



SKOLKOVO
Moscow School of Management

SOVEREIGN
WEALTH FUNDS
AND THE NEW ERA
OF BRIC WEALTH

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Quality In Everything We Do

SIEMSMONTHLY
BRIEFING

SKOLKOVO Institute for Emerging Market Studies
Moscow School of Management
July 2010

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I. INTRODUCTION

With the inauguration of the new millennium, a new dynamism became apparent in emerging market economies. A sustained period of rapid economic growth and sound macroeconomic policies by Brazil, Russia, India, and China (BRIC) had improved public finances and lowered inflation. However, the large accumulated current account surpluses for China and Russia presented a growing problem as both nations struggled to find outlets for their rapidly expanding foreign exchange reserves. In 2004, Russia created the Stabilization Fund designed to accumulate surplus oil and gas revenue out of foreign exchange earnings when energy prices became elevated. In turn, when energy prices fell sufficiently to impair Russia's finances and economic growth, the fund would then be tapped. In 2007, with nearly \$2 trillion in foreign exchange reserves, the China Investment Corporation (CIC) was created to better manage some of its massive reserves by investing in riskier assets than US government and agency debt.

Without the geographic blessing of energy wealth nor possessing large structural current account surpluses, India and Brazil did not accumulate sizeable reserves in the last decade. But with the discovery of large oil reserves, Brazil's little known sovereign wealth fund, the Fundo Soberano do Brazil (FSB), may quickly gain size and status in the coming years. India's steadily improving economic performance has swelled its foreign exchange holdings to approximately \$280 billion, a vast improvement from the mere \$1 billion in foreign exchange reserves in 1991. There is now some pressure on India to create its own sovereign wealth fund. The movement of these emerging market giants into the government linked investment sphere, also known as sovereign wealth funds, heralds their evolution as the nouveau riche of global finance.

By some accounts, there are as many as fifty sovereign wealth funds worldwide. With the exception of Russia and China, the major sovereign wealth funds have been in existence for as long as fifty years. The major players, which control more than 80% of all sovereign wealth fund assets, valued at approximately \$3 trillion, are Abu Dhabi, Norway, Saudi Arabia, China, Singapore, Kuwait, and Russia. Of these countries, only China and Singapore have not accumulated their sovereign wealth from oil exports but instead from sustained current account and/or fiscal surpluses.

The large accumulated current account surpluses for China and Russia presented a growing problem as both nations struggled to find outlets for their rapidly expanding foreign exchange reserves

The first SWF was the predecessor of the current Kuwait Investment Authority, formed in 1953 to manage the financial wealth derived from Kuwait's massive oil reserves. Since then, states as varied as the tiny island nation of Kiribati, with phosphorous reserves, to copper giant Chile have established stabilization and sovereign wealth funds to help them better manage and increase the financial wealth obtained from natural resource extraction. The primary reason behind establishing many of these funds is straight forward. Since their natural resource endowment is fixed and exhaustible, accumulating some of the wealth in a fund rather than spending or distributing it allows a state to build and transfer the proceeds of the natural resource wealth across many generations.

A sovereign wealth fund is a pool of capital derived from net wealth accumulation controlled by the government or government linked entity that invests in assets seeking returns above the risk free rate of return. These funds carry three distinct characteristics. First, they are "pools of capital derived from net wealth accumulation". Second, a sovereign wealth fund is "controlled by a government or government related entity". Countries have taken a variety of approaches in the manner to which their funds are controlled, but primarily they are managed by the finance ministry, central bank, or through a nominally independent entity. The key is that the government retains controls of investment capital. Third, a sovereign wealth fund "invests in assets seeking returns above the risk free rate of return." Though some central banks might manage a portion of their holdings as a sovereign wealth fund, the mere existence of large foreign currency or debt holdings, does not constitute a sovereign wealth fund. A sovereign wealth fund assumes risk not taken by government entities in the normal course of operations. Sovereign wealth funds are limited to government investment funds that are without explicit liabilities and engage in commercial transactions. This specifically excludes large pools of capital without specific investment or commercial transaction purposes such as foreign exchange reserve holdings of cash or investment grade government debt. It also excludes such investment funds like pension plans that carry explicit liabilities toward future retirees. Sovereign wealth funds act broadly similar to other institutional money managers with portfolios in a diverse range of asset classes.

Sovereign wealth funds started gaining greater notoriety last decade when a protracted record rise in energy prices produced unprecedented

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surges in many energy producing nations' funds over a relatively short period of time. Oil exporters like Russia, Norway, and Kuwait benefited handsomely from the rise in oil prices that started in 2003 and peaked in 2008. For example, over this period the Norwegian Global Pension Fund expanded from \$120 billion to more than \$390 billion.

