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The Impact of Sovereign Wealth Funds on International Financial Stability

by Tamara Gomes

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Abstract

Over the recent period, many emerging-market economies and commodity-exporting nations have experienced unprecedented growth and accumulated substantial amounts of foreign exchange reserves. The management of these foreign reserves has led to the emergence of important financial actors: sovereign wealth funds (SWFs). While SWFs have existed in one form or another since the 1950s, they have recently risen in prominence and been exposed to public scrutiny and debate. The author outlines their possible impact on international financial stability. She concludes that SWFs are long-term investors that can play a stabilizing role in financial markets by supplying liquidity and reducing market volatility. While characteristics such as a lack of transparency highlight the potential for destabilization by one or more SWFs, there is little evidence that this has occurred during the recent period. Similarly, the rise of financial protectionism, as host countries adopt rules to protect sensitive industries, might unduly restrict global capital flows, but it is not likely to destabilize the international financial system.

JEL classification: F21, F31, F32, G15
Bank classification: Financial stability; Recent economic and financial developments

Résumé

Ces dernières années, les économies émergentes et les nations exportatrices de matières premières ont été nombreuses à connaître une expansion économique inédite et à accumuler des réserves de change considérables, dont la gestion a induit la montée en puissance d'importants acteurs financiers : les fonds souverains. Alors que ces fonds existent sous une forme ou une autre depuis les années 1950, ils se trouvent depuis peu au centre de l'attention et font l'objet d'un examen et d'un débat publics. L'auteure décrit brièvement les effets que pourraient avoir les fonds souverains sur la stabilité financière internationale. Ces derniers, conclut-elle, sont des investisseurs à long terme susceptibles de remplir un rôle stabilisateur sur les marchés financiers en y injectant de la liquidité et en y atténuant la volatilité. Si des traits comme le manque de transparence font ressortir le risque de déstabilisation émanant de certains fonds, les données disponibles ne confirment guère la matérialisation de cette éventualité au cours de la période récente. De même, l'attisement du protectionnisme financier, avec l'adoption de règles par les pays destinataires d'investissements pour défendre leurs secteurs névralgiques, peut restreindre à tort la circulation des capitaux dans le monde, sans toutefois être de nature à perturber le système financier international.

Classification JEL : F21, F31, F32, G15
Classification de la Banque : Évolution économique et financière récente; Stabilité financière

1 Introduction

The global economy has experienced robust growth over the recent period, with many emerging-market economies (EMEs) and commodity-exporting nations experiencing sustained capital inflows and accumulating substantial amounts of foreign exchange reserves.[1] The management of these foreign reserves has led to the emergence of important financial actors: sovereign wealth funds (SWFs).[2] While there is no commonly accepted definition of an SWF, it may be defined as a government investment vehicle funded by foreign exchange assets and managed separately from official reserves (Kimmitt 2008). This definition includes the stabilization funds and intergenerational savings funds set up by commodity exporters, and the investment funds arising from the accumulation of foreign exchange reserves.

While SWFs have existed in one form or another since the 1950s, they have recently risen in prominence and been exposed to public scrutiny and debate. Much of this attention is due to the establishment of SWFs by systemically important countries such as China and Russia, which has raised concerns about the role of state actors in global markets. The objective of this paper is to outline the issues SWFs may pose for international financial stability – both the potential stabilizing effects and the destabilizing effects.[3] Table 1 provides an overview of the main effects on international financial stability that are discussed in this paper.

This paper concludes that SWFs are long-term investors that can play a stabilizing role in financial markets by supplying liquidity and reducing market volatility. SWFs use low amounts of leverage and adopt investment strategies that minimize their impact on markets. SWFs also contribute to the gradual unwinding of global imbalances as they diversify their portfolios gradually into other asset classes and currencies. The recent injection of capital into a number of distressed banks and financial institutions highlights the constructive role that SWFs can play as stabilizing, long-term investors. While the potential for one or more SWFs to disrupt markets does exist if other investors mimic the same investment strategies, there is little evidence that this has occurred during the recent period. Similarly, the rise of financial protectionism, as host countries adopt rules to protect sensitive industries, might unduly restrict global capital flows, but it is not likely to destabilize the international financial system.

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1. Previous research at the Bank of Canada has focused on related topics; see Lavigne (2006, 2008), King and Maier (2007).
2. See, amongst others, Jen (2007), Truman (2007), Devlin and Brummitt (2008), Finance Canada (2008), Kimmitt (2008), McCormick (2008).
3. Other policy issues are discussed in Truman (2007) and Kimmitt (2008).

