MORGAN STANLEY RESEARCH GLOBAL

May 3, 2007

Currencies

How Big Could Sovereign Wealth Funds Be by 2015?

Answer: US\$12 trillion.

Bottom line. I've long stressed the importance of sovereign wealth funds (SWFs), and underscored that they are already quite large. I believe that SWFs will become absolutely massive in size in the not-too-distant future, and will have powerful implications for the financial markets, as I have discussed in the past. I am increasingly concerned about financial globalization, as a reaction to the emergence of these funds

Rapid growth in size in the coming years. My calculations show that the total size of the SWFs could reach US\$12 trillion by 2015, and surpass the size of the world's total official reserves within five years (before 2011).

Non-oil Asian exporters becoming as important as oil exporters. At present, SWFs derived from oil and gas exports account for some two-thirds of total SWFs. But by 2015, I believe that these two groups will be roughly the same size — at around US\$6 trillion each, with China's Huei Lian Company being the single-largest SWF.

Rising risk of financial globalization. The SWFs of tomorrow are likely to be more interested in strategic companies that possess higher-tech capabilities or techniques. While the reaction of the US to a potential bid for a firm like this from a SWF is clear, it is not so certain how the UK, Australian or Canadian government would react. In any case, foreign investors evolving from lenders to owners will likely trigger defensive reactions from the recipient countries, which may, in turn, undermine globalization.

Recent Reports

Russia: The Newest Member of the 'SWF

Club'

Stephen Jen April 26, 2007

No Need to Look Under the Rocks for

Reasons

Stephen Jen April 19, 2007

HKD: The Latest Flavour in Carry Trades

Stephen Jen April 12, 2007

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How Big Could Sovereign Wealth Funds Be by 2015?

Summary and conclusions

Answer: US\$12 trillion.

How important will the SWFs be over the medium and long term? According to my calculations, based on several assumptions, the world's SWFs could grow from US\$2.5 trillion now to nearly US\$12 trillion by 2015, and could exceed the total size of the world's official reserves within five years, i.e., by end-2011.

The calculations I have performed

In the last update on this subject, ¹ I reported that, according to my 'guesstimates', the total size of the SWFs in the world could be as large as US\$2.3 trillion. This figure does not include the funds from Saudi Arabia, but does include the entire Oil Stability Fund (OSF) of Russia. Assuming that SWFs of Saudi Arabia may total US\$300 billion², and taking out some US\$70 billion from the OSF³, the total size of the world's SWFs may now be around US\$2.50 trillion.

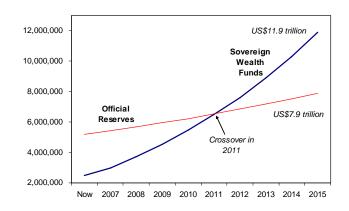
I then assumed that, broadly, total oil revenues (including both the quantity and price effects) would rise by around 10% a year for the foreseeable future, and that a portion of each non-oil exporter's C/A surplus would be diverted either to the official reserves or to their SWFs. Further, I made the conservative assumption that the annual nominal return on a SWF's investment is 5.50% (slightly higher than the currency-weighted return on 2Y sovereign paper of 4.30%).

Exhibits 1 and 2 show the main results of my calculations.

1. **US\$12** trillion by 2015 ... First, I expect SWFs to grow very rapidly, both in absolute terms and relative to the total stock of the world's official foreign currency reserves. Starting from US\$2.50 trillion now, SWFs are expected to double in size before 2010 and rise to around the US\$10 trillion mark before 2014, before reaching around US\$12 trillion by 2015.

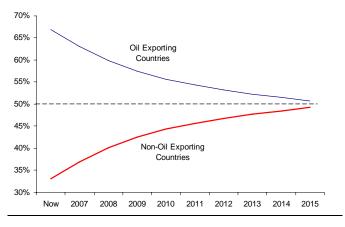
¹Russia: The Newest Member of the SWF Club (April 26) and Tracking the Tectonic Shift in Foreign Reserves & SWFs (March 15).

Exhibit 1
Rapid Growth of SWFs Projected (USD million)



Source: Morgan Stanley Research estimates

Exhibit 2
Non-Oil Asian Exporters to Become More Important



Source: Morgan Stanley Research estimates

2. ... surpassing official reserves within five years. The world's official reserves, in comparison, are likely to expand at a much slower pace, and are expected to be surpassed by the SWFs by 2011, when both the reserves and the SWFs should reach around US\$6.5 trillion (see Exhibit 1).

