Understanding the New Financial Superpower – The Management of GCC Official Foreign Assets

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Executive Summary

By the end of 2007, GCC Sovereign Wealth Funds (SWFs) will manage over $1 trillion. GCC central banks – counting the non-reserve foreign assets of the Saudi Arabian Monetary Agency (SAMA) -- will manage another $460 billion. Their combined portfolio will thus approach China's $1.7-1.8 trillion portfolio in size. Adding McKinsey's estimate for the "private assets" of major Gulf investors, including those of the ruling families, total Gulf investment abroad would far exceed $2 trillion.[2]

Higher spending cut into transfers to oil funds earlier in the year, but overall official asset accumulation is set to rise to about $200 billion (above its 2006 level of about $175 billion) on the back of higher oil prices in q4 and central bank intervention to offset speculative private inflows. GCC investment funds, led by Kuwait and the UAE, likely received $85 billion in new capital, slightly more than in 2006. SAMA likely received $60 billion this year, a bit less than in 2006.[3] The smaller GCC central banks are likely to add over $50 billion to their reserves– much higher than in 2006 ($5 billion)

The large GCC investment funds almost certainly reduced the dollar share of their portfolio in recent years. However, one surprising conclusions that emerges from our analysis is that the Gulf as a whole has not diversified away from the dollar. The rise in the reserves of Gulf central banks – still mostly in dollars -- offset any reduction in the dollar share of the GCC's sovereign wealth funds. Dollar assets likely accounted for $130 billion of the estimated $200 billion in official asset growth in 2007 (just over 67%) -- compared to an estimated $90 billion of a $150 billion total in 2006 (60%). The GCC

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[1] This views expressed in this publication are those of the author. The Council on Foreign Relations takes no institutional position on policy issues. All statements of fact and expressions of opinion contained in this publication are the sole responsibility of the author.
[2] McKinsey suggests that GCC private foreign assets are between $735-880 billion, with Saudi Arabia accounting for half of this total. Petrodollars: Fuelling Global Capital Markets McKinsey,http://www.mckinsey.com/mgi/reports/pdfs/The_New_Power_Brokers/MGI_New_Power_Brokers_chapter_2.pdf
[3] Our estimate is based on information in the GCC national balances of payment, fiscal balance and IMF annual reports. Reported investment capital outflows by general government entities (excluding reserves) serve as a proxy for such transfers though in some cases these may under. This is consistent with reported official capital flows in the IMF World Economic Outlook.

official sector consequently remains a key source of financing for the US – probably second only to China.

GCC countries are spending far more domestically than in 2003-5.[4] Still, the GCC countries likely saved roughly $30 per barrel of oil exports in 2007.[5] The GCC as a whole will likely need an oil price of around $50 a barrel to cover their import bill in 2008. This implies that if oil averages $90 a barrel in 2008, roughly $40 per barrel will go toward the acquisition of foreign assets. That compares with an estimated $22 a barrel in asset accumulation in 05, $28 in 06 and an estimated $31 a barrel in 2007. Many GCC countries are also attracting net private inflows, which added to the pace of official asset accumulation. If oil remains close to $90 a barrel, speculative inflows betting on a revaluation continue and aggressive Gulf funds continue to borrow from the private market to expand their portfolio, it is not inconceivable that the large sovereign funds and central banks in the Gulf could receive an additional $300 billion to manage in 2008.

With oil at or above $90, the future size and market impact of the large gulf funds is hard to overstate. The funds of Abu Dhabi and Kuwait have existed for several decades. However, they have now reached a size that has made them into a powerful force in global markets. The largest of the gulf funds, the Abu Dhabi Investment Authority (ADIA), likely controls assets equal to about 1% of global market capitalization, and the next two largest funds (KIA and SAMA) have about 0.5% of global market capitalization.

However, some recent estimates of the current size do seem a bit too high. We could not confirm recent estimates that the region as a whole has $3.5 trillion in external assets (counting private assets, including the undoubtedly large private assets of the al-Saud family), or the $800- 900 billion estimates of ADIA's size. We are more comfortable with an estimate of $2 trillion in total GCC external assets and an estimate of $650 billion for ADIA.

Our analysis suggests:

- At the end of 2007, big, and fairly conservative, GCC investment funds manage about $900 billion (ADIA, KIA), smaller more aggressive funds manage about $110 billion, and SAMA manages roughly $ 350 billion including $50 billion on behalf of Saudi pensions and the smaller GCC central banks manage about $100 billion – for a total of around $1.46 Trillion. That total rises to over $2 trillion if McKinsey's estimate for the private assets of the GCC is accurate.
- The GCC investment funds likely hold about $500 billion of dollars at the end of 2007. SAMA and Saudi Pension funds likely account for another $270 billion. Other central banks almost $90 billion. Total official GCC dollar claims are roughly $860 billion – and over $1 trillion counting private holdings. If so, the

[4] IMF Middle East and Central Asia Regional Economic Outlook October 2007.
[5] We assume oil averaged about $71 a barrel in 2007 based on a simple average of WTI, Brent and Dubai Fateh Crude Blends.

GCC's total official dollar holdings would be second only to those of China (an estimated $1.3-$1.4 trillion) and would top the dollar holdings of the government of Japan.

