Resolving Stock and Flow Explanations for Dollar Decline

Excerpts from Blanchard et al.

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Elasticities Approach: How big is the trade balance?

![Graph showing trade balance to GDP ratio and broad index of US$ value over time.](image_url)
National Savings Identity: What’s Nat’l Savings doing?

\[ C + S + T = Y = C + I + G + EX - IM + R \]

\[ S + T = I + G + EX - IM + R \]

\[ (S + T - G) - I = EX - IM + R \]

Nat’l Savings – Nat’l Investment = CA
Chart 1-3  Saving, Investment, and the Current Account Balance
Lower national saving primarily accounts for the widening of the current account deficit since 2000.

Source: Department of Commerce (Bureau of Economic Analysis).
Portfolio Balance: What is the stock of US gov’t debt doing?

- Extend tax cuts, adjust AMT, exp grow w/ GDP
- Extend tax cuts, adj. AMT
- All, and Social Security reform
- CBO baseline (Aug. '04)
Resolving stock and flow views of the dollar’s prospects

• It would seem that there are three different views.
• But each is part of a whole.
• This doesn’t mean that you can use them all indiscriminately
• Challenge: How to fit the explanations together.
Blanchard et al. (2005)

• Uses a portfolio balance model to interpret the dollar’s prospects
• Basic conclusion: Higher US net debt must be associated with weaker dollar, in the presence of home bias.
• Why? As wealth is transferred to the RoW, demand for US assets fall, and hence a weaker dollar.
The model

\[ X = \alpha (1 + \frac{\dot{E}^e}{E}) (X - F) + \left(1 - \alpha^* (1 + \frac{\dot{E}^e}{E})\right) \left(\frac{X^*}{E} + F\right) \]

\[ \dot{F} = rF + (1 - \alpha (1 + \frac{\dot{E}^e}{E})) \frac{\dot{E}}{E} (X - F) + D(E) \]

Where \( E \) is real value of the US dollar; \( X \) gross assets, \( F \) is US net debt, \( D \) is the US trade deficit, all in terms of US goods.
What’s required to eliminate the CA deficit?

• Assume the sum of import and export elasticities sums to 1.7 (Chinn estimates about 1.1)

• Unexpected depreciation implies revaluation effect a la Gourinchas-Rey (15% depreciation yields 0.4 ppt decrease in interest payments)

• So 15% depreciation yields 1.4 ppt CA improvement
Starting and ending points

- Trade deficit is 5% of GDP
- NIIP is -25%
- Interest rate 4%
- Current account deficit 6%
- 90% depreciation (ignoring valuation effects)
- 65% depreciation (w/valuation effects, unexpected depreciation)
Reducing the implied depreciation

• Allowing for higher rates of return on US assets vs. US liabilities: 57%
• Allowing for US growth of 4% p.a. (hence to stabilize NIIP/GDP, CA deficit to 1% of GDP): 47%
Figure 2a. Adjustment of the exchange rate and the net debt position to a shift in the trade deficit.
Figure 2b. Adjustment of the exchange rate and the net debt position to a portfolio shift towards U.S. assets.
Figure 4. Adjustment of the exchange rate and the net debt position to the end of pegging.