Abstract and Keywords

Despite their new found popularity, sovereign wealth funds date back as many as fifty years. Originally intended to counteract the boom and bust cycles of oil and commodity dependent economies, stabilization funds grew out of countries attempts to establish rainy day funds which could tide them over when prices fell and promote economic development. This chapter will provide a brief history of sovereign wealth funds, their evolution from small rainy day funds to major international investors, their increased sophistication, and the spread to an increasing number of countries seeking to manage monetized natural resource wealth.

Keywords: sovereign wealth funds, stabilization, economic development

In the summer of 2007, with oil prices trending upward at $70 per barrel and one full year before the financial crisis of 2008, concern about impending takeovers by sovereign
Wealth funds dominated policy circles and financial news. The continued robust economic growth in the United States and Europe focused political attention on the cash-rich oil exporters and rapidly expanding Chinese economy with its burgeoning foreign exchange reserves. The Director of the White House National Economic Council and former Secretary of the Treasury, Larry Summers, worriedly wrote,

> The logic of the capitalist system depends on shareholders causing companies to act so as to maximize the value of their shares. It is far from obvious that this will over time be the only motivation of governments as shareholders. They may want to see their national companies compete effectively, or to extract technology or to achieve influence. (2007)\(^1\)

This summed up the fears of many about a new wave of barbarians at the gate buying American assets. The fears appeared well-founded, coming fresh off the aborted acquisition attempts by Dubai Ports and by China National Offshore Oil Company of the port operator P&O and Unocal, respectively. Prompted by security threats of Al Qaeda-linked shipping and Chinese purchases of global oil reserves, American politicians would not tolerate the purchase of domestic assets financed by high oil prices. Sovereign wealth funds presented a challenge to the global financial governance system constructed by developed countries (Drezner 2008). Despite evidence of the profit maximizing drive, political fear played the primary role in the debate about sovereign wealth funds (Deutsche Bank 2007). This raised concern for some about unequal treatment of investment depending on source country or investor (Banque de France 2008). However, the same concern about investment did not apply to the purchase of government and institutional debt, which drove down lending costs and fueled the housing boom.

The rhetoric about sovereign wealth funds, despite scant evidence or facts about their operations, size, or influence, quickly reached a fevered pitch though research indicated they acted similarly to other asset managers (Beck and Fidora 2008). Crude estimates of the sizes of sovereign wealth fund holdings varied wildly. Commentators assigned the Abu Dhabi Investment Authority (ADIA) a range of more than $1 trillion with a high of $1.3 trillion and a low of $300 billion (Canning 2007). Others later backtracked on their previous exuberant estimates, noting that “the size of the Abu Dhabi Investment Authority has been overstated, sometimes by as much as 100 percent” (Setser and Ziemba 2009). Even today, scholars and policy makers struggle to understand the size and reach of sovereign wealth funds (SWFs) in international capital markets (Dewenter et al. 2010). The vagueness and newness of SWFs prompted conspiracy theories, political nationalism, and poor policy decisions.

Though SWFs gained notoriety in the spring of 2007, the history of their development into global financial players is much more prosaic.Founded as stabilization funds intended to offset the high volatility of commodity prices and governments dependent on royalty revenue, SWFs evolved beyond the original intention of their founders. Kuwait created the first modern sovereign fund in 1953, and it was designed to manage excess oil revenue by allocating a fixed percentage of all sales into the fund. The extreme volatility of
commodities made even short-term predictions on oil prices difficult, which in turn made public budgetary planning very difficult (Weiner 2000). There appeared to be some theoretical and experiential basis for the creation of stabilization and sovereign wealth funds (Ping and Chao 2009). It was not until the 1970s and 1980s, however, that other countries established stabilization funds. Recognizing the need to prudently manage the revenue from the oil price boom and inherent commodity volatility, numerous governments created funds designed to mitigate these risks with their newfound wealth (Cuddington 1989). The United Arab Emirates, Chile, Singapore, and Brunei all created sovereign funds based, with the exception of Singapore, on the accrual of commodity-based revenue.

Introducing the Stabilization Fund
Countries establishing sovereign funds faced a fundamental economic problem. Economic activity and government revenue depended heavily on volatile commodity prices that regularly experience boom-and-bust periods, while government expenditure was based on predictable commitments that extended into the future (Spatafora and Tytell 2009; Choe 1990). The volatility of commodity-producing countries has been a noted historical phenomenon (Hasson 1956). The volatility of gross domestic product (GDP) and government revenue dependent on global commodity prices can have a pernicious effect. For instance, the instability of developing countries negatively impacts economic growth, inflation, investment, and government spending (Roache 2008). One of the earliest examples of commodity-dependent boom-and-bust periods comes from sixteenth-century Spanish silver mining in what eventually became the nation of Peru. Despite receiving enormous amounts of silver for the Spanish crown, public spending in Spain and continent-wide inflation grew rapidly, failing to bring about the expected long-term gain to national wealth. As Niall Ferguson writes in his book *The Ascent of Money,*

> What the Spaniards had failed to understand is that the value of precious metal is not absolute. Money is worth only what someone else is willing to give you for it. An increase in its supply will not make society richer, though it may enrich the government that monopolizes the production of money. Other things being equal, monetary expansion will merely make prices higher.

Even though Spain collected 170 tons of silver a year from its Peruvian colony, wasteful public spending and inflation propagated an early instance of the boom-and-bust cycle that has come to define commodity-dependent economies. By the late 1970s and early 1980s, having lived through numerous boom-and-bust cycles of commodity price rises, inflation, and public profligacy similar to sixteenth-century Spain, numerous countries decided to try and hedge against economic volatility. Though there was doubt about their efficacy, countries, with assistance and urging from the World Bank and the International Monetary Fund (IMF), created stabilization funds (Cashin et al. 1999a, 1999b). The creation of stabilization funds, the predecessors of the sovereign wealth fund, was an attempt to fight macroeconomic volatility and promote stable growth (Cohen et al. 2007). The roots of sovereign wealth funds were not malicious attempts by countries to become dominant global investors but were prudent endeavors to manage economies and
reduce domestic instability.