- GCC funds have traditionally had relatively high equity holdings relative to other official investors, including other oil funds. Now even previously more conservative funds have increased their equity and alternatives share.
- The smaller funds now typically use leverage to finance their high profile acquisitions; their larger brethren are more conservative – though they seem under increasing pressure to adopt the investment style of their brash neighbors.
- The rapid growth and high dollar share of the GCC central banks reserves offset the impact of GCC investment fund diversification. GCC central banks – setting SAMA aside – added about $25 billion to their reserves in the first half of 2007, far more than the $5 billion they added in 2006.
- The dollar's share of the Gulf's portfolio – particularly that of sovereign wealth funds -- has dropped in favor of emerging markets (primarily Asia) and Europe. We estimate that the dollar share of the GCC's portfolio is still close to 60% though -- as the rise in central bank assets has offset the fall the dollar share of GCC investment funds. Here though a lot depends on a known unknown: the currency composition of ADIA.
- A single source – the Saudi Monetary Agency - still accounts for the lion's share of GCC financing of the U.S. Transfers of oil revenue to SAMA are roughly twice the size of transfers to either KIA or ADIA and SAMA almost certainly has a far larger dollar share of its portfolio than either KIA or ADIA. Because the most conservative Gulf fund – in terms of asset allocation – is also the largest investor (on a flow basis) in the US, the majority of Gulf demand for US assets is likely for fairly traditional reserve assets.[6] Extensive reserve growth, which is primarily in dollars, boosted the dollar share of the 2007 flows from than of 2006. The noisy activities of some of the smaller funds are unrepresentative.
- While Asia's share of the Gulf's portfolio is rising, the shift to Asian assets is incomplete: On average, funds still plan to increase Asia holdings from 5-20% to as much as 15-30 % of their portfolio.
- Our best estimate of the dollar share of the GCC's official portfolio suggests that its dollar holdings remain well in excess of the United States' share of total financial assets – and far above the United States share of GCC imports.

One important caveat: the Gulf funds are notoriously secretive, leaving any analysis subject to a higher than usual margin of uncertainly. Our estimate of the dollar share of the GCC's assets could be far too low – suggesting that GCC diversification has been a major force behind the dollar's recent weakness – or way too high, suggesting that there is a large risk that the Gulf may seek to diversify in the future. Our analysis draws on press reports, balance of payments data and the data made available by other oil exporters, particularly Norway, which is much more transparent. It nonetheless is an informed guess.

[6] The acceleration in UAE reserve growth suggests that its central bank may have rivaled SAMA in in 2007.

The rest of the paper will describe the size, strategy and asset allocation of the different GCC funds. We then compare our estimated GCC portfolio to reported holdings of claims on the US.

Fund Size/ asset allocation:

We estimate that GCC funds will manage just over $1 trillion by the end of 2007, up from $0.8-0.9 trillion at the end of 2006. SAMA's foreign assets will increase from $220 billion in 2006 to $290 billion and the assets of Saudi pension funds will exceed $50 billion, taking the total portfolio managed by SAMA to close to $350 billion. The assets of other GCC central banks, likely managed as conservative reserve assets, will double from $43 billion to $100 billion. These estimates are largely based on the available data for the main central banks (through October for SAMA and the Central Bank of Kuwait, through June for the UAE), the transfers to SWFs implied by the increase in official assets reported by the IMF.[7] The combined assets of GCC sovereign wealth funds account for over half of funds managed by sovereign wealth funds globally (using a more narrow definition of sovereign wealth funds than employed by most investment banks).[8] The GCC's wealth funds and central banks account for just under half of the total official holdings of key oil exporters ($2.9 trillion).[9]

Our efforts to penetrate the veil of secrecy surrounding the GCC funds rely on estimates of their size and portfolio composition derived from data reported by the more transparent funds, national balance of payments data and an informed guess about the broad structure of their portfolio derived from information that has been reported publicly combined with some broad assumptions to fill in key gaps. As a result of the Gulf's extensive use of external fund managers, the US data clearly understates total GCC holdings of US assets.[10]

The GCC funds can be broken into four main categories:

- Conservatively managed central bank reserves. This describes the formal reserves assets of all the GCC countries
- Aggressively managed central banks non-reserve foreign assets. SAMA is the obvious example: recent estimates suggest that roughly 25% of its portfolio has

[7] We have used the government investment outflows as reported in the national balance of payments data as a proxy for such transfers.

[8] We estimate that sovereign wealth funds manage about $2 trillion at the end of 2007. The funds of Norway, Singapore (GIC and Temasek) and China's CIC alone account for $800 billion or most of the remaining funds managed by investment funds. Overall, oil funds account for 75% of known sovereign wealth funds.

[9] A more detailed accounting is available in the appendix. Russia alone accounts for about $500 billion– with Norway's pension fund and reserves accounting for about $400 billion more. African oil exporters account for $200 billion. At present Russia, Saudi Arabia and most African oil exporters generally have banked the oil windfall in central bank reserves though Libya recently diverted $40 billion into an investment fund and Russia plans to allocate at least $25 billion from its stabilization fund to a new wealth fund investing in higher risk assets from February 2008.

[10] Asian oil exporters in the US data

been invested in equities. However, its overall portfolio (and that of Saudi pension funds) is still likely to resemble that of a central bank more than the portfolio of the major gulf sovereign wealth funds.

- The larger, more established sovereign wealth funds of Abu Dhabi and Kuwait. These funds, like Norway, tend to be primarily portfolio investors and generally have avoided taking significant management stakes.[11] Their portfolios have high equity shares and exposure to alternatives – on KIA's part, the result of a recent reallocation. Oman's general reserve fund is also on the conservative side though it is known to take equity stakes.
- The smaller, more active investors of Qatar and Dubai and Abu Dhabi's Mubadala focus on alternative investments. These funds actively use leverage to try to augment their returns. For example loans or capital from external investors likely financed much of the over $4 billion increase in DIC's holdings in 2007.[12]

We recognize that our definition of "official" funds is not entirely consistent – we are counting Dubai Holding, the "private" investment vehicle of Dubai's sheikh – but have not tried to estimate the no-doubt considerable "private" investments of the Saudi royal family.[13] The differences between Saudi prince Alwaleed's Kingdom Holdings and Sheikh Mohammed's Dubai Holding are likely fairly small. Both take concentrated, strategic bets using leverage/external funding. Prince Alwaleed, though, doesn't have a formal position in the Saudi government; Sheik Mohammed al-Maktoum by contrast is the UAE's prime minister.

