

East Asia and Global Imbalances: Saving, Investment, and Financial Development

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This paper is about financial development and current account balances. It looks at the effect of various aspects of financial development on current account (CA) balances and saving-investment determination. The paper is mainly motivated by Bernanke's (2005) "global saving glut" hypothesis. The hypothesis can be briefly stated as follows:

1. The US current account deficit is mainly determined by the low cost of borrowing made possible by the huge inflows of funds from emerging markets, such as China and the rest of East Asia
2. Investment demand in the US has been very strong (or the US is an attractive destination for investment) in the last ten years or so because of its political stability, strong property rights, good regulatory environment, and strong performance in the equity market and later the property market (following the dot com bubble burst)
3. The CA deficit has very little to do with the large budget deficit of the US
4. The US current account deficit is determined factors beyond the US borders

Bernanke thinks that the solution to this "unnatural" reversal of roles of the LDCs being lenders and DCs being borrowers is for emerging markets to improve their investment environments, macroeconomic stability, property rights, and financial liberalization

Essentially, the main point of Bernanke's (2005) speech was to explain the ballooning current account deficit of the US in the years leading to 2005. The alternative hypothesis he focused on was the "twin deficit" hypothesis --- the large current account deficit was a result of the large budget deficit.

The policy implications could not be more different. If the saving glut theory is correct, then the solution to the huge current account deficit of the US is for emerging markets to liberalize financial sectors so that their citizens can invest their savings in domestic economies. This would possibly result in higher interest rates (or higher returns to investors) for savers and lower interest rates for borrowers (or lower cost of capital) in these countries. If the twin deficit hypothesis is correct, then the reduction of the humongous US current account deficit requires a reduction of the budget deficit.

To facilitate discussion, let us write down the following simple identity:

$$CA = S - I + (T - G)$$

where CA = current account balance; S= domestic private saving; I = domestic private investment; T = tax revenue; G = government purchases. Suppose the country under discussion is the US. Obviously, if T - G is relatively stable over time, then the ballooning CA deficit cannot be due to changes in budget deficit. It must be

due to a much faster increase in I relatively to that of S. On the contrary, if changes in $T - G$ more or less mirrored changes in CA, then the twin deficit hypothesis cannot be rejected.

My view of the saving glut hypothesis is that it is composed of three parts. First, twin deficit hypothesis does not explain the huge current account deficit of the US in recent years. Instead, the CA deficit must be explained by large increase in I relative to that of S in recent years. Second, the large increase in I in the US was made possible by large influx of funds from emerging markets, whose financial development is relatively weak. Third, financial liberalization in these emerging markets can reduce the outflows of funds from these countries and therefore diminish this global saving glut. This will in turn help to reduce the CA deficit of the US as cheap funds are not as easily available from overseas as before. Let us deal with each part one by one.

For the first part of the hypothesis: If one examines the data on current account balance of the US in recent years (see Table 1) and compare them with data on government budget balance of the US during the same period (see Table 2), one can see that the CA balance continued to deteriorate despite the gradual reduction in budget deficit. So, the twin deficit hypothesis is not supported by the data. So, the first part of the hypothesis seems to be right.

For the second part: If one examines data on current account balance of countries all over the world in say 2005 and 2006, it is clear that while the US ran huge CA deficits (US\$811 billion in 2006), a number of developed and less developed countries ran CA surpluses. In 2006, for example, the countries that ran the largest CA surpluses were China (US\$250 billion), Japan (US\$170 billion) and Germany (US\$147 billion).¹ Therefore, one cannot say that the capital inflows into the US were mainly supported by capital outflows from emerging markets where the levels of financial development were low. So, the second part of the hypothesis can only be partially true.

For the third part: It is not immediately clear whether financial liberalization in the developing countries that ran CA surplus can reduce the CA deficit in the US. In fact, this topic should be the main theme of the present paper. Note that, to be consistent with the saving glut hypothesis, the kind of financial liberalization that one should consider in this context should be the type that attracts domestic savers to invest in domestic markets. This would include reducing government regulation in the financial sector, improving legal infrastructure to enforce contracts and protect property rights, and maintaining macroeconomic stability. Viewed from this perspective, I can see several areas where this paper can improve if it truly wants to test whether the global saving glut hypothesis is true. First, the paper should focus on emerging markets. Second, one should focus on variables that capture institutional quality that improves the domestic investment environment, such as legal infrastructure, corporate governance, and independence of judiciary. The variables that the authors of this paper use are mainly not of this nature; instead, they use data that may or may not reflect institutional quality or investment environment. For example, activity in the stock market may not reflect high level of financial development if it is only a consequence of a lack of other high-quality channels for domestic savers to invest (e.g. bonds and bank deposits), as reflected in the recent stock craze in China. Third, not all types of financial reforms help domestic capital stay at home. On the contrary, some reforms tend to increase capital outflows rather than stamping them, such as reforms that allow home citizens to invest abroad. Therefore, one should distinguish between the different types of financial liberalization and expect them to yield different effects on the CA.

