleading. First downward deflationary pressure on overall foreign price levels from currency appreciation is not incorporated. Second, the negative impact of appreciation on foreign income and absorption is absent. Third, complementary and necessary adjustments in monetary and fiscal policies in the U.S. and its trading partners are not explicitly incorporated into Cline's econometric framework. We conclude that the impact of massive dollar devaluation on the U.S. trade deficit would be ambiguous, but that the macroeconomic stability of the world economy could be seriously undermined.
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Keywords: Real exchange rate adjustment; Elasticity model; Absorption approach

1. Introduction

William Cline's new book The United States as a Debtor Nation (2005a), and his shorter follow up policy brief "The Case for a New Plaza Agreement" (2005b), are both published by the Institute of International Economics (IIE). They reflect both the IIE's collective concern with the huge size of the U.S. current account deficit and its vociferous advocacy of the need for dollar devaluation—particularly for China to appreciate the renminbi (Bergsten et al., 2005). To reduce the U.S. current account deficit to just 3% of GDP, Cline projects that the trade-weighted dollar must depreciate by about 28% in real terms, which amounts to a real appreciation averaging about 39% by major trading partners.

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Many, if not most, international economists have a similar view: the key to reducing the U.S. trade deficit is to devalue the dollar. Before the 1985 Plaza Agreement, Feldstein (1985, p. 998), by then economic adviser of the president, argued: "To remedy our trade deficit, the real value of the dollar must decline by enough to reverse its nearly 70% rise in the past 5 years". And in January 2006, Feldstein argued that "The real trade-weighted value of the dollar must fall by at least 30% to shrink the trade deficit to a sustainable level of 3% of GDP". But here we focus our critique on Cline's econometric model.

In his new book, Cline notes that the U.S. current account deficit of about 5.7% of GDP in 2004 (6.2% in 2005 and approaching 7% in 2006) has already reached a historical record. Without coordinated international economic policy intervention, this trend could be expected to continue with the current account deficit becoming greater than 7% of GDP by 2010. He argues that these large deficits are unsustainable, and that the postponement of action now to reduce this deficit would lead to a more severe problem with dramatically higher adjustment costs of global imbalances in some future crisis. Thus, in his more recent policy brief, he advocates immediate coordinated action across countries analogous to the Plaza Hotel Accord of September 1985, when the U.S. dollar was "talked" down against the yen and a bloc of European currencies by their respective governments. Japan then had the world's largest current account surplus, and the yen was talked up the most. Ostensibly, the aim was to correct what was in 1985 thought to be an unsustainable U.S. current account deficit of "only" 4% of U.S. GDP.

Cline's new book and argument for a new "Plaza" Accord go well beyond the ambit of the original and other IIE authors' emphasis on the need to appreciate the renminbi. He focuses on a total of 26 countries that are significant American trading partners, most of which have substantial overall trade surpluses. For realigning their exchange rates, he suggests a target of reducing the U.S. current account (trade) deficit from about 6 to 3% of U.S. GDP. As befits the center country under the world dollar standard, the U.S. Federal Reserve Bank seldom intervenes in the foreign exchange markets. Thus, Cline focuses on the need for the 26 other countries, most of whose central banks do intervene from time to time, to appreciate their currencies against the dollar. The prime criterion is the size of each country's trade surplus relative to its own GDP—and this varies enormously.

Table 1, taken from Cline's "The Case for a New Plaza Agreement", presents his projections of the real exchange rate appreciations against the dollar for 26 countries necessary to reduce the U.S. current account deficit down to 3% of GDP. Taking average exchange rates over 2002 as the base, the "Optimal" column gives the *real* percentage appreciations – cumulated into the indefinite future – that are necessary for each country to do its fair share to reduce its trade surplus. The next column, "Actual", shows their actual appreciations from 2002 up to 15 November 2005, when his Plaza paper was written. Because the U.S. dollar weakened against some currencies in 2002–2004 and then on net balance strengthened in 2005, this second column show a mélange of plus and minus signs (Cline would have liked them to be all pluses in order to show progress in appreciating against the dollar). The third column, "Remaining", is the difference between the two: the appreciation still remaining as of 15 November 2005 for each country to meet Cline's target reduction in the U.S. trade deficit.