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The combination of volatile and record high commodity prices drove a number of emerging market economies to create sovereign wealth funds in an attempt to act as a buffer against drops. By setting aside some of the high export revenue, governments could restrain their spending inclinations and guarantee themselves access to funds in the future. Though research fails to confirm the reasoning that governments spend less or manage their economies better by establishing a fund, this logic was seductive, allowing governments to trumpet their new found sovereign wealth. Meanwhile, the boom in global trade coupled with an artificially low exchange rate (i.e. – China) helped boost the export and foreign exchange revenues of trading states like China and Singapore.

The primary characteristic in differentiating sovereign wealth funds is their source of capital. Sovereign wealth funds are typically classified as either commodity or non-commodity in origin. A commodity based sovereign wealth fund derives its capital from accumulated natural resource export surpluses, typically oil and gas. The largest of these are the Abu Dhabi Investment Authority (ADIA) and the Norwegian Global Pension Fund, estimated at collectively controlling more than \$1 trillion in financial assets. A non-commodity fund derives its capital base from fiscal and current account surpluses that initially manifest themselves in the form of large foreign exchange reserves. Singapore and China are the two largest non-commodity sovereign wealth funds accumulated from years of fiscal and current account surpluses.

There are two areas in which sovereign wealth funds play an implicit economic policy role. Sovereign wealth fund states run large current account or fiscal surpluses. The surplus capital is deposited into a sovereign wealth fund, either in the form of a fiscal stabilization role, whereby the government is obligated to deposit excess funds, or transfer from foreign exchange reserves. Surplus capital is transferred from various public sources into the sovereign wealth fund. In addition, by investing in large amounts of foreign assets, sovereign wealth funds reduce appreciation and inflationary pressures on their local currency. If the surplus capital from exports is being reinvested abroad, the pressure to appreciate is reduced.

Although there is no evidence supporting the belief that sovereign wealth funds will act internationally to support their domestic political agendas rather than pursue purely economic objectives, many target states have raised this concern. No

legislation has been passed specifically targeting sovereign wealth fund investments, but concern exists on both sides that if caution is not exercised protectionist sentiment could impair the free and open movement of capital.

Commodity and non-commodity funds should typically pursue disparate investment strategies for their funds. Commodity price volatility implies that sovereign wealth funds that rely upon commodity export revenue for capital, such as Brazil and Russia, should hold a portfolio relatively high in fixed-income instruments and foreign assets. A portfolio tilted with this kind of asset allocation would have rates of returns that were less correlated with domestic economic activity. For example, when oil prices are rapidly falling, benefiting global economic activity, returns on Russia's fund portfolio tend to hold up relatively well compared to the fall in domestic rate of growth, which is highly correlated with oil prices. Conversely, non-commodity funds, such as China's, which derive their capital from running large trade surpluses, are better advised investing a larger share of their fund at home. The lower volatility of traditional exports compared to commodity prices allows non-commodity funds to invest more in assets that are correlated with domestic economic activity.

Commodity and non-commodity funds should typically pursue disparate investment strategies for their funds

THE NEWEST MEMBER OF THE CLUB: THE FUND FROM IPANEMA

In 2008 Brazil was producing an average of 2.4 million barrels per day, ranking it 13th worldwide, but exporting just 570,000 barrels a day (ranking it 27th in the world in 2007). The discovery of the Tupi oil field by British Gas and Petrobras off the Brazilian coast southeast of Rio de Janeiro catapulted Brazil into the enviable position of major oil producer in 2006, and tripled Brazilian proven reserves from just over four billion barrels to over twelve billion. This vaulted Brazil from 30th in the world in proven oil reserves to 15th. Based on an average price of \$75 per barrel (a price many analysts expect oil to average at minimum in the coming decade), the Tupi oil field is expected to generate more than \$650 billion in revenue over its lifespan.

As a developing economy with a long history of government corruption, Brazil will face the challenge of managing this growing largesse without squandering its new wealth. This is a priority as Brazilian economists and politicians are well aware of the mixed blessing of oil wealth. Many developing countries have a long history of poorly managing their

mineral wealth and have ended up, not with wealth but with widespread poverty. Even rich developed nations like the Netherlands have been plagued by the “Dutch Disease,” with their oil endowment hampering the competitiveness of their export sector due to a loss of competitiveness from currency appreciation. Brazil, however, has seen a significant improvement in its macroeconomic performance over the past decade. Brazil’s annualized real GDP growth of 1.7% during the 1990s accelerated to 3.3% last decade. Perhaps Brazil is finally beginning to achieve its true economic potential.

After the discovery of the Tupi oil field, Brazil passed legislation regulating the activities of the Fundo Soberano do Brasil (FSB). Currently operating a relatively small portfolio of \$9 billion derived from oil revenue from its state-owned existing fields, the FSB can be expected to grow steadily but slowly before the Tupi oil field becomes fully operational with maximized extraction capacity. Although the FSB has published their investment framework, they have not released an accumulation or withdrawal fiscal rule to restrain politically motivated spending. As their primary oil fields are just starting production and will not be fully operational for a number of years, the FSB should experience a steady but unspectacular rise over the next decade before expanding rapidly, depending on the direction of oil prices. While there is less than 100,000 barrels a day currently being extracted from the Tupi and Jupiter oil fields, by the end of the decade this number is expected to rise to more than 1,000,000 per day.

