

Contents

- List of figures and tables* / xi
- Foreword* / xii
- List of abbreviations* / xiv
- 1 What can public wealth do for you? / 1
 - 2 Don't bite the hand that feeds you: the cost of poor governance / 16
 - 3 How poorly governed state-run businesses can ruin the economy and politics / 30
 - 4 The size and potential of public wealth / 43
 - 5 Politicians as consumer advocates instead of quasi-capitalists / 63
 - 6 Early attempts to reform governance of public wealth / 72
 - 7 Swedish pioneers: from active to "hands-off" governance / 81
 - 8 "Hands-on" but independent governance: the innovator from Singapore / 109
 - 9 Monetizing value improves democracy and yields / 125
 - 10 The transition to national wealth funds / 136
 - 11 Strategies for creating value / 159

- 12 Lessons for future national wealth funds / **172**
 - 13 We all want to build roads now, but can we afford it? / **185**
 - 14 From decay to governance in the public interest / **196**
- Notes* / **199**
- References* / **206**
- Index* / **212**

chapter 1

What can public wealth do for you?

The single largest owner of wealth in nearly every country is not a private company or an individual like Bill Gates, Carlos Slim, or Warren Buffet. The largest owner of wealth is all of us collectively – you and your fellow taxpayers. And we all have our own personal wealth manager, who we usually call “the government.” As far as we can calculate, governments own a larger stock of assets than all very wealthy individuals put together, and even more than all pension funds, or all private equity funds.

What is more, most governments have more wealth than they are aware of, including the many nations caught in the grip of debt crises. Many of these troubled countries own thousands of firms, land titles, and other assets, which they have not bothered to value, let alone manage for the common good. Public wealth is like an iceberg, with only the tip visible above the surface.

For decades, a phony war has raged between those in favor of public ownership and those who see privatization as the only solution. We argue that this polarized debate is partly to blame for neglect of a more important issue – the quality of public asset governance. This makes all the difference to how well public wealth delivers value to its owners – the citizens. Even public assets that are privatized can achieve widely differing outcomes depending on the quality of government regulation, the privatization process, and the competence of private owners. The price for the phony war between privatizers and statisticians has been lack of

transparency, financial waste, and underperformance in the public sector. The only winners are vested interests on both sides of the debate.

In this book, we will argue that how public wealth is governed is one of the crucial institutional building blocks that divides well-run countries from failed states. In fact, the governance of public wealth is not merely a matter of how efficiently state-run companies deliver. Unchecked, public wealth can ruin entire countries and undermine democracy as well. Public wealth can be a curse if it is left as an open cookie jar, tempting its overseers into corruption and clientelism. Even in successful countries like the US, which are, by and large, well organized, public wealth invites democratic perversion that can incite huge policy failures and impose unreasonable hardship and social costs on at least some of its people.

We will argue that democracy is at its best when governments have little direct access to public wealth. This does not mean that all wealth needs to be privatized. The process of privatization itself offers tempting opportunities for quick enrichment, thus risking crony capitalism, outright corruption, or dysfunctional regulation.

We will provide examples of how countries have removed the governance of public wealth from politicians' direct ambit. Freeing governments from having to run public firms changes their mission and focus. Wily politicians will hardly act as consumer activists if they know they are in charge of public companies that fail to deliver, and will have to live up to higher expectations. Freeing politicians from administering public wealth allows them to squarely align themselves with the citizens, formulating expectations, goals, demands, and, where needed, also regulations that attenuate market failures. This goes to the heart of a well-functioning democracy – accountability, transparency, and disclosure.

The most visible public wealth holders are government-owned corporates held by the central government, often called state-owned enterprises (SOEs). Among the world's 2,000 largest companies, SOEs represent 11% of market capitalization of all listed companies worldwide.¹ Several emerging markets, led by Russia and China, have thousands of SOEs. Others, such as Brazil, India, Poland, and South Africa, have several hundred SOEs at the national level. In addition, many countries have thousands of publicly owned corporations at the state/regional and local level.

The central governments of most European countries own dozens or hundreds of large, well-known companies, while countries like Australia and New Zealand have relatively few SOEs. Less visible are the many government-owned corporates, or corporate-like assets owned at a regional and local level. Some of these are proper corporates, but more often they are disguised as various legal entities, but sell commercial services paid for by clients and consumers.

Beyond the corporate organizations owned by governments at different levels lie vast stretches of productive real estate – by far the largest component in public wealth portfolios. More than two-thirds of all public wealth ownership remains opaque – large holdings are owned by local and regional governments or quasi-governmental organizations that are formally independent, but are actually controlled by politician board members. Local savings banks often work like that.

A definition of public wealth

Our definition of public wealth is the sum of the public assets owned by government, namely:

- pure financial assets, such as bank holdings or pension funds
- public commercial assets, such as firms and commercial real estate
- public noncommercial assets, such as roads
- minus government debt.

We use “public” in the financial sense, meaning the wealth owned by various levels of government. It is important to note that “public assets” should not be confused with “public property,” which normally refers to assets and resources that are

available to the entire public for use, such as public parks.

This book concentrates on public commercial assets, by which we mean assets or operations generating an income (mainly non-tax-based) that could be given some kind of market value if properly structured and used. Typical examples include:

- corporations – typically SOEs
- financial institutions
- real estate
- infrastructure – where toll-based or PPP-related
- noncorporatized commercial activity (e.g. the sale of geographical data or a water utility).

Our definition of public wealth comprises all levels of government – central, regional, and local. However, most statistics or attempts to value public wealth ignore the regional and local level, or capture it only in part.

We generally exclude from our estimates of public assets public noncommercial assets such as national parks, historic buildings, or non-toll-generating roads. Some of the

chapters, however, discuss how even these often can be managed in ways that generate higher social value.

Outside our definition of public wealth, we sometimes refer to and discuss quasi-governmental organizations, such as the US home mortgage institutions Fannie Mae and Freddie Mac, or formally independent local savings banks in many countries with local politicians on their boards.

More than 25% of all land in the US is owned by the federal government. Along with all this land, it holds buildings with a book value of \$1.5 trillion. In addition, state and local government assets amount to four times these federal holdings, that is, \$6 trillion, according to a cautious estimate by the International Monetary Fund.²

The US General Accounting Office (GAO), the government spending watchdog, found that “many [federal] assets are in an alarming state of deterioration,” noting that the federal government has “many assets it does not need.”³ These include billions of dollars’ worth of excess, or vacant buildings. The federal government spends billions of dollars each year maintaining excess facilities in the Departments of Defense, Energy, and Veterans Affairs.

The total worldwide public wealth in government hands, conservatively calculated, is so vast that a higher return of just 1% would add some US\$750 billion annually to public revenues.⁴ That’s a sum equivalent to the GDP of Saudi Arabia. We argue that the professional management of public commercial wealth among central governments could easily raise returns by as much as 3.5%, to generate an extra \$2.7 trillion worldwide. This is more than the total current global spending on national infrastructure – for transport, power, water, and communications combined.⁵

In the US, for every 1% increase in yield from the federal government asset portfolio, total taxes could be lowered by 4%. This alone should make every individual citizen, taxpayer, investor, financial analyst, and stakeholder stand up and pay attention. And it should spur demand for action.

As an illustration of the huge difference the governance of public wealth can make, we can look at Panama after the US turned over the management of the Panama Canal Zone in 1977 to the government of Panama. One of the most highly indebted nations in the world at the time now held a potential goldmine. Property within the Canal Zone was an attractive location for many international firms and, in fact, the property value alone at that time was enough to cover Panama's entire national debt. That is, if it had been managed in a professional and commercial way. With a proper focus on value maximization, the Panamanian government could have monetized this attractive asset by renting or selling off attractive parcels. Instead, this opportunity was wasted, with much of the land being overrun by vested interests and used as municipal garbage dumps, informal unregulated housing, and noneconomic military use.⁶ In recent years, however, the Panama Canal Authority has become much more efficient and has started to develop the area around the canal, also creating the Colón Free Trade Zone.

Many cities and states in rich countries like the US have similarly mismanaged land holdings that could be an integral part of public finance and used to lower taxes or pay for vital infrastructure. Countries like Greece and Italy, currently in the throes of a financial and fiscal crisis, could use their considerable public assets to help pull themselves out of their bind – without even selling these assets.

Better management is not just about financial returns, but other important social gains as well. Vito Tanzi,⁷ an Italian economist, and his co-author Tej Prakash illustrated the misuse of public assets with two examples of schools located in prime property locations, one in Rio de Janeiro, squeezed in between the large hotels on the splendid avenue next to the famous Copacabana beach, and another in the heart of Bethesda, Maryland, established in 1789 when the area was agricultural and the land inexpensive. A relocation of the schools only a few blocks away would bless pupils with a quieter, healthier, and more peaceful study environment. The sale of the more expensive property could be used to hire more teachers.

On top of that, new real estate investment on the current school site would raise national income and tax revenue.

