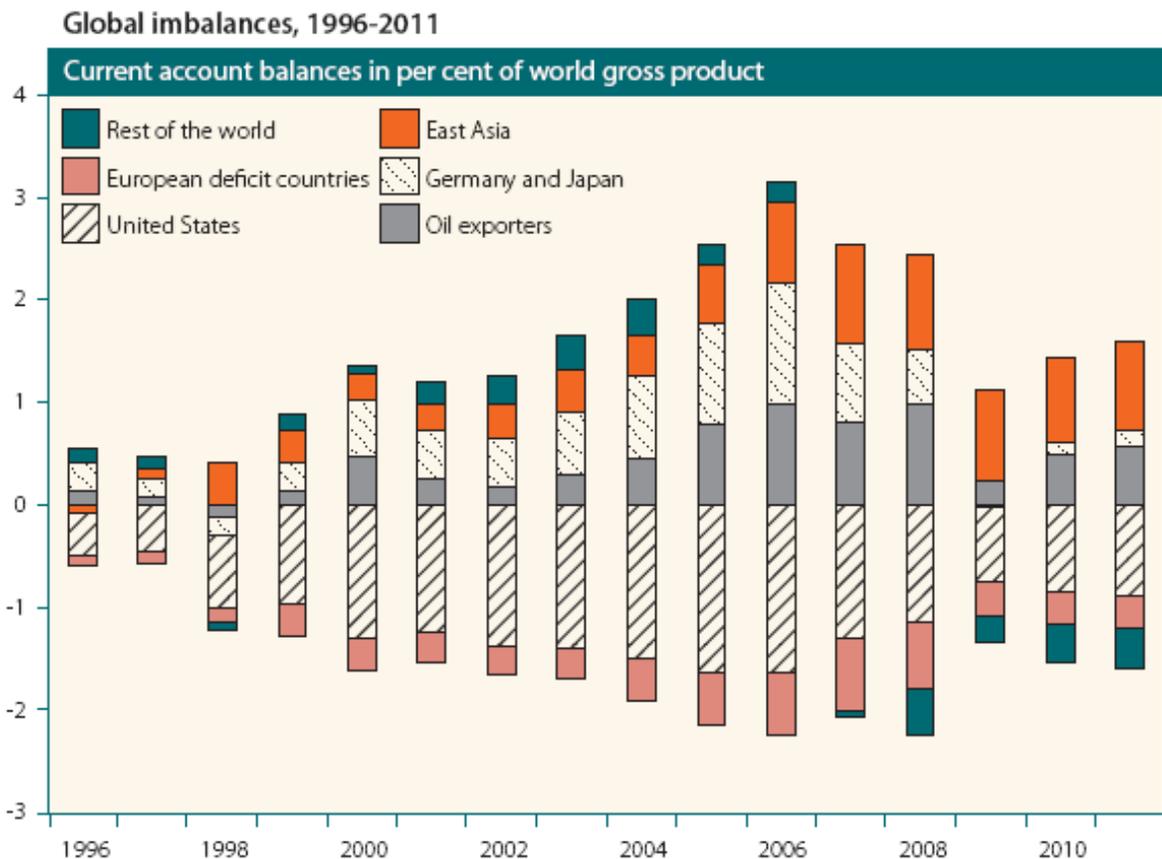


Global Imbalances: An unconventional view¹

Vladimir Popov (DESA, UN)

In the US the conventional view of global imbalances is that China is a currency manipulator – by accumulating reserves it artificially undervalues its currency, gains unfair trade advantages, and drives the US into trade deficit and debt accumulation (Goldstein and Lardy, 2009). Even though US current account as a % of GDP decreased somewhat in 2007-09, it remains large and is projected to widen again in 2010-11 (Fig. 1), and the US net international indebtedness approaches 30% of GDP (Fig. 2).