¹ They are followed by Russia (US\$95 billion) and Saudi Arabia (US\$95 billion)

It is true that China, being an emerging market, is running higher than its share of CA surplus as the US is running higher than its share of CA deficit (especially if one looks at not only data up to 2006, but also the estimated figures for 2007 and 2008 from the IMF). Therefore, to test the saving glut hypothesis, one should perhaps carry out an in-depth study of China. Would financial liberalization that reduces government regulation in the financial sector, improve legal infrastructure to enforce contracts and protect property rights, and maintain macroeconomic stability, reduce the CA surplus of China? Is it necessary for China to allow its currency to float more freely in order for its CA surplus to decrease substantially? A time-series analysis and/or case study may be necessary to address this question.

Yet, the present paper does not seem to be directly testing the saving glut hypothesis. Instead, being inspired by the hypothesis, it carries out a cross-section analysis of the effects of financial development on current account balance. To bring the research closer to the saving glut hypothesis, I suggest focusing more on the LDCs, as these are the countries where financial reforms are more pronounced. Moreover, if one really wants to find out whether financial liberalization in general can reduce CA balance in LDCs, one should perhaps test it directly. For example, one can identify episodes of financial liberalization in the developing countries and then run a cross-section regression of lagged CA balance on dummies of episodes of financial liberalization while controlling for economic fundamentals that affect CA balance, such as exchange rate, business cycle, capital mobility and so on. This will be less controversial than using variables that may or may not be able to capture financial liberalization.

Finally, the empirical study should be guided by theory. The Mundell-Fleming model immediately comes to mind, as it continues to be one of the most compelling models in international finance. If one adopts the Mundell-Fleming model, then how does financial liberalization affect current account balance in that context? Financial liberalization may be interpreted as an increase in the interest rate faced by lenders and a decrease in the interest rate faced by borrowers. In the Mundell-Fleming model, capital mobility and exchange rate regime affect how current account balance reacts to changes in the interest rate faced by lenders and that faced by borrowers. Therefore, both capital mobility (high, medium, low) and exchange rate regime (floating, managed, fixed) should be put on the right hand side of the equation. To illustrate why exchange rate regime should be taken into account, note that if China continues to peg its currency to the US dollar (albeit allowing it to appreciate slowly), one surmises that its current account balance would continue to be large even if it undertakes financial liberalization.

References

IMF World Economic Outlook Database October 2007

<http://www.imf.org/external/pubs/ft/weo/2007/02/weodata/index.aspx>

Table 1: Current account balance in billion USD (estimates after 2006)

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008
Canada	19.715	16.213	12.605	10.486	22.369	23.074	20.792	25.603	17.909
China	20.519	17.405	35.422	45.875	68.659	160.818	249.866	379.162	453.146
France	21.968	26.086	19.8	14.74	2.641	-23.951	-27.712	-39.363	-48.885
Germany	-32.557	0.38	40.588	46.286	117.988	128.379	147.134	175.371	174.137
Italy	-5.863	-0.639	-9.483	-19.605	-15.489	-27.461	-45.215	-47.964	-48.657
Japan	119.605	87.794	112.607	136.238	172.07	165.69	170.437	195.904	195.145
Russia	46.839	33.935	29.116	35.41	59.514	84.443	95.322	72.543	49.181
Saudi Arabia	14.336	9.366	11.889	28.085	51.995	90.11	95.514	83.122	81.807
United Kingdom	-37.649	-31.512	-24.79	-24.386	-35.405	-55.435	-77.236	-96.687	-105.144
United States	-417.429	-384.701	-459.636	-522.115	-640.157	-754.852	-811.483	-784.341	-788.293

Source: International Monetary Fund, World Economic Outlook Database, October 2007

Table 2: General government balance as percentage of GDP (estimates after 2006)

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008
Canada	2.9	0.7	-0.1	-0.1	0.8	1.6	1	0.9	0.9
France	-1.5	-1.5	-3.1	-4.1	-3.6	-3	-2.5	-2.5	-2.7
Germany	1.3	-2.8	-3.7	-4	-3.8	-3.4	-1.6	-0.2	-0.5
Italy	-0.8	-3.1	-2.9	-3.5	-3.5	-4.2	-4.4	-2.1	-2.3
Japan	-7.6	-6.3	-8	-8	-6.2	-4.8	-4.1	-3.9	-3.8
United Kingdom	1.5	0.9	-1.8	-3.5	-3.4	-3.3	-2.7	-2.5	-2.3
United States	1.6	-0.4	-3.8	-4.8	-4.4	-3.6	-2.6	-2.6	-2.9
United States (in billion USD)	159	-39.35	-396.675	-529.775	-508.7	-446.525	-344.75	-353.169	-414.781

Source: International Monetary Fund, World Economic Outlook Database, October 2007