The right-hand column in Table 1 shows the individual trade-weighted appreciations of each country as if they had all appreciated against the dollar by Cline's recommended amounts. To achieve this coordinated devaluation of the U.S. dollar, Cline advocates a "New Plaza Agreement" spanning the 26 countries and the U.S. Of course, if they all appreciate together against the dollar, the appreciation of any one of them measured multilaterally will be much less: entries in column 4 are much smaller then those in column 3.

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Table 1
William Cline's projected real appreciations against the dollar (percentage changes from average levels in 2002)

Country/region	(1) Optimal	(2) Actual[a]	(3) Remaining	Memorandum optimal trade-weighted
Argentina	40.7	24.5	13.0	5.2
Australia	44.2	31.9	9.3	2.6
Brazil	39.0	60.1	−13.2	7.2
Canada	16.9	27.8	−8.5	4.6
Chile	38.3	27.2	8.7	3.4
China	45.9	1.8	43.3	8.1
Colombia	25.7	20.8	4.1	3.4
Euro area	44.4	19.7	20.6	7.3
Hong Kong	55.9	−10.7	74.5	11.1
India	44.5	9.9	31.5	4.9
Indonesia	49.8	6.0	41.4	5.8
Israel	32.9	−8.4	45.1	2.5
Japan	53.3	−5.6	62.4	16.7
Korea	45.6	22.1	19.2	6.4
Malaysia	55.7	−3.1	60.6	13.3
México	13.6	−4.7	19.1	2.1
Philippines	47.3	3.9	41.8	6.3
Russia	55.6	46.7	6.1	14.5
Saudia Arabia	60.7	−7.6	73.9	22.2
Singapore	87.5	−2.4	92.1	46.2
Sweden	49.9	10.1	36.1	10.2
Switzerland	55.7	10.0	41.6	14.9
Taiwan	47.7	−2.2	51.1	7.1
Thailand	47.2	3.2	42.6	5.2
United Kingdom	42.2	13.5	25.3	3.1
Venezuela	31.0	−24.2	72.7	17.7

Source: Cline (2005b).
[a] To 15 November 2005.

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Focusing on column 3 in Table 1 (the 26 necessary appreciations against the dollar remaining as of 15 November 2005), we see some quite extraordinary numbers. Against the dollar, the projected (remaining) real appreciations are 92.1% for Singapore, 74.5% for Hong Kong, 73.9% for Saudi Arabia, and 72.7% for Venezuela, with China getting off surprisingly lightly with a projected appreciation of the renminbi of "only" 43.3%. Another group of developing countries – India, Indonesia, Israel, Malaysia, Taiwan, and Philippines – are projected to appreciate anywhere between 30 and 60%, whereas in "old" Europe, the euro still has 20.6% to appreciate, the pound sterling 25.3%, the Swedish Kronor 36.1% and the Swiss franc 41.6%.

Most intriguing is Cline's recommendation for Japan. He projects that the yen should "now" (as of late 2005) appreciate by 62.4% against the dollar. This would currently correspond to a level of about 72 yen per dollar. From his econometric model, this high appreciation assigned to the yen reflects Japan's continued large trade surplus—which, ironically, the earlier massive run-up of the yen after the 1985 Plaza Accord through to 1995 failed to "correct". But the overvalued yen was a prime contributor to Japan's deflationary slump in its lost decade of the 1990s (McKinnon & Ohno, 1997).

History repeats itself. From the 1980s to the mid 1990s, it was Japan rather than China that had the largest and most rapidly growing trade surplus—both bilaterally with the United States and multilaterally. The result was what is popularly called "Japan bashing": serial threats by the U.S.

government of trade sanctions on particular Japanese exports coupled with pressure to appreciate the yen—what McKinnon and Ohno (1997) called "the syndrome of the ever higher yen". The yen went all the way from 360 to the dollar in 1971 at the end of the Bretton Woods period of fixed dollar parities to touch 80 to the dollar in April 1995. At that time, the IIE was in the forefront of urging the U.S. government to pressure Japan to appreciate the yen. And again it was William Cline who provided an econometric model (Cline, 1995) that the IIE used back in the early 1990s for projecting how much further the yen should appreciate. (Focusing more on Japan and Germany, Cline's 1995 model was similar to, but not as general as his 2005 version over 26 countries.) Although the yen peaked out at 80 to the dollar in April 1995, it was only prevented from going higher by joint foreign exchange interventions in the summer of 1995 by the U.S. Federal Reserve and Bank of Japan[1] to cap it—and by the U.S. Secretary of the Treasury, Robert Rubin, announcing a new strong dollar policy. Nevertheless, in the fall of 1995, Cline was still arguing strenuously for further yen appreciation despite the deflationary slump in Japan's economy.