Many developing countries have a long history of poorly managing their mineral wealth and have ended up, not with wealth but with widespread poverty

With the Financing and Planning Ministers, and central bank president as sole members of the advisory board, the FSB is expected to play a closer policy role more than with other sovereign wealth funds. For example, one investment strategy open to the FSB is the purchase of U.S. dollars in the foreign exchange market to mitigate or prevent the appreciation of the Brazilian real.

The FSB is supposedly limited legally by the returns it can earn both overseas and domestically. On international investments the FSB must earn an interest rate no less than the 6 month LIBOR and domestically they must earn a minimum of the long term TJLP (Brazil's domestic LIBOR), although it remains to be seen how this will operate in practice specifically with regards to any equity investments. Though the legislation provides for operational and financial oversight of the fund, its political oversight and purpose might not best suit the economic motivation of the fund. While Brazilian fiscal policy has been unusually prudent in recent years, there are many concerns what the political class might do when tempted by a large pool of money working without any budgetary restraints. The FSB currently only manages approximately \$9 billion so the growing largesse coming from the Tupi oil field over the next few years will force them to quickly build up their financial management capacity and expertise.

As an oil exporter that might experience currency appreciation depending on the size of the surplus, the Brazilians would be well advised to allocate a higher percentage of their portfolio to international fixed income securities. Fixed income securities would provide Brazil with a stable flow of income during periods of time when either oil or other important commodity prices were falling as global equities are more highly correlated with oil prices than fixed-income securities.

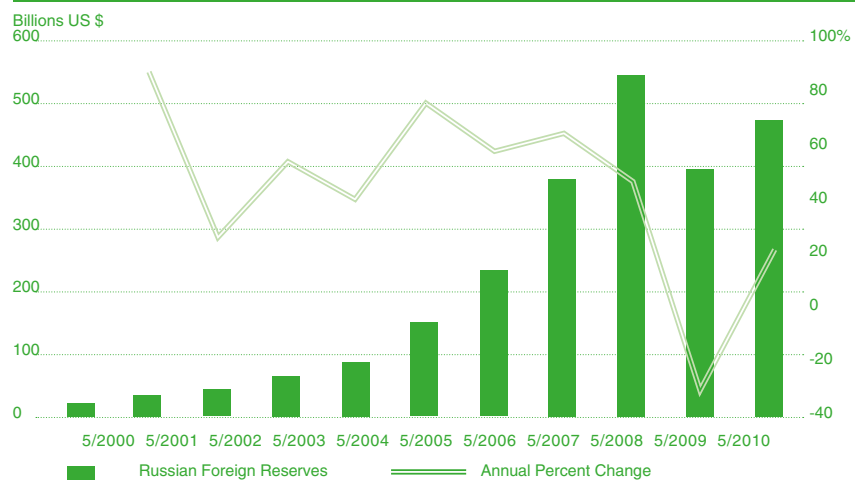
THE RUSSIAN RAINY DAY FUND

With hydrocarbons providing as much as 25% of GDP and up to 60% of export earnings, Russia is an energy-dependent giant. Not surprisingly, Russia's economy and stock market walk in lockstep to the price of oil. From 2003-2008, a period of rising energy prices, Russia's real GDP expanded at an annual rate of 7%. During this same period, Russian foreign exchange reserves exploded from \$48 billion to \$456 billion as seen in Figure 1.

Russia's economy and stock market walk in lockstep to the price of oil

A combination of plunging oil prices and the global economic recession in 2009 caused the Russian economy to contract by 8%. Today the Russian economy remains critically dependent on oil and other commodity prices. Russian President Dmitry Medvedev has even described oil and gas as the economic Russian "drug".

FIGURE 1: Russian Foreign Reserves



Source: Bank of Russia

With current account surpluses from the export of gas and oil reaching a peak of 18% of GDP in 2000 but then rapidly falling to 10% in 2004, the government created the Stabilization Fund of the Russian Federation (SFRF) designed to smooth out government revenue and spending. A stabilization fund differs from a sovereign wealth fund in that governments implement a fiscal rule designed to smooth public expenditures dictating when the fund accumulates capital and the conditions under which withdrawals can be made based upon revenue levels from the primary commodity export. Due to the higher liquidity needs in case of a commodity price downturn, stabilization funds typically invest in short-term instruments and cash rather than equities and long-term assets.

