Deutsche Bank Research

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BRIC sovereign wealth funds

The external wealth of governments

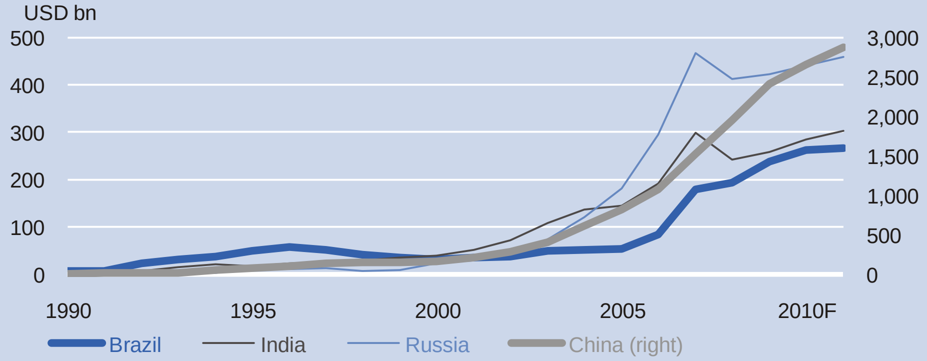
— FX reserve accumulation in the BRIC countries (Brazil, Russia, India, China) continues. FX reserve accumulation is difficult to justify in terms of "risk insurance". All four BRIC governments are net foreign (currency) creditors and external financing requirements are small. Even if private-sector foreign liabilities are taken into account, BRIC external balance sheets look strong.

— Financially, the BRIC governments will suffer increasing financial losses on their rising foreign asset holdings. Investing foreign assets more aggressively through sovereign wealth funds may help limit losses, but is very unlikely to avoid loss-making altogether. This may not be negative in terms of economic development and growth, but it will result in continued, tangible financial opportunity costs and (quasi-) fiscal losses.

— Three of the four BRIC countries have established sovereign wealth funds (SWFs). The SWFs differ in terms of size, financing modalities and investment strategies. Only Russia can properly be said to have a savings fund. Brazil's FSB might turn into one provided the expected surge in energy production and exports leads to both current and fiscal account surpluses later this decade.

— Among the BRICs, China holds by far the largest "excess" FX reserves. Equally significantly, China, and more specifically the Chinese government, will continue to witness a massive rise in gross (and net) foreign asset holdings over the coming years. Generally speaking, the large net position will afford China and the other BRICs with very significant scope to pursue economic, financial and political objectives – or various combinations thereof.

Strong rise in FX reserves



Source: IIF

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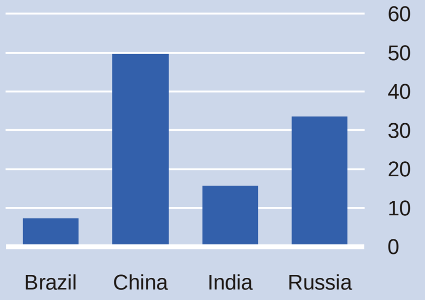
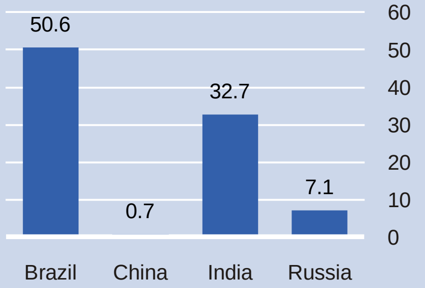
Net sovereign foreign creditors
Net sov. for. assets, % of GDP, 2009



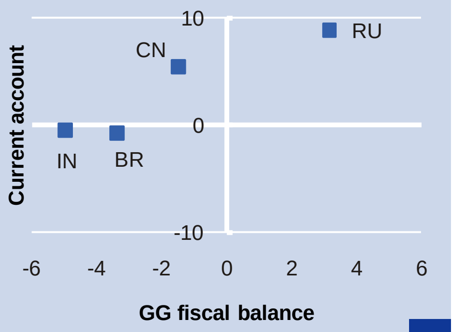
Source: Fitch 1

Very comfortable external liquidity position
External financing requirements, % of FX reserves, 2010