To give Cline credit, in chapter 3 of his recent book and his earlier one (1995), he does spell out the econometric model underlying his extraordinary exchange rate projections. But in this modern era of China bashing, his IIE colleagues – Fred Bergsten, Morris Goldstein, Nicholas Lardy, and Michael Mussa – who advocate various degrees and modes of renminbi appreciation do not (Bergsten et al., 2005). Thus, Cline's current empirical work undergirds the IIE's institutional position on exchange rates and consequential pressure on China to appreciate, ostensibly to reduce its large and growing trade surplus.

We begin our critique fairly narrowly by focusing on Cline's econometric technique (as outlined in chapter 3 of his new book), which is based on his version of the elasticities model of the balance of trade. Then, within a broader macroeconomic setting, we consider conceptual problems with the elasticities approach to the trade balance—whether used by William Cline or by the many other international economists who are wedded to it.

2. Cline's econometric model

To derive the optimal degree of real appreciation of the currencies of the most important U.S. trading partners, Cline (2005a) proceeds in two steps. First, he constructs a model to project the consequences of depreciating the dollar in real terms multilaterally against all significant trading partners, i.e., the consequences for the current account of the American balance of payments of depreciating the dollar's real effective exchange rate—as in his chapter 3. Second, based on an optimization exercise, he decomposes this benchmark target value for the dollar's real effective depreciation into the real appreciations of the 26 countries shown in Table 1—as in chapter 6 of his book and more recent policy brief.

2.1. An elasticities model of the U.S. balance of trade

Cline's underlying theoretical framework focuses on the current account of the U.S. balance of payments, where the trade balance dominates by being the biggest item and most amenable to exchange rate changes. In two reduced form Eqs. (3.1) and (3.2) taken from chapter 3 of his

[1] Japanese interventions were backed by substantial interest rates cuts from about 2.25% in January 1995 to about 0.5% in October 1995.

book, U.S. real exports and imports depend on real exchange rate changes, domestic activity and foreign economic activity as well as on domestic and foreign capacity growth:

$$X_t^* = X_{t-1}^*(1 + \beta\varphi\dot{R}_{\mathrm{L}}^*)(1 + \eta g_{\mathrm{f}})(1 + \varepsilon gc_{\mathrm{d}})(1 + \Omega\{g_{\mathrm{f}} - \hat{g}_{\mathrm{f}}\}) \tag{3.1}$$

$$M_t^* = M_{t-1}^*(1 + \alpha\theta\dot{R}_{\mathrm{L}}^*)(1 + \gamma g_{\mathrm{d}})(1 + \delta gc_{\mathrm{f}})(1 + \lambda\{g_{\mathrm{d}} - \hat{g}_{\mathrm{d}}\}) \tag{3.2}$$

In Eqs. (3.1) and (3.2), the asterisk denotes real quantities, L lagged values, the overdot percentage changes, and g an operator indicating proportionate annual growth. The change in U.S. real exports X^* from 1 year to the next is assumed to depend on the change in the real effective exchange rate $\dot{R}_{\mathrm{L}}^*$ (using the Federal Reserve Board's trade-weighted index in dollars/foreign currencies deflated by consumer price indexes), growth in foreign economic activity g_{f} (or real national income), as well as on domestic capacity growth gc_{d}.