The high oil prices of the early 1970s drove numerous states to establish stabilization funds. From the early 1970s to the early 1990s, nine funds in total were formed, including most majors such as the ADIA, the Saudi Arabian Monetary Agency (SAMA), Temasek Holdings, the Government Investment Corporation of Singapore (GIC), and the Social and Economic Stabilization Fund of Chile. Commodity exporters, specifically oil and copper entities, realized the need to (p.6) smooth out wild swings in government revenue and economic activity. It should come as no surprise that the commodity exporters created their funds after large revenue increases in their primary export: Abu Dhabi, Saudi Arabia, and Oman in the mid-1970s after the first oil crisis and Chile in the 1980s after a sustained increase in copper prices. Even Singapore, lacking any commodity income, suffered from above-average levels of volatility from its status as a small, open trading nation exposed to the global economy. Accruing sustained trade and fiscal surpluses, the Singaporean government opted to create Temasek and GIC as industrial investment vehicles to promote economic development. The stabilization fund was created in direct response to specific problems facing small, open, commodity- and trade-dependent economies.

From 1990 to around 2000, due to a sustained period of low commodity prices, no new stabilization or sovereign wealth funds were created. Though their impact remained unclear and debated, beginning in 2000, states began to create funds, a trend accelerated in 2005 by rising oil prices (Davis et al. 2001). There are currently more than fifty SWFs, with more being formed or in the early stages of development. The majority of existing SWFs have been created since 2005 though most of these remain relatively small because of their short histories.

The recent sovereign funds are more diversified than their predecessors. They fall into three primary categories. In the first category are commodity-dependent economies that expand their stabilization fund activities in order to seek higher returns. The high oil and commodity prices in the later half of the decade from 2000 to 2010 prompted many countries to reconsider their economic policies and newfound wealth. Though it seems like a simple and enjoyable problem, many countries struggle to manage their large surplus without the technical financial expertise or with indecision about a long-term plan. In the second category are countries that do not have large commodity deposits, but that maintain fixed exchange rates and enjoy large current account surpluses. This category is dominated by China. With more than $3.3 trillion in foreign exchange reserves accumulated from sustained current account surplus, China both needed and opted to create an SWF that would seek higher levels of return than cash or low-yielding government debt held by the central bank. However, Singapore is another country with a similar economic profile dependent on large and sustained current account surplus from a manufacturing and export-driven economy. The financial management of SWFs outside of commodity-dependent states requires focusing on different risks and utilizing different investment strategies. Even the financial management of the China Investment Corporation causes concern among some parties (Zhendai 2008). In the third category
are countries with vanity sovereign wealth funds. Whereas commodity- or trade-dependent countries accumulate large surpluses that the government allocates into a sovereign fund via fiscal or monetary channels, the vanity funds invest money out of ongoing government revenue. For instance, France created the Strategic Investment Fund in late 2008 to challenge the rising influence of Middle Eastern and Asian SWFs and to (p.7) promote domestic investment. Despite a poor fiscal position, the French government preferred to dedicate money to a fund out of ongoing revenues. In other words, the French SWF is funded with debt, also known as leverage, increasing the risk to the French taxpayer. In this third category are numerous countries with large fiscal problems, like Ireland, that prefer to enjoy the status of owning a sovereign wealth fund rather than addressing large structural financial difficulties. It seems like rather poor financial management to go further into debt to enjoy the perceived benefits of joining the SWF club.

Despite the differences in when they were formed, broad similarities unite the first generation of stabilization funds and the newer SWFs. First, virtually all SWFs are located in commodity-dependent economies. The countries depend on commodities, primarily oil and gas, for government revenue, exports, and GDP growth. Though some have argued that labor is a commodity to be exported onto the global market, lumping countries like China in with commodity exporters is not a fair comparison (Kapilinsky 2006). Commodity exporters are monetizing existing national wealth; they are not extracting capital produced by the citizenry. A government’s dependence on a primary commodity for economic activity and growth creates a unique set of incentives for the government policy framework to diversify its economy (Same 2009). The specific commodity mix has a large impact on exports and the economy at large. For instance, oil, as the primary commodity, has a major impact on all other commodities and prices (Baffes 2007). Second, most countries with SWFs run large structural current accounts and fiscal surpluses, which drives capital accumulation. Oil and gas exporters may have current account surpluses of 10–20% of GDP in good years. However, large structural surpluses are not unique to commodity exporters. China, as a result of its lower export prices due to its artificially fixed exchange rate, has accumulated more than $2 trillion worth of foreign exchange reserves. Singapore has also had a long history of running large current account surpluses due to its managed exchange rate and export-focused economy. The structural surpluses, either from commodity or manufactured trade exports, are the capital used to create the sovereign fund. Third, all major sovereign wealth fund countries, excluding Norway, maintain fixed or heavily managed exchange-rate regimes. Due to the fact that global commodity contracts and trading is denominated in United States dollars, commodity exporters become de facto dollarized economies. Though a fixed or managed exchange rate can in some instances be used to artificially lower the price of manufactured exports as in the case of China and Singapore, sovereign wealth countries use them more due to the extreme dependence on dollar trade in their economies. Because the large percentage of their economic activity is denominated in dollars, the countries employ a fixed exchange-rate regime to link their activity to the currency of production and revenue. Despite broad diversity across a range (p.8) of factors, countries with stabilization and sovereign wealth funds share unique economic
characteristics.