Estimating the size of the funds

The formal reserve assets of the GCC countries are reported publicly, though often with significant lags. There is reasonably accurate data for SAMA's foreign assets and the Kuwaiti investment authority (KIA), though both may manage more funds than they disclose.[14]

- GCC central banks data (excluding SAMA) indicate that they held $77 billion in reserves at the end of June 2007, up from $48 billion at the end of 2006. We estimate their total holdings will reach around $100 billion at the end of 2007 but recent data is not available for Qatar and the UAE.
- SAMA reported foreign assets of $273 billion in October – a sum that should rise to about $290 billion by the end of 2007 (up from $225 billion in from end 06). Saudi pension funds held $55 billion in external assets at the end of October 2007,

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[11] Kuwait took significant stakes in BP and several Spanish companies in the 1980s.

[12] Several of DIC's funds including a $500 million MENA infrastructure fund accept external investors.

[13] Conceptually, so long as the ruling families control the government, there is a case for including the private holdings of the royal family with those of the government. Saudi Arabia likely has among the highest share of 'privatized' external assets in the gulf. The distinction between private and public assets in Qatar and Abu Dhabi is not clear, so our estimates may also include assets that the ruling families consider part of their private fortune rather than the assets of the state. Furthermore, many GCC investment authorities may manage funds in excess of those disclosed on behalf of state and private actors.

[14] SAMA reports foreign assets monthly and Kuwait parliamentarians disclosed the size of KIA's assets in March 2006 and 2007 respectively.

up from $50 billion in 2006.[15] These funds are also managed by SAMA, for a total portfolio of around $350 billion.

- Kuwait's investment authority reported $213 billion[16] in assets under management at the end of March 2007, up from $166 billion in March 2006. We estimate it will manage $250 billion at the end of 2007.

We have had to estimate the total size of the other funds– ADIA, QIA, Dubai International Capital (DIC), Istithmar, Mubadala as well as Oman's State General Reserve Fund (SGRF).

Credible market estimates for ADIA's size range from $500 billion to $1 trillion (with some estimates as low as $250 billion and as high as $1.3 trillion). Our best guess would put ADIA's total assets at around $650 billion at the end of 2007. To arrive at this estimate, we assumed that ADIA had under $200 billion in assets at the end of 2000 (as suggested by the Wall Street Journal reporting at the time). [17] We also estimate that it received $160 billion in transfers from Abu Dhabi's oil revenue[18] and that it achieved an average return across its portfolio, in dollars, of 16% since the end of 2000. The estimate includes far higher (20% plus) estimated returns in 03-06, consistent with press reports.[19] The average return on Norway's fund was 7.5% since the end of 2000, and 15% from 2003 to 2006, so we are assuming ADIA significantly outperformed Norway's (less aggressive) government fund.

This estimate is somewhat lower than many of the high-end estimates that have appeared in recent investment bank research. It is in line with Standard Chartered's estimate,[20] and consistent with the informal guidance provided by the IMF's Mohsin Khan, who suggested that figures of $875 billion are exaggerated.[21]

Smaller funds (end 2007 estimates)

- Qatar Investment Authority: $60 billion[22]
- Dubai International Capital and Istithmar each recently disclosed assets of over $12 billion.[23] Adding Dubai Group, the other investment arm of Dubai Holding, likely takes the Dubai total to around $30 billion

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[15] We have inferred that foreign assets of independent organizations but included in SAMA's assets are largely those of the pension funds. These are deposits with banks abroad and holdings of foreign securities.

[16] http://www.mafhoum.com/press10/304E20.htm. http://www.middle-east-online.com/english/business/?id=17016

[17] See http://online.wsj.com/article/SB976830549181105335.html .

[18] The assumed transfers are consistent with UAE official capital outflows reported in the UAE's IMF Article IV and the UAE balance of payments. However, to avoid double counting we have adjusted the total downward to reflect the investment income on ADIA's existing portfolio. We also have divided the increase in the UAE's official assets between ADIA and the various (leveraged) Dubai funds.

[19] http://online.wsj.com/article/SB118368956180958895.html

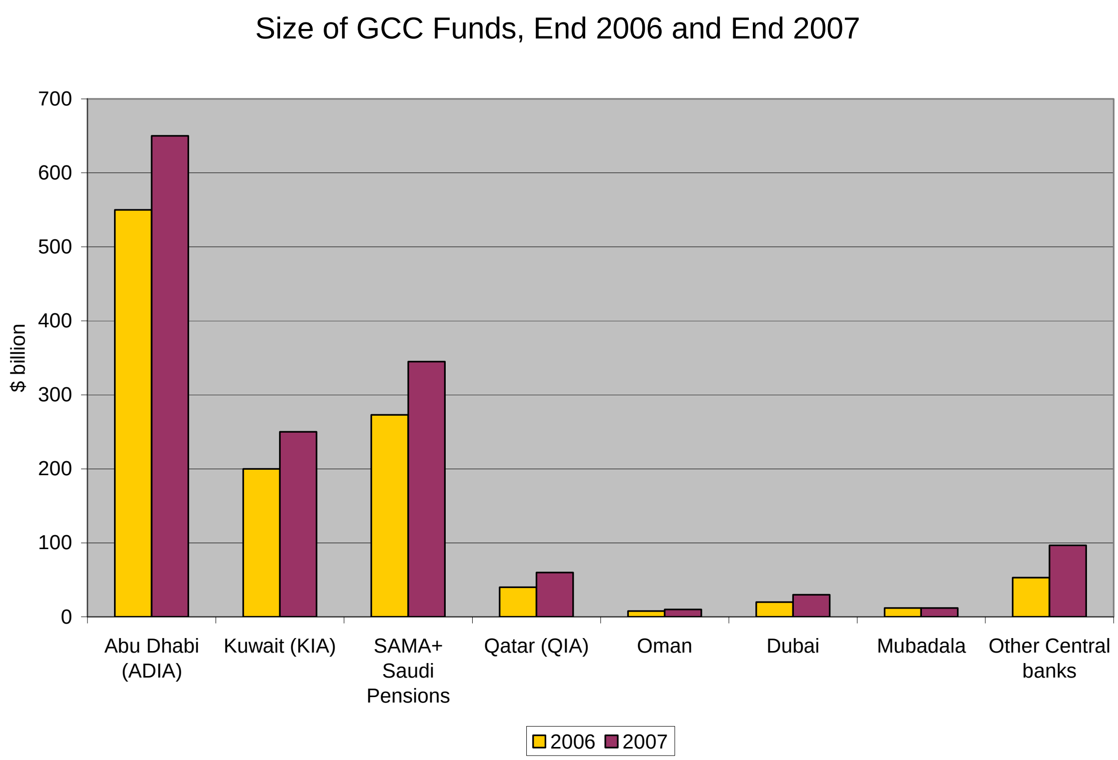
[20] http://banking.senate.gov/_files/111407_Lyons.pdf