The coefficient β denotes the price elasticity of foreign demand for U.S. exports; the pass-through of U.S. export prices from exchange rate changes into foreign currency prices is denoted by φ. With an assumed export pass-through ratio of $\varphi = 0.8$ and a price elasticity of U.S. exports with respect to real appreciation of $\beta = 1$, a 43% real appreciation of the Chinese yuan against the dollar would boost U.S. exports to China ceteris paribus by about 35%. The income elasticity of foreign demand for U.S. exports is denoted by η with an assumed value of 1.5. This implies that a 5% real growth in China implies that Chinese imports from the U.S. grow by 7.5%. Furthermore, trend annual output capacity growth in the United States is denoted by gc_{d} with an export elasticity with respect to U.S. capacity growth ε assumed to be equal to 2. The average foreign real growth during the period (1992–2003) is $\hat{g}_{\mathrm{f}}$. Ω is the cyclical elasticity or export demand.

In Eq. (3.2), changes in U.S. real imports M^* are assumed to depend on real exchange rate changes $\dot{R}_{\mathrm{L}}^*$, U.S. economic activity growth g_{d} as well as on foreign capacity growth gc_{f}. The coefficient α denotes the price elasticity of U.S. demand for imports; the pass-through of exchange rate changes from foreign currency export prices to U.S. import prices is denoted by θ. An assumed import pass-through ratio of $\theta = 0.5$ and a price elasticity of U.S. imports with respect to real appreciation of $\alpha = -1$, imply that a 43% real appreciation of the Chinese yuan against the dollar would reduce real U.S. imports from China ceteris paribus by about 21.5%. The income elasticity of the U.S. demand for foreign imports is denoted by γ with an assumed value of 1.5. An additional 2% points real growth in the United States would grow U.S. imports by 3%. Trend annual foreign output capacity growth is denoted by gc_{f}. The U.S. import elasticity with respect to foreign capacity growth δ is assumed to be 2. The average U.S. growth during the period (1992–2003) is $\hat{g}_{\mathrm{d}}$. λ is the cyclical elasticity of import demand.

The main econometric flaw in Cline's specification for U.S. exports and imports is that his projections treat all variables on the right-hand side of the equation – specifically, the cumulative real exchange rate changes $\dot{R}_{\mathrm{L}}^*$ and domestic activity at home (g_{d}) and abroad (g_{f}) – to be exogenous. Moreover, these "activity" variables do not make any distinction between income and absorption, and income is assumed to grow at its historical average rate. The impact of real exchange rate changes on foreign or U.S. income or absorption is thereby omitted from the projection procedure.

In addition, the link between nominal and real exchange rates is not specified. In a world where many countries peg their nominal dollar exchange rates, changes in these *nominal* pegs (as in the case of China) could be considered a legitimate right-hand side or "exogenous" variable. But then relative monetary policies, which are not in the projection model, must be altered to sustain any such nominal changes—either easy money and inflation in the U.S. associated with the nominal depreciation, or tight money and deflation in the foreign country whose currency appreciates in

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nominal terms. With the passage of time, the macroeconomic upshot could then be little or no change in real exchange rates.

William Cline recognizes some of these problems with endogeneity in his right-hand side variables; indeed, some are discussed in chapters 4 and 5 of his book. But they are *not* incorporated into the projection procedure laid out in Eqs. (3.1) and (3.2), which he uses to grind out his incredible estimates for "desirable" exchange changes appearing in Table 1. Later, in our economic critique, we discuss these macroeconomic interactions.

2.2. Optimal dollar devaluation

Once Cline computes the consequences of real exchange rate change for U.S. real exports and real imports (as per Eqs. (3.1) and (3.2)), he then converts them into nominal dollar terms to get the implications for the U.S. current account. (Remember that, because he assumes that the U.S. import price elasticity of demand is unity, the impact on the current account depends just on U.S. export expansion.) For other items in the current account such as net income from capital services and international transfers, he makes additional projections. But it is the trade balance that does the adjusting.

How much dollar devaluation does Cline deem necessary and desirable? His target for the U.S. current account deficit of 3% of GDP is set exogenously. This level could be sustainable in the sense of being consistent with a non-increasing ratio of U.S. net debt to foreigners as a proportion of U.S. GDP as long as the U.S. economy continues to grow vigorously. He concludes in his book (page 244) that, from the average level in 2002, trade-weighted foreign currencies should *appreciate* against the dollar by 39% (a real *depreciation* of the dollar of 28%), and foreign growth should accelerate by 0.75% points for 3 years in order to the bring the U.S. current account deficit down from a projected value of 7.5% of GDP by 2010 to about 3%. Because these are real exchange rate projections, the necessary nominal changes could be much bigger—even indeterminately large.

