China's Twin Surpluses

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China's twin surplus

Current Account, Trade Account and FDI in China
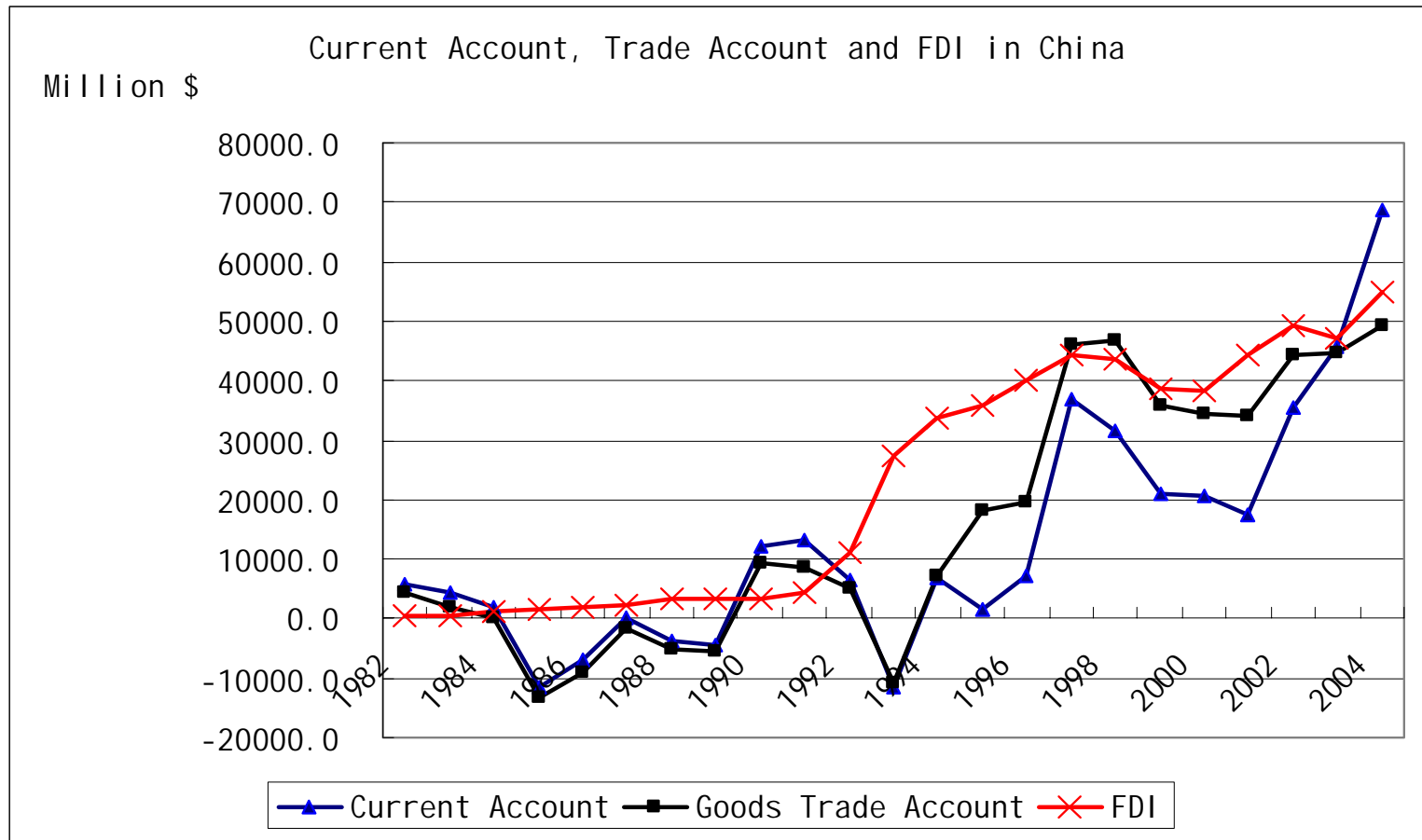
Harrod-Domar Model

$$Y = \min\left(\frac{K}{v}, \frac{L}{u}\right)$$

$$Y = \frac{K}{v}$$

$$n = \frac{i}{v} + \left(-\frac{\dot{v}}{v}\right)$$

Investment and saving

$$i = i_e + i_g + i_f = s_h + s_g + (s_f + s_r)$$

Total balance and setoral balance

$$\left(i_e - s_h\right) + \left(i_g - s_g\right) + \left(i_f - s_r\right) = s_f = c$$

$$\left(i_e - s_h\right) + \left(i_g - s_g\right) + \left(i_f - s_r - s_f\right) = 0$$

The Saving-investment gap

$$\left(i_e - s_h\right) + \left(i_g - s_g\right) + \left(i_f - s_r\right) = s_f = c$$

$$s_h - i_e - i_f = -c$$

C current account deficit. Assume away the government sector

FDI and current account balance

- To simplify analysis, we assume that domestic saving is equal to investment by domestic firms. Hence we have

- FDI inflows should cause current account deficit

$$s_h - i_e - i_f = -c$$

$$\overset{\bullet}{i}_f = c$$

without running current account deficit, a country cannot really utilize FDI (foreign resources).