[21] http://www.ft.com/cms/s/0/48d49b0c-864a-11dc-b00e-0000779fd2ac.html

[22] Including at least $20 billion in transfers since 2000.

[23] FT Gulf Finance November 2007, http://www.ft.com/cms/s/2/c31f62f0-9691-11dc-b2da-0000779fd2ac,dwp_uuid=988f5cd0-94ce-11dc-ab83-0000779fd2ac.html

- Mubadala's foreign assets: $10-20 billion
- Oman General reserve Fund: $10 billion



Looking ahead

In 2008, GCC spending on imports (including imported labor) should rise to a bit under $50 billion a barrel (consistent with recent trends/ the $50 oil price needed to cover budgeted Saudi spending).[24] If oil averages $90 a barrel, the GCC countries would save roughly $40/barrel —which implies a current account surplus of about $240 billion or significantly higher than that of 2007 (under $200 billion). Most of the current account surplus finances official asset accumulation. Private outflows from Saudi Arabia have kept its official asset growth below its current account surplus. However, private inflows to other GCC countries – inflows associated with speculative bets on the GCC currencies and the use of leverage (and resulting private inflows) by some smaller funds – pushed overall official asset accumulation above the current account surplus in other GCC countries.

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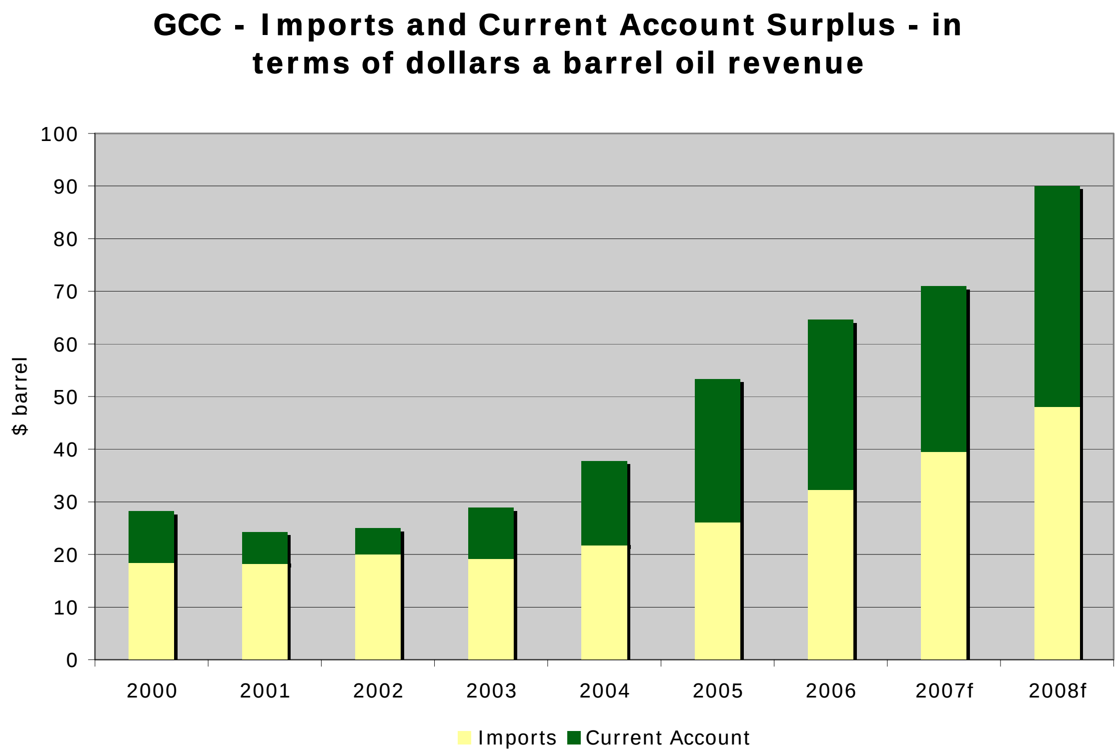
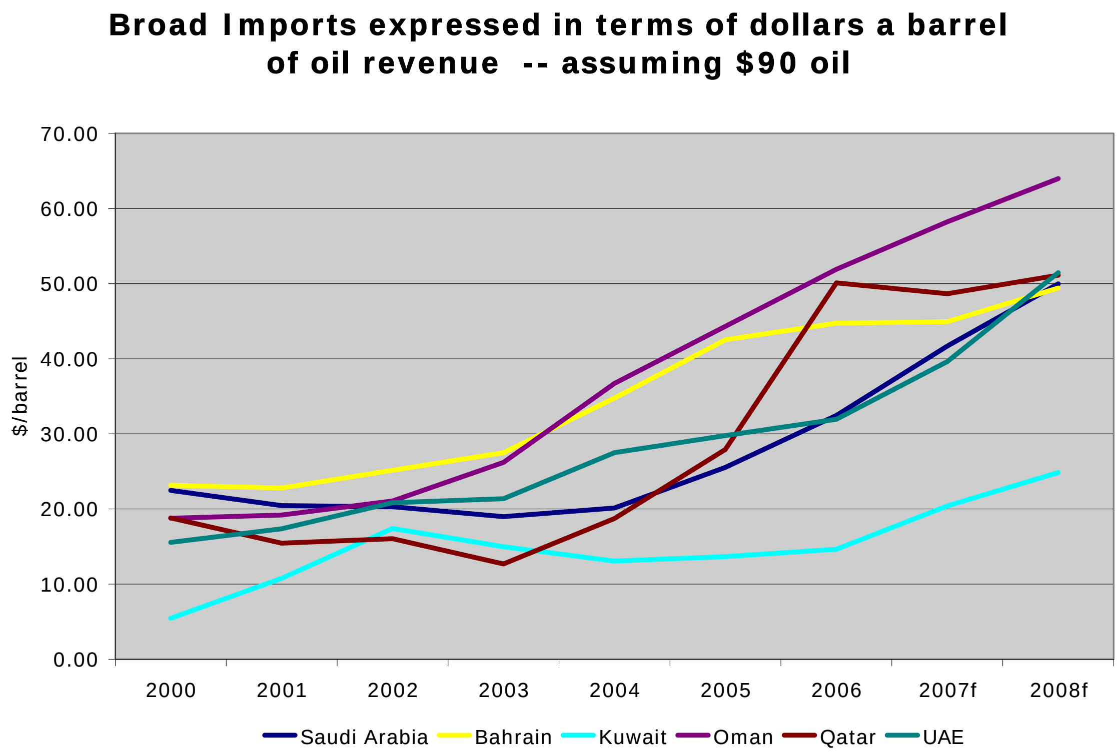
http://www.ft.com/cms/s/2/bd6cced8-9691-11dc-b2da-0000779fd2ac,dwp_uuid=988f5cd0-94ce-11dc-ab83-0000779fd2ac.html