2.3. Allocating exchange rate appreciations to foreigners: Cline's blueprint for international adjustment

Given this benchmark target for the average real appreciation of foreign currencies and the associated decline in the future U.S. current account deficit, Cline (2005a) derives a "blueprint for international adjustment" in chapter 6. He calls for an adjustment of the current account balances of all 26 U.S. trading partners (except Australia). Countries with current account surpluses larger than 1% of GDP – for instance Japan, China, Russia, and Saudi Arabia – are expected to cut their 2004 current account surpluses by 40%. Countries with smaller surpluses or even deficits are set to "worsen" their current account balance by 0.35% of GDP. The euro area is expected to transform its current account surplus of 0.4% of its GDP into a deficit of −0.3% of GDP. By and large, the aggregated absolute value of the respective foreign current account decreases should then match Cline's target for the decrease in the U.S. current account deficit, i.e., a decrease of $ 314 billion in absolute terms as of 2004.

In a second step, Cline decomposes the predetermined overall real appreciation of the currencies of America's trading partners into the individual real appreciations against the dollar shown in Table 1. The optimization process uses the required 39% average real appreciation of the trade-weighted partners' currencies against the dollar as an absolute constraint, and then minimizes the deviations of their current accounts from the targets specified above. To derive the impact of real effective exchange rate changes on the current accounts of individual countries, he assumes that the trade price elasticities of demand are equal to unity for both exports and imports. This implies that the whole current account adjustment is achieved through declining exports. On the import side with an assumed pass-through equal to unity, the decrease in import prices in the appreciating country is offset by a proportionate increase in import volumes.

Finally, in chapter 6, the supply elasticities of export volumes with respect to the price in the foreign market are (partially) incorporated. While the export supply elasticity is assumed to be virtually infinite for any rather closed economy (such as the United States Japan, or the euro area), export supply elasticities are assumed to decline for more open economies. So-called effective elasticities of exports with respect to real exchange rate changes range from −0.1 in the United States and −0.12 in Japan up to −0.47 in Malaysia, which is a very open economy. The expected change of the current account (as a fraction of GDP) to any exchange rate change depends on these export supply elasticities. Cline uses an optimization algorithm to jointly determine the targeted values of the current accounts and the real appreciations of individual countries shown in Table 1.

The methodology used in chapter 6 to assign "needed" adjustments to particular countries is an even cruder version of the elasticities approach because income (or absorption) effects are omitted. For any single country, the effect of its real appreciation depends only on the relative price effect of its goods becoming more expensive in world markets. Domestic and foreign economic activities are completely excluded from the exercise. Thus changes in imports in response to changes in domestic income (or absorption) are not incorporated. Apart from focusing on America's industrial competitors such as China and Japan, Cline also calls for a significant reduction in the oil exporting countries' current account surpluses.

3. An economic critique of Cline's model

Our economic critique will proceed on two levels: (1) we address the fairly narrow question of whether large changes in dollar exchange rates that William Cline and many other economists seem to want will in fact substantially reduce the U.S. trade (and thus current account) deficit; (2) we address the broader question of what the worldwide macroeconomic consequences would be—either deflation for America's creditor economies on the periphery of the world dollar standard or inflation in the United States itself. Could central banks maintain monetary control in the face of such large (sustained) changes in exchange rates?

3.1. The exchange rate and the trade balance

Independent of whether such sharp worldwide relative price changes would contribute to macroeconomic turbulence such as that experienced after the Plaza and Louvre Agreements (Funabashi, 1989), exchange rate appreciations would not have the effects projected in Cline's equations. His "New Plaza Agreement" would be as disappointing as the first one.[2]

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[2] After the 1985 Plaza Agreement Takenaka (1989, p. 4), now Japanese Minister of State for Economic and Fiscal Policy and Minister of State for Privatization of the Postal Services, commented: "After the sharp post-Plaza appreciation of the yen, observers in Washington expected with tension the new trade statistics. The disappointment rose when the exchange rate mechanism had failed again". The Institute for International Economics organized a conference to find out, why the adjustment process had not worked as expected (see Krugman, 1991). The asymmetric behavior of the United States-Japanese trade imbalance at the beginning of the 1980s (when the dollar sharply appreciated) and the mid 1980s (when the dollar strongly depreciated) led to the hysteresis literature (e.g. Krugman, 1991). The Japanese current account