The traditional public sector approach to budgeting almost guarantees the misuse of public commercial assets. Most countries do not have a comprehensive register of public assets (a cadaster). Many governments, be they national, local or regional, would not be able to list, never mind describe, the assets they own and their market value. This makes it difficult to manage these assets in a way that exploits synergies and alternative uses of public assets. Often, decisions are more emotive, such as when, in 1983, President Mitterrand of France decided to move the Ministry of Finance from the Louvre after almost 200 years, to give more space to the Museum of the Louvre.

Alas, all too often, the management of public assets is not conducted in people's best interests. This may come as no surprise in countries where governments are not elected by the people, or are downright kleptocratic. Yet, even democratically run countries rarely take decisions that ideally reflect the people's will or best interests. The institutional governing setup makes all the difference. Greece and Switzerland, for example, are geographically very close and both are democracies. Yet Switzerland, with solid institutions, is one of Europe's richest countries, while Greece is one of the poorest, thanks to dysfunctional institutions.

We argue in this book that democracy has the best chance of working in the public interest when governments are restricted from direct access to public wealth. This does not mean that all wealth must be privatized. The process of privatization itself offers tempting opportunities for quick enrichment, risking crony capitalism, outright corruption, counterproductive regulations, and selling assets at big discounts to placate vested interests.

To some extent, techniques for better management can be borrowed from the best in corporate management. This would include transparency, proper accounting, and realistic balance sheets.⁸ We will describe empirical proof that better management techniques make a big difference, and tend to be more common in private firms, especially those that are exposed to competition. Yet, the management of public assets must also work in a political environment, and sometimes respond to social aims beyond financial returns. Much of this book is concerned with analyzing the institutional setups that support the professional governance of public assets by politically steered governments.

The resistance against more commercial governance of public assets shows many similarities with the historical resistance against professional sports. Vested interests long held amateurism in sports as the ideal, until finally, in the early 21st century, the Olympic Games and all the major team sports accepted professional competitors. Today's professionals have taken almost all games to a different level and created a range of multi-billion dollar industries in the process. At the same time, many will probably lament the excesses and misguided incentives that sometimes occur in professional sports. The key in the governance of public wealth is to combine the best of private enterprise management methods with mechanisms that guarantee the pursuit of countries' social aims.

Removing the governance of public wealth from direct government control allows them to concentrate on running their country rather than running a number of public firms. They can then align themselves squarely with consumers and the general public in monitoring performance, and, where needed, implement regulations to attenuate market failures. The holy grail of public commercial asset management is an institutional arrangement that detaches management concerns from direct government responsibility, and simultaneously encourages active governance designed to create greater societal and financial value. Institutional structures that achieve this also help provide a firmer foundation for sound democracy.

In particular, we delve into how some nations successfully manage their commercial assets using professional wealth managers working with a measure of political independence in national wealth funds (NWFs), or similar arrangements. NWFs enable transparency. Debt ratings for these enable independent borrowing that optimizes capital structure and maximizes value. Public listing is also possible, providing the ultimate form of transparency, while broadening the shareholder base and potentially maximizing value to the taxpayer.

Despite the successful examples, only a small percentage of global public commercial assets are managed in these independent and more transparent NWFs, that is, at arm's length from daily political winds. Instead, the vast bulk of public wealth is managed by civil servants inside the government bureaucracy and held in various forms of conglomerates. At best, this is a bureaucratic system designed for handling the allocation of tax money. At worst, it is an arena for political meddling and, occasionally, downright

profiteering. Publicly owned commercial assets that remain hidden with no transparent economic value are at risk of being whittled away.

The honey trap of public wealth

A common misconception is that a rich state is a strong state. One might think of authoritarian states, such as Russia, where the state controls a third of the local stock market capitalization. Or China, where the government owns four out of five of the Chinese companies on the Fortune 500 list of the world's biggest firms. Yet, while these countries flout powerful state authorities, they can be surprisingly weak in their ability to manage their country in the best interests of the people.⁹ For example, 1.2 million Chinese die prematurely every year from air pollution,¹⁰ largely from emissions generated by SOEs.

Some countries with rich and pervasive central governments are what Gunnar Myrdal termed a "soft state."¹¹ The potential for state action in the common interest is undermined by cadres of state employees who pursue their own agendas. Russia is so much of a soft state that it cannot even produce much economic growth beyond that provided by its oil and gas revenues. At the democratic end of the scale, countries like Brazil find themselves in a similar dilemma, thanks in part to the fact that the state owns a poorly performing third of the country's market capitalization.

In recent decades, many wealthy nations have begun to employ more professional managers and board members in SOEs. But much less progress has been made in establishing professional ownership functions that take responsibility for corporate restructuring, stock offerings for new investments, and other strategic issues. Here, most countries grapple with problems similar to those in Brazil or Russia, but not always as flagrant.

For example, the US Army Corps of Engineers is a federal agency that builds and maintains the infrastructure for ports and waterways. Most of the agency's US\$5 billion annual budget goes to dredging harbors and investing in controlling waterway locks and channels, as on the Mississippi River. In addition, the Corps is the largest owner of hydroelectric power plants in the country and manages 4,300 recreational areas, funds beach replenishment, and upgrades local water and sewer systems. The

US Congress has used the Corps as a “pork barrel” spending machine for decades. Funds are earmarked for low-value projects in important members’ congressional districts, while high-value projects go unfunded. Unsurprisingly, the Corps has been involved in many scandals, including the levee failures in New Orleans during Hurricane Katrina in 2005, which flooded over 100,000 homes and businesses, led to the deaths of at least 1,833 people, and caused an estimated \$100 billion in damage.

Another example is Amtrak, the National Railroad Passenger Corporation, a publicly owned entity operated and managed as a for-profit corporation. Amtrak operates a 22,000-mile nationwide passenger railroad service. Apart from the multiple instances of mismanagement frequently taken up by the GAO, the more costly problem is that state ownership has perverted the democratic process. Amtrak’s long-haul routes are deeply unprofitable. Yet maintaining them is necessary for Amtrak to receive the continued support of senators from states that would otherwise lose services. If lossmaking long-haul trains were canceled, Amtrak would serve just 23 states, down from the current 46. That would make it more profitable, allowing it to improve services in areas where it actually has profitable riders. But support from only 23 states is not enough for Congress to keep providing subsidies. Many question why their train tickets often cost much more than an airline flight, despite the more than \$30 billion in subsidies Amtrak has received since 1971. This has two important implications. The political deadlock of Amtrak poisons the government’s ability to implement an effective railroad or transport policy. Moreover, members of Congress must spend valuable time and energy lobbying to keep Amtrak services to their state.

These examples help illustrate how managing public wealth can pervert democracy, an issue that tends to receive much less attention than the mismanagement of public monopolies. Public wealth within easy reach of governments creates incentives for abuse, for example:

- buying political favors in exchange for lucrative contracts or positions in SOEs
- offering organized interests free access to federal land, or water from public water companies in exchange for political support
- buying the support of unions by allowing higher wage increases in SOEs.

In each of these ways, democracy for the common good degenerates into clientelism. Politicians are rewarded for deftly buying support from various

special interest groups rather than enacting reforms that benefit wider public interests. This is the essence of a soft state.

In a clientelist or soft state, governments have little interest in making the management of state assets more transparent. It is hardly an accident that Greece had no consolidated accounts of its considerable state assets, or that the US has no central registry of federal state or local government assets. As long as state ownership stays murky, it is easier for government institutions to distribute favors without scrutiny.

This came back to haunt countries when the financial crisis hit in 2008. No country experiencing financial problems had a remotely true picture of all their public commercial assets. Not only were the assets owned by local or regional governments unknown, but, surprisingly, even central governments had little understanding of their portfolio of assets, its value and yield. Spain and Portugal had both previously pulled together some of their holdings into SEPI (Sociedad Estatal de Participaciones Industriales) and Parpública (Participações Públicas (SGPS) S.A.), respectively, but each held only a fraction of nationally owned assets. Still, this partial consolidation helped to create transparency and save public finances by selling some assets and establishing some creditworthiness with the remainder. Similarly, Ireland set up the National Asset Management Agency in 2009 to manage the bad banking assets from its forced restructuring of the banking sector.

Greece, on the other hand, established a privatization agency with no clout at all. Without a mandate to own any commercial assets, it was reduced to a mere adviser to line ministries, to liquidate assets rather than being allowed to develop and maximize value. With this fragmented approach, ruled by vested interests and crony capitalism, international investors understood that, at best, it would take Greece many years to assess its vast state holdings and be able to reorganize them into productive and valuable assets. What's more, when the government actually produced a consolidated financial review of its commercial asset portfolio, as required by international lenders, publication was stopped.

Those who profit from shady accounting will always argue that revealing the monetary value of public assets will promulgate economic rather than social aims. We show the opposite to be true. When the value of public assets is revealed, and their managers are told to focus on value creation, then a government can make informed, transparent choices of how much

resources to pay SOEs for achieving social aims. Without this transparency, social aims will always be proclaimed by those with selfish agendas.

Even in countries with less outright profiteering, public commercial assets force politicians into a producer mindset. In countries as diverse as Sweden and India, governments have rarely shown any interest in responding to consumer demands for more reliable railway services while being the main owner and provider of train services. Any criticism of state railways threatens to raise questions about government responsibility. As it happens, both countries have mismanaged and grossly underinvested in railroad maintenance for decades. Only when deregulation in Sweden enabled private sector operators to compete did it become politically expedient for the government to pay attention to consumer interests.