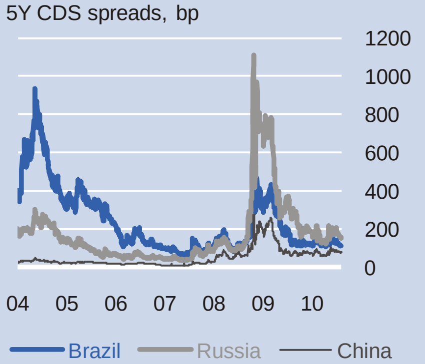
Source: DB Research 2

Only Russia ran "twin surpluses"
% of GDP, 2000-08 avg.



Source: DB Research 3

Very low risk premia
5Y CDS spreads, bp



Source: DB Global Markets 4

FX reserve accumulation continues (apace)

BRIC FX reserve accumulation continues (apace). As far as the BRICs are concerned, FX reserve accumulation is increasingly difficult to justify in terms of "risk insurance": all four BRIC governments are net foreign (currency) creditors (chart 1). Even if private-sector debt is included, national balance sheets look strong as far as solvency and liquidity are concerned (chart 2). The performance of the BRICs throughout the crisis has also demonstrated their resilience, if not in terms of growth, at least in terms of financial stability. FX reserve accumulation is therefore characterised by diminishing returns in terms of insurance and increasing financial opportunity costs and (quasi-)fiscal losses. BRIC (and often EM) FX reserve accumulation is being driven by objectives other than risk reduction and financial return, namely: limiting exchange-rate volatility and/or preventing exchange-rate appreciation. By setting up sovereign wealth funds (SWF) with the goal of investing "excess reserves" more aggressively, the BRIC (and several other EMs) implicitly acknowledge as much.

Unfavourable financial return prospects

Unless a government runs a fiscal surplus, it (or the central bank) needs to issue interest-bearing debt equivalent to the amount of FX reserve accumulation if FX purchases are to be fully sterilised. Similarly, unless an economy runs a current account surplus, FX reserve accumulation needs to be financed by an increase in foreign liabilities, whether in the form of debt or equity. For much of the 2000s, Russia ran both a fiscal and a current account surplus. China registered a current account surplus only. Brazil and India, by contrast, were running "twin deficits" (chart 3).

From a sovereign perspective, financial returns on FX reserves are determined by the on-shore/off-shore interest rate differential, valuation changes and exchange rate effects. First, to the extent that the BRIC central banks issue sterilisation instruments, they will tend to run a "negative carry", that is, they pay a higher interest on their domestic liabilities than they receive on their foreign assets. (China proved to be an exception in this regard during parts of the 2000s.) Second, valuation gains from exchange rate-depreciation vary. However, given relatively low inflation and faster productivity growth in the BRICs, valuations gains will likely be more limited than in the past. (China is even likely to sustain significant losses on the back of seemingly inevitable nominal exchange-rate appreciation.) Third, valuation gains tend to be limited given that a significant share of FX reserve assets is typically invested in short-term, high-grade debt (e.g. Treasury bills). The financial return prospects are not much better from a country perspective[1]. Depending on the country, valuation losses may remain "unrealised", but losses resulting from a negative carry represent an actual cost to the public sector.

While initially the (quasi-)fiscal losses can be justified by declining external risk premia (esp. Brazil and Russia) (chart 4), "excess" FX reserve accumulation is more difficult to justify. Especially in the case of Brazil and India, countries with high levels of domestic debt and high domestic interest rates, it would be preferable to limit "excess" FX reserve accumulation financed by domestic debt

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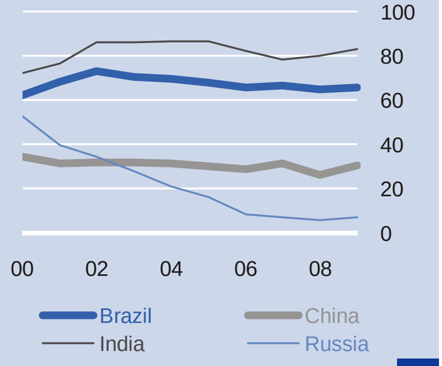
[1] For a discussion of why the BRICs lose money on their foreign position, see DB Research. Why it is time for the BRIC to liberalise capital outflows. September 2010.