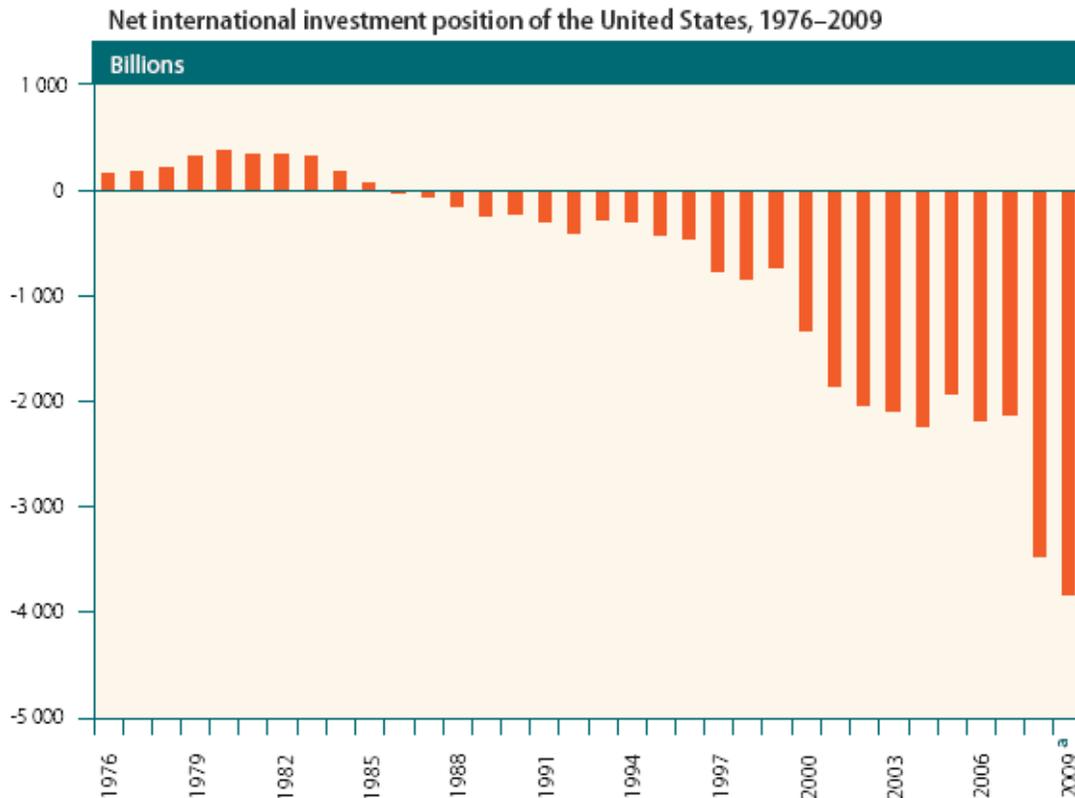
Fig. 1



Source: *World Economic Situation and Prospects* (update as of mid-2010), United Nations, NY, 2010.

1. Presentation at the UNU/WIDER Conference on 'The Triple Crisis', Helsinki, 13-15 May 2010.

Fig. 2



Source: *World Economic Situation and Prospects 2010*, United Nations, NY, 2010.

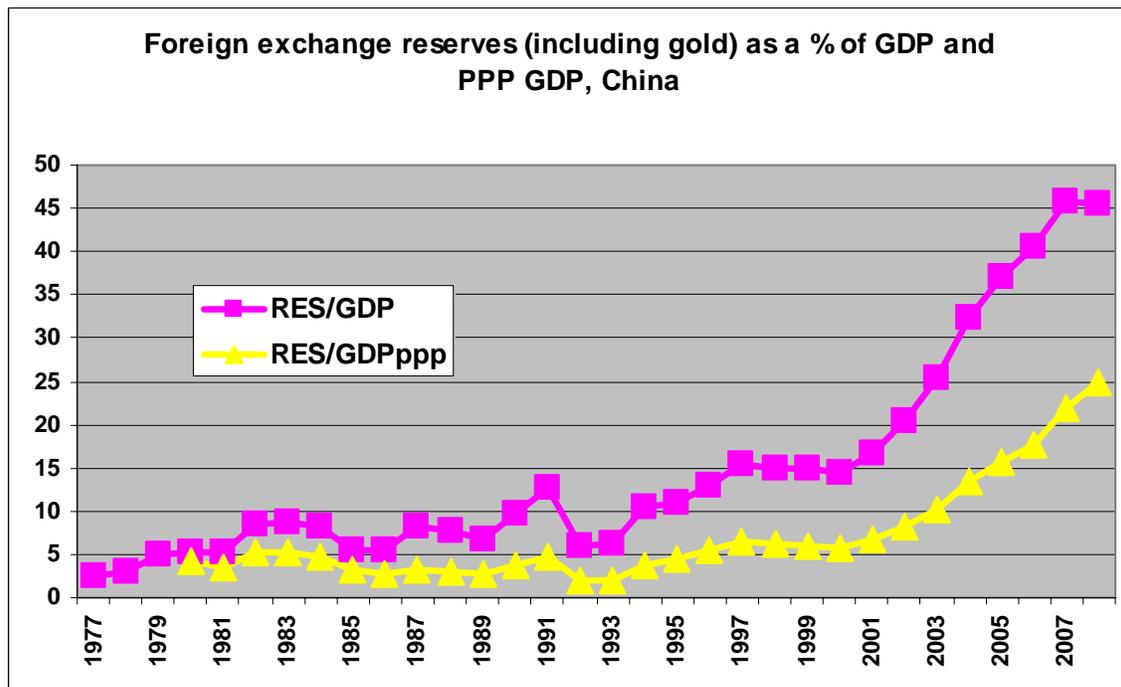
What are the options available to the US to deal with the problem? The US could do nothing and wait until the ratio of external debt to GDP increase to 60% and more, so that foreign creditors will pull their money out of the US. The US dollar then will depreciate, and the adjustment would occur through improvement of the current account. Or the US could press China into a revaluation of the yuan (the burden of initiating the adjustment would be on China, but the adjustment in the US would be painful as well). Alternatively, the US could proceed with unilateral actions, initiating adjustment with domestic policy tools: cut government budget deficit, impose import duties, promote exports, accumulate foreign exchange reserves in yuan in order to devalue the dollar vis-à-vis the yuan.