[24] http://www.jadwa.com/english/files/2008%20Budget.pdf



$90 a barrel oil consequently implies a larger current account surplus than in 2006 or 2007 even with higher spending on imports. A $70/barrel oil price (similar to the 2007 average) by contrast would imply a significant reduction in the gulf's overall oil surplus – around $120 billion with some countries having very little savings. An oil price of $110 could imply a current account surplus of over $350 billion for the GCC.



Portfolio composition

We have also tried to estimate the portfolio composition of the funds –both their equity/ bond/ alternatives split and their currency composition. We have relied heavily on publicly available data, particularly reporting by Euromoney and the Wall Street Journal, along with the data Norway disclosed about its portfolio. Norway provides a rough benchmark for the performance of a conservatively managed fund with a relatively large exposure to euro and pound denominated bonds and the European equity market[25] that can be compared against the Gulf funds, which likely have less euro exposure but more exposure to equities/ alternatives.

Currency Composition:

Gulf Central Banks are thought to continue to maintain a high dollar share in their portfolio. The UAE's dollar share (still) exceeds 95%.[26] All GCC central banks are thought to have a dollar share of at least 70%. In 2007, the reserves of GCC central banks – excluding Saudi Arabia- likely doubled over the course of the year, rising to about $95

[25] Until recently, Norway maintained a 40/60 equity/bond portfolio with about 32% dollar share, 60% EUR/GBP 5% Asia 2% other. Its tendency to rebalance its portfolio to maintain this consistent asset allocation contributed to lower returns. It is currently increasing its equity share and as a result increasing its exposure to Asian holdings at the expense of US (and EU holdings)

[26]https://gm.bankofny.com/Research/MorningUpdate/Default.aspx?ReadMore=Yes&ContentManagerID=6611

billion on the back of revaluation-related inflows.[27] The UAE alone added $15 billion in the first half of 2007, and likely more in the second half. Kuwait's central bank reserves are on track to rise by around $10 billion in 2007. Oman's reserves are set to double to around $9 billion.

SAMA assets are still mostly in dollars. Its high dollar share (at least 75%) is consistent with generally conservative management and the Saudis' strong preference from maintaining a dollar peg.

The currency composition of the investment funds is dominated by the currency choices of the large investment funds: QIA, KIA and ADIA are so large that their currency choices dwarf those of the other funds.

QIA has a low dollar share of about 40%.[28] Qatar's prime minister indicated that QIA has reduced its dollar share substantially since 2004/5.

Kuwait has disclosed some information on their currency composition - reports put the dollar share as low as 40%.[29] KIA seems likely to have reduced the dollar share of its funds since the broad review of its portfolio conducted in 2005.

ADIA has not disclosed comparable information about its portfolio. In a mid 2006 Euromoney interview, ADIA's portfolio manager, Jean-Paul Villain, hinted that most of ADIA's bond exposure remained in dollars – but also suggested that ADIA had diversified away from US equities toward emerging economies. At that time, emerging markets assets accounted for 14% of ADIA's equity holdings.[30] For the purpose of this estimate, we assume that ADIA's dollar share is around 50%.