Since SWFs are a relatively new phenomenon, there is neither a long track record to assess their performance nor an extensive body of research dedicated to their analysis. Therefore, the arguments in this paper are necessarily of a speculative nature. The goal is to discuss risks that may exist and to forecast scenarios that may unfold. This is by no means to say that these developments will inevitably unfold, but merely to recognize the potential risks that exist.

Table 1
Potential Stabilizing and Destabilizing Effects on International Financial Stability

Potential stabilizing effects	Potential destabilizing effects
Macroeconomic management of capital flows	Potential to trigger herding behaviour
Portfolio diversification and risk sharing	Lack of transparency may cause short-term volatility
Address long-term structural issues	Risk of financial protectionism due to non-commercial investment motivations
Provision of liquidity	
Long-term investment strategy	Monitoring and agency problems
Gradual unwinding of global imbalances	Disorderly unwinding of global imbalances

Section 2 provides stylized facts on SWFs. Section 3 outlines the stabilizing effects for international financial stability. Section 4 examines potential destabilizing effects. Section 5 evaluates proposed and potential policy responses. Section 6 offers some conclusions.

2 Stylized Facts on SWFs

As a large and rapidly growing class of institutional investors, SWFs have the potential to affect financial stability. As with other financial actors, there is a continuum of SWFs, representing varying sources of financing and objectives. This section briefly examines the definition, sources, and objectives of SWFs as well as their projected growth. Appendix A provides details on several major SWFs, including the Alberta Heritage Savings Trust Fund, with details on their date of establishment, assets under management, and governance structure.

2.1 Definition, sources, and objectives

Given the relative novelty of SWFs, they do not, as yet, have a commonly accepted definition; while all definitions contain a fair amount of overlap, efforts are made to incorporate the varying sources, purposes, and management structure into one standard definition, often rendering it unwieldy and vague. Kimmitt (2008) defines SWFs as "government investment vehicles funded by foreign exchange assets and managed separately from official reserves." Other definitions stress that these funds are invested in a broad portfolio of risky assets, including equity, corporate bonds, real estate, infrastructure, and alternative investment strategies. Finally, a key defining characteristic is that these foreign reserves are managed independently from official reserves.

SWFs may be classified into two streams: the sources of their funds, and their investment objectives. Generally, all SWFs are financed by current account surpluses arising from two main sources: (i) revenues generated by net commodity exports (typically oil), and (ii) revenues generated by a merchandise trade surplus. The largest SWFs are usually designed with one or more policy objectives in mind. These objectives include stabilization funds, intergenerational savings funds, and reserve management funds:

- Stabilization funds – as they were originally conceived – were designed to smooth planned government budgets. In principle, excess reserves were accumulated during a commodity boom when prices for a commodity were above a predetermined level. These reserves could then be drawn down to finance government expenditure when prices fell below this threshold level. In practice, few if any of the stabilization funds operate in this fashion.
- Intergenerational savings funds were designed to accumulate a portion of the windfall revenues in order to benefit future generations and force intertemporal expenditure smoothing.
- Recent SWFs have been created to earn a higher return on foreign exchange holdings than is normally associated with traditional reserve instruments.

This list is by no means exhaustive. SWFs can also be used for several ancillary objectives, such as debt repayment, funding for development projects, and – in the case of Brazil's proposed SWF – exchange rate intervention.

It is important to differentiate SWFs from state-owned enterprises (SOEs), national or private pension funds, and other institutional investors, such as hedge funds. These actors may be distinguished by their primary function, their sources of financing, and their management structure.

- The primary function of an SOE is to own, operate, and invest in real assets that are of strategic importance to the national economy. The SOE is funded by issuing capital (debt and equity), and operates as a private sector company subject to government oversight and/or management.
- The objective of national or private pension funds is to pay out future retirement benefits to specific beneficiaries who have contributed to the fund through payroll taxes and employer contributions. Pension funds are typically managed at arm's length from other government institutions, supervised by a government regulator, and held accountable by law for meeting their fiduciary obligations.
- Hedge funds are financial investors that seek to earn positive risk-adjusted returns for private investors by employing risky investment strategies that typically involve leverage. Hedge funds are only loosely regulated, and managed by principals who are paid based on performance and may have significant personal wealth tied up in the business.

By contrast, SWFs typically invest in financial assets, rather than owning or operating real assets directly. Unlike hedge funds, SWFs are typically unlevered investment vehicles with little or no liabilities. In most cases, a country's citizens do not have a direct claim on the SWF assets. Typically, SWFs are passive investors that do not play an active role in operating the underlying business. There is no common model that describes their management structure, since each SWF is unique. SWFs are loosely regulated, if at all.