For the US the adjustment (less consumption, more savings) is going to be painful in any case, but it is usually assumed that soft landing is better than hard landing and that to

ensure soft landing it is necessary to start the adjustment sooner rather than later. Also, politically, it seems to be easier to “market” the adjustment to the US electorate, if it is initiated by the Chinese government, not the US government.

What is the Chinese view of global imbalances? It is interesting that many, if not most, experts in China oppose accumulation of reserves, saying that Chinese money is used for the development of the US economy and that it could be better used at home. Reserves are invested into US treasury bills with very low returns. As fig. 3 suggests, the ratio of foreign exchange reserves to GDP in China increased dramatically in recent decades, but there are still countries (Botswana, Saudi Arabia, Hong Kong, Singapore), where the ratio of reserves to GDP was higher or about the same on average for the whole period of 1960-2000.

Fig. 3



Source: World Development Indicators.

The most vocal opponents of the accumulation of reserves in China are the critics of the government on the left. The remake of a Russian painting (Fig. 4) shows how the Chinese

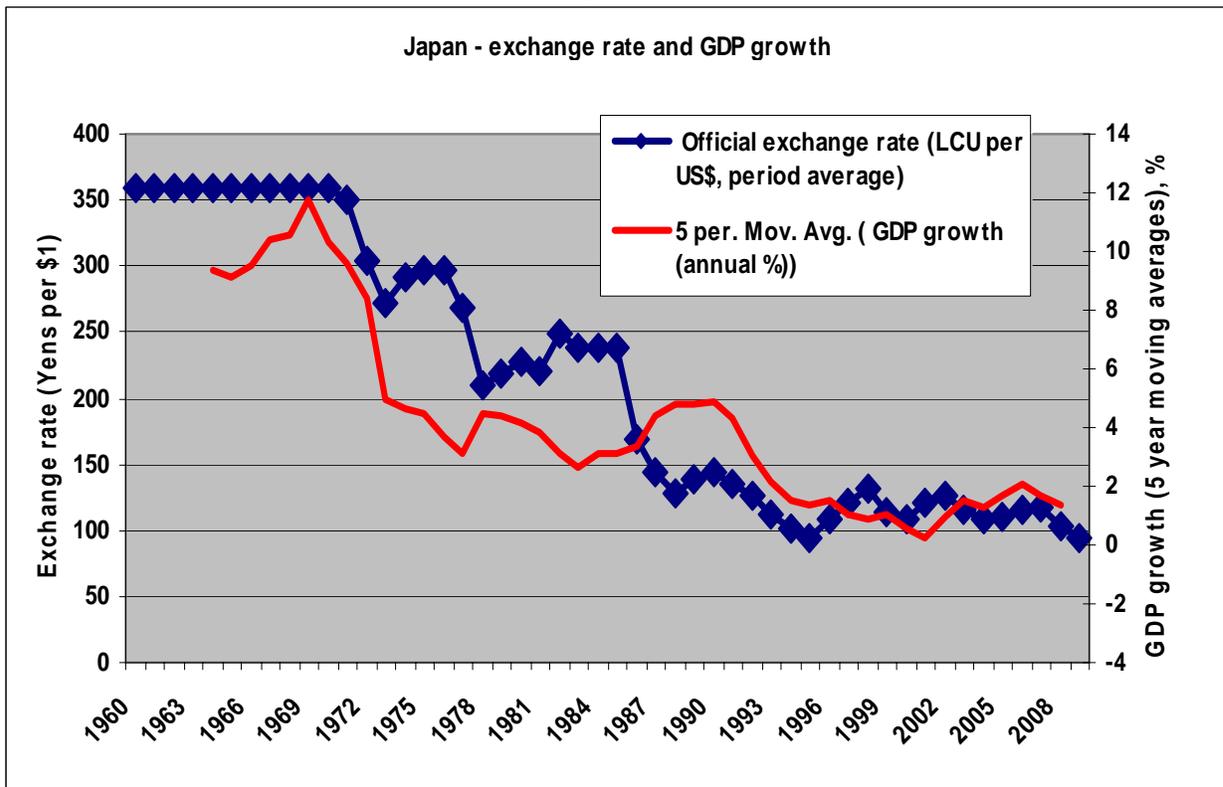
left view the situation. Mao with two heroes of anti-Japanese war (fictional characters from modern Beijing opera) is coming back to get the Chinese gold from Bush. Gold (actually, foreign exchange reserves are mostly not in gold, but in dollar investment into US treasury bills) was given to Bush by Jiang Zemin whose portrait is on the wall. At the table are corrupted former party secretary of Shanghai, Chen Liangyu (sentenced to 18 years in prison in 2008), and liberal economist Zhang Weiyong.

Fig. 4: How the Chinese left view the accumulation of reserves: remake of a Russian painting by Ilya Repin



Why does the Chinese central bank continue to accumulate reserves despite criticism and US pressure? It appears that there is a gut feeling that appreciation of yuan can stop rapid Chinese growth in the same way as the 1985 Plaza accord that led to the revaluation of yen brought to an end rapid Japanese growth. Many believe that among many reasons of the Japanese stagnation of the 1990s and weak growth afterwards was the appreciation of the national currency (fig. 5).

Fig. 5



Source: World Development Indicators.