What Is a Stabilization Fund?
The modern SWF bears little resemblance to its stabilization-focused predecessor. Before proceeding to the outline of the unique characteristics of a stabilization fund and its differences from an SWF, it is important to define what is meant by a stabilization fund. A stabilization fund is a government account designed to smooth public expenditures and consumption by setting aside revenue during periods of rapid growth that then could be drawn on during economic contractions. Also referred to as a “rainy day fund” for governments, the stabilization fund was designed with very different intentions than the SWF. First, the stabilization fund was designed to smooth out public expenditures. The fundamental purpose of the stabilization fund was to provide a government-controlled account that could be used in periods of falling tax revenues to continue public investment schemes. Though there is disagreement over how much needs to be set aside, the goal was to cushion public consumption and investment against large swings in commodity prices (Bartsch 2006). Commodity prices, which many developing countries rely on for a large portion of economic activity, government revenue, and exports, suffer from extreme volatility. This negatively impacts a large range of other factors (Leon and Soto 1995). Technically known as an “anticyclical fiscal expenditure” program, a stabilization fund was meant to restrain large increases in government spending when the government was flush with cash and to increase spending during economic contractions. There are questions though about whether setting aside these funds are the best use of public revenue. As some have noted, governments would be well served to utilize anticyclical measures via other risk management measures rather than to hold large self-insurance policies (Claessens 2007). These funds were tasked with ending the imbalance between a desire for smooth and predictable public expenditures and the reality of volatile and unpredictable commodity-driven government revenue. Stabilization funds were to stabilize domestic public spending, not to be used for global investment.

Second, stabilization funds were created with strict fiscal rules. Due to the anticyclical nature of the stabilization fund, countries created rules under which commodity royalties would accumulate or be withdrawn from the fund. Though the specifics of the fiscal rules varied from country to country, deposits into the fund occurred based upon a specified price of the given commodity; authorized withdrawals required a decline beneath a set price that had negatively impacted government revenue enough to reasonably permit additional funding. The accumulation and withdrawal rules attempted to remove the windfall funds from political influence and manage many of the unique fiscal policy issues facing commodity-rich states (Medas and Zakharova 2009). Research, however, indicates that, while well intentioned, stabilization funds and the fiscal rules had little impact on government expenditures (Fasano 2000). Fiscal rules had little impact in attempting to slow spending when funds existed that could be used. Rapid increases in public spending generally accompany rapid increases to government income or wealth, and more important, they frequently continue after prices return to previous lower trend levels. The primary problems stem from the fact that anticyclical stabilization funds do not explicitly restrain politicians from spending, which persists after the boom is over.
(Boccara 1994). In other words, public spending commitments would be made well into the future because politicians believed that revenue increases would return, and they preferred to spend even after large drops in commodity prices. Even when politicians do not receive the planned revenue, they experience the wealth effect and increase spending by increasing the fiscal deficit and total public indebtedness. Restraining spending is more difficult than establishing a sovereign wealth fund.

Third, the original stabilization funds, which would evolve into the modern SWFs, were never conceived of as global financial powerhouses. Designed and theoretically optimal as small savings funds, stabilization funds outgrew their original and limited mandate (Arrau and Claessens 1992). Created to help manage public finances, stabilization funds never legally or implicitly held investment mandates beyond holding public funds for the distinct eventuality of withdrawal during an economic contraction or commodity-price decline. As an example, the Kuwait Investment Authority (KIA) accumulated funds for more than ten years to be “used by the people of Kuwait” before creating its United Kingdom branch of the Kuwaiti Investment Office (KIO) and hiring investment staff (Kuwait Investment Office 2010). In some cases, the stabilization funds began as side operations within a government body and they then morphed into something larger. The SAMA does not appear to have legal authority to operate or manage a sovereign wealth fund (Charter of the Saudi Arabian Monetary Agency 1957). Its activities originally (p.10) began as standard central banking activities via the buying and selling of foreign currencies and international debt instruments. Never envisioned as investment funds, stabilization funds were designed to reduce risk and manage funds under a loss aversion framework (Aizenman 1998). Operating a stabilization fund with strict fiscal rules of accumulation and withdrawal required minimal financial acumen. Managing an investment fund with hundreds of billions of dollars of assets under management across multiple currencies and asset classes requires sophisticated operations, infrastructure, and high levels of human capital.

The stabilization fund laid the groundwork for the evolution into the much larger and influential SWF. However, this change from stabilization to sovereign wealth took place due to many years of capital accumulation and the rapid increase in the sizes of the funds. The funds formed prior to 1990 are now the major funds that have many years of accumulation behind them. These funds are now international financial powers. Stabilization funds maintained a different focus and purpose for their funds. Stabilization funds needed something to stabilize.

Commodities, Stabilization Funds, and the World Bank
Stabilization funds, and ultimately SWFs, cannot be understood without a firm grasp on the importance and behavior of commodities. Despite overall declines in the real and relative price level of commodities, nominal prices have exhibited extreme levels of volatility (Deaton 1999). As can be seen in figure 1.1, oil prices have exhibited extreme year-by-year price changes marked by large and rapid increases and similarly rapid collapses.

Managing such extreme instability for countries heavily dependent on oil or another
commodity for government and export revenue became a problem. Stabilization funds appeared to offer a method to reduce the extreme price swings and dependence on commodities.

Beyond the inconstancy associated with primary commodities, there are numerous factors that contribute to the establishment of a stabilization fund. The decision to establish a stabilization fund or hedge the price risk from commodities depends on the underlying volatility and its long-run behavior (Devlin and Titman 2004). For instance, while price volatility of commodities is high, the production volatility is much lower. Consequently, while the economic activity of a country may remain relatively stable, the financial benefit from similar production levels can vary widely (Yeats 1991). Because most developing economies cannot access international capital markets, stabilization funds act as a type of self-insurance against declines in primary commodity prices. Put another way, (p.11)

![Figure 1.1. World Oil Price Volatility. Source: U.S. Energy Information Administration](image)

if a country cannot borrow on international debt markets during a downturn, self-insurance through the accumulation from any commodity export surplus is a reasonable economic strategy. Self-insurance may be economically suboptimal to appropriate hedging strategies against commodity price movement, but it is an understandable and rational reaction (Borensztein et al. 2009). However, given the aversion to option price hedging of commodity producers and the lack of access to international debt markets to engage in countercyclical fiscal policy, the management fund provides an alternative to managing commodity price volatility (Daniel 2001). During the 1970s and 1980s, during the formation of the first SWFs, international capital markets did not have the liquidity to absorb large-scale hedging operations, and neither primary producers nor policy makers considered using the markets in this way (McKinnon 1967). Commodity exporters even where well-developed markets exist do not make use of common risk management instruments designed to guarantee expected income levels. Countries display a distinct preference to self-insurance via the creation of SWFs and implicitly hedging through their financial asset holdings.