To fund the SFRF, the authorities imposed an export duty per barrel on oil whenever the market price exceeded \$27, the price it averaged from 2000 through 2003. Any amount in excess of \$27 per barrel was deposited directly in the SFRF. As the price of oil climbed steadily throughout the decade, so did the size of the SFRF. From the SFRF's inception in 2004 till January 2008, the price of Russian oil exports averaged \$54.22 per barrel, or twice the accumulation price. This was sufficient to swell SFRF's coffers by \$157 billion by January 2008, a rapid rate of accumulation for any sovereign fund. In January 2008 the SFRF was split into two separate funds, the Reserve Fund and the National Wealth Fund (NWF).

Owing to its stabilization fund mandate, the SFRF was required by law to invest only in AAA rated fixed income foreign government securities with 45% weightings in both the dollar and euro assets and 10% in sterling. Given the cyclical nature of Russia's economy, the fund's emphasis was on liquidity and stabilizing government expenditures in the event of an economic downturn, not long term investment returns.

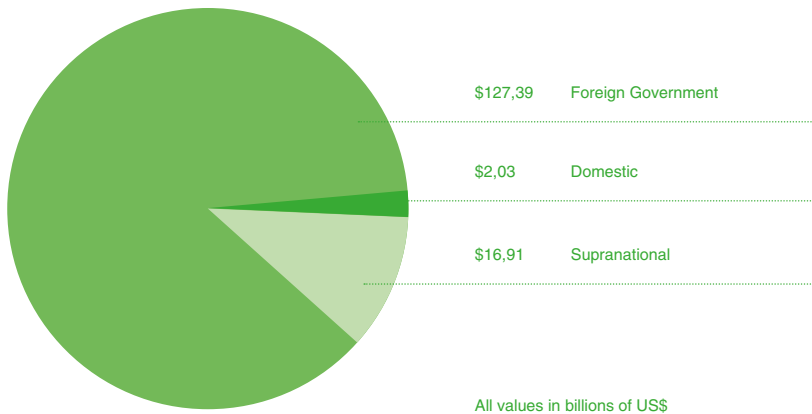
On February 2008, the Reserve Fund and the NWF were allowed to focus on divergent investment strategies owing to their function. The Reserve Fund assumed a role similar to that of the SFRF. That is, it essentially became a stabilization fund for the Russian government. The Reserve Fund can invest only in fixed income securities rated AA- minus or higher and it is currently holding a mixture of western European and North American government and supranational institutional debt. The liquidity requirements of the Reserve Fund necessitate the holding of short-term fixed income assets. The maximum maturity period of a fixed income asset the Reserve Fund can purchase is three years.

The National Wealth Fund was designed to invest in higher risk, higher yielding assets, but in practice, the fund has an investment portfolio similar to the Reserve Fund. The NWF is permitted to allocate up to 50% of its capital to equities and a significant share for domestic debt or depository securities. The acceptable range of fixed income securities available to the NWF is similar to that of the Reserve Fund, focusing on high quality and short term government and publicly linked entities. Despite different mandates, the portfolios of the NWF and Reserve Fund are essentially

The liquidity requirements of the Reserve Fund necessitate the holding of short-term fixed income assets

The NWF is permitted to allocate up to 50% of its capital to equities and a significant share for domestic debt or depository securities

FIGURE 2: Aggregated Reserve and National Wealth Funds Holdings (April 2010)



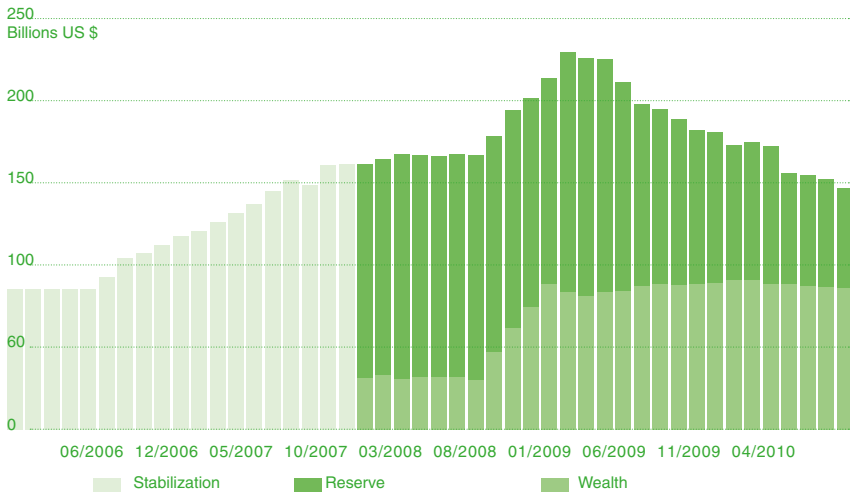
Source: Russian Ministry of Finance

identical. Approximately 81% of the NWF is invested in a portfolio of debt securities identical in composition to the Reserve Fund. The remaining 19% of NWF capital is invested in the government linked development bank Vnesheconombank as long term subordinated debt yielding 7-8.5%. As can be seen in Figure 2, both funds combined hold more than \$140 billion (as of April 2010) in short term high quality government and government linked debt in North America, Western Europe, and Russia.