The non-conventional view of global imbalances that is offered in this essay is the following. Undervaluation of exchange rate through accumulation of foreign exchange reserves is in fact an industrial policy to promote export-oriented growth. This view is gaining some support in the literature (Dollar, 1992; Easterly, 1999; Polterovich and Popov, 2004; Rodrik, 2008).

This is not a short-term Keynesian effect, but a long-term effect operating through export externality (and strengthened by the subsequent inflow of FDI). In developed countries, trade/GDP ratios are already at optimal level; in developing countries, this ratio is below optimal, so a special policy is needed to reap the benefits of externality from export.

Theoretically, all externalities can be properly managed through taxes and subsidies, but these are selective tools of industrial policy, i.e. a clean bureaucracy is needed to use these growth-promoting tools successfully. Undervaluation of the currency is equivalent to import duties for all tradables and to simultaneous subsidies to exporters, but it is a non-selective industrial policy instrument that can be successfully used even in a highly corrupted environment.

A formal model demonstrating how the accumulation of reserves can spur growth, as well as the empirical evidence, is presented in the paper by Polterovich and Popov (2004). It is shown that accumulation of reserves leads to disequilibrium exchange rate, which in turn causes the increase in export/GDP and trade/GDP ratios, which stimulates growth.²

There is strong evidence that the accumulation of reserves can spur long-term growth in developing countries, although not in rich countries.³ If all countries use these policies,

² To resolve the chicken and egg problem, we first regress increases in foreign exchange reserves on objective factors that could determine the level of reserves (per capita GDP in the beginning of the period, trade/GDP ratio and the increase in this ratio).

$$\mathit{delta R} = 38 - 11.4\log\mathit{Ycap75} + 0.1(\mathit{T/Y}) + 0.24(\mathit{delta T/Y})$$

(R²=34%, N=82, all coefficients significant at 0.1% level),

where,

delta R - increase in the ratio of reserves to GDP in 1975-99 in p.p., **Ycap75us** - PPP GDP per capita in 1975 as a % of the US level, **T/Y** - average ratio of trade to PPP GDP in 1975-99 in %, and **delta T/Y** - increase in the ratio of trade to GDP in 1975-99 in p.p.