The creation of stabilization funds also helped solve another problem: what to do with all the money. Oil exporters like Kuwait, Saudi Arabia, and the United Arab Emirates enjoyed enormous oil revenues and small populations. Even today, the ADIA boasts per inhabitant wealth of approximately $750,000 (in U.S. dollars). Even after creating modern
welfare states with free education and jobs for everyone, oil exporters had money they needed to do something with. An important but overlooked factor in the size of sovereign wealth funds is population size. Kuwait, Saudi Arabia, Singapore, Norway, and the United Arab Emirates all have small population bases relative to their commodity wealth. Other countries like Indonesia and Nigeria have much larger populations requiring a greater per unit of commodity wealth. It is much easier to acquire large amounts of per capita wealth in a sovereign wealth fund, when it is responsible for a much smaller number of people. The cash-rich commodity exporters went on a spending spree and increased development, education, and investment domestically and internationally. Commodity funds, (p.12) in addition to providing a self-insurance policy, proved an easy and cheap source of development funding (Larson et al. 1998). Except for Norway, almost all countries with SWFs were or are underdeveloped countries. The stabilization fund proved a boom to policy makers by giving them an easy, cheap, and locally controlled pool of capital to fund ambitious public investment schemes. Stabilization funds were attractive because rapid increases in expenditures left large amounts of cash, which would be wasted if allocated to additional spending. Stabilization funds were a happy alternative that could continue to fund large spending increases in the future. When countries already suffered from high inflation rates and excessive increases in public spending, increasing the money supply further or lowering royalties were unpalatable options. Placing the money in a rainy day fund seemed like a good alternative that could solve a variety of problems. However, stabilization funds failed to resolve the large swings in public spending that accompanied commodity price volatility because they could not bind politicians. Consequently, the volatility of public spending increased the volatility of economic activity (Bayoumi and Eichengreen 1995).

In the early and mid-1980s, the World Bank, working with many commodity-dependent economies, and having witnessed the creation of sovereign funds in numerous Gulf states and Singapore, studied how to better manage commodity windfalls (Everhart and Duval-Hernandez 2001). Considering classic economic theory, the World Bank found that it seemed contradictory for states with vast natural resources, rapid increases in government revenue, and positive net exports to fail to translate this bounty into sustained economic development. If countries needed capital to promote economic development and diversification, then commodity exports offered the path to spread the Washington orthodoxy. There was significant debate within the World Bank about whether commodity windfalls to developing countries represented a blessing or a curse (Gelb 1985). The benefits of commodity wealth were recognized as a double-edged sword that could provide a predictable stream of income to fund development priorities but could also delay much-needed reforms and prompt wasteful spending. The benefits from economic growth and government revenue increases, however, failed to materialize and the high levels of volatility caused concern for the countries and the World Bank.

The World Bank's research on the impact of commodities on developing countries was not encouraging. Commodity prices suffered from extreme instability. While oil and gas exporters are the most visible, all commodities suffer from high levels of volatility. The boom-and-bust periods that define commodities can last for long periods of time and can
reverse with little underlying economic foundation. This erraticism has been shown to have a negative impact on the long-term economic welfare of a country (Loayza et al. 2007). Furthermore, the lags in time between a boom and bust coupled with the rapid and unforeseen global price movements induce macroeconomic volatility into commodity-dependent economies (Andersen and Faris 2002). Countries dependent on a primary commodity operated nonhedging operations to smooth out rapid price fluctuations and (p.13) produced wildly inaccurate government revenue forecasts based on commodity prices; they then required different fund management techniques (Deutsche Bank 2008). Though commodities could bring large amounts of wealth, countries could not rely on them to make development plans. Developing economies were under no illusions about the problems besetting their countries and the instability they suffered from depending on commodities.

As many countries could have attested, commodity price changes had a negative impact on a range of economic activities. Countries that enjoyed large commodity exports suffered from a deleterious move out of productive economic activity as commodity production absorbed additional input resources and raised the price of the local currency (Corden and Neary 1982). The “Dutch Disease,” as it became known for its focus on natural gas discoveries in Holland, caused concern regarding the ability of countries to diversify their exports with an appreciating currency, and prompted a wave of research on commodity-dependent economies. It should come as no surprise then that many commodity exporters, including all major SWF countries, excluding Norway, employ fixed or heavily managed exchange-rate regimes to prevent currency appreciation and the accompanying problems. The Dutch Disease became a popular fallback for countries that squandered commodity wealth. Recent research, however, has called into question the prevalence of the Dutch Disease and whether other domestic factors weren’t the underlying cause after all. Nevertheless, domestic currency appreciation and uncompetitive exports for commodity-rich countries remain problematic (Bresser-Pereira 2008). Furthermore, exchange rate and commodity price fluctuations make increasing manufactured exports more difficult (Liang 1998). While an appreciating currency makes exports expensive, poor investment decisions and macroeconomic management also appear to play important roles in countries’ successful avoidance of the Dutch Disease. Though the research on Dutch Disease is not yet settled, at the very least, currency movements could only exacerbate a volatile economic situation.

World Bank research also discovered troubling results about the management of the additional government revenue derived from commodities. While commodity price booms resulted in large increases in government revenue, it was rarely spent efficiently. Revenue was spent expanding government agencies rather than public investment and when it was spent on projects like infrastructure, they were frequently ill-conceived or useless projects (Budina et al. 2007). Rapid increases in revenue and spending made it difficult to plan public investments and guarantee their completion if commodity prices dropped. Instead of funding needed public investment based upon sound planning, governments ramped up public investment when the money flowed in and stopped when the boom stopped, killing infrastructure projects with long time horizons. Changes in
commodity prices have been shown to have deleterious effects on investment (Warner 1993). Given that countries make long-term investments and spending commitments, it is problematic how little work was spent to hedge commodity price risk and to develop a method to obtain a predictable baseline income model (Lu and Neftci 2008). Stabilization funds appeared to offer a second-best, though politically preferable, alternative to price hedging (Larson and Coleman 1991). Public spending from overflowing coffers, instead of facilitating development and diversification, was hindering growth and promoting inefficiencies and corruption, requiring taxpayers to absorb project finance risk (Klein 1996). The impact of commodity price increases lasted well beyond the boom times. Spending increased during the boom times, carried over into the busts, and in many cases increased further due to ill-directed attempts at countercyclical fiscal policy. Others argue that a narrow focus on fiscal discipline misses the larger picture and that stabilization funds helped reduce macroeconomic volatility (Shabsigh and Ilahi 2007). In other words, commodity price booms undermined fiscal discipline by giving politicians an easy method to increase spending, and they encouraged over optimism about the future of commodity prices to fund further increases.