The SFRF imposed an implicit cap on government expenditures by transferring all oil revenue above \$27 a barrel into the fund except when fund capital exceeded 500 billion rubles. The price ceiling was established at a time when oil prices had been averaging \$25 a barrel. As oil prices began soaring last decade, growth in government outlays was restricted, given the oil windfall was being safely deposited into the SFRF and beyond reach. However, the Reserve Fund and NWF contain no such provisions limiting government expenditures. Consequently, Russian government spending has grown rapidly and well in excess of revenue growth, resulting in a significant drawn down of fund capital. Combined fund capital topped \$220 billion but has since quickly shrunk to less than \$140 billion to continue balancing the budget (see Figure 3).

While aggressively dipping into their reserve fund undoubtedly stabilized some of the freefall in economic output during the most recent global crisis, Russia's budget revenue will remain highly volatile as long as it remains inexorably tied to the price of oil. In 2009 Russia ran a budget deficit of 5.9% of GDP, its first deficit in ten years. Looking forward, it is important that Russia improve its fiscal restraint and framework for accessing fund

FIGURE 3: Russian Sovereign Wealth Fund Assets



Source: Russian Ministry of Finance

capital, accumulating capital, and radically altering its current revenue collection model. Explicitly linking government revenue to global oil prices is poor budgetary management, not to mention bad economics.

IS IT TIME FOR AN INDIAN FUND?

At the height of its worst economic crisis, India's foreign exchange reserves had dwindled down to a paltry \$1 billion in 1991. Looking into the abyss, India began adopting free market reforms. Today, solid economic growth and rising foreign direct investment have increased India's FX reserves to approximately \$280 billion and ignited debate on whether it is time for the world's second fastest growing economy to have its own sovereign wealth fund.

Should India follow the leads of Brazil, Russia and China and start its own fund? The short answer is no. India's economy, very simply, lacks the structural and resource requirements to build the levels of surplus capital that a fund requires. Unlike Russia and soon Brazil, India does not possess valuable commodities for export in sufficient quantity to build sizeable current account surpluses. It also currently lacks the economic structure to run large current account surpluses on its own because its rate of domestic savings is small compared to its growing rate of domestic investment (India's government runs a persistently large budget deficit). In fact, the small current account deficits it has averaged since 2000 are likely to grow in the coming decade as India's share of GDP allocated to domestic investment

continues rising.

Though Indian foreign exchange reserves have risen to a healthy \$278 billion by early 2010, they are dwarfed by Chinese reserves. The Peoples Bank of China holds more than 50% of GDP in reserves, while India holds just over 20%. There simply is too little excess capital for India with which to establish a sovereign wealth fund.

The larger focus of Indian policy makers, rather than establishing a vanity sovereign wealth fund that would utilize needed capital, is reforming the economy. The balance of academic research finds that economies with sovereign wealth funds do not grow any faster or with less volatility than ones that don't, and there appears to be no discernible benefit for a country to establish one. Furthermore, countries that establish sovereign wealth funds have large amounts of surplus capital which they need to invest in international capital markets to reduce exchange rate and inflationary pressures. This occurs most commonly from commodity exporters or countries running structural trade surpluses from fixed or managed exchange rate regimes, neither of which describes India.

Economies with sovereign wealth funds do not grow any faster or with less volatility than ones that don't, and there appears to be no discernible benefit for a country to establish one

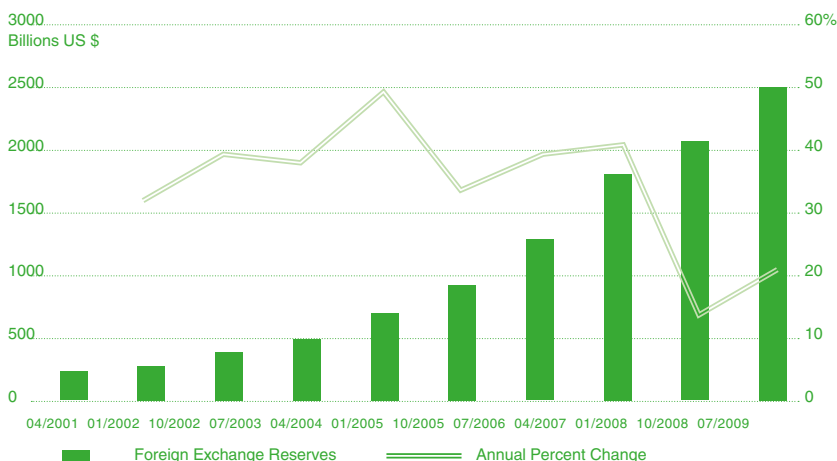
THE CHINA INVESTMENT CORPORATION: THE GUARDIAN OF CHINESE NATIONAL WEALTH?