The residual from this equation is treated as *policy induced accumulation of reserves*, **Rpol**, i.e. accumulation of reserves above the level required by objective circumstances. Afterwards we used the *policy induced change in foreign exchange reserves* as one of the explanatory variables in regular growth regressions with controls for usual variables – initial level of GDP per capita in 1975, indices of institutional capacity, size of the country, population density, and population growth rates..

³ The resulting equation suggests a threshold relationship:

$$\mathit{GROWTH} = \mathit{CONST.} + \mathit{CONTR. VAR.} + \mathit{Rpol} (0.10 - 0.0015\mathit{Ycap75us})$$

all will lose, and, on top of that, for developed countries this policy does not work. But for developing countries it works, and there are good reasons why these countries should have sufficient policy space to use this tool to promote catch up development.

Accumulation of reserves means that the country saves more than it invests, produces more than it consumes, providing its savings to finance investment and consumption in other countries. This may sound like a drag on development; it is often argued that capital should flow from rich to poor countries because K/L ratios are lower in developing countries and hence the returns on capital are greater. However, this is only one effect. The other effect is a dynamic one and it works in a completely opposite direction: if a country manages somehow to become competitive in the world markets (either through higher productivity or through lower wages or through low exchange rate), it starts to export more than it imports and develops a trade surplus. If this surplus is stored in the form of foreign exchange reserves, the exchange rate gets undervalued and the trade surplus persists. That is why countries that develop faster than the others usually have a trade surplus (United States in the twentieth century before the 1970s, Japan and Germany after the Second World War, East Asian Tigers and Dragons and China, of course). Accumulation of reserves (that are invested in reliable short-term government securities and yield very low interest rates) implies losses to the national economy (Rodrik, 2006), but every policy has costs – this is a price to pay for promoting growth.

In fact, countries that managed to achieve high growth rates were mostly net creditors, not net borrowers; their current accounts were positive, i.e. they were saving more than they were investing (fig. 6). Even controlling for the level of development, PPP GDP per

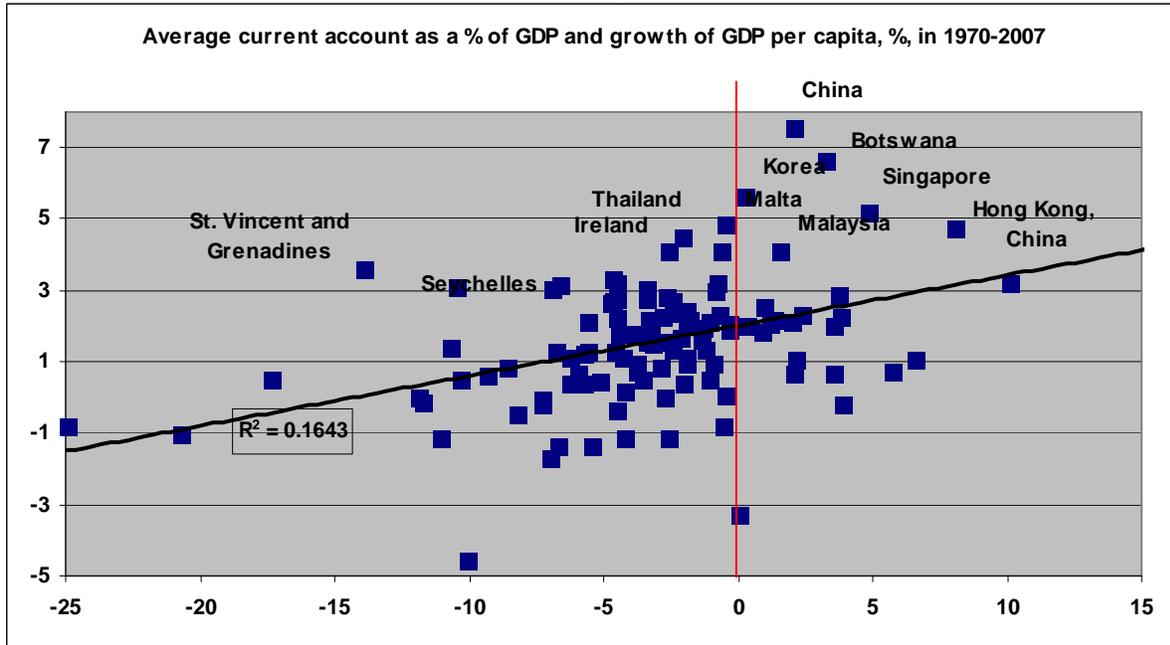
$R^2 = 56\%$, $N=70$, all variables are significant at 10% level or less,
where,

GROWTH - annual average growth rates of GDP per capita, and control variables are population, population density, initial level of GDP per capita in 1975, and population growth rates.