This book aims to show that democracy is immensely strengthened when wealth is not at the direct disposal of political control. A strong state is one where politicians must compete with each other over the political agendas intended to promote the common or public interest, rather than competing with promises of dishing out favors that yield access to the public cookie jar.

How countries have removed wealth from political control

In the 1980s and 90s, it became apparent to many that bloated state monopolies often fail to satisfy increasingly sophisticated consumers. Spearheaded by the supply side economics advocated by Ronald Reagan, many countries privatized state firms. Surprisingly, perhaps, the US government only sold a minute share of its public assets. Conrail, a freight rail service, was privatized in 1987, while the Alaska Power Administration and the Federal Helium Reserve were privatized in 1996. The Elk Hills Naval Petroleum Reserve was sold in 1997, and the United States Enrichment Corporation, which provides enriched uranium to the nuclear industry, was privatized in 1998. These were all small entities. More significantly, a number of countries worldwide, including several countries like Sweden under social democratic governments, divested a significantly larger percentage of state assets and began managing remaining state-owned assets more professionally.

Privatization is one way of placing public wealth out of easy reach of politicians. But it also opens pitfalls. If the privatized state firms are monopolies or financial institutions, smart regulation is usually required to force them to act in consumers' best interests. Without well-designed regulation, there may be a backlash in public opinion. The privatization process itself is a challenge in countries prone to corruption and crony capitalism.

Some countries have taken broader steps than simply privatizing a few businesses. The recent book, *Renaissance for Reforms*, analyzed 109 rich national governments and found that when an incumbent government implemented ambitious market-oriented reforms, they were also more likely to be re-elected.¹² Even more surprising, perhaps, is that this reward for reforms tends to be most pronounced for governments seen to be on the left.

In many cases, ambitious market-oriented reforms came in waves, moving slowly from a clientelist political culture toward placing the common good above demands from special interests. A good example of this was Canada in 1993 when Paul Martin was appointed minister of finance in the newly elected center-left Liberal Party government. Canada had been running deficits close to 7% of GDP at the time, and the following year gross national debt exceeded 100% of GDP. Martin realized that real change was needed for the country to reverse its deepening debt spiral. David Herle, at the time an adviser to Martin, and his co-author John Springford, related in the *Financial Times* the difficulties involved in introducing reforms in early 1990s' Canada.¹³ According to Herle and Springford, a rare cabinet ally to the minister of finance was Ralph Goodale, minister of agriculture. But their friendship took a turn for the worse when Goodale, raised on the Canadian prairie and representing a wheat-growing Saskatchewan farm district, strongly opposed Martin's proposal to abolish the so-called "Crow Rate" – a system of wheat transport subsidies. What's more, the agricultural minister wasn't the only person upset by reduced expenditures. Large segments of the Canadian Liberal Party resented the reforms, as did many organizations and businesses whose public subsidies were affected. The drastic market reforms were tough medicine for them to swallow.

The Canadian reforms included privatizing several government-owned corporations and instituting more professional management in others. This strategy moved the nation toward what can be described as a new social contract. Short term, these changes seemed to upset several interest groups,

businesses, and families. Still, the Canadian Liberal Party won a second term of majority rule in 1997. Following another term of reform policies, it again won the election in 2000. Over this period, the party shifted from describing its growth-oriented reforms as an emergency response to crisis, and instead promoted them as long-term reforms designed to create a better society. *The Wall Street Journal* and the Heritage Foundation have published a report annually on the degree of economic freedom in the world since 1995. Their 2013 Index of Economic Freedom report stated that: "Canada's economic freedom score is 79.4 [out of 100, the theoretical maximum], making its economy the 6th freest" in the world, compared to the 12th place ranking for the US. In 2014, Canada passed the 80 point score level, while still ranked sixth, it joined the highest level of economic freedom – "free."

In other countries that similarly revamped their economies, including Australia and Sweden, reforming SOEs had a much wider effect on the economy than simply improving productivity within each enterprise. When an SOE was either privatized or put under more professional management, it was also natural for politicians to open up the whole sector to competition. This drove structural change, sometimes with dramatic consequences. When telephone companies lost their monopolies, the mobile phone and Internet access markets took off in a way that would not otherwise have been possible.

Privatization is not always necessary to dramatically improve asset management. Even in market-oriented Netherlands, SOEs account for 5% of market capitalization of the local stock market. In 1998, Sweden changed direction and decided to become an active owner of its central government-owned commercial assets, with value maximization as the sole objective, along with proper transparency, appointing professional boards, and setting relevant targets for dividend yield and capital structure on a par with its private sector competitors, aiming to follow national wealth pioneers in Austria and Singapore. After a few years, however, Sweden partially retreated, taking a more hands-off approach to governing SOEs. This is convenient for politicians wanting to avoid taking operational decisions they could be blamed for. Yet it turned out to be insufficient to ensure success.

Without a proper institutional framework and governance allowing for a professional management, or governance, these firms were often left as "orphans." At one end of the spectrum, profitable companies were left with no controls on their surpluses, allowing for uncontrolled investment

expansion into foreign markets. At the other end, unprofitable organizations with ballooning operational costs were left unreformed, sometimes serving mainly to provide tax-subsidized employment. As we show in more detail later, better management within SOEs can still lead to spectacular failures if professional governance is neglected.

Toward better governance of public wealth

In our view, the best way to foster good management and democracy is to consolidate public assets under a single institution, removed from direct government influence. This requires setting up an independent ring-fenced body at arm's length from daily political influence and enabling transparent, commercial governance.

A similar international trend has been to outsource monetary and financial stability to independent central banks. A central bank is a deposit for reserves and a source of revenue from profits gained from creating money. Easy cash also renders central banks tempting for politicians seeking a quick fix. In blatant cases, a government will force its central bank to print too much money, eventually leading to hyperinflation. Even in many well-run countries, though, government meddling has consistently led to excessive money creation or excessively low interest rates. Following the inflationary 1970s and 80s, the most common response among OECD countries was to make central banks independent of short-term government influence, vesting the responsibility for the institution with a board, nominated and approved by the legislative branch, or parliament, and given a long-term mandate.

Independent central banks were controversial in many countries when introduced. In particular, trade unions were worried they would punish negotiated wage increases with higher interest rates, and criticized the idea as undemocratic. Over time, however, experience with independent central banks has been positive and has been widely copied.

The main argument in this book is that similar reforms of public wealth governance can bestow significant economic and democratic benefits. We also show how some countries have fared after putting the management of public pensions and assets in so-called "bad banks" out of easy reach of

government meddling. A few countries have placed most public wealth in holding companies or funds with remarkable independence. We use the term national wealth funds (NWF) for these institutions for independent governance of public commercial assets. As with independent central banks, NWFs do not offer a watertight guarantee of better management in kleptocratic governments. But they would help most countries that are trying to make their democratic institutions more robust. Even stable democracies stand to gain much from more professional governance of their assets.

This book provides an in-depth look at the economic arguments in favor of governing public commercial assets more effectively and the tools available to do so, while emphasizing the importance of proper regulation. We make head-to-head comparisons between success stories in contrasting systems – Singapore, Abu Dhabi, China, Austria, Finland, the UK, and Sweden – providing a variety of examples for what has worked and what has not. Interestingly, a few Asian countries now have state-of-the-art governance of state assets.

Our proposals extend beyond the governance of just commercial assets. An NWF with sufficient independence from government control could be allowed to rebalance its portfolio and not only help finance infrastructure investments, but also act as the professional steward and anchor investor in newly formed infrastructure consortia. This could mean that an NWF could be a great boon to investment in much needed infrastructure.

In the aftermath of the financial crisis, many countries remain heavily indebted and fettered by fiscal austerity, attempting to restore budgetary balance and thereby economic growth. Policy choice is confined to saving more, either now or later. Structural labor market reforms and competition rules are also on the cards, but these can take years to nudge growth and employment rates in the right direction.

When people describe the economic situation of a country, they often ignore an essential element. Most European countries own huge portfolios of commercial assets, as do both federal and local governments in the US. The value of these public portfolios may be even larger than the corresponding public debts in each country, but governments rarely possess the detailed information needed to understand the extent of their own wealth. Even heavily indebted countries like Greece may be asset rich. This is why we should start asking: “What can public assets do for the economy?”

