Sovereign Wealth Funds: Defining Liabilities

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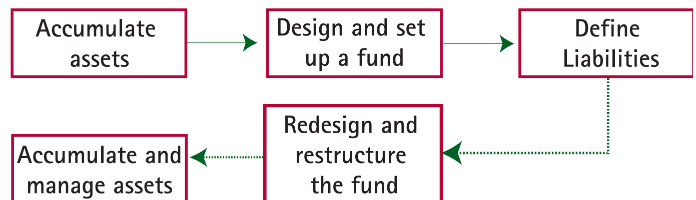
Defining a liability profile is arguably the most important step in designing and running any fund. Typically, with traditional funds (i.e. pension plans, insurance companies, foundations, endowments, etc.), key participants know exactly – or at least with a very high degree of confidence – for what purpose, when and how much money will be required. Then it becomes a question of optimising the following key parameters to assure meeting these liability targets in the future:

- Contribution and funding policy
- Asset allocation policy
- Risk tolerances and budgets
- Constraints

In other words, the sequence of events is as follows:

However, with regard to Sovereign Wealth Funds (SWFs), this is not always the case. Sometimes – and especially with commodity exporting economies – authorities find themselves faced with unexpected windfall revenues that come from a positive terms-of-trade shock. They often respond by ring-fencing and accumulating at least part of these proceeds offshore – mainly for sterilization purposes, but also to smooth out potential volatility in budget revenues. Very soon, what started out as a deposit at the central bank or a special purpose account at the Treasury often gets redesigned into a separate fund structure, with its own identity, system of governance and set of rules. Then, as assets in the fund continue to grow beyond the original narrowly defined purpose, authorities may take a step back and revisit the broader objectives, design and structure of the fund, often leading to some sort of a split into a liquidity tranche and a longer-term investment tranche. This is usually the result of a formal asset-liability study, which helps the authorities define the most appropriate set of liabilities for the fund, which is then redesigned and managed to meet these liabilities. In other words, the previously identified sequence of events typically happens in reverse, with a subsequent 'normalisation' of the process at the end[1]:



This comparison has some interesting implications for the broader financial industry. For example, investment consultants, fund managers, transition specialists and other service providers have been entrenched as a material part of the pension market for a very long time. Indeed, it is highly unusual for any pension fund to be launched and run without deep involvement and meaningful support from such third-party specialists.

In contrast, it is not uncommon for Sovereign Wealth Funds to be launched and to operate for a considerable period primarily on their own. It is true that they may hire some external managers for small portions of their portfolio at a fairly early stage for training, skills transfer and benchmarking purposes. But it is only after they have grown considerably – in terms of asset size, organizational maturity and sophistication – that they typically bring in investment consultants, external managers and other third-party specialists in a meaningful and structured way.

Different liability profiles lead to different fund types and structures:

- Stabilization / Buffer Funds
- Endowment Funds
- Pension Reserve Funds
- Development Funds
- Government Holdings Management Funds

1 Whether the sequence is 'normalised' subsequent to the ALM study depends on whether the authorities prefer the SWF solution over all other options: paying down debt, financing current spending and investment, funding tax cuts, paying out dividends, recapitalizing banks, lending, etc.

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Some Sovereign Wealth Funds combine several features in one entity: consider Norway's case, where one finds - in addition to the main endowment function - elements of stabilisation, sterilisation and pension reserve functions. However, in principle, different liability profiles typically result in different entities and structures (e.g., Singapore's GIC vs. Temasek). They also result in meaningful differences in risk-return profiles, asset allocations, investment choices, risk tolerances and constraints.

Before we consider how different liability profiles impact on the various aspects of operations and management of different SWFs, it is important to point out that Stabilization Funds are in a class of their own and stand out compared to all other fund types. The reason is that, while all other funds are managed primarily for long-term return and wealth maximisation, Stabilization Funds have as their primary objective risk management. They are set up not to deliver investment returns, but to insulate the budget and the broader economy from excess volatility, inflation, Dutch disease and other macroeconomic threats. In this regard, they are very much like central bank reserves, which are managed predominantly for safety and liquidity, and only then for some marginal return. It is not a coincidence, therefore, that central banks often end up managing classic Stabilization Funds alongside traditional foreign exchange reserves. Below we explore in more detail how this similarity manifests itself in certain return preferences.

Let us now consider how different liability profiles might affect perception of investment risk. Anyone with rudimentary knowledge of finance would acknowledge that, in principle, equities are a riskier asset class than short-term bonds and cash. That would certainly be the right perception on the part of a manager of a classic Stabilization Fund. Allocating even a small portion to public equities, let alone any illiquid instruments, would be highly risky and potentially reckless. This perception is the direct result of the fund's liabilities, which are contingent and fairly short-term in nature.