The implication of zero or positive current account

- FDI is financed by domestic resources

$$s_h - i_e - i_f = 0$$

$$s_h - i_e = i_f$$

The above equation implies that while foreign investors obtain equity assets, the hosting country obtains an equal amount of foreign debt assets (TBs). The above relationship implies that FDI crowds out an equal amount of investment by domestic enterprises, and the excess domestic saving cannot be used except for buying TBs.

China's twin surpluses

$$s_h - i_e = i_f - c$$

$$-c$$

The relationship implies that domestic saving is not only sufficient for the financing of all investment but also the creation a certain amount current account surplus. Corresponding to (8'), the hosting country is a capital exporting country. The capital exported by the hosting country is equal to $-c$ The current account surplus will also take the form of the increase in the holding of the US treasury bills. Hence the increase in foreign exchange reserves is equal to $\dot{i}_f - c$

Here, we assume that the capital exporting developing country does not export capital in the form of outward FDI.

A complete picture of China's saving-investment gap

$$\left(s_h - \dot{i}_e\right) + \left(s_g - \dot{i}_g\right) + s_r = \dot{i}_f - c$$

the sum of the positive household and government saving-investment gaps plus reinvested profit by FFEs equals to the increase in foreign exchange reserves. It is worth emphasizing that $-c$ represents the proportion of increase in foreign exchange reserves created by the hosting country's export of capital, and $\dot{i}_f$ represents that created by country's debt-equity asset swaps.

Question 1: whether the accumulation of foreign exchange rate reserves is sustainable??

- Example
- Whether the accumulation of government debt is sustainable?

- Debt balance/GDP

The disaggregation of current account

$$c = (m - x) + (1 - s_r') y_f$$

Remember all above variables are measured against GDP or Y, namely are rates

$$Y_f = \pi \frac{K_f}{v_f}$$

The relationship between yf and kf

The determination of profits of foreign funded enterprises

$$y_f = \frac{-\pi}{s_f'\pi - nv_f}\, fdi\left(1 + C_1\frac{\pi}{v_f}e^{\left(\frac{s_f'\pi}{v_f} - n\right)t}\right)$$

Parameters and time

The key result

$$c = (m-x) + \left(1 - s_r'\right) y_f = (m-x) + (1 - s_f^t) \left(\frac{-\pi}{\left(s_f'\pi - nv\right)} fdi + C_1 \frac{\pi}{v_f} e^{\left(\frac{s_f'\pi}{v_f} - n\right)t} \right)$$

For given parameters, following the passage of time, the higher is the reinvestment rate the higher and profitability of FFEs, the higher the outflow of investment income

A short summary

- From the above equation, it can be seen that the influence of the reinvestment rate of profits by the FFEs on the current account balance is complicated. Other things being equal, in the short-term, the higher the reinvestment rate, the smaller the outflows of investment income. In contrast, in the long-term, the higher the reinvestment rate, the larger is the outflows of investment income. This means that other things being equal, following the passage of time, the negative impact of FDI inflows on the current account balance will become bigger and bigger. In long-run, more and more trade surplus will be required to balance the ever-increasing investment income out flows. Even after having taken into consideration the positive impact of the yields of TBs held by the hosting country on the investment income flows, the conclusion will not be influenced, because the TB yields are much smaller the profitability of FDI. Furthermore, following the slowing down of the growth rate, the current account balance problem will become increasingly serious.

- It can be argued that unless under some strict conditions, such as the reinvestment rate is 100 percent, are satisfied, China's twin surpluses are not sustainable.

The welfare effect of twin surpluses

while a significant amount of China's investment is financed by FDI, a larger amount of foreign consumption and investment is financed by China's saving via China's purchasing the TBs.

In this sense, US direct investment in China is the recycled Chinese saving.

During this process, China earns a low return on the TBs and the US earns a much higher return on its direct investment in China.

Causes of twin surpluses

- Market distortion
  - Discrimination of banks against SMEs
  - Preferential policy towards FDI
  - Export promotion (weak currency, tax rebates)
  - Local government
  - Assets stripping (money laundry)
  - others

How to reduce China's foreign exchange reserves or at least reduce its growth rate?

- Reducing s_g by increasing government's current expenditures and tax cut (expansionary fiscal policy)
- Increasing i_g by increasing government investment in infrastructure and government supported R and D (expansionary fiscal policy).
- Reducing s_e y increasing in the provision of public expenditures (security system, medical care system and education system, etc.) (expansionary fiscal policy).
- Reducing s_r by canceling preferential policy towards FDI.
- Increasing i_e and reducing if by canceling preferential policy towards FDI.
- Reducing *c* by revaluation and canceling export promotion policies.

implications

- It is extremely unlikely that China will take any drastic actions to reduce its foreign exchange reserves so as to produce a big impact on the international financial market. The sheer amount of money involved will constitute an insurmountable psychological barrier to deter any decision makers to take drastic actions.

- Therefore, a drastic devaluation is not in the interests of any party in the process of global adjustment. The ideal solution is the tightening of the US fiscal policy and, to a certain degree, money policy. Slowdown of the global economy will be a less evil compared with a drastic devaluation of the US dollar.

- To avoid the collapse of the global economy caused by chaotic individual actions taken by individual government in dealing with global imbalances, international coordination is essential. The coordination should be conducted at various levels: IMF led global coordination, G7 and G20 coordination, regional coordination and so on. Without such coordination, no

  countries in the world will be able to get off the hook unscathed.