2.2 Relative size and projected growth rates

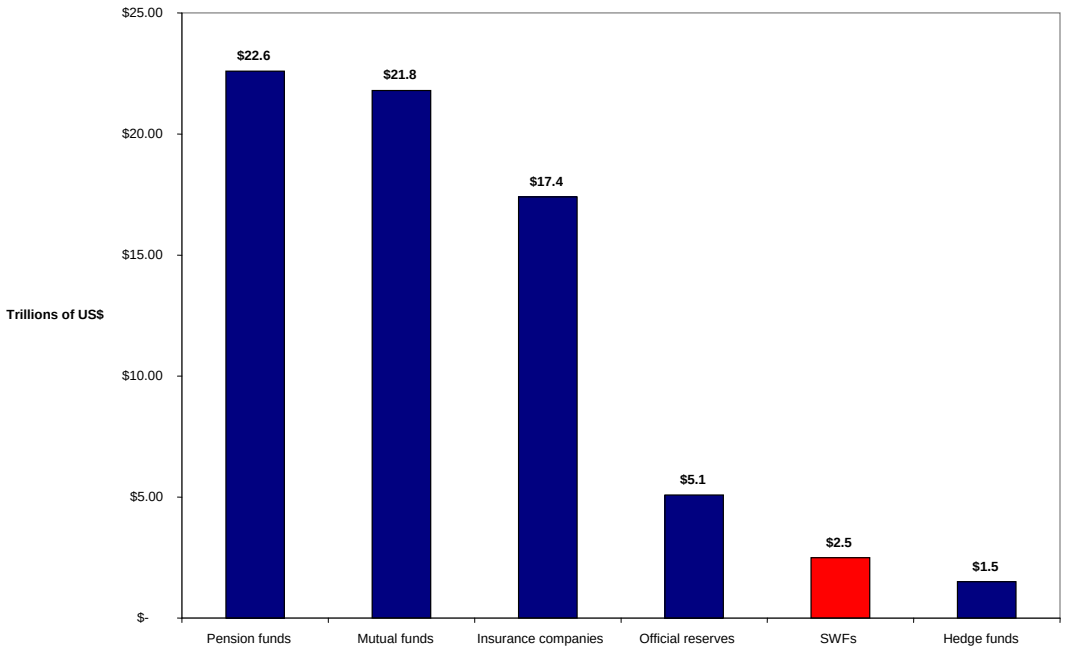
Sovereign wealth funds represented 2.5 per cent of global assets in 2007, and are projected to grow rapidly over the next 15 years, reaching almost 9 per cent of global assets by 2022 (Miles and Jen 2007). Currently there are approximately 40 SWFs, 20 of which have been established since 2000, holding estimated assets of $2–3 trillion (McCormick 2008). By comparison, the total value of foreign reserves is currently $5.1 trillion.

Chart 1 shows that, while large in size, the assets under management by SWFs are still relatively modest compared with pension funds and mutual funds, although they have surpassed the unlevered assets managed by hedge funds. But, more importantly, SWFs have the potential to grow rapidly.

Miles and Jen (2007) estimate that SWFs could grow to as much as $27.7 trillion by 2022, compared with total foreign reserves of $13.0 trillion and total global financial assets of over $300 trillion. This rapid growth scenario is based on a number of assumptions. Analysts assume that future foreign exchange holdings will be transferred to the SWFs, rather than to official reserves. They also assume an annual return on investment of 5.5 per cent, with all profits reinvested. The assumptions underpinning the growth of total global financial assets are that the

current stock of $100 trillion grows by 7.5 per cent, which is the weighted average return on a portfolio composed of equal shares of bonds and stocks. Using different assumptions, Kern (2007) estimates that, over the next decade, SWF asset allocations could lead to a gross capital inflow of over $3 trillion into global equity markets and $4.5 trillion into global debt markets.[4]

Chart 1
Relative Size of SWFs



Sources: Truman (2007), IMF World Economic Outlook October 2007, IMF International Financial Statistics

Unlike other institutional investors, the assets under management of SWFs are concentrated in the hands of a few large players. As Appendix A shows, the top five SWFs represent almost 80 per cent of total SWF assets. To have such substantial assets controlled by few investors means that any one of them could potentially have significant impacts on the stability of global markets.

4. Kern assumes a "pension-fund-typical" portfolio, with a 40 per cent allocation into equities and a 60 per cent allocation into interest-bearing securities. Given that this allocation is the inverse for many SWFs, the figures noted above could be significantly higher.