Index

Numbers in *italics* refer to figures and tables

3i 147

Abu Dhabi 15, 132, 150, 156–7

Temasek 114, 123

accountability 2, 112, 127, 139, 143, 171

board members 176

China 155, 156

corporate governance 173, 175

political insulation 93, 94

transparency 128, 129

accrual accounting 67

Acela 188

active management 101–5, 116

combined with political control
126–33

Sweden 81–101, 109–10

active ownership 127

AFL-CIO 41

Africa 41, 191

Temasek 119, 120

Agnelli, Roger 22, 34–5

Agricultural Bank of China 156

AIG 131, 191

Air Express International 169

Air France 41

airports and airlines 41, 63–5, 183, 185, 186

cargo 170

China 186, 191

Germany 16, 41, 62, 63, 64, 79, 170

Netherlands 79

privatization 16–17, 63–4, 65

Sweden 97–8

UK 16, 63, 191

air traffic control (ATC) 65

Akademiska Hus 60–1, 140, 183

Alaska Power Administration 11

Algeria 32

Alstom 34

American President Lines (APL) 117

Amtrak 9, 188

Annington 162

Apoteket 87

Argentina 112

Åsbrink, Erik 88

ASG 91, 100

Asia 15, 16, 19, 134, 141

NWFs 145, 149–50, 152, 152

assessing value 44–6

asset management 52–4

return on public wealth 54–6

Assets Supervision and Administration

Commission 36

AssiDomän 82, 83–5, 87, 87, 101

Associated British Ports 190

- AS Watson Group 119
- Audit Commission 48, 48, 49
- Australia 3, 13, 19, 85, 117, 120, 188
 - airports 16, 63
 - asset value of SOEs 20
 - change in SOE employment 27
 - GDP 28, 29, 50
 - percentage of workers in SOEs 26
 - size of public wealth 50
 - SOEs and GDP 28, 29
- Austria 13, 15, 113, 135, 140
 - airports 16, 63
 - banking crisis 39
 - change in SOE employment 27
 - NWFs 135, 148, 152–3, 155, 182
 - ÓIAG 148, 152–3, 155
 - percentage of workers in SOEs 26
 - public wealth and GDP 51
 - SOEs and GDP 28, 29
- bad banks 14, 141
- BAE Systems 85
- Bagehot, Walter 172–3, 175
- Bahrain 151
- Bangladesh 73–4
- Bangladesh Bank 73–4
- Bank of America 122
- Bank Assets Management Company 145
- Bank of Baroda 33
- Bank of China 156
- banking 14, 21, 22, 111, 116, 141
 - Abu Dhabi 156
 - Bangladesh 73–4
 - China 19, 32, 37, 109, 155–6
 - Germany 39–40, 80
 - India 32–3, 37, 74
 - Ireland 10
 - NWFs 145, 149–51, 155–6
 - privatization 73, 80
 - Spain 19, 39
 - Sweden 81, 82, 100, 101
 - UK 178
 - US 37–9, 155, 178
 - see also* central banks; local savings banks
- Bank for International Settlements 111
- Banverket 90
- Barbados 51
- Bavaria 39–40
- BayernLB 39–40
- Beckstein, Günter 40
- Belgium 28, 29, 51, 60, 70
 - airports and airlines 16, 63, 64
 - asset value of SOEs 20
 - change in SOE employment 27
 - percentage of workers in SOEs 26
- Berg, Lars 102
- BHP Billiton 113
- Billerud 83–4
- BlackRock Sovereign Risk Index 119
- Bloom, Nicholas 24–5
- BNDES (Brazilian Development Bank) 35, 76
- BNP Paribas 92–3
- boards of directors of NWFs 173–6
 - appointing and evaluating 174–5, 176–8
- Bofors 85
- Bolivia 51, 147
- Brazil 2, 8, 22, 75, 76–9, 186
 - clientelism 34
 - GDP 77, 78
- bribery 31–3
 - see also* corruption
- BRIC countries 186
- British Aerospace 167
- British Airports Authority 16, 63
- British Telecom 167, 168
- Buiter, W.H. 49, 129, 137
- Bundy, Cliven 42
- Bush, George H.W. 39
- Bush, Neil 39
- business development strategy 161

- cadaster 6, 44, 48, 128, 137, 184
 Cadbury Code 138
 California Correctional Peace Officers Association 36
 Canada 12–13, 51, 65, 112, 152, 190
 asset value of SOEs 20
 change in SOE employment 27
 percentage of workers in SOEs 26
 SOEs and GDP 28, 29
 Capital Beltway 193
 capitalism 21, 23, 89, 115, 134, 141
 backlash 17–20
 see also crony capitalism
 capital structure 161–2
 Sweden 96–7
 Cardoso, Fernando Henrique 77
 CDC 144
 Celsius 83, 84–6, 87, 101
 Central Asia 120
 central banks 14–15, 197–8
 China 156
 independence 111–12, 172–3, 175–6
 Sweden 177
 central government 64, 72, 189
 appointments to SOEs 174
 assessing value of public assets 43, 45, 160
 asset management 53, 53
 China 74–5, 171
 Lithuanian forests 66
 NWFs 134, 152, 153–4, 182–4
 public wealth and GDP 51, 52
 real estate management 61–2, 182–4
 size of public wealth 47–8, 49, 51
 Sweden 105
 Ukraine 57–8
 Central Huijin Investment Ltd 109, 149, 156
 Chelsea Barracks 46
 Chile 147, 155
 change in SOE employment 27
 percentage of workers in SOEs 26
 SOEs and GDP 28, 29
 China 15, 89, 109
 airports and airlines 186, 191
 appointments to boards 174–5
 banks 19, 32, 37, 109, 155–6
 CITIC 133, 149, 152, 153, 158
 conflict of interest 36
 corruption 31–2, 33, 158
 GDP 23, 37, 124, 139, 156
 government entity approach 142
 importing iron ore from Brazil 35
 infrastructure 186, 188, 190, 191, 193–4
 Lenovo 22
 NWFs 149, 152, 155, 156–8
 privatization 74–5, 170–1
 return on public wealth 55
 size of public wealth 52
 SOEs 2, 8, 17–18, 22–3, 74–5, 109, 124, 126, 139, 170–1, 190
 Temasek 113, 118, 120, 123–4
 value creation 170–1
 China Construction Bank 119, 156
 China Development Bank 156
 China Everbright Bank Company 156
 China Investment Corporation (CIC) 191
 as SWF 149, 156, 191
 China Mobile 36
 China National Petroleum 157
 China Resources 31
 China State Construction Engineering Corporation 191
 Chinese Communist Party (CCP) 22–3, 36, 156, 158
 appointments to boards 174–5
 corruption 31, 32
 privatization 74–5
 CITIC 133, 149, 152, 153, 158
 clear objectives 128, 130–1, 134
 Sweden 94–5

- clientelism 2, 9–10, 30, 34–6, 125, 158
 - political independence 131
 - privatization 12
- Clinton, Bill 35, 73
- Coal India 19, 198
- coal scam 32
- Columbia 51
- Commonwealth Development Corporation 147
- Companies Act (Singapore) 121, 123
- Companies Act (UK) 184
- conflict of interest 30, 36, 40–1, 105, 138, 198
 - Neil Bush 39
- Conrail 11
- consumer advocates 63–71
- consumer perspective 40–2
- corporate governance 18, 24, 110–11, 128, 137–8, 173–6, 178
 - guidelines 110, 131
 - professional governors 105, 126, 130
- corruption 2, 6, 30, 31–3, 192, 198
 - active governance 127
 - Brazil 79
 - China 31–2, 33, 158
 - political independence 131
 - privatization 12
 - see also* clientelism
- Cosco 190
- Costa Rica 50, 51
- CPC Group 46
- crony capitalism 2, 6, 31–3, 127, 135, 164
 - Greece 10
 - privatization 12
 - Ukraine 56
- Crossrail 189–90
- Crown Estate 183, 184
- Crow Rate 12
- Croydon Borough Council 164–5
- Curl, Gregory 122
- Czech Republic 20, 51
 - change in SOE employment 27
 - percentage of workers in SOEs 26
 - SOEs and GDP 28, 29
- Danaharta 145
- Danone 122
- Danzas 100, 169
- DBS Bank 115, 119
- debt finance for value creation 163–6, 171
- decision making in NWFs 174
- defense industry 83, 84–6
- democracy 2, 6–7, 11, 63, 198
 - governance of public wealth 14–15
 - monetizing value 125–35
 - perverted by public wealth 9, 30
 - Ukraine 59
- Deng Xiaoping 32, 158
- Denmark 106, 107
 - airports and airlines 16, 63, 97–8
 - change in SOE employment 27
 - percentage of workers in SOEs 26
 - postal services 70, 101
 - SOEs and GDP 28, 29
- Dennelind, Johan 105
- Deutsche Bank 170
- Deutsche Bank Private Equity 100
- Deutsche Bundespost 18, 169
- Deutsche Post 70, 100, 169–70
- Deutsche Postbank 169, 170
- Deutsche Post DHL 170
- Deutsche Telekom 169
- development argument 20, 21
- devşirme system 177
- DHL 79, 100, 169, 170
- Disney 141
- distressed assets 145
- Dogus 166
- Dominican Republic 51
- Douglas 88
- Dubai 123, 151, 157

- Dubai Holding 151
- Dubai Ports World 190–1
- Dubai World 151
- Dulles Greenway 193