Brazil & India vs China & Russia
GG debt, % of GDP



Sources: DB Research, Fitch **5**

issuance, as it adds to upward pressure on domestic interest rates (chart 5).

Although generating returns on official assets is not the primary objective and the fiscal costs are not prohibitive (chart 7), it does make sense to invest “excess reserves“ more aggressively to generate higher returns. This is why three of the four BRIC governments have set up SWFs. They differ in important respects (chart 6). India has been debating the creation of an USD 10 bn SWF[2].

Sovereign financial position
USD bn (latest if not indicated otherwise)

	FX reserves	Gross GG dom. debt (2009)	Gross GG for. debt (2009)	SWF assets
Brazil	255	1,022.8	55.7	8.6
China	2,454	847.8	4.8	> 600*
India	280	1,008.5	56.7	---
Russia	456	95.3	35.2	125.0

* CIC, SAFE

Sources: PIIE, DB Research, Fitch, IMF **6**

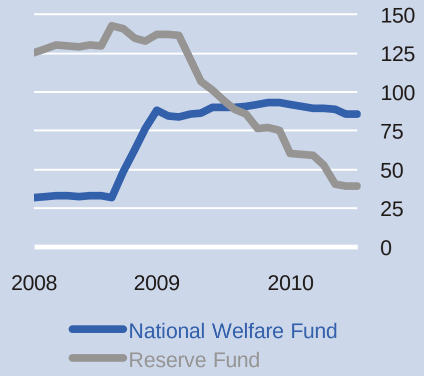
Estimated (quasi-) fiscal losses of holding FX reserves
% of GDP (unless otherwise indicated)

	BR	CN	IN	RU
"Negative carry"*, %	10.1	2.2	5.4	2.9
FX reserve stock (latest)	15	50	25	36
Costs of carrying FX reserves	1.4	1.0	1.2	0.9
Valuation losses in case of 10% FX appreciation	1.4	4.5	2.3	3.3

* Short-term on-shore/US Treasury interest rate differential

Source: DB Research **7**

Sizeable decline in Russian sovereign holdings
USD bn



Source: MinFin **8**

Russia – Reserve & National Welfare Funds

Russia is a textbook example of a resource-dependent economy. Running both current account and fiscal surpluses throughout much of the 2000s, it made a tremendous amount of sense to absorb external surpluses into FX reserves and use the fiscal surpluses to sterilise the purchases by depositing them into an oil stabilisation fund. Russia is highly dependent on the export of volatile, largely non-renewable commodities. So is the government, indirectly. Accumulating FX reserves makes sense from both a “stabilisation“ (volatile revenues, “Dutch disease“) and “savings“ (inter-temporal equity) point of view.

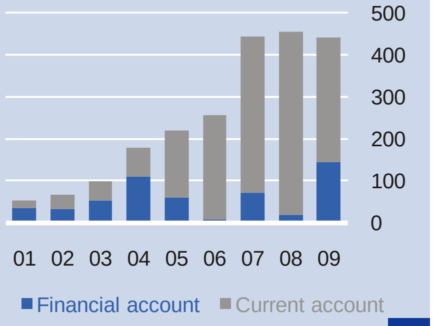
In 2008, the Oil Stabilisation Fund, created in 2004, was split into a Reserve Fund and National Welfare Fund (chart 8). The former was capped at 10% of GDP and its purpose was to provide the government with funds to finance future fiscal deficits. The latter aims at inter-temporal savings, mainly to support future pension outlays. The Reserve Fund currently has USD 39 bn under management, down from its peak of USD 143 bn just before the global financial crisis in mid-2008. The Reserve Fund only invests in foreign government bonds. The National Welfare Fund is worth USD 86 bn. The Fund can invest in higher-risk assets, including domestic assets, such as loans to domestic banks. The future size of the funds will critically depend on future oil prices and government fiscal performance. However, it currently looks as if the Reserve Fund may be depleted by 2011 owing to persistent fiscal deficits.