Unfortunately, stabilization funds, rather than being managed prudently, were prudently managed to promote excess.

The World Bank research indicated the need for governance and economic structures to better manage large inflows of capital. Observing the apparent success of sovereign funds in Kuwait, Abu Dhabi, and Singapore, the World Bank recognized the importance of better managing commodity revenue inflows and avoiding government “euphoria” from temporary inflow shocks (Suescun 2000). In 1985 the Chilean Social and Economic Stabilization Fund (CSESF) entered into operation funded in part by a loan from the World Bank. A dominant world power in copper mining, Chile suffered from boom-and-bust periods according to world copper prices. Created during an era of widespread economic reform in Chile, the CSESF was bound by fiscal rules depending on a baseline copper price that aimed to prevent political interference, and on economic diversification preventing large changes to the real exchange rate (Balassa 1989). Though criticized for not having a legislated or transparent mechanism for the copper price baseline, the CSESF has operated smoothly for twenty-five years and is largely respected for its work in helping promote sustained Chilean growth and remaining relatively free from political entanglements. Despite the SWFs’ reputation as economic nationalists, the Chilean economic reformers who helped establish the CSESF were committed economic libertarians. Coming from the Chicago School of free-market economics and having studied under Milton Friedman, they felt that a stabilization fund provided a path to both restrain government largesse and control money. The same economic advisers that privatized Chilean social security created the government-linked stabilization fund. The CSESF was not intended to expand government control of the economy or assets but rather to restrain its influence.

Impressed with the results, the World Bank advised its country clients to copy the Chilean stabilization fund model. Other countries with large commodity-dependence levels established funds or accounts that could be drawn on in the future (Rigobon
Commodity exports were now seen as a creative and painless way to finance development spending (Ratha et al. 2008). In one simple stroke, the World Bank and its clients appeared to solve a host of problems. Commodity revenue offered easy security to capital markets and the World Bank that could prompt lavish spending rather than a prudent reserve fund. Spent wisely, the fund could provide an easy way to pay for public investment requirements, to manage public finances, and to keep inflation down. However, as World Bank research indicated, in Nigeria, growth in its debt led to large, poorly planned spending increases that did little to assist the country as oil wealth was squandered (Budina et al. 2007). In addition, the same challenges were just as acute for well-developed countries like Norway (Bjerkholt and Niculescu 2004). Restraining public spending growth was the dominant problem related to stabilization funds. The research indicated mixed results for stabilization funds on a range of economic outcomes, though they offered an acceptable political alternative to countries and the World Bank (Same 2008). However, like so many political creations, stabilization funds soon evolved past being mere managers of the government savings account. Given prudent management of the national wealth and enough periods of high commodity prices, stabilization funds soon became large enough to demand additional independence. Stabilization funds had turned into SWFs.

Stabilization Funds Become Sovereign Wealth Funds

Stabilization funds have existed since 1953, but they acquired the more ominous-sounding “sovereign wealth fund” moniker in approximately 2005. The struggle to both define them and measure their assets under management was first noted in a declassified US government report on the foreign reserves of the Organization for the Petroleum Exporting Countries (OPEC), which emphasized the need to “examine private transactions as well as official transactions rather than just asset accumulation. Complicating this task are (1) definitional problems, (2) timing problems, and (3) gaps in availability of data” (US Government 1980).

In other words, the problems with defining SWFs and their size has existed for more than thirty years. Though they have been the subject of extensive research, stabilization funds differ from SWFs in two important ways. First, stabilization and sovereign wealth funds differ in their activities, not by their existence. Stabilization funds were created to promote local economic development by smoothing out public investment and domestic consumption from the booms and busts accompanying commodity price changes. Sovereign wealth funds have investment mandates that require them to focus on earning a specified yearly return as compared against a given benchmark. Stabilization funds were tasked with reducing macroeconomic volatility by explicitly assisting the government. The evolution away from stabilization funds, however, had not disappeared. The Russian funds, which straddle the stabilization and sovereign wealth fund divide, continue to consider local development requirements and to engage in low-risk investment and liquidity premium activities (Astrov 2007). Sovereign wealth funds are tasked with earning financial returns on capital. Although it is tempting to consider the existence of a government-controlled or -linked fund as an SWF, experience does not allow such a crude distinction. Even today, numerous funds broadly considered SWFs
act more like stabilization funds with their focus on smoothing public investment consumption to promote sustained growth through reduced macroeconomic volatility.9

The evolution from a stabilization fund to a sovereign wealth fund involved one additional subtle but important shift when considering their activities. Stabilization funds focused on the domestic economy while SWFs seek the highest risk-adjusted returns and are focused on the global financial marketplace. The financial concern of the government now extends beyond the narrower domestic market to include the global economy and financial markets. Though central banks and stabilization funds hold foreign currencies and government securities, SWFs are much broader and have diversified investments into corporate securities.10 Governments react differently when receiving equity and debt investments from foreign investors, especially government-linked entities. Little objection is raised from governments when their debts are purchased by foreign governments, central banks, or SWFs; however, most governments object strenuously when SWFs make equity investments in private companies.11 A primary concern of target countries is the public or quasi-public source of investments and their ability to influence policy (Gordon and Tash 2009). Stabilization funds are by their very definition required to focus on the domestic economy and government, (p.17) while SWFs, though they may have a home bias like most investors, seek financial returns regardless of borders.