3. Non-oil Asian exporters will play a more important role. Currently, as shown in Exhibit 2, the SWFs derived from oil and gas export proceeds account for some two-thirds of the total, with the rest consisting of funds mainly controlled by the Asian exporters. However, going forward, the share of oil-centered SWFs within the total number of SWFs is expected to decline gradually, reaching the 50% mark by 2015 or

²This is a pure 'guesstimate' by me. Saudi Arabia's C/A surplus is about three times that of UAE, but the proceeds from the oil exports have been directed to various unspecified funds. Trying to exclude the funds that are under the names of the members of the royal family, I am guessing that US\$300 billion or so could be considered in SWFs.

³Russia will keep 10% GDP worth of OSF in the 'Reserve Account' and the rest in the 'Future Generations Savings Account' (the latter being a SWF). This means that only US\$30-32 billion of the OSF should be included in the SWF calculations.

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thereabouts. China's SWF, which is likely to be named the 'Huei Lian Company', is expected to be the single-largest SWF by 2009, surpassing ADIA.

Caveats regarding my calculations

At present, SWFs have very low transparency, and they will likely remain opaque for the foreseeable future. Therefore, I have had to make some educated guesses on their size and the pace at which they will accumulate funds (mostly transfers from the official reserves). There are two main assumptions driving the results I presented above. First, I have assumed that most of the incremental balance of payments surpluses will be accumulated in SWFs, rather than official reserves. Second, the investment return on SWFs is assumed to be a bit higher than that on sovereign bond holdings in the official reserves.

On the first assumption, my theory may be a bit aggressive, given that if a particular SWF does not perform well, it is quite likely that the nation in question will divert less financial resources to it and will keep them in the form of reserves instead. In fact, there is nothing to suggest that funds could not be taken from the SWFs and transferred back into official reserves.

On the second assumption, I have been very conservative, assuming only a 110bp premium on SWF returns, compared to the 'risk-free' returns on official reserves.

Clearly, altering these assumptions would have the logical implications for my results. But I do think the scenario I have outlined is the most likely one I can think of.

Big impact on the market likely

Given the massive size of these funds, all the market impacts that I have discussed in previous notes (e.g., on the dollar, the US Treasuries and risky assets) will be that much more important. The shift from the sovereign bond markets in the US, Euroland and the UK will remove an important support for the long-term bond markets, with logical implications that I feel I need not discuss here.

Rising risk of financial protectionism

I continue to believe that the emergence of the SWFs will fundamentally alter how risky assets trade, but it will also raise important questions, particularly concerning financial protectionism. Here, I highlight some additional thoughts I have on financial protectionism.

In my opinion, financial protectionism will be a major problem for globalization. While many are still worried about trade protectionism, I believe that the next big risk to globalization is of a different type. Back in the 1980s, Japanese investors bought US properties. In early 2000, Russian investors bought football clubs and Middle Eastern investors bought race tracks. The SWFs of tomorrow are likely to have quite a different taste in assets. Assets that promise solid financial returns may not be as interesting as those that embody technology and techniques that cannot easily be 'homegrown' or imitated. Higher-tech companies and even foreign banks could be primary targets of these funds.

The US is expected to be defensive on this front. But what about countries such as Australia and Canada: how will they react if large SWFs show interest in their resource companies? Also, on the financial services front, while the US's reaction is predictable, what about the UK? How will the UK government react to a bid from a SWF for a UK universal or investment bank?

Financial protectionism is the flip-side of trade protectionism, in my view. While the arguments in favor of and against trade protectionism are clear, the pros and cons of resisting foreign capital are not yet clear, and how various countries will react is also unclear.

In any case, I believe that there is a distinct risk that foreign funds turning *from creditors to owners* will trigger reactions from the recipient countries that will undermine globalization.

Bottom line

I've long stressed the importance of SWFs, and underscored that they are already quite large. My calculations suggest that they could grow to US\$12 trillion by 2015, and surpass the size of the world's total official reserves within five years (before 2011). The SWFs will become absolutely massive in size in the not-too-distant future, and will have powerful implications for the financial markets, as I have discussed in the past. I am increasingly concerned about financial globalization, as a reaction to the emergence of these funds.