It turns out that there is a threshold level of GDP per capita in 1975 – about 67% of the US level. Countries below this level could stimulate growth through accumulation of FER in excess of objective needs, whereas for richer countries the impact of FER accumulation was negative.

capita in the middle of the period, 1975, the relationship between the current account surplus and growth rates is still positive and significant.⁴

Fig. 6



Source: World Development Indicators.

This is known as the Feldstein-Horioka puzzle (Feldstein and Horioka, 1980) – there is a high correlation between domestic savings and investment even among countries with relatively open capital accounts, contrary to the prediction of a theory that capital should flow to countries with better investment climate and rates of return on investment. With high domestic savings rate comes high investment rate, which usually, although not always, leads to faster growth.

$${}^4 \text{GROWTH} = 0.68 * Ycap + 0.12 * CA + 0.05,$$

(1.80) (3.44)

N=91, $R^2 = 0.23$, robust standard errors, T-statistics in brackets below, where,

GROWTH - annual average growth rates of per capita GDP in 1960-99, %,

Ycap - logarithm of per capita PPP GDP in 1975, and

CA - average current account to GDP ratio in 1960-99, %.

In the words of Paul Krugman (2009), since the early 1980s there have been three big waves of capital flows to developing countries, but none of them resulted in a growth miracle. “The first wave was to Latin American countries that liberalized trade and opened their markets in the wake of the 80s debt crisis. This wave ended in grief, with the Mexican crisis of 1995 and the delayed Argentine crisis of 2002.

The second wave was to Southeast Asian economies in the mid 90s, when the Asian economic miracle was all the rage. This wave ended in grief, with the crisis of 1997-8.

The third wave was to eastern European economies in the middle years of this decade. This wave is ending in grief as we speak.

There have been some spectacular development success stories since 1980. But I’m not aware of any that were mainly driven by external finance. The point is not necessarily that international capital movement is a bad thing, which is a hotly debated topic. Instead, the point is that there’s no striking evidence that capital flows have been a major source of economic success” (Krugman, 2009).

In view of this evidence, the developing country policy choice of a determined attempt to rely on external financing is ironic. It is also ironic that while development economists are preoccupied by “capital flowing uphill” problem (from developing to developed countries), the best growth record is exhibited exactly by countries with positive current accounts and large reserve accumulation that are generating this uphill movement of capital.

Marshal plan for Western Europe right after the Second World War may have been the first and the last success story of foreign financing contributing substantially to economic revival. But even in this case it could be argued that without appropriate domestic (European) institutions and mobilization of domestic savings, the (relatively) rapid growth would not happen. Foreign financing of Japan after the Second World War was insignificant, whereas Japanese post-war growth was more impressive than that of

Europe. Economic miracles happened only in countries that relied on mobilization of domestic savings, not in countries that were seeking to bridge the financing gap through borrowing abroad, as development economists suggested.

The argument against the policy of reserve accumulation and undervaluation of the exchange rate for developing countries is the following: if all poor countries would pursue this policy, developed countries would finally accumulate unsustainable levels of debts and the inevitable subsequent adjustment could be painful.

But even today the debt of the rich countries is not that high. US has net international indebtedness of about 30% of GDP, Euro area has net international liabilities of 16% of GDP (fig. 7), and Japan is a net creditor with net international assets of nearly 50% of GDP (fig. 8).