3 Stabilizing Effects of SWFs

SWFs have proven to be a stabilizing force on global financial stability in a number of ways. At the country level, they have allowed states to manage capital inflows, while addressing long-run structural issues, thus providing a basis for sustained economic growth in EMEs. At the same time, by virtue of their size and investment strategies, SWFs are liquidity providers and contrarian investors that support global markets in times of stress while facilitating the gradual unwinding of global imbalances. These functions are examined below.

3.1 Managing capital inflows

SWFs can aid in the macroeconomic management of large current account surpluses. By transferring excess revenues into investment funds, states can alleviate inflationary pressure arising from capital inflows. Many of these states are already growing at a rapid rate, putting upward pressure on asset prices. Capital inflows also place upward pressure on nominal exchange rates, reducing demand for exports and slowing growth. For countries with a pegged exchange rate regime or managed float, maintaining competitive exchange rates increases the attractiveness of their exports, the very sources of growth for many of these countries that have depended on export-led growth. Offshoring capital inflows allows SWF states to achieve these objectives.[5]

3.2 Portfolio diversification and a higher risk appetite

Traditional reserve assets are safe, liquid investments offering low returns. By diversifying their investment portfolio, SWFs hope to earn higher returns on their holdings. Table 2 provides an example of this portfolio diversification based on the estimated investment portfolio of the Abu Dhabi Investment Agency (ADIA). The ADIA allocates approximately 60 per cent of their portfolio to listed equities, 20 per cent to fixed income, and the remainder to other assets such as private equity, real estate, and alternative investments.

5. This is not to say that offshoring capital inflows is either a sustainable or an optimal measure, especially when perpetuated indefinitely. Given the volatile nature of commodity prices, previous terms-of-trade shocks tended to be transitory and, thus, authorities sought to stem real exchange rate appreciation (which hurt the non-tradables sector) in the short run. However, under a persistent or permanent shock, using an SWF to effectively limit real exchange rate appreciation may be suboptimal, in that it impedes adjustment both in the commodity exporter and commodity importers. More research is needed on this point.

Table 2
Asset Allocation of the Abu Dhabi Investment Agency

Asset class	Percentage
Listed equities	60
Fixed Income	20
Private equity	10
Real estate	5
Alternative investments	5

Source: Roy (2006)

By diversifying out of customary reserve instruments as well as the established reserve currencies, SWFs are accepting a higher level of risk than traditional foreign reserve investments. This higher risk tolerance can facilitate international risk sharing, as SWFs move into different classes of assets. Diversification allows SWFs to spread the risk in their portfolios across a variety of assets and currencies, thus reducing their reliance on one asset price (such as oil prices). They will also be able to rebalance in less volatile assets and better hedge their investments, reducing the negative outcome of a sharp drop in (or an increase in the volatility of) the price of any given asset. In doing so, SWFs are building more balanced portfolios that will not only earn them higher returns, but allow them to protect themselves from volatility in any one market, thus stabilizing their revenues.

3.3 Addressing longer-horizon structural issues

Strategically investing "excess" revenues can provide SWF states with a means to deal with future issues such as demographic pressure and economic development and diversification. Savings funds facilitate intergenerational transfers, allowing future generations to benefit from current favourable economic conditions. At the same time, increased profits on foreign holdings allow a larger cushion in the event of external shocks from falling commodity prices. Additionally, investing abroad allows SWF states to import knowledge and technical expertise that may help develop local industries and provide a basis for sustained growth as natural resources are slowly depleted. As such, strategic investment can allow SWF states to address structural weaknesses in their economies, reducing both macroeconomic and financial vulnerabilities that may lead to instability in the future.

3.4 Providers of liquidity

Large investors can play a stabilizing role by providing liquidity to financial markets. One of the commonly cited advantages of SWFs is that, due to their large scale, they are able to inject liquidity into global capital markets, thereby supplying capital to those who require (or demand) it. At the same time, their increased risk appetite allows them to provide capital to entities that risk-averse investors would shy away from. This function was clearly exhibited recently, when SWFs invested heavily in Western financial institutions, allowing them to recapitalize after incurring substantial losses due to the U.S. subprime mortgage crisis.