- East India Company 134
- ECB 162
- economic development 69, 114, 144, 145, 157
- Economist, The* 17, 43, 56
- Eisner, Michael 141
- electricity 60, 68, 89, 94, 136, 183
 - hydroelectric power 8, 186, 191
 - infrastructure 185
 - US 35–6
- Eleftheriadis, Pavlos 160
- Eletrobras 76
- Elk Hills Naval Petroleum Reserve 11
- El Salvador 51
- Emirates Airline 65, 151
- employment percentage of workers in SOEs 26
 - change 27
- Enel 35
- energy 21, 54
 - Temasek 113, 119, 120
 - Ukraine 56–8
 - Vattenfall 106–8
- Eni 35
- environmental goals 20
- E. Oppenheimer and Son International 119
- equity financing for value creation 163, 166–71
- Ericsson 102
- Estonia 26, 27, 28, 29
- ETAD 61
- Ethiopia 65
- Etihad 65
- Europe and EU 2, 15, 21, 57, 100, 134, 198
 - airports and airlines 16, 41, 63
- bad banks 141
- forests 46
- Greek debt 162
- Network Rail 194–5
- new governance failures 79–80
- NWFs 135, 145, 152, 152
- postal services 70, 99
- privatization 17–18, 63, 168
- railways 188, 194–5
- regulations on state aid 131
- stock market rise 19
- Swedish governance 82–3, 86, 90
- Temasek 120, 123
- Vattenfall 106–8
- exchange rate 57
- execution 174
- Exel 170

- Fannie Mae 4, 37–8
- Falthauer, Kurt 40
- Federal Aviation Administration (FAA) 65
- Federal Helium Reserve 11
- FedEx 169
- financial crisis (2008) 10, 15, 119, 139, 157, 160
 - distressed assets 145
 - Northern Rock 131
 - precipitated by government wealth 37–40
 - state capitalism 18–19
 - Temasek 116
- Financial Supervisory Authority 177
- Financial Times* 82
- Fincantieri 141
- Finland 15, 61, 107, 140
 - asset value of SOEs 20
 - change in SOE employment 27
 - government entity approach 142
 - NWFs 129, 135, 153, 182, 183
 - percentage of workers in SOEs 26
 - postal services 70

- public wealth and GDP 51
- reversion of state-ownership policy 109
- SOEs and GDP 28, 29
- Solidium 129, 181
- Telia 103
- Temasek 123
- Finmeccanica 35
- Finnair 26
- Fintecna 141, 146
- fiscal policy argument 20
- Fitch rating 150, 151
- Fluor-Transurban 193
- FONAFE 147, 149
- Fondul Proprietatea 133
- Forbes 31
- forestry 42, 46, 148, 183, 184
 - Lithuania 66, 197
 - Sweden 66, 82, 83–4
 - US 42, 46, 197
- Fortia 81
- Fortune 500 list 8, 22
- France 6, 41, 50, 80
 - asset value of SOEs 20
 - CDC 144, 145
 - change in SOE employment 27
 - clientelism 34
 - percentage of workers in SOEs 26
 - public wealth and GDP 51
 - SOEs and GDP 28, 29
- Franco, Itamar 77
- Franklin Templeton Investments 133
- Freddie Mac 4, 37–8
- FSI 145
- Fukuyama, Francis 42, 127, 196, 197
- Gang of Four 31
- Gazprom 33, 56
- GDP 54–6, 59, 69
 - Bangladesh 73
 - Brazil 77, 78
 - Canada 12, 28, 29
 - China 23, 37, 124, 139, 156
 - countries with many SOEs 25–6, 27
 - debt as percentage 51
 - non-financial assets 51
 - Saudi Arabia 4
 - Singapore 115, 119
 - SOEs 27, 28, 29
 - Sweden 51, 28, 29, 106
 - transparency 129
 - UK 28, 29, 47, 49, 51
 - Ukraine 57, 58
 - US 28, 47, 51
 - value of financial assets 51
 - worldwide public wealth 50, 51, 52
- Geely 22
- Geisel, Ernesto 76
- General Accounting Office (GAO) 4, 9
- General Holding Company 150
- generally accepted accounting principles (GAAP) 67
- General Service Administration 61
- Germany 18, 85, 107, 141
 - airports and airlines 16, 41, 62, 63, 64, 79, 170
 - banking 39–40, 80
 - change in SOE employment 27
 - forestry 46
 - infrastructure 186, 188, 194
 - KFW 144, 145
 - land registry 66
 - NWFs 144, 145–6, 174
 - percentage of workers in SOEs 26
 - postal services 70, 79, 169–70
 - privatization 72, 169
 - public wealth and GDP 51
 - railways 18, 186, 188
 - roads 186, 194
 - size of public wealth 50
 - SOEs and GDP 28, 29
 - telecommunications 169–70
 - Vattenfall 106, 107
- GIC 114, 15, 118–19, 147

- Global Corporate Governance Forum 137
- Global Crossing 117
- Global Mail (US) 169
- Goel, R. 31
- GoGreen program 170
- Goh Keng Swee 114
- Goodale, Ralph 12
- Goodyear, Charles “Chip” 113, 114, 116, 118
- governance 1–2, 6–8, 13–14, 66, 196–8
 - active management 81–101
 - Brazil 76–9
 - corruption 127
 - cost of poor quality 16–29
 - creating value 44–5
 - early attempts to reform 72–80
 - failure of new movement 79–80
 - from active to hands-off 101–5
 - future NWFs 172, 173–6
 - government entity approach 142–3
 - hands-on but independent 109–24
 - holding companies 105–8, 140, 142
 - improving 14–15
 - infrastructure 191
 - in the name of consumers 69–71
 - NWFs 144, 154, 157–8
 - openness on public assets 65–7
 - Panama 5
 - political independence 131
 - private sector examples 111–13
 - private sector reforms 110–11
 - privatization 72–5
 - professional management 178–81
 - return on real estate 60–1
 - ruining economy and politics 30–42
 - Swedish change of style 81–108
 - Temasek 113–21
 - Temasek today 121–4
 - traditional decentralized 137–40
 - transition to NWFs 136
 - transparency 14, 79, 123, 125, 126, 128–30, 197–8
 - value creation 159, 160, 163
 - see also* corporate governance
- Government Accountability Office (GAO) 65, 66
- government entity approach 142–3
- government-linked companies (GLCs) 114, 115, 116
- Government Property Unit 184
- government-sponsored enterprises (GSEs) 37–8
- grazing permits 42
- Greece 5, 6, 10, 15, 44, 145–6
 - airports and airlines 16, 63, 64
 - asset value of SOEs 20
 - change in SOE employment 27
 - decentralized governance 138, 139
 - financial crisis 5, 10, 19, 160
 - forestry 46
 - percentage workers in SOEs 26
 - privatization 10, 165, 190
 - railways 160, 162
 - real estate 44, 61, 162, 166
 - SOEs and GDP 28, 29
- Green Cargo 91
- Haier 22
- Haldane, A. 69
- Haley, G. 75
- Haley, U. 75
- Handelsbanken 88, 93
- HDW 85
- Heathrow Airport Holdings 191
- hedge funds 53, 117, 118, 146–7
- Hellenic Financial Stability Fund 145
- Hellenic Republic Asset Development Fund 146
- Hellenic Railways Organisation 162
- Hellenikon 166
- Heller, Dean 42

- Herle, David 12
- high-net-worth individuals (HNWIs)
52, 53
- historic buildings 4, 183
- Hitler, Adolf 112
- Ho Ching 116, 117
- holding companies 105–8, 109, 113,
134, 135, 140–2
future NWFs 172–84
NWFs 136, 143–54
political independence 132–3
shifting assets in to infrastructure
190
Sweden 81, 105–8
Temasek 114, 122, 123
transparency 129, 142
value creation 170, 171
vesting commercial assets 134
- home working 60
- Hong Kong 18, 115, 190
CITIC 133, 158
public wealth and GDP 51
- Horun China Rich List 31
- Huawei 22
- Huber, Erwin 40
- Hungarian National Asset
Management Incorporated 148
- Hungary 148
change in SOE employment 27
percentage of workers in SOEs 26
public wealth and GDP 51
SOEs and GDP 28, 29
- Hutchinson Whampoa 190
- hyperinflation 14, 111
- Hypo Alpe Adria 39–40
- IBM 22
- independence of NWFs 172–3
- Index of Economic Freedom 13
- India 2, 11, 18–19, 89, 198
banking 32–3, 37, 74
corruption 32–3
infrastructure 186, 191
- Indonesia 19, 117
- Industrial and Commercial Bank of
China 156
- Industrial and Commercial Finance
Corporation 147
- industrial policy argument 20
- Industrivärden 88, 89, 93
- infrastructure 3, 4, 43, 185–95
airports and airlines 63
better management 187–90
boom and bust 186–7
future NWFs 172
NWFs 15, 137, 154, 157, 190–3,
194–5
railways 185–6, 187–8, 189–91,
192, 194
return on public wealth 54, 186
roads 43, 134, 185–6, 191, 192, 193
size of public wealth 47
smarter 193–5
US 8, 33, 187–9, 190, 191, 193
- initial public offering (IPO) 18, 60, 84,
166–7
Telia 86, 101, 103
- insurance companies 52, 53
- interest rates 14, 37, 54, 111, 122
- International Financial Reporting
Standards 47, 123, 137
- International Monetary Fund (IMF) 4,
69, 110, 115, 185
central bank independence 111
Greek debt 162
worldwide public wealth 50, 52
- International Petroleum Investment
Company 157
- Investment Corporation of Dubai 151
- Investor 88, 89, 93
- Investor AB 181
- Ireland 10, 46, 145
percentage of workers in SOEs 26
SOEs and GDP 28