Fig. 7: Net euro area international investment position, as a % of GDP, outstanding amounts at the end of the period

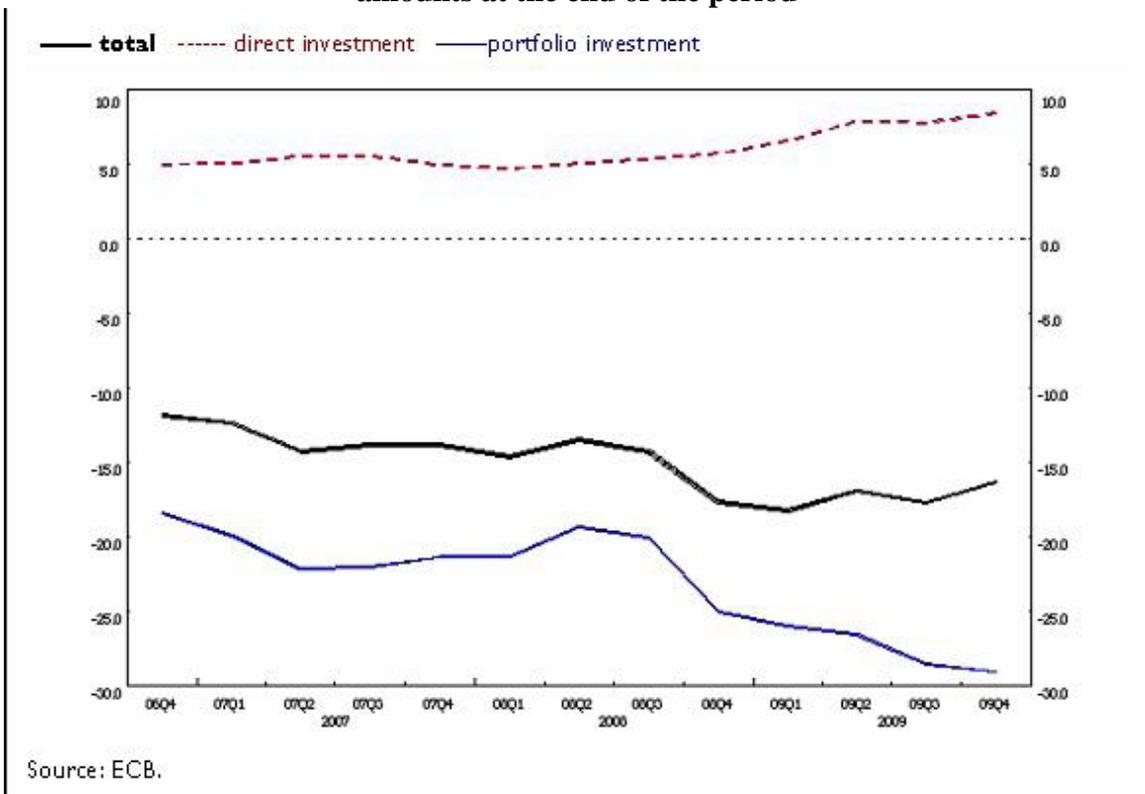
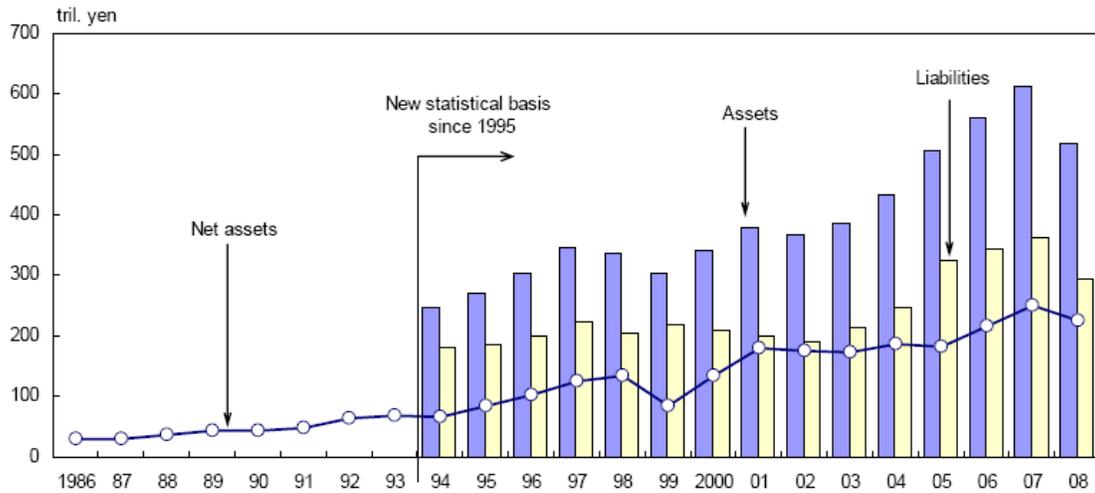


Fig. 8: Japan’s international assets and liabilities, trillion yen



Note: Figures for 1995 and after are calculated in accordance with the *Balance of Payments Manual* (Fifth Edition) issued by the International Monetary Fund (IMF). Figures for years through 1994 are compatible with the *Balance of Payments Manual* (Fourth Edition).