3.5 Long-term investment horizon

SWFs have an explicit mandate of long-term investments and can withstand short-term fluctuations. SWFs are focused on long-term returns as well as other positive externalities that will arise from their investments, such as market access. Additionally, SWFs are not highly leveraged and have very little capital adequacy requirements, unlike other large institutional investors such as hedge funds. The focus on long-term returns and the lack of specific capital requirements will decrease the risk of a rapid liquidation of investments and the ensuing impact on financial instability. Much like hedge funds, SWFs can act as contrarian investors, investing in times of market distress. As noted in section 3.4, SWF investments in Western financial institutions are an example of this behaviour; in seeking out long-term gains, they are able to invest when markets are in difficulties, focusing on the long-run outcome.

3.6 Facilitate unwinding of global imbalances

Moving out of official assets towards market-based assets facilitates the gradual resolution of global imbalances. Warnock and Warnock (2006) estimate that foreign official purchases of U.S. government bonds have lowered the U.S. 10-year Treasury yield by 90 basis points and that around two-thirds of this impact came from East Asia. This was due, in part, to the large sums of foreign exchange reserves that were housed at the central bank and invested in relatively safe assets, such as U.S. Treasury bills. As noted in section 2.2, significant amounts of money that would normally be invested by the monetary authorities have been and will continue to be transferred to SWFs. Given that SWFs invest significantly more in equities and other assets than in fixed-income instruments, their investments may contribute to a gradual reversal of this effect. By diversifying across currencies, SWF investments may also contribute to a depreciation of the U.S. dollar; this would contribute to a narrowing of the U.S. current account deficit, allowing a gradual unwinding of global imbalances that have been prevalent over recent years.

3.7 Other positive externalities

As noted section 3.3, strategic investments can allow SWF states to develop their domestic economies and provide a basis for sustained growth. Gaining access to international markets will allow states to nurture non-commodity sectors and diversify their economies in preparation for the eventual depletion of finite natural resources or to provide for other sources of income when commodity prices are low.

The experience with the 1980s less-developed-country debt crisis also highlights a positive externality from SWFs. During that period, petrodollars arising from the 1970s oil shocks were deposited with money center banks that lent freely to many countries in Latin America. This excess credit creation and lending was followed by sovereign defaults that crippled the balance sheets of many large financial institutions and destabilized the international financial system. Many of these countries experienced large inflation and output losses over the next decade. By investing their commodity wealth directly, SWFs have avoided this boom-bust scenario and its damaging side effects for the international financial system.

4 Potential Risks to International Financial Stability

While SWFs may provide benefits to both domestic economies and global markets, significant outflows of capital from SWF states present potential risks to international financial stability. While most concerns are focused on what may be low-probability events, an examination of their possible impact on international financial stability is merited.

4.1 Triggering “herding” behaviour

SWFs present a risk to global financial markets due to the fact that large sums of capital are concentrated in the hands of a limited number of large actors. In the absence of SWFs, these surpluses would be distributed among domestic citizens. Then the decision to consume, save, or invest would be left to the discretion of (small) individual households, which can be assumed to be distributed along a continuum of risk preferences. Whereas central banks follow a conservative investment strategy, SWFs, while still conservative in nature, may demonstrate a significantly higher risk preference than traditional reserve managers. It can safely be assumed that the SWF managers will invest in higher-risk assets than either the monetary authority or the average individual would have done.

The presence of a large player with a high-risk appetite can induce market behaviour that could lead to a negative outcome. Much of the existing literature on “large players” focuses on the role of highly leveraged institutions, such as hedge funds, in the various 1990s exchange rate crises.

While it is often found that large players have the potential to play a destabilizing role, Corsetti et al. (2004) argue that the size of the impact depends on the information content of the move and the signal being sent to the smaller traders.

While the possibility of SWFs inducing "herding" behaviour does exist, the risk that they would deliberately seek to destabilize or manipulate markets is minimal. First, SWFs are committed to diversifying their portfolios, reducing investment in one specific asset class. Second, if SWFs were to invest large sums of funds into any one asset, there is a possibility that the market would move against them, which is something they would try to avoid. Corsetti et al. (2004) stress that, if the large actor has significant holdings of assets denominated in the currency under attack, their presence will actually make the attack less likely.

Corsetti et al. (2004) also conclude that being aware of the large player's initial portfolio positions is significant. In this case, the opacity of many SWF investment positions may contribute to short-term volatility in the markets (see section 4.2). However, Corsetti et al. note that, in order to avoid adverse price movements, large actors would have an incentive to avoid signalling or disclosing their position until the move was executed (and possibly even beyond that).