- IRI 141, 145, 146
- Israel 50
- change in SOE employment 27
 - percentage of workers in SOEs 26
 - SOEs and GDP 28, 29
- Israel, Simon 122
- Italy 5, 19, 35, 141, 145–6
- airports and airlines 16, 63
 - asset value of SOEs 20
 - change in SOE employment 27
 - percentage of workers in SOEs 26
 - SOEs and GDP 28, 29
- Jain, S.K. 32–3
- Japan 19, 21, 50
- percentage of workers in SOEs 26
 - postal services 70
 - privatization 187
 - public wealth and GDP 51
 - railways 187, 188
 - SOEs and GDP 28
 - Temasek 120
- Japanese National Railways 187
- Jernhusen 91, 140, 183
- Jurong Shipyards 113
- Kalishnikov 148
- Kapopoulos, P. 26, 29
- Karimov, Islam 104
- Karimova, Gulnara 104
- Kazannah 165
- Kazakhstan 150
- Keating, Charles and the Keating Five 39
- Kemmer, Michael 40
- Keppel 113
- KfW 144, 145
- Khazanah Nasional 150
- Kiel Canal 186
- Kinnevik/Invik 88, 89, 93
- KLM 79
- Kockums 85–6
- Korea
- asset value of SOEs 20
 - change in SOE employment 27
 - percentage of workers in SOEs 26
 - public wealth and GDP 51
 - SOEs and GDP 28, 29
 - see also* South Korea
- KPN 169
- Kuwait Investment Authority 146
- Laing, John 165
- land exploitation 41–2
 - land registration 44–5
- Lardy, Nicholas 23, 37
- Latin America 120
- Latour 88
- Latvia 50, 51, 66
- Lazaretou, S. 26, 29
- Lazzarini, Sergio 35, 65, 75
- Lee Hsien Loong 116, 117
- Lee Kuan Yew 116
- Lekki-Epe expressway 192
- Lenovo 22
- Life Insurance Corporation of India 74
- Lincoln Savings and Loan Association 39
- Lithuania 50, 51, 66
- forestry 66, 197
- lobbyists 37, 68, 69
- US 9, 36, 38
- local asset backed vehicles (LABVs) 164–5
- Local Audit and Accountability Act (UK) 48
- local government 2–3, 4, 10, 134, 154, 198
- airports and airlines 16, 63
 - assessing value of public assets 43, 45, 160
 - China 74–5, 139
 - infrastructure 189, 190, 192
 - privatization 73

- size of public wealth 46, 47, 49, 50, 52
- UK 160, 164–5
- local savings banks 3, 4, 19
- local wealth funds 134
- Lufthansa 41, 79
- Lufthansa Cargo 170
- Lundbergs 88
- Luxembourg 51

- Madouros, V. 69
- Malaysia 19, 145, 150, 155
 - Temasek 114, 123
- Marcegaglia, Emma 35
- market failures 2, 7, 21, 67
- Martin, Paul 12
- mass affluent 52, 53
- McGregor, Richard 22
- McKinsey 24, 156
- Mello, Fernando Collor de 77
- Merrill Lynch 84, 117
- Mexico 21
- Micklethwait, J. 133
- Middle East 120
- Middle East and North Africa (MENA) 150–1, 152, 152
- military 5, 57, 76, 124, 162, 166
 - real estate 45–6, 48, 182–3
- mining 113, 118
- misuse of public assets 5–6
- Mitterand, François 6
- MND Holdings 114
- monetizing value 125–35
- monopolies 9, 11–12, 70, 121, 126, 136, 183
 - Brazil 76
 - compensation from private companies 18
 - consumer service 63, 70
 - inefficiency 127
 - postal services 23, 70, 169–70
 - pricing 20, 21, 23, 129, 167
 - privatization 73, 167
 - Sweden 80, 83, 86–7, 89, 102
 - telephone companies 13
 - transformation into competitive businesses 180
- Moody's rating 123, 148, 149, 150, 151
- Motorola Mobility 22
- Mubadala 132, 150, 157, 165
- Mumtalakat 151
- Munshi, Yusuf 73
- Musacchio, Aldo 35, 65, 75, 147
- Myrdal, Gunnar 8

- Naftogaz 57–8
- National Asset Management Agency 10, 145
- National Asset Register (NAR) 48, 48, 49
- National Balance Sheet 47, 48
- national heritage 20
 - historic buildings 4, 183
- National Oil Company (NOC) 157
- National People's Congress 31
- National Property Board of Sweden 183
- national wealth funds (NWFs) 7, 15, 62, 136–7, 143–54, 190–3, 198
 - appointing and evaluating the board 174–5, 176–8
 - Austria 135, 148, 152–3, 155, 182
 - compared with SWFs 146–7, 154
 - consolidated model 140–2
 - consolidating all assets 154–8
 - corporate governance 173–6
 - Europe 135, 145, 152
 - Finland 129, 135, 153, 182, 183
 - geographical distribution 152
 - government entity approach 142–3
 - illustrated 137
 - infrastructure 15, 137, 154, 157, 172, 190–3, 194–5

- lessons for the future 172–84
- political independence 132
- professional management 178–81
- real estate 137, 146, 154, 157, 182–4
- table showing diversity 148–51
- Temasek 114, 118
- traditional decentralized governance 137–40
- value creation 159, 165
- vesting commercial assets 134
- natural resources 23, 30, 33, 50, 157
 - Temasek 113, 118
- Nav Canada 65
- Nelson, M.A. 31
- Neptune Orient Lines 113, 117
- Neste Oil 26
- net book value (NBV) 48–9
- Netherlands, the 13, 51, 104
 - airports and airlines 79
 - asset value of SOEs 20
 - change in SOE employment 27
 - percentage of workers in SOEs 26
 - postal services 70, 79, 99, 169
 - privatization 169
 - seaports 190
 - SOEs and GDP 28, 29
 - telecommunications 169
 - Vattenfall 106, 107
- Network Rail 189–90, 194–5
- New Zealand 2, 19, 112, 162, 173, 188
 - airports and airlines 16, 63
 - asset value of SOEs 20
 - change in SOE employment 27
 - percentage of workers in SOEs 26
 - postal services 70
 - public wealth and GDP 51
 - size of public wealth 47
 - SOEs and GDP 28, 29
 - Temasek 120
- New Zealand Post 70
- Nigeria 119, 192
- noncore assets 100, 101, 107, 116, 198
 - value creation 168
- nonfinancial assets 44, 45, 47, 50, 51
- nonproduced assets 50
- Nordea 87, 100
- Northern Rock 131
- Norway 55, 75, 86, 109, 119, 142
 - airports and airlines 41, 97–8
 - change in SOE employment 27
 - percentage of workers in SOEs 26
 - public wealth and GDP 51
 - SOEs and GDP 27, 28, 29
 - Telia 102–3
- Norwegian Air 41, 98
- Norwegian Air International 41
- Novey, Don 36
- NTT DoCoMo 19
- Nuon 106, 107
- Nyberg, Lars 104
- Obama, Barack 187–8, 189
- OECD 18, 58, 69, 109–10, 140, 152, 198
 - asset value of SOEs 20, 46
 - bribery and corruption report 31, 33
 - central banks 14
 - GDP and number of SOEs 26, 27
 - Guidelines on Corporate Governance of SOEs 110, 131
 - privatization 72
- ÖIAG 113, 148, 152–3, 155
- Olam International 119
- oligarchs 142, 164
 - Greece 160
 - Ukraine 56
- Olson, Mancur 134
- Olympic Airlines 64
- Olympic Games 7, 143
- OM Gruppen 87
- openness 65–7
- operational strategy 161

- Ophir Energy 119
 Oppenheimer family 119
 Optus 117
 orphaned SOEs 13, 125
 Oséo 145
 Ottoman dynasty 177
- Panama 5
 parks 3, 4, 42, 43
 Párpública 10, 148
 Pellbäck, Martin 82
 pension funds 1, 3, 14, 110, 127, 197, 198
 asset management 52, 53
 Brazil 22
 infrastructure 190, 191
 mismanagement 112
 New Zealand 112
 Persson, Göran 82, 84, 86
 Peru 147, 149, 152
 Petrobas 34, 76, 78–9
 Peugeot 34
 Piech family 80
 Pireaus 190
 Poland 2, 19, 107
 asset value of SOEs 20
 change in SOE employment 27
 percentage of workers in SOEs 26
 SOEs and GDP 28, 29
 political independence 131–3, 153, 172–5, 178, 180–1
 banks 172–3, 175–6
 governance of public assets 128, 131–3, 134
 government entity approach 142–3
 political insulation 93–4
 Porsche 80
 Portugal 10, 148
 change in SOE employment 27
 percentage of workers in SOEs 26
 SOEs and GDP 28, 29
 postal services 18, 20, 23, 69–70, 99–101, 148
 Denmark 70, 101
 Germany 70, 79, 169–70
 infrastructure 192
 monopolies 23, 70, 169–70
 Netherlands 70, 79, 99, 169
 privatization 70, 167, 168, 169–70
 real estate 183
 Sweden 70, 87, 87, 89, 99–101, 169
 UK 70, 167, 168, 169
 Post Danmark 101
 Poste Italiane 35
 Posten 87, 87, 99–101
 PostGiro 100
 PostNord 101
 post offices 20
 Sweden 70, 99–100, 169
 UK 168–9
 Power Marketing Administrations (PMAs) 35–6
 Prakash, Tej 5, 129, 137
 privatization 1–2, 6, 43–4, 72–5, 141, 145–6, 197
 airports and airlines 16–17, 63–4, 65
 banking 73, 80
 Canada 1
 China 74–5, 170–1
 Europe 17–18, 63, 168
 financial risk management 130
 future NWFs 172
 Germany 72, 80, 169–70
 Greece 10, 165, 190
 infrastructure 187, 190, 192
 Japan 187
 new governance failure 79–80
 NWFs 145–6, 152, 154, 155
 postal services 70, 167, 168, 169–70
 productivity of public wealth 62
 railways 9, 11, 18, 73, 187