A second distinction between the two types of funds is that stabilization funds became SWFs when they outgrew their original mandate (in other words, because of the amount of money they controlled). Early in their existence, the predecessors of the SWFs managed hundreds of millions, or billions, of dollars. With more than twenty years of capital accumulation and compounded interest, SWFs now manage hundreds of billions of dollars with sophisticated operations to oversee the global risk managed by these increasingly independent firms. Intended to smooth government spending and public consumption, stabilization funds accumulated increasingly large amounts of capital and complex operations. As the assets under management grew, the sovereign funds gained a constituency and pushed for increased independence to manage their personnel, operations, and finances.12 Research indicates that stabilization funds—if smoothing government spending and public consumption is the primary purpose—require surprisingly small amounts of funds relative to monthly exports of the primary commodity (Arrau and Claessens 1992). In other words, to fulfill the stabilization mandate, stabilization funds do not require such large amounts of capital. Sustained periods of high commodity prices allowed funds to accumulate capital in previously unimaginable amounts.13 SWFs, due simply to their size, moved beyond the need to manage their finances for the purpose of stabilizing government finances and now existed for their own purpose of maximizing returns.

Stabilization and sovereign wealth funds, though originally one and the same, evolved into distinctly separate entities with unique purposes. Before focusing on the definition of an SWF, it is important to analyze why we do not choose other definitions with those implications. The primary problem with previous definitions of SWFs is that they provided no limiting factors as to what they comprised. The broadest definition of SWFs is that they
“are pools of assets owned and managed directly or indirectly by government to achieve national objectives” (Blundell-Wignall et al. 2008). This definition is problematic because every public asset could be considered an SWF and takes no consideration of the behavioral differences with other public investment schemes. Stabilization funds, pension plans, cash, and military hardware are “assets” that can be used to “achieve national objectives.” Just as real differences exist between mutual funds, hedge funds, private equity funds, pension funds, and investment bank capital, there are very real differences between government-linked funds.

As an example, one type of sovereign fund frequently included in the list of SWFs is national or even subnational pension plan funds for social security or for government employees. There are two specific reasons that pension plans or social security funds should not be considered SWFs. First, considering pension plans or social security funds as SWFs establishes such an expansive definition of sovereign wealth funds as to render it meaningless. Including public pension plans or social security funds creates an SWF for almost every national and subnational government currently in existence. Even today some include government pension schemes while refusing to state why they fail to count other public pension plans. If the definition of an SWF includes every national and subnational government pension plan, then it has been rendered useless. A second reason that such plans should not be considered as SWFs is that a pension plan by its definition has an offsetting liability to any managed asset and, consequently, no net wealth. In fact, many public pension or social security schemes, especially in developed economies, suffer from large net liabilities and do not enjoy any net wealth. It is economically and financially dubious, at best, to consider a pension with only slightly positive net wealth as a sovereign wealth fund. The public pension or social security scheme is not sovereign in as much as these are funds held in trust for the benefit of others. The existence of a pool of public capital does not automatically qualify it as an SWF.

In fact, an SWF is a pool of capital derived from net wealth accumulation controlled by a government or government-related entity that invests in assets seeking returns above the risk-free rate of return. This definition of SWFs carries three distinct important characteristics. First, it is a “pool of capital derived from net wealth accumulation.” A striking similarity between sovereign wealth funds is their lack of debt except for investment or subsidiary-specific liability assumption. For instance, while real estate investment or portfolio companies of SWFs may assume debt in the normal course of business, they are not built on leverage. This excludes not only pension plans or social security, but also entirely leveraged funds such as the French Strategic Investment Fund. Running large budget deficits to create a public investment fund out of entirely leveraged capital does not qualify as sovereign wealth. Sovereign wealth funds created from the accumulation of commodity royalties, or sustained trade or government surpluses, provide a foundation of net wealth to create a fund.

Second, a sovereign wealth fund is “controlled by a government or government-related entity.” Countries have taken various approaches to the relationship between sovereign wealth funds and governments. Some SWFs are managed by the finance ministry, some
by the central bank, and others by nominally independent entities. This relationship between SWFs and their governments is an underexplored research topic. Despite the scope for political interference, governments have recognized the potential for poor financial decision making and have opted to set up structures and institutions that at least lower the possibility for political interference. But governments have not divorced themselves from some measure of control. Whether by legislating controls on the investment process, by dictating objectives, or by indirect means through appointing board members, governments have retained a corporate governance interest in their sovereign wealth funds. By separating the government power of the purse from SWFs, the state is indicating its interest in pursuing more commercial and financial objectives. This does not mean that political interference does not take place, but only that governments recognize the danger and have worked to reduce its influence.

Third, an SWF “invests in assets seeking returns above the risk-free rate of return.” This requirement may seem insignificant but it is actually important in order to define sovereign wealth fund behavior and investment objectives. Many governments and central banks hold cash and cash like instruments, typically in the short term, to manage their financing or foreign exchange needs. Central banks typically hold a basket of foreign currencies and government debt securities, domestic or foreign, of varying maturities to ensure a well-functioning financial system. Though some central banks might manage a portion of their holdings as SWFs, the mere existence of large foreign currency or debt holdings does not mean it is a sovereign wealth fund. This returns to a fundamental problem about what an SWF is: by defining it too broadly, it devolves into a meaningless term. A sovereign wealth fund must assume risk not assumed by government entities in the normal course of operations. SWFs generally construct lower risk portfolios, focusing on highly rated fixed-income securities and blue-chip stocks, but they are diversified well beyond riskless assets.