To give Cline credit, he points out one important reason for why the initial response of the trade balance to an exchange rate change is so sluggish: pass-through is incomplete. In the case of Japan and other countries in the aftermath of the first Plaza Agreement in 1985, export enterprises substantially reduced prices in yen in order to sustain prices in terms of the U.S. dollar and so keep their market shares in the United States. The finding that the pass-through from exchange rates to prices was incomplete, led to the emergence of the pricing to market literature (e.g., Marston, 1991).[3]

That said, however, Cline's theoretical framework still has three main flaws. First, for any country on the periphery of the dollar standard, the general deflationary impact of a sustained appreciation of the *nominal* exchange rate in the longer run is omitted. In Japan, the decline of export prices was also gradually passed through to domestic prices.[4] The consequence was a sustained deflation that, together with productivity increases, dampened the real appreciation and eventually restored the competitiveness of the Japanese export industry (McKinnon and Ohno, chapter 7). Today, China and other East Asian countries might be similarly able to cope with the appreciation of their currencies by postponing wage increases and increasing productivity. Specifically, if employers in China's export activities anticipate that renminbi will be appreciating, they will bid for workers less aggressively and China's very high growth in nominal wages will slowdown even before substantial appreciation in the renminbi actually occurs (McKinnon, 2006). Eventually, China's internal price level would fall and approximately restore the initial real exchange rate.

In the case of the oil and raw material exporting countries as Russia, Saudi Arabia and Venezuela, their exports are invoiced in dollars, and their dollar prices are normally are independent of exchange rate fluctuations. However, anticipation of dollar devaluation with rising inflation in United States could encourage them to withhold current supplies in the hope of getting a higher dollar price in the future, thus increasing the current price. Also, they could also hedge themselves by buying manufactured good invoiced in euros or yen. If the currencies of all the industrial countries other than the United States appreciated against the dollar, their demand for what looks like cheaper oil (when priced in dollars) could ceteris paribus drive up the dollar price of oil even higher than it is today. But against this is the real possibility of a slowdown in the economic growth of industrial countries outside of the United States leading to a lower price for oil. So what the net effect would be on the world dollar price of oil is hard to judge.

Second, unlike the projection procedure presumed in Eqs. (3.1) and (3.2), real exchange rate movements and domestic activity are not independent of one another. Here it is important to note that, outside of Europe, the world is largely on a dollar standard, with industrial countries in East Asia and elsewhere pricing their exports to worldwide markets in dollars. In addition, the Asian creditor countries of the United States are now large holders of liquid dollar assets—some held privately and some held as official exchange reserves.

Thus if any one creditor country, such as China, were forced into a major appreciation against the dollar, domestic expenditures (absorption) would fall in the short and medium term from three effects: (1) the income lost from a fall in exports; (2) a fall in domestic investment in what would now look like a higher-cost country in which to invest and produce; (3) a negative domestic wealth

surplus only started to decline after the Japanese monetary and fiscal expansion was agreed in the February 1987 Louvre Accord (Funabashi, 1987).

[3] "Relative import prices fell as the dollar rose, as one might expect; but [. . .] they were slow to rise as the dollar fell". (Krugman, 1991)(Krugman 1991: 301-302).

[4] Schnabl and Baur (2002) scrutinize the interdependence of exchange rates and prices.

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effect as the value of China's dollar assets fell in terms of renminbi. Thus China's imports could actually decline enough to offset the decline in their its exports leaving the effect on the net trade balance ambiguous (McKinnon, 2005; Qiao, 2005).

In the aftermath of the Plaza Agreement, the appreciation of the Japanese yen of about 50% between March 1985 and February 1988 led to a sharp high-yen induced recession (*endaka fukyo*) as profits of Japan's export industries strongly declined. Overvaluation, worsened by a further "forced" yen appreciation in 1995, contributed to lower domestic spending (including for imported goods) and declining real growth. Throughout the depressed 1990s, imports as well as exports fell resulting in no obvious reductions in Japan's large current account surplus as a share of its slumping GNP.