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Appendix: Selected Recent Briefing Notes

Russia: The Newest Member of the 'SWF Club'	26 Apr 07	Central Banks Contributing to Low FX Volatility?	26 Oct 06
No Need to Look Under the Rocks for Reasons	19 Apr 07	GPIF Outflows Still a Headwind for JPY	12 Oct 06
HKD: The Latest Flavour in Carry Trades	12 Apr 07	Income Surpluses and Currencies	12 Oct 06
Protectionism Poses Another Risk to the Dollar	4 Apr 07	Resumption of Equity Inflows Key to Our Call on AXJ	5 Oct 06
Big Potential for Further Japanese Retail Outflows	4 Apr 07	Why Is the JPY So Weak?*	28 Sep 06
'Asset Shortage Hypothesis' – Geographical Dimension	29 Mar 07	Official Reserves a Source of Stability, Except in 2002	28 Sep 06
CHF Mortgage Loans Ex-Switzerland Are Small	29 Mar 07	The Glass Is 80% Full	21 Sep 06
Another Bout of Generalized USD Weakness in 2Q	22 Mar 07	Recession Predictor – Update and Extensions*	21 Sep 06
Proposing an 'Asset Shortage Hypothesis'*	22 Mar 07	Sovereign Wealth Funds and the Official FX Reserves	14 Sep 06
March Madness	15 Mar 07	US Recession, De-Coupling, and the Dollar*	7 Sep 06
Tracking the Tectonic Shift in Foreign Reserves & SWFs	15 Mar 07	Thoughts on the Global Funneling Hypothesis	31 Aug 06
'JPY Carry Trades' the Undeserved Scapegoat	9 Mar 07	A 'Global Funneling Hypothesis' for EUR/JPY	17 Aug 06
Quarterly Currency Valuation Update*	9 Mar 07	Uniformity of Treatment: China vs the GCC Countries	10 Aug 06
Introducing an Equity Market Cap Tracker*	9 Mar 07	World Interest Rates Normalizing, Not Restrictive	10 Aug 06
Benign Economic Fundamentals Will Reign	1 Mar 07	The Global Business Cycle and Currencies	20 Jul 06
Structural Capital Outflows from Asia Ex-Japan*	1 Mar 07	Sterling Now Number Three on the Popularity List	13 Jul 06
Buy USD/JPY, EUR/USD, EUR/JPY and EUR/CHF	22 Feb 07	Risk of Repatriation by the US Real Money Accounts	29 Jun 06
Low Investment Is the Main Source of Global Liquidity	22 Feb 07	De Jure 'AMU' Unnecessary and Unlikely	22 Jun 06
Equity Outflows versus Forward Hedging	15 Feb 07	Don't Blame the BoJ for the Bloated Global Asset Prices	15 Jun 06
Who's Afraid of Large Capital Inflows?	15 Feb 07	World Interest Rates	8 Jun 06
Slightly Flattening the Paths for EUR/USD and USD/JPY	08 Feb 07	The Real Diversifiers Are American, Not Asian	18 May 06
Further Thoughts on the JPY Carry Trades*	08 Feb 07	The Structural Integrity of the De Facto Dollar Zone	4 May 06
The SNB Won't Stand in the Way of a Weakening CHF*	01 Feb 07	The Dollar to Depreciate Gradually This Year	20 Apr 06
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Accelerating the Rate of Crawl of USD/CNY	25 Jan 07	The Math of the Coming Decline in the Dollar	12 Apr 06
No Instant Satisfaction from Liberalization of Outflows	17 Jan 07	CAD in Overshoot Territory	30 Mar 06
Tracking the World's Official Reserves*	11 Jan 07	Still Anticipating a Cyclical Downturn in the Dollar	23 Mar 06
Quarterly Currency Valuation Update*	11 Jan 07	Some Thoughts on the Global Liquidity Cycle	16 Mar 06
Cyclical Dollar Correction in 1H; May Change in 2H	4 Jan 07	Why Are Nominal Cash Yield Differentials So Dominant?	9 Mar 06
A Retrospective on 2006: A Cyclical Dollar Downturn*	14 Dec 06	JPY: ZIRP's Termination and USD/JPY	2 Mar 06
Four Reasons to Buy the Swedish Krona*	7 Dec 06	Tracking the Rate of Crawl and Damping of USD/CNY	23 Feb 06
Is This a USD Story or a EUR Story?	06 Nov 06	Asian Currencies Poised to Appreciate in 2006	16 Feb 06
Re-Rating Euroland; Another Euro Overshoot	22 Nov 06	On the Timing of the NZD Trade	9 Feb 06

^{* =} Co-Authored.

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