Source: “Japan’s International Investment Position at Year-End 2008”, International Department, Bank of Japan, BOJ Reports and Research papers, August 2009.

As the table below suggests, it is exactly developing countries that are the major international debtors, whereas developed countries (with a notable exception of US and UK) are mostly net creditors; so there is still room for the West to go into debt.

To conclude, reserve accumulation works as a development tool (theoretically, every externality could be taken care of through taxes, but in practice selective policies rarely work). Because protectionism is currently *de facto* outlawed by WTO, exchange rate protectionism is the only available tool for promoting catch up development, in a way – the instrument of last resort. Reserve accumulation in poor countries will not continue forever; it will come to an end, once they catch up with the West. Meanwhile, developed countries get a chance to consume more than they produce. Why not go into debt to help the global South catch up with the West sooner?

Table: Net Assets of Major Countries: An International Comparison

Country/year	Net assets as a % of nominal GDP
Japan 2008	44.4%
2007	48.5%
China 2008	34.5%
Germany 2008	26.2%
Switzerland 2008	123.2%
Hong Kong 2007	233.6%
France 2007	13.4%
Canada 2008	0.8%
United Kingdom 2008	-4.6%
India 2007	-6.5%
Russia 2007	-9.4%
Italy 2008	-12.9%
Brazil 2007	-38.8%
United States 2007	-17.7%

Note: "International Investment Position" as released by the central banks of Germany, Switzerland, and Italy, as well as the statistical authorities of China, Canada and the United Kingdom. Figures for all other countries are from the *International Financial Statistics* of the IMF.

Source: "Japan's International Investment Position at Year-End 2008", International Department, Bank of Japan, BOJ Reports and Research papers, August 2009.

Maintaining today's global imbalances would help to overcome the major disproportion of our times – income gap between developed and developing countries. This gap was widening for 500 years and only now, in the recent 50 years, there are some signs that this gap is starting to decrease. The chances to close this gap sooner rather than later

would be better, if the West would go into debt, allowing developing countries to have trade surpluses that would help them develop faster. Previously, in 16-20th century, it was the West that was developing faster, accumulating surpluses in trade with “the rest” and using these surpluses to buy assets in developing countries, while “the rest” were going into debt. Now it is time for “the rest” to accumulate assets and for the West to go into debt.

References

Dollar, D. (1992), “Outward-oriented Developing Economies Really Do Grow More Rapidly: Evidence from 95 LDCs, 1976-1985,” *Economic Development and Cultural Change*, Vol. 40, No. 3, April, pp. 523-44.

Easterly, W. (1999), *The Lost Decades: Explaining Developing Countries Stagnation 1980-1998*, World Bank.

Feldstein, Martin and Charles Horioka (1980), “Domestic Saving and International Capital Flows,” *Economic Journal*, 90, pp. 314–329, available at <http://www.jstor.org/stable/2231790?origin=crossref>.

Goldstein, Morris and Nicholas R. Lardy (2009), *The Future of China's Exchange Rate Policy*, Policy Analyses in International Economics 87, Washington: Peterson Institute for International Economics, July.

Krugman, Paul (2009), “Finance mythbusting, third world edition,” Paul Krugman’s Blog, 10 November, available at <http://krugman.blogs.nytimes.com/2009/11/09/finance-mythbusting-third-world-edition/>.

Polterovich, V. and V. Popov (2004), “Accumulation of Foreign Exchange Reserves and Long Term Economic Growth,” in S. Tabata and A. Iwashita (eds), *Slavic Eurasia’s Integration into the World Economy*, Slavic Research Center, Hokkaido University, Sapporo.

Rodrik, D. (2006), "The Social Cost of Foreign Exchange Reserves," *International Economic Journal*, 20(3), September, pp. 253-266.

_____(2008), "The Real Exchange Rate and Economic Growth," *Brookings Papers on Economic Activity*.