However, what would be rightly considered a risky and potentially reckless investment for a Stabilization Fund could easily qualify as sensible and prudent for a long-term wealth management fund. Specifically, for a fund with a multi-decade investment horizon, no interim payout commitments, and a very sizable liability profile at the end of the period, investing primarily in risk-free or 'safe' assets would certainly be sub-optimal. In fact, investing primarily in 'safe' assets would be worse than risky – it would effectively guarantee that the fund will not be able to meet its sizable liability targets down the road. In contrast, what the prudent investor must do in this case is construct a broadly diversified portfolio, investing a major portion in what would be traditionally viewed as 'risky' assets: public and private equity, investment- and sub-investment-grade corporate bonds, emerging markets, real estate, venture capital, infrastructure funds and hedge funds, among other things. This again is the direct result of the fund's liabilities, which are very long-term in nature and which are conducive to earning all sorts of risk premia.

Let us next consider how different liability profiles might affect one's return preferences. Specifically, should one focus on nominal or real returns? And does one care more about returns in domestic currency or foreign currency? The answers to these questions will very much depend on the ultimate liability profile of the fund. For example, as we mentioned earlier, Stabilization Funds tend to be managed in the most conservative manner, similar to central bank reserves. And, just like classic foreign exchange reserves, they are focused on nominal returns in foreign currency, not real returns in domestic currency.

At first, this may seem counter-intuitive. It is true that central bankers typically do not target the real purchasing power of FX reserves. Instead, what is important to them is how much intervention 'firepower' these reserves can provide in the currency market at a time of crisis. This is why they operate in nominal rather than real terms, and why they focus on returns in foreign currency. But one could argue that a

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Stabilization Fund should be different, because when the time comes to draw on the Fund to plug a hole in the budget, the money will be used for real expenditures denominated in domestic currency. So why focus on nominal returns in reserve currency?

To answer this question, one needs to take a step back and consider the actual liabilities of a Stabilization Fund. In a commodity exporting economy, the budget critically depends on two key assumptions: the price of the main export commodity and the exchange rate. The Fund's liabilities are triggered if the commodity price drops below a certain threshold, at which point the budget no longer balances. The liability of the Fund is effectively to bring the budget back into balance by monetising some of its assets and transferring back into the country just the right amount of money to make that happen. The Fund is largely indifferent as to whether this money buys more or less goods and services in real terms. Its only concern is that there is enough in nominal terms to refinance the budget.

The more interesting question is: why focus on foreign currency returns if the Fund's ultimate liability is denominated, just the like the budget, in domestic currency terms. The quick and intuitive answer is that the Fund's assets are effectively a substitute for the export commodity, which itself is priced in reserve currency. But it may be more informative to think through the FX question in a bit more detail.

Most commodity exporting emerging market economies peg or heavily manage their currencies to the dollar or some reserve currency basket. This effectively reassures a Stabilization Fund operating in such an economy that there will be very little, if any, FX risk in its liability profile. The only time the FX question could potentially complicate matters is if the domestic currency were allowed to float more freely against the reserve currency. Then, the worst-case scenario would be a drop in the main export commodity price below the threshold, combined with a stronger domestic currency. The Fund would then have to monetise more of its assets, to cover both lower commodity export revenues and the lower nominal value of the reserve currency. However, such a scenario does not appear very likely. A large drop in commodity export prices and revenues would be a negative terms-of-trade shock, and as such – ceteris paribus – should lead to weaker, not stronger domestic currency.

Therefore, upon consideration, the typical liability profile of a Stabilization Fund makes it perfectly logical for it to be managed in a very similar way to central bank reserves: for safety and liquidity first, and for marginal return – in nominal reserve currency – second. However, in our view, the situation is very different for most other types of Sovereign Wealth Funds, which should be managed with exactly the opposite focus. This is dictated by the nature of their liabilities, which are real and denominated in local currency terms.

An endowment fund typically needs to maintain a certain amount of annual spending, while at the same time preserving the real value of the principal to continue supporting such activities in the future. A pension fund's liabilities are also real, in that it will be making payments to retirees based on some formula which includes real incomes and inflation. Development funds and government holding companies implicitly have real return targets as well: whether they support development of a particular industry or work to improve operating performance of state-owned enterprises, they are targeting real growth, real productivity enhancements and improvements in real economic and corporate metrics. Whether the authorities choose to maintain their long-term holdings to receive regular dividends, or whether they choose to exit their investments, the resulting proceeds would in any case be used to procure real goods and services. And, of course, all of the real liabilities described above would be budgeted and accounted for in domestic currency. Based on this description of SWF liabilities, let us see how they are reflected in the operations and management of some of the larger funds in existence today.