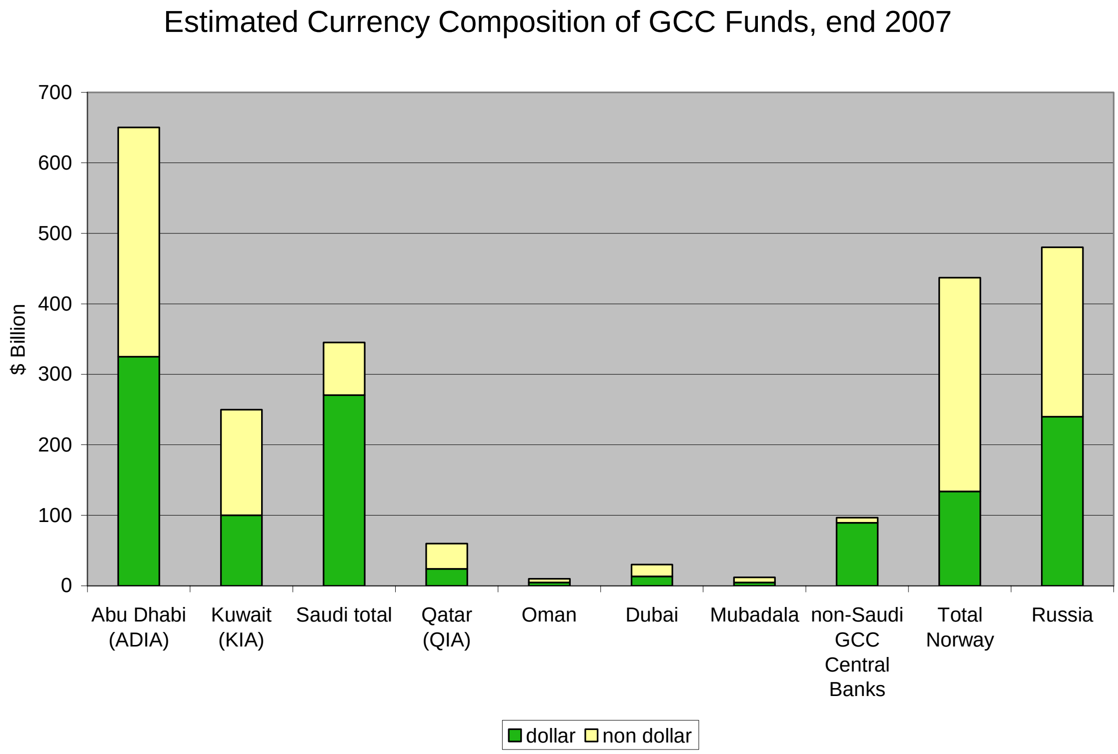
Based on the pattern of their known investments, euro and pound holdings likely dominate the holdings of the Dubai funds and Abu Dhabi's Mubadala.

The investment funds' allocation to emerging markets, especially Asian emerging markets, is growing. They currently hold an estimated 10% of their portfolio in Asia (Japan and emerging Asia), but most funds have stated plans to increase Asian holdings to reach an average 15-30% of the portfolio. This implies a further decrease in dollar, euro and pound share of the Gulf's portfolio.

[27] The most recent data on the UAE reserves dates from the end of June 2007.
[28]http://investing.reuters.co.uk/news/articleinvesting.aspx?type=allBreakingNews&storyID=2007-10-02T212706Z_01_L02585967_RTRIDST_0_QATAR-FUND-CURRENCY.XML&pageNumber=0&imageid=&cap=&sz=13&WTModLoc=InvArt-C1-ArticlePage2
[29]http://investing.reuters.co.uk/news/articleinvesting.aspx?type=allBreakingNews&storyID=2007-10-02T212706Z_01_L02585967_RTRIDST_0_QATAR-FUND-CURRENCY.XML
[30] The combined assets of GCC funds account for over half of funds managed by sovereign wealth funds globally[30] and just under half of the total official holdings of key oil exporters ($2.9 trillion).[30]

Estimated Currency Composition of GCC Official Assets, end 2007

	$ billion	$ (%)	non-$ (%)	$ in $ billion	non-$ in $ billion
Abu Dhabi (ADIA)	650	50%	50%	325	325
Kuwait (KIA)	250	40%	60%	100	150
Qatar (QIA)	60	40%	60%	24	36
Oman	10	50%	50%	5	5
Dubai	30	45%	55%	14	17
Mubadala	12	40%	60%	5	7
total GCC Funds	**1012**			**472**	**540**
				47%	**53%**
Reserves					
Bahrain	3	90%	10%	3	0
Kuwait	20	90%	10%	18	2
Oman	9	90%	10%	8	1
Qatar	7	85%	15%	6	1
UAE	58	95%	5%	55	3
Total Reserves	97			90	7
GCC ex-Saudi total	**1109**			**562**	**547**
				51%	**49%**
Saudi Arabia					
SAMA	290	80%	20%	232	58
Saudi pensions	55	70%	30%	39	17
Saudi total	345			271	75
	1454			78%	22%
Total GCC official assets	**1454**			**832**	**621**
				57%	**43%**
Memo					
Norwegian central bank reserves	60	35%	65%	20	37
Government Pension Fund- Global	380	30%	70%	114	266
Total Norway	440			134	303
				31%	69%
Russian Central Bank reserves	480	50%	50%	240	240
ow Stabilization Fund	150	45%	55%	67.5	82.5



Our estimate is roughly consistent with other assessments. Woertz argues that at least 60% of GCC official holdings are in dollars.[31] Likewise, the IIF asserts that 55% of the $560 billion capital outflow from the GCC from 2002-2006 was bound for the US, 30% to the EU and 5% each to Asia and the MENA region.[32] As this period coincides with presumed Kuwait and Qatari diversification, the stock of accumulated assets may have had a higher dollar share. However, the outperformance of non-US assets over this period would have tended to push up the stock of non-dollar assets faster than the stock of US assets. The IIF estimates also include private holdings.

Asset allocation: KIA and ADIA have disclosed some asset allocation information – both have over 50% equities.

- ADIA has a high equity allocation, significant alternatives, a low fixed income allocation, or approximately 50-60% equities, 20-25% fixed income, 5-8% real estate and 5-10% in each of private equity and alternatives.[33] Because of its size, its portfolio has a dominant influence on the overall asset allocation of the GCC.