China – CIC, SAFE & Co.

Unlike Russia, China has been running large and persistent current account surpluses and, indeed, capital account surpluses, but for the most part small fiscal deficits (chart 9). In combination with a relatively fixed exchange rate, the central bank had to absorb these surpluses in the form of FX reserves.

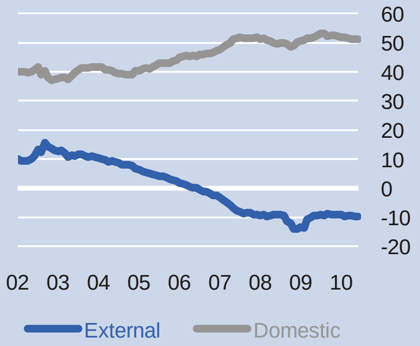
[2] Truman, E. The Case for an Indian Sovereign Wealth Fund. September 2010

Capital & C/A surpluses contribute to Chinese FX reserve accumulation
USD bn



Sources: SAFE, IMF **9**

Brazil: FX reserve accumulation has helped keep government debt high
Net debt, % of GDP



Source: BCB **10**

Until 2007, SAFE was solely responsible for managing PBoC FX reserve holdings. That same year, the China Investment Corporation (CIC), which currently has about USD 300 bn worth of assets under management, was created[3]. The Chinese government controls a number of other agencies and institutions that manage foreign assets (e.g. African Development Fund, Chinese Development Bank, National Social Security Fund, (partially) state-controlled banks, SOEs). In China, more so than in other countries, it is difficult to draw the line between public-sector- and private-sector-controlled assets. Moreover, SAFE or, more precisely, the SAFE Investment Company is estimated to have invested USD 300-400 bn in the form of "non-reserve" assets[4]. So the CIC is not the only government vehicle to invest its foreign holdings more aggressively.

The costs of holding very large FX reserves (> 50% of GDP) are relatively manageable given relatively low on-shore rates, partly resulting from domestic financial repression, and a low government debt burden.[5] Furthermore, as the economy continues to grow at double-digit rates in dollar terms, the fiscal costs, as a share of GDP, will be quite manageable. In fact, during parts of the 2000s, the on-shore/off-shore interest rate differential was in China's favour. China is, however, quite sensitive to capital losses in case of RMB appreciation. Continued FX reserve (or SWF) accumulation will likely continue apace given prospects of continued very large current account surpluses and, absent further liberalisation of capital outflows, continued capital account surpluses.

Brazil – FSB

Unlike China and Russia, but like India, Brazil has been running both fiscal and current account deficits (with the exception of very small surpluses during 2003-07). A capital account surplus and a current account close to balance allowed the central bank to accumulate badly needed FX reserves following the 2002 crisis. Given double-digit on-shore interest rates, however, the "financing" of FX reserves results in a substantial "negative carry". Nominal exchange-rate appreciation over the past few years has not helped, either. While reserve accumulation was instrumental in lowering external risk premia, and possibly domestic risk premia, further FX reserve accumulation will keep domestic interest rates high by adding to the stock of domestic government liabilities (chart 10).