Strong real appreciations should be accompanied by *lower* projections for growth in the appreciating country. Instead, to meet his projections for reducing the U.S. current account deficit to 3% of GDP, Cline (2005a, p. 91) assumes a temporary *rise* of 0.75% above past trends in the income growth of the U.S. trading partners whose currencies he posits should appreciate.

Third, while Cline is very explicit about the degree of his desired *real* appreciations of foreign currencies (Table 1), how this can be achieved remains very unclear. The most that governments can do is to agree on changes in nominal exchange rates. And sustaining any nominal changes into the indefinite future means that relative national monetary policies must change to support them: be deflationary in the appreciating countries and relatively inflationary in those that depreciate.

Under the world dollar standard, the peripheral countries determine nominal exchange rates by pegging to the dollar—or intervening from time-to-time in dollar terms. Traditionally, except in severe crises, the United States does not intervene and follows an independent monetary policy to stabilize its price level (the purchasing power of the dollar)—which the others can then take as a benchmark or anchor for their own price levels. Thus it is quite natural that the main monetary adjustments would take place in the peripheral countries, each one appreciating somewhat differently, but not in the United States itself. This is certainly what happened after the 1985 Plaza agreement. There was strong deflationary pressure in Japan, the country that had appreciated the most, and relatively weak inflationary pressure in the United States. And of course deflation in Japan over several years ultimately negated the real appreciation of the yen, even though its nominal value remained high (McKinnon & Ohno, 1997, chapters 6 and 7).

3.2. Fiscal policies and expenditure adjustment

William Cline's advocacy of a new Plaza Accord poses a paradox. He presents the need for the extraordinary real appreciations of the dollar exchange rates of America's trading partners shown in Table 1 in order to reduce the American current account deficit to just 3% of U.S. GNP. But these "necessary" exchange rate changes are derived from his unreconstructed elasticities model of the balance of trade (Eqs. (3.1) and (3.2)), where the necessary improvement in the U.S. saving-investment balance enters only implicitly. However, he recognizes in his book – particularly in chapters 3 and 4 – the relevance of the absorption approach to the balance of payments: somehow U.S. national saving must rise relative to investment, and foreign saving fall relative to foreign investment, for the huge U.S. current account (and trade) deficit to be reduced.

In chapter 4, Cline talks extensively about the desirability of, and possibilities for, reducing the large U.S. fiscal deficit – a terrific drain on American national saving – which is about 3 to 4% of GDP. In chapter 5, he goes further and worries about the precipitous fall in American personal saving. Yet, to deepen the paradox, his highly informed discussion of these issues seems to be

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quite pessimistic about the prospects for any improvement in the U.S. fiscal balance under current political conditions?

One interpretation is that the large appreciations of foreign currencies projected in Table 1 are just necessary conditions for the U.S. current account to improve, but are not themselves sufficient. However, suppose no improvement in the U.S. saving-investment balance is forthcoming, then is not the advocacy of dollar devaluation a rather dangerous one? In effect, Japan bashing to get the yen up from the 1970s to the mid 1990s, and China bashing now to appreciate the renminbi, fall into this category of forcing exchange rate changes on foreigners *without* concomitant improvements in the saving-investment balance in the United States. As we have seen, the forced appreciations of the yen from the mid 1980s to mid 1990s had disastrous consequences for Japan.

A more fundamental critique of Cline's emphasis – and that of the Institute for International Economics more generally – focuses on the need for large exchange rate adjustments when, and if, the American saving-investment balance begins to improve. Recall that the American trade deficit began in the 1970s, became acute in the 1980s, improved in the early 1990s, and then became acute again in the late 1990s to the present. Over this 30-year period, the dollar has been up and down several times against the currencies of major trading partners, and today it is probably about the middle of its long-term (30-year) range. One cannot see any systematic pattern of movement in the dollar's exchange rate that could explain the evolution of today's huge current account deficits. The bourgeoning U.S. fiscal deficit and collapse in personal saving are explanation enough without appealing to confusing movements in exchange rates.

Conversely, suppose that a more responsible U.S. government embarked on a systematic long-term program for improving the public finances (reducing deficits), and that the housing bubble died softly so that consumer loans diminished and American household saving began to return to normal. Then, after some years, the U.S. current account deficit would diminish accordingly—again with no obvious change required in nominal exchange rates. Of course, real exchange rates would adjust slowly, i.e., the prices of American tradables relative to nontradables would increase gradually. But nobody would know the eventual cumulative amount, and the change would be barely noticed.