At the dawn of the millennium in January 2000, the Chinese State Administration of Foreign Exchange (SAFE), managed what it considered an enormous and rapidly expanding amount of international currency reserves. The approximately \$160 billion SAFE was managing at that time would explode over the next decade, reaching \$2.4 trillion by April 2010. The rapid expansion of exports that produced the large surplus was driven by two factors. First, there was the immediate and large impact on exports resulting from Chinese membership in the World Trade Organization (WTO). When China entered the WTO in 2001, it exported \$102 billion worth of goods to the United States. By 2004, exports had nearly doubled to \$196 billion and by 2008 this number had grown another 72% to \$337 billion. Since its entry into the WTO, Chinese exports have grown by an annualized rate of 19%, exceeding the growth in world trade during a period of rapid global growth. Though other factors contributed to the growth of Chinese export growth, their membership in the WTO aided their efforts.

Since its entry into the WTO, Chinese exports have grown by an annualized rate of 19%

Second, running a fixed exchange rate regime while running large current account surpluses, China needed to sterilize the massive dollar inflows into China to prevent the yuan from appreciating vis-a-vis the US dollar. Consequently, the central bank has been forced to continuously purchase large amounts of surplus dollars to maintain the dollar-yuan exchange rate peg. This led to a subsequent problem due to holding such a large

FIGURE 4: Chinese Foreign Exchange Reserves



Source: Peoples Bank of China

amount of reserves in currency and low yielding debt. In January 2001, Chinese foreign exchange reserve holdings totaled \$168 billion, but by March 2010 they were growing by over \$1 billion per day and had grown to \$2.45 trillion.

China was losing nearly 10% annually in real terms on its foreign exchange reserves from inflation and unrealized losses from holding low yielding cash and government bonds. Holding \$1.5 trillion in foreign reserves in 2007 meant that China was incurring nearly \$150 billion in real losses on its aggregate holdings. This amounted to nearly 5% of GDP in 2007. Based upon current amounts of estimated dollar denominated assets, even a small appreciation could cause currency losses of more than \$250 billion. The real losses and opportunity costs of holding such large amounts of foreign exchange reserves became increasingly acute. Since foreign exchange reserves are designed to provide liquidity to the capital and trade markets, facilitating international transactions, rather than acting as investment capital, China had accumulated well beyond prudent measures needed for this purpose. It was the growing realization of these mounting losses that led to the establishment of the China Investment Corporation (CIC) in 2007 with \$200 billion of capital. The fund was mandated to invest in riskier and higher yielding assets. Preserving the real value of its total foreign exchange reserves terms would require the CIC to earn approximately 10% annually to cover its cost of capital.

Though SAFE held \$1.5 trillion at the time CIC was established, they wanted to avoid a direct capital transfer delineating the assets of the Peoples Bank of China and the new fund, so they instead opted to issue a unique bond. The Ministry of Finance then issued 1.6 trillion in yuan denominated bonds to be held by the central bank with ten and fifteen year maturities with a yield of 4.3-4.68% and then purchased \$200 billion in foreign exchange reserves from SAFE. To meet its target of 50% of capital invested domestically, the CIC then converted a major portion of the \$200 billion in capital back into yuan.

There are a number of distinctive features of China's new sovereign wealth fund. First, the CIC is the only sovereign wealth fund in the world created with explicit leverage capital. Though the debt is owed to another branch of the government holding the underlying capital, there is no other sovereign wealth fund investing on pure leverage. Second, with twice yearly bond payments, the internal financial management of the CIC more closely resembles that of a pension fund requiring higher liquidity and regular payments to meet obligations. The large cash re-

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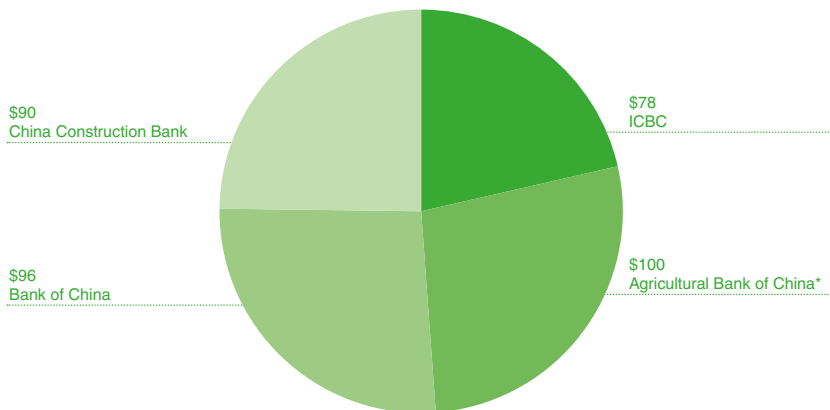
quirements needed to meet debt obligations increase the complexity and prevent the CIC from exploiting the liquidity premium strategy used by other long term institutional investors. Third, due to the structure of borrowing low over ten and fifteen years, the CIC is arbitraging between the cost of debt and the returns of equities. If equity returns remain greater than its debt costs, it could profit handsomely. If equity returns drop or remain negative for a prolonged period, this could create serious stress due to its leverage and required debt payments. Fourth, the yuan debt obligation has given the CIC an incentive to invest in Chinese equities as foreign currency, and even local fixed income instruments yield too little to make the risk worthwhile to meet its own obligations. In other words, converting the capital back into dollars to diversify equity risk induces significant currency risk given that the yuan is currently undervalued relative to the dollar and because of the CIC's yuan-denominated obligations to the central bank.