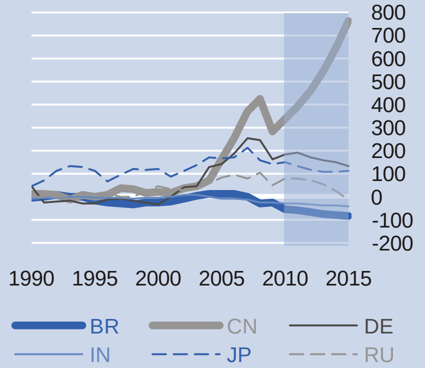
The *Fundo Soberano do Brasil* (FSB) was created in 2008. The central bank resisted the transfer of FX reserves to the FSB. In addition to an initial bond issue, the FSB will be financed primarily by fiscal revenues exceeding the targeted primary surplus, though in principle assets can be accumulated via appropriations assigned in the budget. It affords the government a great deal of flexibility; hence initial (and recently confirmed) concerns among some analysts that the government might use the Fund to intervene in the FX market. The FSB is very small and manages USD 9 bn worth of assets. The investment mandate of the Fund is quite flexible.

The Brazilian SWF also differs from the Chinese and Russian funds in that it has so far accumulated LCY assets via "excess" revenues or domestic debt issuance rather than FCY assets. Unless it uses these revenues to purchase FCY, however, it effectively raises (expensive) domestic debt to finance LCY assets. Given the

[3] Truman, E. The Management of China's International Reserves and Its Sovereign Wealth Funds. PIIE. 2008.
[4] SWF Institute (www.swfinstitute.org).
[5] Lardy N. Financial Repression in China. PIIE Policy Brief. 08-2008.

significant interest rate differential, it makes less sense financially for Brazil to accumulate “excess” foreign assets than in the other BRICs – even more so, should the Fund remain solely invested in LCY assets. However, should the recent oil discoveries lead to both external and fiscal surpluses, the FSB could turn into a genuine “savings fund”. Both the “stabilisation” and “inter-generational equity” argument would then apply.

Staggering Chinese net asset accumulation
Current account, USD bn

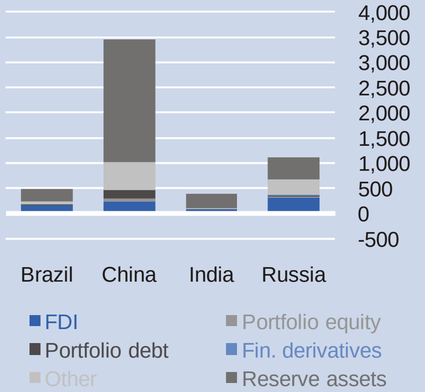


Source: IMF 11

BRIC governments enjoy much enhanced foreign financial position …

Without a doubt, China is by far the most important international financial player among the BRICs (charts 11 and 12). In terms of official FX reserves, China currently holds USD 2,500 bn, compared with less than USD 300 bn in both Brazil and India, and USD 450 bn in Russia. It also holds the largest “excess“ reserves, whichever way these are calculated, except in terms of M2 (table 13). But as long as the government maintains restrictions on capital outflows, the relatively large stock of M2 does not represent a serious contingent claim on FX reserves, even if a relatively inflexible exchange rate regime remains in place.

China also holds significant foreign non-reserve assets
USD bn, 2009



Source: IMF 12

Estimates of "excess reserves" vary
USD bn

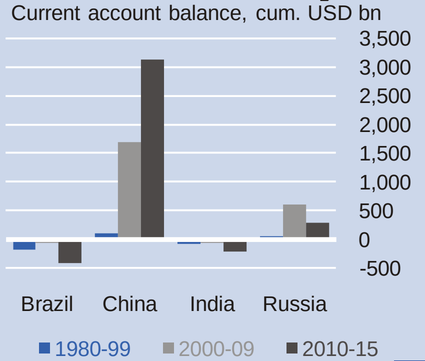
		Excess reserves based on:				
	FX reserves (latest)	Net sov. foreign debt*	EFR**	Net IIP (ex-equity)***	Memo: Basic balance, cum. (2011-2015)	Memo: M2/FX reserves
Brazil	255	116.4	117.8	15.1	-166.0	245.8
China	2,454	2,438.8	2,434.1	2,710.0	3,250.3	367.2
India	280	410.9	187.8	276.4	-6.1	104.0
Russia	456	193.8	408.2	352.7	464.7	118.6