4.2 Lack of transparency and short-term volatility

SWFs have the potential to destabilize small markets by inducing other traders to mimic their strategies, leading to greater buying or selling on one side of the market. The impact of this behaviour may be exacerbated by the lack of transparency surrounding the investments and strategies of SWFs. Since SWFs have become more widely known, many analysts have tried to anticipate their strategies, based on the investment strategies of similar institutional investors (see, for example, Van Steenis, Babinet, and Lam 2007). The lack of transparency about the holdings of SWFs introduces an element of uncertainty into markets. If there is a belief that SWFs will follow a specified strategy, it may induce other market participants to anticipate the move, leading to destabilizing behaviour. If the investment preferences of SWFs are revealed by their actions, other agents may interpret their investments as signals and act accordingly.

4.3 Non-economic objectives and financial protectionism

While it is not necessarily a direct risk to international financial stability, some observers are concerned about a protectionist backlash against SWFs that would restrict cross-border investment and slow economic growth. The reaction of Western states to SWF investment may

lead to the adoption of barriers, preventing the free movement of capital. This policy response may affect not only SWFs but also other institutional investors, such as national pension funds.

While the leading SWFs have stated that they are long-term, passive investors, they offer little transparency concerning their investment strategies and corporate governance structures. This lack of transparency leads to concerns regarding political motivations for investing. Increasing transparency would alleviate these concerns and provide for an atmosphere that is more attractive to foreign investment. As shown in Table A2 in Appendix A, taken from Truman (2007), SWFs run the gamut from full, open disclosure and high standards of governance (in the case of Norway) to providing little to no information (in the case of Gulf SWFs).

Virtually all countries have legislation in place that protects national industries and interests. However, the prospect of other states controlling domestic companies in sensitive industries has triggered a review of existing rules and may lead to the adoption of new and more onerous regulations. Although policy-makers state that these regulations are not specifically aimed at SWFs, there are special clauses that deal explicitly with SOEs.[6]

While states feel that these regulations are critical to protecting national and economic security, they may impede the efficient allocation and free flow of capital, undermining the advances thus far made in liberalizing capital flows, and they may even reduce or redirect investments to another state.

4.4 Investor activism and monitoring of managers

In the finance literature on principal-agent problems, large stakes by outsiders are seen as a mechanism that improves the monitoring of managers (Jensen and Meckling 1976). In their investments, many SWFs have done their utmost to prove that they will be passive investors, including forgoing any voting rights. While this may ward off protectionist sentiment, it may also impede the monitoring of managers. When a company experiences large capital losses, more active investors (whether they are large institutional investors or individual shareholders) will usually push for some sort of reform to avoid losses in the future. By giving up voting rights, SWFs are less able to protect themselves (and other shareholders) from mismanagement and prevent the same practices from occurring in the future. This weaker oversight may result in the

6. For example, amendments to Investment Canada regulations on 7 December 2007 establish a review process for proposed investments to ensure that the governance and commercial orientation of SOEs are of net benefit to Canada.

continuance of poor investment strategies or lax risk management, which that can lead to further instability.

4.5 Triggering a disorderly unwinding of global imbalances

As noted in section 3, gradual portfolio rebalancing through SWFs can reduce current account imbalances in the global economy. However, large-scale and rapid portfolio diversification can trigger a disorderly unwinding that would provoke volatility in international markets. Since SWF states have been large investors in the traditional reserve instruments of the U.S. Treasury and U.S. dollars, there is a concern that assets will put pressure on Treasury bond yields. Furthermore, rapid currency diversification away from U.S.-dollar assets could spark a rapid depreciation of the U.S. dollar and thus put upward pressure on other major currencies.

As noted in sction 3.2, diversification will probably affect both U.S. Treasury prices and the U.S. dollar, but only at the margin. It is in the interest of SWF states to diversify gradually, so as not to influence the value of their own assets and risk incurring capital losses. Asset diversification implies that SWF states will move out of the traditional reserve instruments; this does not, however, necessarily entail moving entirely out of the U.S.-dollar-denominated assets. Rebalancing between government bonds and equity investments will still involve a substantial amount of monies flowing into U.S. companies and stock exchanges.

While diversification may also be associated with a weaker U.S. dollar at the margin, a wholesale divestment of U.S. dollars is unlikely, thus reducing the risk of a sharp depreciation of the U.S. dollar. A weakening of the U.S. dollar translates into a decrease in the value of a state's net foreign assets, resulting in significant valuation losses. Thus, SWF states themselves would be negatively affected by a large U.S.-dollar depreciation, reducing the likelihood that they would intentionally act to bring about this outcome.