- removing wealth from political control 11–12
- Romania 133
- seaports 190
- SOEs 13, 72–5, 79–80
- state capitalism 17–18
- Sweden 11, 81–2, 84, 89, 92, 167
- telecommunications 167, 168, 169
- Thatcher 18, 72, 134, 159, 168
- traditional decentralized governance 139
- UK 18, 72–3, 134, 159–60, 167–9, 168, 190
- Ukraine 57
- utilities 35, 167
- value creation 163, 164–5, 166–8
- produced assets 50
- productivity 59, 62, 75, 110–11, 161
 - Lithuanian forests 66
 - SOEs 13, 19, 23–4, 25, 76
- professional management 178–81, 184, 197–8
- Public Administration Review* 31
- public commercial assets 52–4
- Public Investment Management Index (PIMI) 59
- public–private partnerships (PPPs) 3, 20, 192
- public wealth definition 3–4
- public wealth malaise 30

- Qatar 151
- Qatar Airways 65
- Qatari Diar 46, 151
- Qatar Investment Authority 151, 191
- quasi-capitalism 63–71
- quasi-governmental organizations 4

- railways 90–1, 136, 183, 185–91
 - Germany 18, 186, 188
 - Greece 160, 162
 - infrastructure 185–6, 187–8, 189–91, 192, 194
 - privatization 9, 11, 18, 73, 187
 - Sweden 11, 83, 87, 89, 90–1, 101
 - UK 188, 189–90, 194–5
- Ratos 88, 93
- RBS 184
- Reagan, Ronald 11, 18
- real estate 3–4, 43, 60, 73, 111, 142, 182–4
 - assessing value 44–6
 - Greece 44, 61, 162, 166
 - infrastructure 193–4
 - land registration 66–7
 - management 60–2, 179, 198
 - military 45–6, 48, 182–3
 - NWFs 137, 146, 154, 157, 182–4
 - postal services 183
 - return 60–2, 182, 197
 - size of public wealth 46, 47, 48–50
 - Sweden 60, 140, 182, 183
 - transparency 61, 128–9, 182, 184
 - value creation 161–2, 165–6, 170, 171
- Real Plan (Plano Real) 77–8
- Reconstruction Finance Corporation (RFC) 144
- redistributive goals 20
- regional/state government 2–3, 4, 154, 192, 198
 - airports 16, 63–4
 - assessing value of public assets 43, 45
 - China 74
 - corruption 31
 - lack of registry of assets 10
 - Lithuanian forests 66
 - privatization 73, 79–80
 - seaports 190
 - size of public wealth 47, 49, 50
- regional wealth funds 136, 137, 154

- regulation 15, 67–71, 107, 181, 191
 - corruption 31
 - lobbying for relaxation 37
 - market failures 7
 - privatization 1, 2, 6, 12, 73, 168
 - public pension funds 112
 - railways 195
 - state aid 131
 - Sweden 89–90, 105, 106–8
 - Temasek 119, 121–2
 - traditional decentralized governance 138
- Renzi, Matteo 35
- Resolution Trust Corporation 145
- Riksbank 177
- roads 3–4, 91, 100, 180, 191–4
 - Germany 186, 194
 - infrastructure 43, 134, 185–6, 191, 192, 193
- Romania 133, 152
- Rong Yiren 158
- Rostec Corporation 148
- Rousseff, Dilma 34, 78
- Royal Dutch Shell 122
- Royal Mail 167, 168, 169
- Russia 2, 8, 17, 33, 55, 145, 148
 - forestry 46
 - Gazprom 55
 - infrastructure 186
 - pipelines 57
 - public wealth and GDP 51
- Saab Group 85–6
- Saab Kockum 86
- SAFE 156
- Samruk-Kazyna 150
- Sara Lee Corporation 122
- SAS 41, 87, 97–8, 101
- SASAC 157–8
- SAS Sverige 87
- Sassoon, Lord James 82, 109
- Saudi Arabia 4
- savings and loan (S&L) crisis 38–9, 141, 145
- Scandlines 91
- Schäuble, Wolfgang 194
- Schiphol 79
- Schmid, Georg 40
- Schmidt, Wilhelm 40
- SCIC 150
- seaports 190–1
- Second National Development Plan 76
- Securum 145
- Sembawang 113
- Senaat 150, 157
- Senate Properties 61, 183
- SEPI 10, 149
- Seven Energy 119
- shale gas and oil 46
- Shanghai 18, 170
- Shareholder Executive 109, 146, 184
- Sheng-Li Holdings 114
- Shinawatra, Thaksin 117
- Shin Corporation 117
- Shinkansen, Tokaido 187
- shipping 113, 114, 117
- SIG 149, 152, 165
- Silva, Luiz Inácio Lula da 34
- Silverado Savings and Loan 39
- Singapore 13, 15, 147, 155
 - airports and airlines 64, 65
 - buying submarines 85
 - GDP 115, 119
 - NWFs 152, 153
 - railways 187
 - seaport 190
 - Temasek 81, 113–24, 132, 147, 150, 153
- Singapore Companies Act 121, 123
- Singapore Financial Reporting Standards 123
- Singapore Technologies Engineering 114, 115, 117

- Singapore Technologies Telemedia 117
 Singtel 115, 119
 Sinohydro 191
 Sinopec Corp. 75, 157
 size of public wealth 46–50
 worldwide 50, 51, 52
 SJ (Statens Järnvägar) 83, 87, 90–1,
 101
 Slovak Republic 20, 51
 Slovenia 50, 145
 change in SOE employment 27
 percentage of workers in SOEs 26
 public wealth and GDP 51
 SOEs and GDP 28, 29
 social aims 6, 7, 11, 125, 129
 monopolies 70
 transparency 10–11, 128, 129
 social value 4, 7, 192–3
 Söderberg family 88, 93
 soft states 8, 10
 Solidium 109, 129, 148, 153, 181
 Sonali Bank 73, 74
 Sonera 103
 Sonera Oy 103
 Song Lin 31
 South Africa 2
 South Korea 21, 24, 115, 120, 155
 change in SOE employment 27
 percentage of workers in SOEs 26
 SOEs and GDP 28, 29
 South Stream pipeline 57
 sovereign wealth funds (SWFs) 52,
 53, 114, 118, 146
 CIC 149, 156, 191
 compared with NWFs 146–7, 154
 Soviet Union 83, 84
 Spain 10, 19, 39, 149
 asset value of SOEs 20
 change in SOE employment 27
 percentage of workers in SOEs 26
 SOEs and GDP 28, 29
 special interest groups 34
 Springfield, John 12
 Standard & Poor's rating 123, 149,
 150, 151
 Statliga Akademiska Hus 87
 Statoil 26, 55, 75
 state aid regulation 131
 state capitalism 17, 21–2, 23
 renaissance and backlash 17–20
 State Export-Import Bank of Ukraine
 56
 State Grid 157
 state-owned enterprises (SOEs) 2–3,
 8–9, 105–8
 active management 81–101
 appointment of board members
 174
 assessing value 45, 46
 asset value in OECD 20
 Brazil 76–9
 change in employment 27
 China 2, 8, 17–18, 22–3, 74–5, 109,
 124, 126, 139, 170–1, 190
 clientelism 34–6
 conflict of interest 36
 corruption 31–3
 failure of new governance 79–80
 financial crises 37
 Finland 20, 26, 27, 28, 29, 140
 Fortune 500 list 22
 GDP 27, 28, 29
 governance 13–14, 17, 30–42, 66,
 69–70, 137
 Greece 20, 26, 27, 28, 29, 162
 independence 113, 131
 management 23–5, 101–5
 monopolies 126
 neglecting consumer perspective 41
 NWFs 137, 147, 149, 183
 OECD Guidelines 110, 131
 orphaned 13, 125
 privatization 13, 72–5, 79–80
 productivity 13, 19, 23–4, 25, 76