* FX reserves minus government foreign debt
** FX reserves minus one-year forward foreign financing requirements
*** FX reserves minus net private-sector and gross government foreign debt

Sources: IMF, DB Research 13

China will also continue to accumulate more FX reserves than the other BRIC combined for the foreseeable future (chart 14). The rise in net foreign assets has been staggering (chart 15). Even in terms of the size of SWF, the CIC and SAFE Investment Company alone control USD 600 bn, compared with the FSB‘s less than USD 10 bn and Russia’s (declining) USD 150 bn. The precise domestic-foreign asset split is not precisely known in either case (as far as we can tell). But, undoubtedly, China is the BRIC country with the largest amount of foreign assets held in SWFs, especially if SAFE Investment Company positions are included.

Pace of FX reserve accumulation will vary
Current account balance, cum. USD bn

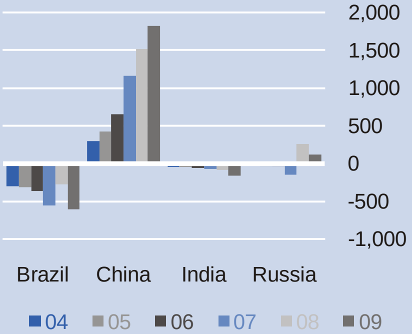


Source: IMF 14

Growing, if gradual, financial integration of the BRICs leading to a greater two-way flow of capital will also contribute to BRIC gross foreign asset accumulation. Even where reserve accumulation is financed by running up foreign liabilities (Brazil, India), governments will see their financial influence enhanced.

China's net foreign position is impressive

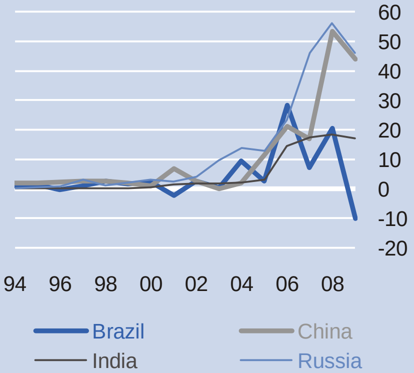
Net IIP, USD bn



Source: IMF 15

Surging BRIC FDI outflows

USD bn



Source: IMF 16

… but will continue to sustain financial losses, the creation of SWFs notwithstanding

Central banks, which continue to control the vast bulk of public-sector, and often total, foreign assets, generally do not have the same discretion in their investment decisions, nor the expertise to generate higher risk-adjusted returns on their foreign assets than SWFs. However, even with the establishment of an SWF, it will be difficult for governments to "break even" and currency appreciation will lead to capital losses (in LCY terms). The benefits of continued official asset accumulation are therefore negative from a narrow financial point of view. The economic benefits, less easy to quantify, may be significant (e.g. competitive exchange rate, attract knowledge- and technology-transferring FDI in the export sector), and the fiscal costs, while tangible, will remain manageable. A greater focus on financial returns in the management of BRIC government assets will help limit (quasi-) fiscal losses, but will not eliminate it.

Last but not least, the more "excess" reserves a government holds, the more flexibility it has in terms of when and where and at what conditions to invest them. This allows the government to deploy hard-currency loans and financing in the pursuit of both commercial and non-commercial (political) interests. For instance, governments can extend FCY loans to domestic companies, whether state-controlled or not, at below-market levels in pursuit of national objectives (e.g. China's "going global" policy) (chart 16). The government can also provide loans to governments in pursuit of political objectives (e.g. Moscow's loan offers to Belarus) or to foreign suppliers in support of long-term supply contracts, thus ensuring access to strategically important resources (e.g. China's oil-loan deals with Brazil, Venezuela etc.).[6] These are all options that none of the BRICs came even close to having a decade ago. In short, the BRIC governments have become financial players to be reckoned with.

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[6] Moran, T. (2010). China's Strategy to Secure Natural Resources: Risks, Dangers, and Opportunities, Policy Analyses in International Economics 92. 2010