The move of government-linked entities into risky assets is an important shift in the evolution and creation of sovereign wealth funds. This was prompted by a number of events. Governments and central banks discovered that holding risk-free assets was not necessarily riskless. Indeed, holding cash or government debt carried an implied cost of capital. Changes in exchange rates and increases in inflation rates could significantly impact the value of foreign asset holdings. For countries with large holdings of exchange reserves of foreign government debt, even small changes in exchange rates or of inflation created potentially large real losses. Governments and central banks lost money by holding the “safest” assets. In addition, the rapid increase in government-linked capital, such as foreign exchange reserves or stabilization funds, and the potential losses from holding risk-free assets drove many to diversify a portion of their assets into riskier assets in order to seek higher rates of return. Like portfolio managers, governments and central banks with large capital holdings allocated a portion necessary to cover stabilization or foreign exchange needs and then moved additional assets into higher-yielding investments. Like many private investors sought higher-yielding assets when interest rates dropped, central banks and stabilization funds moved into riskier assets to seek yield when they lost money in real terms from holding cash or government...
securities. Though strongly associated with international investment, SWFs used their capital to invest and diversify the local economy. Due to the lesser-developed nature of commodity exporters, SWFs have invested heavily in their domestic economies in addition to international markets. Where SWFs differ from stabilization funds, however, is their active involvement in domestic investment. Where stabilization funds might channel funds to balance government spending, many SWFs own and invest in domestic companies. This may represent an investment home bias or political pressure, but SWFs have shifted much of their funding from lower-yielding foreign government securities into private domestic investments in order to seek higher returns.21 By understanding what SWFs are and are not, and the reasons for their evolution and creation, it becomes possible to analyze them.

(p.21) The Sovereign Wealth Fund Boom
The rapid growth in SWF creation began in 2000, with most being formed after 2005, and it is still going strong.22 Funds formed before 2005 then experienced massive increases in capital through booming commodity prices and the benefit of accumulated capital. A primary concern about the growth of SWFs is the potential global imbalances they represent (Gieve 2008). Despite their lengthy history, SWFs represented the new demon for what was wrong with the world economy. The primary overhyped critique of SWFs was their potentially political nature. While politicians and policy preferred political rhetoric to a foundational understanding of their history and behavior, concern about political involvement, while overblown with little factual basis, was a reasonable fear.

Many factors combined to cause such a maelstrom. First, the United States and large parts of the global economy had enjoyed a lengthy period of rapid and sustained growth driven by the retreat of government industrial policy. China flourished by permitting private industry, and even politically liberal American Democrats spoke about the virtues of restrained government involvement in the economy. The collapse of the Soviet Union and the rise of China had demonstrated the virtues of the free market and any violation should be considered problematic. Second, generally speaking, sovereign wealth funds do not come from tolerant liberal democracies known for political and economic freedom. China and Saudi Arabia, which have some of the largest SWFs in the world, never top international lists for democratic governance and human rights. One of the larger SWFs, and sure to grow quickly in the coming years, is Libya, a country that only recently restored relations with the United Kingdom after settling its culpability over the Lockerbie bombing. Even the economically free Singapore placed large restrictions on its citizens’ ability to criticize the government by outlawing most protests. Western governments have accepted the Norwegian sovereign wealth fund in part because of the country’s strong and lengthy commitment to liberal democracy.

Third, many Western politicians and policy makers to varying degrees view many of the countries with SWFs as threats. Tensions linger between the United States and the major sovereign wealth fund countries Russia and China. Some American politicians and the public believe that Saudi Arabia has promoted radical Islam with its oil wealth, and they view its financial ascendency as problematic for US interests. Europe views Russian
ambitions warily and remains concerned over its stranglehold over the European energy market. In short, Western countries do not view most sovereign wealth countries as friendly states but as potential threats or even enemies. Countries view foreign investment differently when it comes from states they view as friendly. Fourth, many SWFs explicitly state the political nature of their domestic investments. China, Singapore, and Russia among others state the dual political nature of their domestic holdings. Consequently, it strikes many observers as disingenuous when SWFs protest that their international investments are based on purely financial motives. Though the evidence supports SWF assertions that international investments are financially motivated, doubts linger about whether politics is involved. The dual nature of domestic political investment and international financial investment presents a paradoxical quandary that SWFs will need to address. Fifth, though commodity-exporting countries are not to blame for escalating prices, SWFs were a natural target for politicians and consumers faced with the rising bill. The fixed exchange-rate policy driving China’s dollar accumulation did nothing to dampen the perceived threat of the China Investment Corporation. Many consumers and politicians in Europe and the United States felt that the commodity and noncommodity exporters were rigging the system. Though oil exporters did not drive oil prices up, they were more than happy to enjoy the windfalls. The reinvestment of dollars back into the United States from money used to buy gas but now owned by governments considered less than friendly caused real concern. The perception was that oil exporters were gaming the system to use American consumers to buy America.

Today, SWFs are some of the largest institutional investors in the world. The Norwegian Global Pension Fund alone notes that it owns nearly 1% of all global equities. The ADIA invests by its own statements across twenty-two asset classes. The China Investment Corporation is the world’s largest bank-holding company. It staffs offices around the world by managing a range of investments in different currencies. SWFs are sophisticated investors that recruit global talent with competitive pay. Their asset managers are divided into units or groups similar to any investment bank, broken down by asset class and industry. They retain the best legal and public relations firms to manage their image and relations with foreign governments. Though SWFs will never escape questions about their political intentions, they are managed, in the words of one manager, like investment banks “without the road shows.”

SWFs, however, are a diverse group of institutions with divergent interests and objectives. Some SWFs hold only fixed-income instruments while others hold a wide variety of investments, including hedge funds, and manage their own private equity funds. There is no investment commonality among their strategies other than the fact that they invest at all. They are managed as divisions of the central bank or of the finance ministry or as quasi-independent entities. They have strong political representation or they may have strong private-sector managers and boards. The analyses of SWFs have overlooked the fact that they are evolving as institutions and working out their identities as government-linked entities. Conversations with sovereign wealth fund managers reveal their acute awareness of the political nature of their institution as well as
an unequivocal desire to remain apolitical domestically and internationally.

Moving Forward
Sovereign wealth funds exist in a vague policy space. Neither purely political nor economic, neither explicit policy makers nor implicit policy roles, and neither solely domestic nor foreign asset managers, SWFs have been puzzled over by scholars who struggle to understand or even define them. To analyze their purpose and the challenges facing SWFs, it is necessary to take a much broader approach to their study. The economics, investment management, history, and politics of SWFs are complicated and demand nuanced analyses that address why they were created and why they are successful in handling their mandates. SWFs were not created in a misguided attempt to take over the world but to solve specific economic problems. Before studying specific funds, it is more important to frame the technical considerations and background for studying their newfound role as leading global investor. Only by understanding the funds’ evolution into SWFs can their actions be appropriately understood.