[31] http://www.thepeninsulaqatar.com/commentary/commentaryother.asp?file=maycommentary712007.xml
[32] http://investing.reuters.co.uk/news/articleinvesting.aspx?type=allBreakingNews&storyID=2007-10-02T212706Z_01_L02585967_RTRIDST_0_QATAR-FUND-
[33] Euromoney, 2006 Money and Mystery: Adia unveils its secrets and Institute for International Finance (2007) Gulf Cooperation Council Regional Briefing: Tracking GCC Petrodollars: How and Where They are Being Invested Around the World

- KIA, the second largest fund,[34] increased alternatives and equity holdings beginning in 2005 but it likely maintains a lower alternatives share and possibly a higher equity share than ADIA (around 60%).[35]
- Since 2006, the share of SAMA's total reserve assets allocated to portfolio investment has increased. Holdings of foreign securities now make up almost 90% of non-reserve foreign assets and almost 80% of all SAMA's assets. Bonds still dominate SAMA's portfolio but as much as 25% might be in equities. SAMA also has higher risk bonds than that of a traditional central bank portfolio[36]
- Other funds (QIA, Dubai, and Mubadala) are hold large strategic stakes in public companies, large real estate holdings and have significant investments in alternatives. Some Dubai funds see themselves as a fund of funds, and take in outside investors. DIC has described its Global Strategic Equities fund as an "exclusive investment club" of 10 key GCC investors who coinvest with DIC.[37] Asia now forms 20% of DIC's portfolio.

Estimated GCC Asset Allocation, End 2007

	$	non-$
Equity	241	295
Bond	111	91
Property	25	46
Alternatives	111	91
Total	478	533
	47%	**53%**
GCC Reserves	90	7
Saudi Arabia		
Equity	65	22
Bond	194	65
Total	259	86
	75%	**25%**
GCC total		
Total bonds	395	163
total equity	306	316
Property	25	46
Alternatives	111	91

[34] But for lost revenue during and after the gulf war, Kuwait's assets might be much higher. Kuwait had
[35] http://online.wsj.com/article/SB118791418416507326.html; Alternatives holdings are undisclosed but are thought to be significantly higher than the 1.5% private equity share and 2.5% property KIA held in 2003/04
[36] http://www.sama.gov.sa/en/news/undated/special_feature.htm
[37] http://www.business-standard.com/general/storypage_general.php?&autono=306071 http://www.ft.com/cms/s/0/437ab79a-9ee6-11dc-b4e4-0000779fd2ac.html, http://search.ft.com/ftArticle?queryText=DIC&y=0&aje=false&x=0&id=071120000296&ct=0

Summary: Key Assumptions about GCC SWFs, End 2007

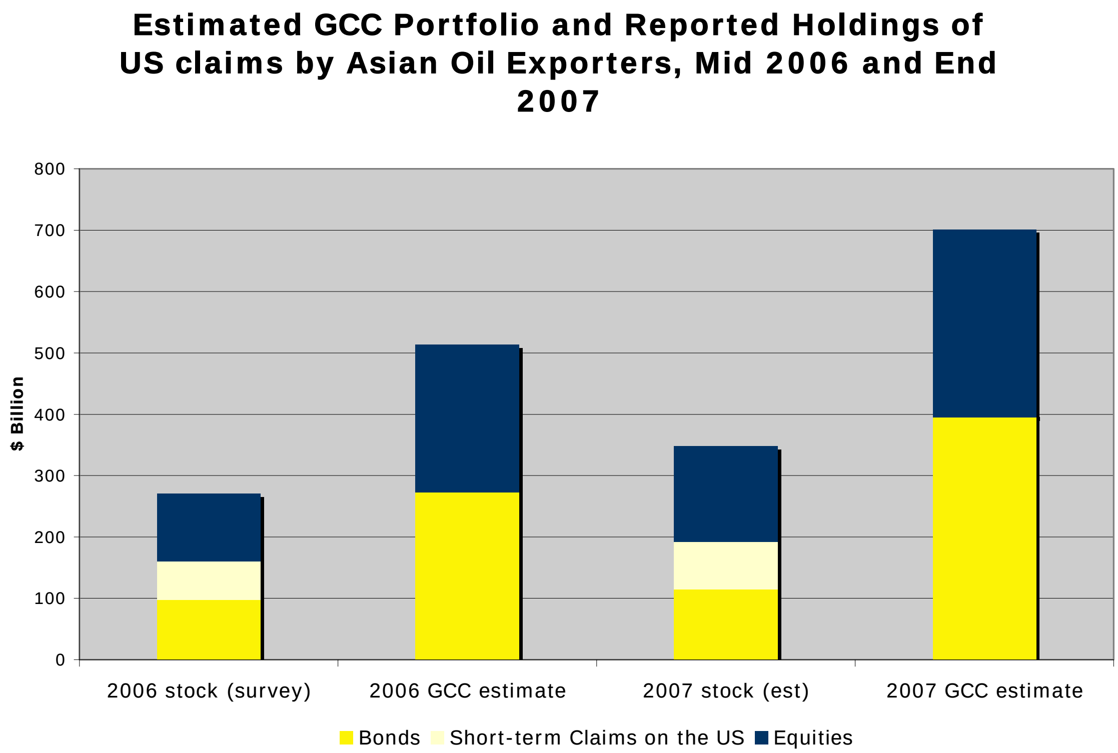
	$ billion	Currency Composition	Asset allocation
Abu Dhabi (ADIA)	650	50% USD 36% EUR/GBP/JPY 14% EM	50-60% equity, 20-25% fixed income, 5-8% real estate, 5-10% private equity and 5-10% alternatives
Kuwait (KIA)	250	40% USD 40% EUR/UK/JPY 10% EM	60% Equity 25% bonds 15% alternatives
Qatar (QIA)	60	40% USD 40% EUR 20% other (UK, EM Asia)	60% equities 20% alts 20% bonds
Oman	10	50% dollar 50% other	50% alternatives 20% equities 30% bonds
Dubai	30	35% USD 50% GBP/EUR 15% Asia	50% equities 40% alts (including property) 10% bonds/deposits
Mubadala	12	40% USD 50% EUR 10% EM (MENA, Africa)	60% equities 20% alternatives 20% bonds
total GCC Funds	**1012**		
SAMA non reserve assets	260	75% USD 25% other	10% deposits 65% fixed income 25% equities

According to our best estimate, by the end of 2007, GCC funds and central banks should hold roughly $300 billion in U.S. equities, $369 billion in US bonds/deposits and $130 billion in USD alternatives. This total ($820 billion) indicates that GCC official actors continue to play a significant role in financing the US. However, this total far exceeds total reported Gulf claims in the US data. The best data on the GCC's holdings comes from the Treasury's annual survey, but the most recent data comes from mid-2006.[38]