- regulation 63, 67–71
- return on public wealth 55, 59, 62
- shifting interests to infrastructure 190, 185
- Singapore 113
- social aims 11
- state capitalism 17–18
- Sweden 13, 20, 26, 27, 28, 29, 81–108, 123, 130
- Temasek 114, 115
- traditional decentralized governance 137
- transparent governance 125, 126
- Ukraine 57
- Vietnam 198
- whether good for growth 25–9
- workers as percentage of total workforce 26
- worldwide public wealth 50
- State Property Fund 146
- State Savings Bank of Ukraine 56
- Stattum 88
- Stenbeck family 88, 93
- Stirling AIP engine 85
- Stoiber, Edmund 40
- StoraEnso 83
- streamlining 98–101
- streetcars 188–9
- Stubb, Alexander 153
- submarines 85–6
- Sun Tzu 124
- supervision 174
- Suppiah Dhanabalan 118
- Suriname 32
- Sveaskog 84, 183
- Svenska Kraftnät 87
- Svenska Spel 87
- Swebus 91
- Swedbank 106
- Swedcarrier 90–1
- Sweden 81–108, 109–10, 140, 142, 145
 - active management 81–101, 109–10
 - airports and airlines 97–8
 - asset value of SOEs 20
 - banking 81, 82, 100, 101
 - capital structure 96–7
 - central bank 177
 - change of governance style 81–108
 - change in SOE employment 27
 - clear objectives 94–5
 - forestry 66, 82, 83–4
 - GDP 28, 29, 51, 106
 - Guidelines for External Reporting 129
 - hands-off management 101–5
 - holding companies 81, 105–8
 - largest owners 88
 - monopolies 80, 83, 86–7, 89, 102
 - new governance failures 80
 - NWF ownership policy 175
 - percentage of workers in SOEs 26
 - political insulation 93–4
 - portfolio disposal 92
 - postal services 70, 87, 87, 89, 99–101, 169
 - post offices 70, 99–100, 169
 - privatization 11, 81–2, 84, 89, 92, 167
 - professional management 178, 181
 - public wealth and GDP 51
 - railways 11, 83, 87, 89, 90–1, 101
 - real estate 60, 140, 182, 183
 - regulation 89–90, 105, 106–8
 - roads 194
 - size of public wealth 47, 50
 - SOEs 13, 20, 26, 27, 28, 29, 81–108, 123, 130
 - SOEs and GDP 28, 29
 - SOEs and incentives 123, 130
 - streamlining 98–101
 - technological innovation 89–93
 - Vattenfall 106–8
- Swedish Fortifications Agency 183
- Swedish Maritime Authority 183

- Swedish National Heritage Board 183
- Switzerland 6, 104, 169
- airports and airlines 64
 - change in SOE employment 27
 - ownership of forests 46
 - percentage of workers in SOEs 27
 - public wealth and GDP 51
 - SOEs and GDP 28, 29
- Syndicate Bank 32–3
- Tana Africa Capital 119
- Tanzania 119
- Tanzi, Vito 5, 129, 137
- technological innovation 89–93
- technology, media and
- telecommunications (TMT) 116, 119, 120
- telecommunications 136, 148, 155, 183
- Germany 169–70
 - privatization 167, 168, 169
 - Telia 86, 87, 87, 101, 102–5
- Telenor 86, 102
- Telia 80, 86, 87, 87, 101, 102–5, 167
- “Telia model” 100
- TeliaSonera 103, 104–5
- Temasek 81, 113–24, 147, 150, 153, 158
- annual review 123
 - credit rating 132
 - governance today 121–3
 - pioneer 113–21
 - portfolio 120
 - return 155
 - role model 123–4
 - transparency 117, 121, 123
 - value creation 165
- Tennessee Valley Authority (TVA) 35–6, 73
- Terra Firma 162
- Thailand 117
- Thatcher, Margaret 86, 92
- privatization 18, 72, 134, 159, 168
- Three Gorges Dam 186
- thrifts 38–9
- ThyssenKrupp 85
- Time Warner 60
- TNT 79
- TNT Post Group 169
- Tokyo Metro 187
- TPG 99
- trade unions 14, 34, 41, 100
- Trans-Pacific Partnership 22
- transparency 2, 6–8, 95–6, 123, 128–30
- active governance 109
 - assessing value of public wealth 45
 - Brazil 76
 - corporate governance 173, 176
 - future NWFs 172, 173, 180–1
 - governance 14, 79, 123, 125, 126, 128–30, 197–8
 - government entity approach 142
 - holding companies 129, 142
 - information on public assets 65–7
 - infrastructure 191, 193
 - NWFs 153, 157, 158
 - political independence 132, 134
 - privatization 74
 - public pension funds 112
 - real estate 61, 128–9, 182, 184
 - size of public wealth 49
 - social aims 10–11, 128, 129
 - SOEs 125, 126
 - Sweden 89, 90, 94, 95–6
 - Temasek 117, 121, 123
 - value creation 161, 164, 167, 170
- Transparency International Corruption Perceptions Index 32
- Treuhandanstalt 141, 145–6
- Troubled Asset Relief Program 145, 178
- trust 180–1
- Turkey 21, 166
- asset value of SOEs 20
 - percentage of workers in SOEs 26
 - SOEs and GDP 28

- UBS Warburg 82, 109
- UK 15, 109–10, 131, 145–6, 147, 178
 - airports and airlines 16, 63, 191
 - Annington estates 162
 - asset value of SOEs 20
 - boards of NWFs 174
 - change in SOE employment 27
 - GDP 28, 29, 47, 49, 51
 - government entity approach 142
 - infrastructure 188–91, 194
 - LABV 164
 - National Balance Sheet 47
 - percentage of workers in SOEs 26
 - postal services 70, 167, 168, 169
 - post offices 168–9
 - privatization 18, 72–3, 134, 159–60, 167–9, 178, 190
 - public wealth and GDP 51
 - quantifying assets 160
 - railways 188, 189–90, 194–5
 - real estate 182, 183, 184
 - sale of Chelsea Barracks 46
 - Shareholder Executive 109, 146, 184
 - size of public wealth 47–8, 48, 49, 50
 - SOEs and GDP 28, 29
 - telecommunications 167, 168, 169
- UK Financial Investments 145, 184
- Ukraine 50, 56–9, 138, 139, 146
 - public wealth and GDP 51
- United Arab Emirates 190
- United Defense Industries 85
- United States Army Corps of Engineers 8–9
- United States Enrichment Corporation 11
- urban wealth funds 136, 137, 152, 154
- US 2, 4, 15, 19, 37–9, 141
 - airports and airlines 16–17, 41, 63–4, 65, 170
 - assessing value of public wealth 45, 46
 - asset management 55, 134
 - bailout of AIG 131
 - banking 37–9, 155, 178
 - Chinese SOE floatation in New York 18
 - clientelism 35–6
 - conflict of interest 36
 - corruption 31, 33
 - economic freedom 13
 - forestry 42, 46, 197
 - GDP 28, 47, 51
 - governors of Federal Reserve 112
 - infrastructure 8, 33, 187–9, 190, 191, 193
 - lack of central registry of assets 10
 - lawsuits against Petrobras 79
 - NWFs 144, 145, 152, 152, 154
 - overexploitation of public land 42
 - percentage of workers in SOEs 26
 - privatization 11
 - postal services 69–70, 169
 - public wealth and GDP 51
 - real estate 42, 60, 61–2
 - reform of governance of public wealth 196–8
 - return 4–5, 60, 61–2
 - size of public wealth 47, 50
 - SOEs and GDP 28
 - Swedish companies 85
 - SWFs 146
 - TeliaSonera 104
 - Temasek 117, 120, 123
 - utilities 137, 148–50, 185
 - Germany 18
 - privatization 35, 167
 - US 35–6
 - see also* electricity
- Uzbekistan 104–5
- Vale 22, 34–5
- value creation 161–3, 173
 - conditions 171

- debt finance 163–6, 171
- equity finance 163, 166–71
- strategies 159–71
- value maximization 105, 125, 127, 138–9
 - Greece 10
 - NWFs 7, 62, 118, 153, 154, 180, 182
 - objective 94, 96, 128–9, 130–1, 139
 - Panama 5
 - Singapore 118
 - strategies 161, 163, 164, 167
 - Sweden 13, 99
 - Temasek 122
- Van Massenhove, Frank 60
- Van Reenen, John 24–5
- Vargas, Getúlio 76
- Vasakronan 87, 140, 183
- Vassallen 183
- Vattenfall 80, 87, 87, 106–8
- Vietnam 37, 123, 150, 198
- Vin&Sprit 87
- Vinashin 37
- Volkswagen 79–80
- Voser, Peter 122
- VT Systems 117
- wage earner funds 89
- Wallenberg, Marcus 122
- Wallenberg family 85, 88, 93, 97, 181
- War Finance Corporation 144
- wealth management 146
- Whole of Government Accounts (WGA) 47, 48
- Wooldridge, A. 133
- World Bank 110, 111, 122, 139
- World Trade Organization 68
- worldwide public wealth 50, 51, 52, 54
- Wowerit, Klaus 64
- Xi Jinping 32, 124
- yield and return 54–6, 125–35, 154–8, 182, 197
 - achieving higher 59–62
 - infrastructure 54, 186
 - real estate 60–2, 182, 197
 - Temasek 121, 123
 - Ukraine 56–9
 - value creation 159, 160, 161, 164
- Zhou Yongkang 31
- Zimbabwe 111
- Zoellick, Robert 122