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Notes:

(1) The irony of Lawrence Summers’s concern with the entrance of foreign government into asset management, as the man who oversaw the American bailout of financial services and the auto industry and the courting of foreign investors including sovereign wealth funds, has not gone unnoticed by many.

(2) The SAMA does not have an official creation date. It is not typically considered a SWF, because its operations are run out of the Central Bank, which diversified the foreign exchange holdings rather than establishing a separate entity. From the outside, we cannot know with any precision when it began expanding into SWF activities. However, reliable information exists that it began seeking higher yielding investments in the mid- to late 1970s (Ellis 2008).

(3) Though I will try to include analysis of a wide variety of funds, I will focus more on the larger SWFs. Consequently, there may be some loss of detail as a result.

(4) Despite the amount of research on stabilization funds, there are surprisingly few established definitions from which to borrow. One author defines a stabilization fund as “a fiscal device used by the subnational governments to store extra revenues during economic booms for use in economic downturns to supplement inadequate resources for meeting outlay demands” (Hou 2005). There is also one definition used by researchers on commodity price spikes.

(5) The closest that the SAMA comes to having the legal authority to operate an SWF is in Article 3(a), which declares “to stabilize and strengthen the internal and external value of the currency and take measures capable of strengthening the currency's cover. (For that end, the agency may buy and sell gold and foreign exchange in the market, whenever it deems it necessary and within the limits and conditions approved by the Minister of Finance and National Economy. Such transactions should be conducted with the utmost confidentiality.)” Though acknowledged to be a more conservative SWF,
SAMA's activities appear to extend well beyond the legal mandate of “stabilizing and strengthening ... the currency” or “buying and selling gold and foreign exchange.”

(6) The real price refers to an inflation-adjusted price. The relative price refers to the proportion of personal income that is used to consume basic commodities.

(7) Due to a lack of hedging programs by commodity exporters today and continued volatility, this description is still accurate.

(8) The Chilean government and CSESF use an independent board to decide the baseline copper price for requiring accruals and withdrawals. Using a wealth of data including production, a moving average of historical prices, and forecasted world prices, the board establishes the price. Given expected volatility, accruals and withdrawals only occur outside of a given range.

(9) For instance, the Russian Reserve Fund (RRF), previously the Stabilization Fund of the Russian Federation, is required by law to invest at fixed levels in AAA-rated dollar, euro, and sterling fixed-income securities. The fund has fiscal rules under which capital accrues into the fund and when withdrawals are authorized focused on stabilizing public spending. Though widely considered an SWF, the RRF bears the hallmark of a stabilization fund with different focus and activities.

(10) The Russian government, for instance, broke up its original Stabilization Fund of the Russian Federation into the Reserve Fund and the National Wealth Fund (NWF). Each fund has a different investment mandate with the Reserve Fund invested in low-yielding government, domestic, or international securities; the National Wealth Fund has more latitude to invest in higher-yielding corporate fixed-income and equity securities. Sponsoring governments recognize a distinction between stabilization and sovereign wealth funds even if many others fail to recognize the difference.

(11) Chapter 4 will explore in greater detail the political economy of international investment and the difference of reception between debt and equity.

(12) Today, the most sophisticated and independent SWF operations are those with the least amount of government involvement. For instance, the SAMA and the RRF are managed by the central bank and the ministry of finance, respectively. They manage conservative and strictly defined portfolios. Conversely, Singapore, China, and Abu Dhabi funds, which have lower levels of explicit government involvement, have more sophisticated and professional managers. Even Norway, which manages its fund, falls into the previous category because its finance ministry oversees sector-specific mandates to asset managers, providing only the framework and conditions for investment.

(13) One SWF manager, albeit of a smaller fund, said that, at one point during the height of the oil price run up in 2007, the fund doubled its assets under management every month. While due simply to the law of large numbers, this increase could not continue, but it does convey both the rapid change and amount of money flooding into SWFs.
during periods of high commodity prices.

(14) Other sources provide definitions of SWFs that are similarly broad though they may provide some limiting factors (Fotak and Megginson 2008; Truman 2007, 2008; Weiss 2008).

(15) An investment banker I had a conversation with argued for a more expansive definition of SWFs because any sovereign-related entity with investable assets qualifies to him as an SWF. There are many who hold this view of a more expansive definition.

(16) I use the term “subnational” because some have argued that the California public employee pension plan, CALPERS, should be considered an SWF. However, it should not be considered as an SWF because California is not a “sovereign” entity. Based on this criterion, most pension funds frequently included in SWF lists should be excluded also.

(17) The China Investment Corporation was founded with pure leverage. However, because it borrowed the money, essentially from itself, it is not considered to apply in this case.

(18) Russia manages its funds out of the ministry of finance; Saudi Arabia, from the central bank; China, Singapore, and Abu Dhabi have set up nominally independent corporations. Regardless of the exact framework, governments have worked to isolate (to some degree) any investment decisions from political interference.

(19) Chapter 4 studies the relationship between politics and sovereign wealth funds while chapters 5 through 7 focus on specific funds and provide more examples and details.

(20) The SAMA, though a central bank, is widely considered an SWF because it allocates a portion of its reserves to nonrisk assets such as stocks and corporate fixed-income securities.

(21) China, Singapore, Abu Dhabi, and Kuwait, for example, have invested heavily in domestic and regional markets. Only Norway has not invested heavily in local markets. Even then, however, as an intergenerational fund with an expectation of the end of oil exports, Norway expects to invest more in the local economy in the future.

(22) The major funds, excluding China, have histories that significantly predate 2000, but more than half of all funds have been formed after 2000. Though they are not a primary focus of this book, I will touch on funds that are currently being formed. This will provide perspective on the economic and financial problems that face countries or SWFs in the prudent management of reserves.