4. Exchange rate clubs: a concluding parable

Specialists in exchange rate economics fall into two distinct clubs: A and B. Members of Club A, by far the larger group, have been brought up since they were undergraduates (maybe since high school) on the elasticities model of the balance of trade. Besides being algebraically tractable, the microeconomics of this model seem intuitively plausible: the relative price effects of changes in *real* exchange rates seem to go in the right direction for correcting international imbalances in trade flows. True, at a more macroeconomic level, the more sophisticated in Club A also worry about saving-investment imbalances across countries. But they still see a devaluation of the real exchange rate to be useful for easing the adjustment process if, say, a country with large trade and fiscal deficits reforms itself by phasing out the fiscal deficit so that its international balance of trade can improve. William Cline is a member of Club A in very high standing.

Club B is much smaller, and is mainly made up of monetary economists (excluding monetary cranks of course!). Characteristically, members of Club B emphasize the linkages between national monetary policies and *nominal* exchange rates in financially open economies. Causality goes in both directions: a floating nominal exchange rate today is determined by what forward-looking investors think the national monetary policy will be relative to that in other countries; and, conversely, any official action taken today to peg an exchange rate into the indefinite future

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– or negotiate some major change such as a devaluation or appreciation – requires that relative national monetary policies must (eventually) be changed to support it. Otherwise, the officially assigned path for the nominal exchange rate cannot be sustained. Countries that agree (perhaps by some Plaza-type negotiation) to having their currencies appreciate are also agreeing to follow a deflationary future monetary policy relative to greater inflation in the depreciating country.

We are sorry to report that membership in Club B is quite exclusionary. It would not admit economists who believe that governments can manipulate real exchange rates on a sustainable basis—let alone those who believe that exchange rate changes can compensate for saving-investment imbalances across countries. As narrow-minded monetary economists, members of Club B believe that central banks should aim only to stabilize the national price level. They are most fearful of having to alter the national monetary policy to support either an exchange rate appreciation or depreciation that the Ministry of Finance negotiates (mistakenly in their view) with some foreign government.

Being monetary economists, members of Club B can easily understand international currency asymmetry: why it is convenient, and even necessary, for one currency such as the dollar to dominate international finance as a vehicle and invoice currency. They understand the logic of an intervention system where other countries use only the dollar as their intervention currency, and the United States (as center country) does not intervene in order to minimize potential conflicts. On occasion, a central banker in good standing in Club B may opt to peg (stabilize) his country's nominal exchange rate against the dollar in order to better secure or anchor the national price level—as many countries in Asia now do. Unfortunately, members of Club A may see this as a mercantilist plot for stimulating exports by keeping its real exchange rate undervalued. But, with a fixed nominal exchange rate, Club B members know any such "undervaluation" would be washed away by inflation after which the domestic price level would stabilize.

What is truly dismaying for members of Club B is when so many members of Club A are opting for a massive "real" dollar devaluation—which, in the first instance, would be a devaluation of the dollar in nominal terms. Club B members know that such a great monetary shock would result in inflation in the United States or (relative) deflation in countries on its monetary periphery. Nobody would know how this division between inflation and deflation would play out.

However, such an event did occur in August 1971, when President Nixon imposed tariffs in order to force all the other industrial countries to appreciate against the dollar. Because this "Nixon Shock" was so well telegraphed in advance, the huge flight from dollar assets into foreign monies led to a loss of monetary control both in the United States as well as in Europe and Japan. Foreign governments had to intervene to resist having their currencies appreciate by more than what was agreed on with President Nixon, and their massive buildup of dollar exchange reserves led them to issue too much base money. In the United States, the flight from dollar assets greatly reduced the demand for U.S. base money, and the Fed, not realizing this, continued to increase the supply of base money. The result was the disastrous world wide inflation of the 1970s. However, the inflation was greater in the United States, which had depreciated, than in Germany and Japan, who had been forced into appreciating. But growth in real income and productivity declined everywhere.

Members of Club B lie awake at night wondering if such a calamitous event might happen again.

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