Furthermore, for those countries not pegged to the dollar, a large U.S.-dollar depreciation would effectively cause their currencies to appreciate, weakening their competitive position as goods exporters. Several SWF countries fix their exchange rates to the U.S. dollar, including China and many of the oil exporters. Defending a strict dollar peg or a basket peg would still involve purchases and holdings of dollars, further reducing the risk of a strategic divestment of dollars. In short, a serious off-loading of U.S.-dollar assets would do SWF states more harm than good.

Leaving aside the issue of rebalancing official reserves, transfers of national wealth to SWFs that invest in global markets will necessarily involve investments in a variety of currencies. Although the majority of investments will be in U.S.-dollar assets, capital will also flow to assets

denominated in other currencies, such as the euro and the U.K. pound, exacerbating the upward pressure on their exchange rates.

5 Proposed and Potential Policy Responses

While they have the potential to play both a stabilizing and destabilizing role, it is difficult to evaluate the possible impact of SWFs, due to a lack of information. At the same time, negative public opinion against SWFs may encourage policy-makers to adopt regulations that unduly restrict capital flows and foreign investment. In formulating policies regarding SWFs, the G-7 and G-20 have called on multilateral institutions such as the IMF and the OECD to identify best practices and codes of conduct, while reviewing legislation concerning state-financed cross-border investment. There is also a role for bilateral dialogue between governments as they seek to refine a host country's regulations governing foreign investment.

5.1 Best practices and codes of conduct

Recent G-7 and G-20 communiqués have stressed the importance of open dialogue with SWFs and urged them to adopt best practices in management and transparency. They point to the role of multilateral organizations in analyzing the issues involved and identifying best practices: the OECD has done previous work on this topic, and the International Working Group of Sovereign Wealth Funds recently reached a preliminary agreement on a draft set of principles and practices, the Generally Accepted Practices and Principles for Sovereign Wealth Funds.

5.2 Financial protectionism and foreign investment regulations

Government officials from the United States, Canada, and elsewhere are meeting with representatives of various SWFs to learn more about their operations and objectives and, at the same time, are examining their national policies on foreign investment. Many countries, including Canada, have revised their regulations on foreign investment to specifically address proposals from entities owned or controlled by a foreign government.[7]

Unduly stringent regulations on inward foreign investment may discourage investment from both SWFs and other actors. Regulations targeted at one actor can easily affect other institutional investors and create an uneven playing field among investors. Introducing more stringent restrictions against foreign investment may create an investment climate that is unattractive to all types of investors, even those not specifically targeted by the legislation, and may inhibit the

7. The U.S. Financial Investment and National Security Act (2007) became operational on 24 October 2007. Germany is considering instituting a review process and body similar to that of the United States. The EU discussed a policy regarding SWF investments at a summit on 13 March 2008. For Canada, see footnote 6.

efficient allocation of capital. For Canada specifically, there may be a negative reaction to proposed investments by our own sovereign funds (the Alberta Heritage Savings Trust Fund) and large pension funds. The Conference Board of Canada (2008) warns that Canada's large public sector pension funds, such as the CPP Investment Board, Caisse de dépôt et placement de Québec, and PSP Investment, may be interpreted as an SWF and subsequently affected.

Furthermore, regulations that unduly restrict the free flow of capital would reverse the gains made in the liberalization of capital flows and impede the efficient allocation of funds. As noted in section 4, the possible redirection of capital flows away from deep markets, such as those in Western countries, towards shallower, less liquid markets may destabilize these smaller markets. Additionally, certain proposals may serve to effectively renationalize companies and close sectors to free market competition, the very same criticisms that are levelled at many SWF states. Efficient and well-crafted codes of conduct could avoid all of these problems and still allow states to safeguard their national and economic security.

6 Conclusion

SWFs are significant institutional investors with large funds at their disposal. Based on current projections, they will continue to grow in size and importance, and thus have the potential to affect international financial stability. In this paper, we argue that SWFs can play a useful, stabilizing role in international markets. By providing countries with an instrument of better macroeconomic management, SWFs reduce the pressure on domestic prices and encourage domestic savings and wealth. As long-term investors that employ low degrees of leverage and take contrarian positions, SWFs provide liquidity. While SWFs are large actors that have the potential to disrupt small markets, their contrarian investments have so far reduced market volatility. Still, the concern remains that extreme policy responses to SWFs could result in states restricting capital flows and limiting investment opportunities, leading to the inefficient allocation of capital and potentially creating conditions for financial instability. However, our judgment is that these are low-probability events; the costs to SWFs in terms of both capital and reputational losses would be large and should prevent them from adopting disruptive investment strategies.