Due to the timing of the creation of the CIC within specific global economic conditions, the strategic and operational decision was made to increase investment purchases slowly in 2008. The global financial crisis had increased risk substantially and harmed CIC credibility due to their poorly timed investments in Blackrock and Morgan Stanley, purchased either before or during the crisis. The outright collapse of some of their well publicized investments caused concern and lowered the risk appetite of the CIC. Consequently, throughout 2008 the CIC held nearly 90% of its global capital in cash and cash like instruments, earning a small negative return of -2.1%.

While the other half of the CIC fund is to be allocated toward the global capital pool, at the fund's creation, nearly \$70 billion was used by the CIC to purchase the Central Huajin Investment Company (CHIC) from SAFE. The CHIC was the institution created earlier in the decade to recapitalize and restructure the large state owned Chinese banks such as the Bank of China, Agricultural Bank of China, and the Industrial and Commercial Bank of China that had largely become insolvent during the late 1990s. Though purchased for \$70 billion USD, on a portfolio basis, CIC holdings of the large state owned Chinese banks today are worth \$365 billion as shown in Figure 5. In other words, if the CIC valued its domestic holdings on a portfolio basis, it would more than double the stated size of the CIC. The CIC's domestic holdings of state owned banks make it one of the largest sovereign wealth funds in the world.

The CHIC on behalf of the Chinese government is the majority shareholder of these and other banks even though they are publicly listed. Whereas the CIC accounted for its global investments on a portfolio basis using the mark to market change in asset price, it accounted for its domestic investments via accounting income as the majority shareholder.

FIGURE 5: How to Turn \$67 Billion into \$365 Billion:
THE Portfolio Value of CIC Domestic Holdings



*Agricultural Bank of China value is estimated as it has not been listed All values are in billions of dollars

Source: Central Huijin Investment and Bloomberg

While this is a legal and accepted method, it allowed the CIC to report a significant income profit from its domestic bank holdings. If it had reported on its domestic investments on a portfolio basis similar to its global holdings in 2008, it would have reported a domestic loss of more than 40%. This would mean that while the CIC is required to exceed its cost of capital, it actually earned a portfolio loss of more than 20%. It will be interesting to see if the CIC retains this accounting method going forward, especially in years when bank stock prices exceed returns made using the income accounting method. The CIC preference to account for the pass through income of its bank holdings also effectively makes the CIC the largest bank in the world as it owns all large banks in China.

In 2009, China began to increase its holdings of foreign assets with a target of allocating its global capital base by sometime in

In 2009, China began to increase its holdings of foreign assets with a target of allocating its global capital base by sometime in 2010

2010. Its holding of foreign assets consists largely of equities. As its domestic investment capital is constrained by its fixed holdings in the state owned banks, without additional capital, the CIC does not have large amounts to invest domestically. The CIC has been investing in stocks, private equity, and hedge funds in its efforts to diversify its holdings. The US equity holdings are currently focused on Morgan Stanley, Blackrock, Teck Resources, and exchange traded funds (ETFs).

CIC's investment strategy has exposed itself to various risks. First, CIC debt obligation is denominated in yuan, so any shift in exchange rate policy could have a large negative impact on their returns and ability to repay their bonds. In other words, the currency risk has only increased as the CIC investment portfolio has targeted dollar denominated assets with yuan denominated obligations.

Second, CIC holdings are relatively concentrated in a small number of industries that are highly correlated with broad economic activity with volatile underlying assets. The CIC equity holdings are concentrated in financials, natural resources, and basic materials with significant stakes in AngloGold, Arceormittal, Freeport-McMoran, Kinross Gold, Bank of America, and Citigroup to name a few. Financials, commodities, and basic materials are all volatile and highly correlated with global economic activity. The CIC has demonstrated a significant risk appetite in allocating their portfolio towards these industries.