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The real nature of such liabilities appears to be fully discounted in explicit objectives and benchmarks set by these funds. For example, Government of Singapore Investment Corporation uses the average of G-3 inflation as the overall benchmark for the whole fund.[2] Kuwait Investment Office states as one of its key objectives maintenance of the 'real value' of the Future Generation Fund.[3] Norway's Fund has implicit real return focus due to the so-called 'fiscal rule', whereby budget transfers from the Fund are capped by the expected real return on the Fund's assets.[4] In 2006 Norway reinforced the Fund's focus on real returns by renaming it from Petroleum Fund to Pension Fund (Global). Even central banks who find themselves in the position of managing a quasi-SWF, i.e. managing excess reserves or very large government fiscal balances, tend to manage such 'excess' portion to a real return target. A case in point is the Hong Kong Monetary Authority, which has a real return objective in its Investment Portfolio (as opposed to Backing Portfolio) to "achieve an investment return that will preserve the long-term purchasing power of the Fund."[5]

While the real nature of SWF liabilities appears to be well incorporated in the objectives and operations of various funds, the issue of foreign versus domestic investments and currency exposures seems to be less clear-cut. For instance, traditionally, Norway has always limited all of the Petroleum Fund's investments to overseas markets. This is the legacy of the original functions of the Fund – namely, monetary sterilisation and budget stabilisation. But it also fits with the Fund's endowment approach: it is simply transforming its concentrated exposure to volatile oil into a much more balanced and diversified exposure to the broader global economy. However, for a student of Sovereign Wealth Funds, the Norwegian model raises two questions.

As a future generations fund with a strong focus on pension provision, its liabilities by definition must be denominated in Norwegian kroner. However, all of its assets are invested overseas and denominated in foreign currencies. Isn't there a potentially huge currency mismatch?

In Norway's case, one could argue that it is partially hedged against this mismatch risk in two ways. Firstly, after the reorganisation of 2006, the Government Pension Fund has a local funded component, which is the former National Insurance Scheme fund. At the end of 2006, it constituted c. 5.76% of the total and was invested primarily in local deposits, bonds and equity shares.[6] Secondly, Norway has a private pensions industry, which has exposure to local assets and currency.

However, for an emerging market economy that has neither a developed local private pension system nor a funded government pension plan, simply copying the Norwegian model may lead precisely to such a large and unmitigated currency mismatch. If anything, the situation would be aggravated even more by the fact that this huge implicit currency bet would be likely to lose money in the long term. After all, as emerging market economies 'catch up' in their levels of productivity and economic development, their currencies, all other things being equal, will almost certainly experience real appreciation.

The second issue raised by Norway's model is whether a Sovereign Wealth Fund, particularly in the context of a developing country, could be used to boost domestic economic development, growth and diversification. As a relatively small and highly advanced economy, with very high per-capita GDP and well-developed public safety nets and infrastructure, it may well be true that Norway has reached its absorption capacity limits, and bringing in more money into the country would simply result in macroeconomic problems with very little upside. However, in a large, relatively poor and underdeveloped country, with little by way of infrastructure or public safety nets, the case for investing all of the windfall revenues in overseas markets is less clear.

For example, should one suppress current consumption and

2 See 'Objectives' under http://www.gic.com.sg/index.htm (accessed on 04/04/2007)
3 http://www.kia.gov.kw/NR/exeres/73CF85E2-0C5A-4060-B94B-54E2D9EDA231.htm (accessed on 04/04/2007)
4 http://www.regjeringen.no/en/ministries/fin/Selected-topics/The-Government-Pension-Fund/The-Management-Model.html?id=429362 (accessed on 04/04/2007)
5 http://www.info.gov.hk/hkma/ar2005/english/summary/pdf/managing_exfund.pdf (accessed on 04/04/2007)
6 http://www.ssb.no/folketrygdfond_en/tab-2007-03-22-01-en.html (accessed on 04/04/2007)

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capital formation by the present generation in an underdeveloped economy – all for the sake of maximising financial savings of future generations? And what would future generations actually prefer: inheriting a broadly diversified global financial portfolio or a broadly diversified, highly advanced local economy, which provides plenty of local employment opportunities and a solid entrepreneurial potential? In our view, the only way to have a meaningful debate on this is to look beyond the more narrowly defined liability profiles, and to consider the broader national agenda, which would include various social, political, inter-generational and environmental liabilities.

In conclusion, there are many different Sovereign Wealth Funds operating in various parts of the world today, and they are far from homogenous. Even a cursory review of these funds will exhibit meaningful differences in risk-return profiles, investment horizons, asset allocation, eligible instruments, risk tolerances and constraints. In order to understand these differences, one must ask the question: "What was each individual fund set up to do?" In other words, the key lies with each fund's definition of liabilities.

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