As the TIC flow data consistently under-reports Russian and China purchases relative to the survey data, so it is also worth comparing our mid-2006 estimate for the GCC's holdings to the mid-2006 US data. As of mid 2006, the Treasury survey suggests that GCC countries held $97 billion of US long-term debt and $110 billion in US equities. Short-term claims accounted for another $63 billion.[39] In contrast, our mid 2006 GCC portfolio implies significantly higher holdings - about twice as much US bonds and deposits ($270 billion) and as many US equity holdings ($237 billion)

We consequently used the monthly flow data in conjunction with the survey data to estimate the GCC's year end 2007 holdings. These adjustments suggest that GCC bond holdings will be about $115 billion and equity holdings about $156 billion. In addition, holdings of short-term claims on the US reached $76 billion in October 2007. Even adding short term claims, GCC reported holdings remains well below our total estimate of the GCC's portfolio ($306 equities, $395 billion fixed income respectively).

[38] http://www.treas.gov/press/releases/hp437.htm
[39] The US data no longer separates custodial liabilities from those of the banking sector which likely account for a significant part of total short-term claims on the US.



The most likely explanation for this gap is that the GCC countries make significant use of private asset managers. GCC funds managed by a UK-based, private asset manager – or a Swiss fund – would be attributed to the UK in the US survey data.

Somewhat surprisingly, the gap between reported equity holdings and our estimated portfolio is much smaller than that for bonds. Here though we are likely guilty of being imprecise – as we haven't separated out bank deposits for bonds, and the GCC countries likely have significant dollar deposits in European banks also. GCC deposits with banks reporting to the BIS reached almost $300 billion in June 2007.[40] Adding this total to GCC long-term claims on the US ($100 billion) gives a total of $400 billion – or slightly higher than our assumed demand for fixed income/deposits.[41] Deposits with BIS banks may include non-dollar holdings– as well as catch dollar holdings abroad not included in the US data.

U.S. bound FDI from the Middle East was about $10 billion in 2006 and $1.6 billion in 2005 and average of under $1 billion in 2002-4.[42] Saudi Arabia and the UAE are likely

[40] Saudi Arabia and the UAE each account for about $100 billion in deposits– with Bahrain and Kuwait splitting most of the remainder. Oman and Qatar had about $10 billion each in deposits. The GCC had net deposits (subtracting loans) of $82 billion in mid- 2007. We assume that the official sector accounts for the majority of the deposits and the private sector (especially the banks) accounts for most loans.
[41] As a result we have opted not to include short-term data in this calculation for fear of double counting US banking liabilities which might appear in both US and BIS data.
[42] We were unable to fully subtract out FDI from Israel for 2006 as some data was undisclosed. However, the residual (non-GCC) investment is thought to be very small. Also see http://blogs.wsj.com/marketbeat/2007/11/27/the-middle-east-as-spark-plug/

the biggest investors. The BEA data suggests a slower pace of FDI inflow for the first half of 2007 – under $1 billion.

Both the equity and FDI data include private as well as official purchases. It likely captures Prince Alwaleed's holdings of Citi and Apple.[43]   Other large private holdings could also be undercounted in the US data though, again largely because of the use of outside fund managers. The large gap between Saudi Arabia's current account surplus and the increase in SAMA's holdings suggests large private purchases of foreign assets. By the end of 2007, the cumulative gap will be close to $140 billion – or more than our estimate of the oil revenue transferred to ADIA.[44]

[43] The equity holdings of Price Alwaleed's Kingdom Holdings likely reached $23 billion by mid-2007. Public and private holdings of Kingdom Holdings were thought to be worth around $50 billion.

[44] Private inflows to Saudi Arabia have accelerated this year –weakening the usefulness of this measure.

Appendix: Official Foreign Assets of Oil Exporters

	Fund	Source	Assets End 2006	June 2007 (e)	December 2007 (e)
GCC Investment Funds			**816**	**908**	**1012**
	Abu Dhabi (ADIA)	estimate	543	595	650
	Kuwait (Future Generations + Reserve Fund)	Emirate of Kuwait	200	225	250
	Qatar (QIA)	estimate	40	50	60
	Dubai Holding DIC/DG*	estimate based on press	7	8	16
	Istithmar (Dubai World)*	estimate	8	10	14
	Oman	estimate	8	10	10
	Mubadala	estimate	10	10	12
Other Oil Funds			**433**	**485**	**585**
	Norwegian Government Pension Fund	Norgesbank	286	330	380
	Libyan Investment Authority[45]	FT	Unknown	unknown	40
	Brunei[46]	Morgan Stanley	30	30	30
	Kazakhstan	National Bank of Kazakhstan	15	18	22
	Azerbaijan	Central Bank of Azerbaijan	1.6	2	2.5
	Saudi pension fund foreign assets	Samba	46	48	50
	Alberta Heritage Fund[47]	Province of Alberta	16	17	18
	Alaska Permanent Fund	Permanent Fund	38	40	42
Subtotal: Investment Funds			**1249**	**1393**	**1597**
Foreign Exchange reserves					
	Russia		304	406	480

[45] Recent statements by Qadaffi suggest that Libya may have as much as 100 billion to invest abroad
[46] The Brunei Investment Authority does not disclose any information. Rabobank guessed that its assets (Brunei's reserves) could be $45 billion.
[47] Funds of Alaska and Alberta include significant domestic assets.

	*ow stabilization Fund		90	125	150
	Saudi Arabia		225	246	290
	* ow SAMA foreign assets		200	226	260
	Other GCC		48	78	100
	Other Middle East		95	104	113
	North Africa		136	160	183
	Sub-Saharan Africa		51	53	62
	Venezuela		36	29	30
	Central Asia		22	24	21
	Norway		56	57	60
total reserves			973	1157	1339
Total			2222	2550	2936