Third, though the CIC has purchased large amounts of ETFs, their sector allocation is less risk dispersive than it initially appears. The ETFs are also concentrated in financials, commodities, energy, and basic materials. This strategy heavily concentrates and increases the risk profile of the CIC and induces significant volatility as these companies are dependent on volatile commodity prices. Due to its leverage use and portfolio allocation, the CIC is the riskiest sovereign wealth fund in the world. SAFE, which has begun to expand its investment management activities in competition with the CIC, has made similar investments in commodities, energy, financials, and basic materials including the companies British Petroleum and Rio Tinto. Though there is no current evidence of improper influence from their portfolio holdings, the significant Chinese ownership stakes in these industries have caused some consternation in some policy circles who believe these are politically motivated.

The financial crisis of 2008 increased the concern over the potential political use of sovereign wealth funds in Europe and the United States. Though the CIC has purchased some high profile stakes in companies like Blackrock and Morgan Stanley, to date, thus far it has had an excellent record in managing its investments in a non-political manner. As it continues to grow and becomes increasingly comfortable in its role as the guardian of Chinese national wealth, the CIC may become more willing to express its shareholder rights. There are two facets that could cause concern to those worried about the CIC flexing its political muscle. First, as the majority owner of all major Chi-

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nese banks, the CIC already holds a great deal of leverage through these financial institutions domestically and internationally. Due to the noted political nature of these domestic holdings, the CIC may exercise its influence more domestically or on corporate expansion than directly through its own investment activities. The CIC stresses that its international investments are separate and made for pure financial reasons while their domestic holdings are for political and stability purposes. These two incentives may conflict at some point. Second, there is growing concern about Chinese investments and other sovereign wealth funds' purchases of "strategic" industries. The CIC portfolio is highly concentrated in natural resources, energy, basic materials, and financials. As the geopolitical balance of power is continually shifting, some fear that China might increasingly use their ownership stakes in these foreign entities to a political, rather than financial, benefit.

CONCLUSION

The BRIC sovereign wealth funds are likely to become increasingly important economic players in the future. The primary factors causing fund surpluses in Russia and China (and for newcomer Brazil) look to be well placed for the immediate future. Energy prices are expected to remain historically high, particularly when the global economic recovery gains traction, while China's current account surpluses should remain large for years as a result of consistently high domestic savings.

Sovereign wealth funds can play an important role in promoting domestic economic development. However, they can also result in squandered

wealth that demonstrates poor economic and financial management.

The primary challenge for the Russian and Brazilian funds in the coming years is clearly demonstrating prudent financial management. Their sovereign wealth funds and broader macro-economy would benefit from government

The primary factors causing fund surpluses in Russia and China (and for newcomer Brazil) look to be well placed for the immediate future

spending and public investment that was less correlated to volatile energy and commodity prices. Russia and Brazil would be wise to look toward Norway as a model, which restrains public spending by limiting the government deficit to 4% of the non-oil economy. This anchors the government to the broader real economy by delinking it from global oil prices.

As for China, their sovereign wealth fund's greatest economic challenge will probably not be fiscal prudence (the fund is not being tapped), but finding appropriate investment venues for the likely ever expanding size of the CIC fund. China has squandered much of a generation's worth of hard-earned savings by having it sit in low yielding assets for protracted periods of time. China can no longer afford to watch its nest egg depreciate as its population ages the fastest of any nation in the world. Given the enormous size of its foreign exchange reserves (and in turn the short and medium-term potential sizes of the CIC), finding an appropriate asset class allocation and investment strategy that evolves with the size of the fund will be paramount.

These funds will need to structure their investment strategy within the context of their broader economy. Commodity dependent funds based on volatile global prices should allocate a relatively higher percentage of assets to lower risk fixed income instruments. Russia has done a good job at this but needs better fiscal controls. Brazil has indicated its investment framework will dedicate more to fixed income, though its overtly political management does not engender confidence. Non-commodity funds like those in China, due to their lower inherent volatility, should allocate more to equity and alternative investments. However, because of their internal

financing structure they should reduce international investment exposure due to the high currency risk associated with fixed exchange rate regimes.

If these new sovereign wealth funds manage to circumvent these eco-

economic and financial hurdles and thrive by building sovereign wealth while moderating the vicissitudes in their business cycles, their very success could create another formidable problem, this one political in nature. The economies of the developed world have grown suspicious before because of foreign

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ownership from cultures that did not share the same value system. In the 1970s it was the acquisition of real estate by petrodollars flowing in from the Gulf States. A legitimate concern for the western democracies arises from the possibility that at some point, these sovereign wealth funds, after reaching some critical mass, could eventually become powerful instruments in projecting and achieving state objectives. This is why these new giants of international finance should start moving now to allay these fears by dramatically increasing their fund's transparency and accountability to the rest of the world. Interestingly, the global economic downturn has created a real opportunity for the sovereign wealth funds because they are largely viewed as least likely to have contributed to the recent market turmoil, an act of relative goodwill that would be wise to follow up on.

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