SWFs have existed since the 1950s, and there has been no evidence to date that would imply that SWFs will explicitly act in a way that will disrupt global markets. In fact, their own interests would be jeopardized by any such actions. However, the fact that SWFs have more to lose than gain from such behaviour does not mean that policy-makers should not be concerned. The analysis in this paper assumes a rational, profit-maximizing approach to reserve management.

The risk of politically motivated actions does exist and non-economic behaviour is always possible. Global investment is a repeated game and SWF states are vulnerable to retaliatory tactics, even if such behaviour leads to suboptimal outcomes.

A clear articulation of investment goals, greater transparency, improved financial reporting, and higher governance standards would go a long way to alleviate concerns regarding the non-commercial motivations of SWFs. The adoption of best practices and greater transparency regarding investment strategies and risk management practices would facilitate the efficient allocation of excess savings and encourage the flow of capital to where it is most needed. Prudent management of SWFs is ultimately in the best interest of SWF states. This is an opportunity for developing nations to acquire the financial and human capital required for institutional development and productivity gains, thus promoting domestic and global growth while contributing to the stability of financial markets.

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Appendix A: Overview of Major Sovereign Wealth Funds

Although it may seem that SWFs are a relatively new actor in the global economy, Table A1 shows that they have existed, in one form or another, since the 1950s. But, since the beginning of this decade, high oil prices and large trade surpluses have led many systemically important EMEs to establish their own SWFs. While detailed information is unavailable for many SWFs, this table attempts to provide a broad overview of the major SWFs currently in existence.

Table A1
Overview of Major Sovereign Wealth Funds

Country (date of establishment)	Official name	Size $bn.[1] (% GDP)	Reserves $bn. (% GDP)	Truman score[2]
United Arab Emirates (1976)	Abu Dhabi Investment Authority (ADIA)	875 (536%)	28 (16%)	0.50
Singapore (1981)	Government of Singapore Investment Corporation	330 (250%)	136 (103%)	2.25
Norway (1990)	Government Pension Fund – Global (GPF-G)	380 (95%)	56 (17%)	23.00
Kuwait (1953)	Kuwait Investment Authority	213 (222%)	12 (13%)	12.00
China (2007)	China Investment Corporation (CIC)	200 (8%)	1,066 (41%)	–
Russia (2004)	Stabilization Fund of the Russian Federation	157 (16%)	295 (30%)	9.50
Singapore (1974)	Temasek Holdings	134 (80%)	136 (103%)	13.50
Qatar (2005)	Qatar Investment Authority (QIA)	50 (95%)	5 (10%)	2.00
Korea (2005)	Korea Investment Corporation	20 (2%)	238 (27%)	9.00
Canada (1976)	Alberta Heritage Savings Trust Fund	15	–	19.50

1. Most recently available data. Sizes are approximate when not disclosed by official sources.

2. Truman (2007) compiles a "scoreboard" of major SWFs, ranking them on transparency, governance, accountability, and other measures. The score is based on 25 yes/no questions, gathering information from public sources. A score for the China Investment Corporation is not available at this time.

Sources: Truman (2007), IMF World Economic Outlook October 2007, IMF International Financial Statistics, Ministry of Finance of the Russian Federation

Table A2
Truman (2007) Sovereign Wealth Fund Scoreboard

Truman (2007) compiles a "scoreboard" of major SWFs; this table lists the scores for the SWFs listed in Table A1. The score is based on 25 yes/no questions, gathering information from public sources. A score for the China Investment Corporation is not available at this time.

Country	Fund	Structure	Governance	Transparency and accountability	Behaviour	Total score
	Maximum score	**8.00**	**4.00**	**12.00**	**1.00**	**25.00**
United Arab Emirates	Abu Dhabi Investment Authority	0.50	0.00	0.00	0.00	0.50
Singapore	Government of Singapore Investment Corporation	1.50	0.00	0.75	0.00	2.25
	Temasek Holdings	4.00	1.50	8.00	0.00	13.50
Norway	Government Pension Fund – Global	7.50	4.00	10.50	1.00	23.00
Kuwait	Kuwait Investment Authority	6.00	3.00	3.00	0.00	12.00
Russia	Stabilization Fund of the Russian Federation	4.00	2.00	3.50	0.00	9.50
Qatar	Qatar Investment Authority	2.00	0.00	0.00	0.00	2.00
Korea	Korea Investment Corporation	6.00	2.00	1.00	0.00	9.00
Canada	Alberta Heritage Savings Trust Fund	7.50	3.00	9.00	0.00	19.50