
Temasek and The Singapore Model

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EXECUTIVE SUMMARY

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INTRODUCTION

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HISTORY

Temasek Holdings was founded in 1974 to hold and manage all the business and investment assets previously held by the Singapore government for the ten years immediately following its independence. This was done to take the investment and business management aspects of these activities out of the hands of the Singapore government and Singapore Ministry of Finance so that those entities could focus on governing and policymaking instead. However, Temasek is a private corporation in the country of Singapore, *not* a government entity in any way. This interview with Temasek's public affairs director provides some insight on why Temasek was founded in such a manner:

'Stephen Forshaw, managing director of strategic and public affairs at Temasek in Singapore

and MD for Australia and New Zealand, explains: "In the early years of Singapore's independence, there was an acute priority to fill the employment and economic activity gap caused by the withdrawal of the Royal Navy, so the Singapore Government established a number of companies that developed businesses in shipbuilding, offshore marine services and heavy industry."

By the early 1970s, says Forshaw, "the government determined it should not be in the business of running commercial enterprises, but instead focus on its role as a policy-setter, regulator, and steward of the economy.

So Temasek was formed, and the government's shares in those operating companies were transferred to Temasek to own on a commercial basis."¹

The initial shares Temasek received were in 35 different companies and were valued, in total, at S\$354 million in 1974, which is \$721 million in 2017 US dollars.² These companies included everything from a bird park, to a hotel, a shoemaker, a detergent producer, naval yards converted into a ship repair business, a start-up airline, and an iron and steel mill.³ The capital acquired from the sale of these companies was used to create a direct investment pipeline which allowed for the continual growth of Temasek. This process is how Temasek grew from \$721 million in 1974 to \$275 billion today—a growth of over 38,000%.

HOLDINGS AT INCEPTION

From Temasek's website: "Temasek was incorporated in 1974 to commercially manage an initial portfolio valued at S\$354 million [\$721 million in 2017 US dollars], acquired from the Singapore Minister for Finance. This move enabled the Singapore Government to focus on its core role of policymaking and regulations."

Companies in bold are "still within the Temasek portfolio, directly or indirectly, while the rest have been divested or liquidated." The industry in which this company is involved is indicated with each listing as well.

1. Acma Electrical Industries Ltd (**electronics manufacturing**)
2. Cerebos Singapore Pte Ltd (**food and supplement manufacturing**)
3. Chemical Industries (F.E.) Ltd (**chemical manufacturing**)
4. Development Bank of Singapore Ltd (**finance & banking**)
5. Instant Asia Cultural Shows Pte Ltd (**tourism & marketing**)
6. Insurance Corporation of Singapore Ltd (**insurance**)
7. International Development and Construction Corporation (**construction & development**)
8. Intraco Ltd (**industrial investment company**)
9. Jurong Bird Park Pte Ltd (**park**)
10. Jurong Holdings Pte Ltd (**construction, design, development, and management**)
11. Jurong Shipbuilders Pte Ltd (**ship manufacturing**)
12. Jurong Shipyard Pte Ltd (**ship docking and repair**)
13. Keppel Shipyard Pte Ltd (**ship docking and repair**)
14. Metrawood Pte Ltd (**unknown**)
15. Ming Court Hotel Ltd (**hotel**)
16. Mitsubishi Singapore Heavy Industries Pte Ltd (**industrial manufacturing**)
17. National Engineering Services Pte Ltd (**engineering**)
18. National Grain Elevator Ltd (**food production**)
19. National Iron & Steel Mills Ltd (**steel manufacturing**)- (**S\$50 million in 1961—\$133 million 2017 USD at founding**)
20. Neptune Orient Lines Ltd (**container shipping & logistics**)
21. Primary Industries Enterprises Pte Ltd (**food processing & manufacture**)
22. Sembawang Holdings Pte Ltd (**energy and water production, marine engineering, urban development**)
23. Singapore Airlines Ltd (**airline**)
24. Singapore Airport Duty-Free Emporium Pte Ltd (**airport retailer**)
25. Singapore Cable Car Pte Ltd (**tourism—S\$5.8 million in 1968--\$13.3 million USD in 2017 dollars**)
26. Singapore General Aviation Service Company Pte Ltd (**corporate & private aviation**)
27. Singapore National Printers Pte Ltd (**print-**

ing)

28. Singapore Offshore Petroleum Services Pte Ltd (**oil industry logistics**)
29. Singapore Textiles Industries Ltd (**textile manufacturing**)
30. Singapore Treasury Building Pte Ltd (**former treasury building holding company**)
31. Singapore Zoological Gardens (**zoo**)
32. Singmanex Pte Ltd (**dissolved holding company**)
33. Sugar Industry of Singapore Ltd (**sugar manufacturing**)
34. United Industrial Corporation Ltd (**property development & investment**)
35. United Vegetable Oil Pte Ltd (**vegetable oil manufacturing**)

It is important to note that all of these companies were either founded or funded in part by the Singapore government themselves in the 10 years between gaining independence and forming Temasek. The Singapore government astutely surveyed the natural comparative advantages of Singapore's geography, location, culture, and population, then strategically invested into or founded companies which would both be individually profitable as well as, in the aggregate, catalyze the growth of the entire Singapore economy in the process.

TEMASEK GOVERNANCE

Temasek Holdings operates similarly to any other investment entity in that it has a CEO, shareholders with voting rights, and a board of directors. It is a commercial entity with total

control over its assets. "This means that it can make business decisions relating to its portfolio with full commercial discretion under the guidance of its board, such as increasing, holding, or decreasing its investment holdings to achieve maximum risk-adjusted returns over the long term."⁴

However, Temasek also possesses several key governance quirks which set it apart from a normal corporation and make it a somewhat unique entity. Temasek is specifically named in the Singapore constitution as one of Singapore's key entities, which entitles Temasek to constitutional safeguards protecting its past reserves.⁵ Temasek's one and only shareholder are the Singapore Ministry of Finance. Temasek distributes dividends to shareholders just as many other corporations do. However, these dividends are either injected directly into the Singapore government budget or reinvested into the company. In this way, Temasek pays the Singapore government twice: once in the normal taxes it pays as any other Singapore corporation, and again as dividends to the Ministry of Finance. The only other right the shareholder has is the removal or appointment of board members. However, this, too, is subject to approval from the President of Singapore.⁶

A small but important detail about this relationship shifted in 2015. From 2015 forward, 50% of the dividends the Singapore government expects to receive from Temasek will be incorporated into the official Singapore budget for that year. Knowing the nature of government, this

means Temasek's dividends will almost always be taken and used by Singapore rather than re-invested into Temasek as has historically happened.⁷

Despite this close relationship with the government of Singapore, Temasek has complete and total discretion over its activities without the involvement of its shareholder. It is audited by an impartial international audit firm on a yearly basis. Although Temasek is exempt from disclosing any financial information publicly (as any other Singapore corporation is), they public the Temasek Review on a yearly basis to lay out their portfolio performance over the past year.⁸

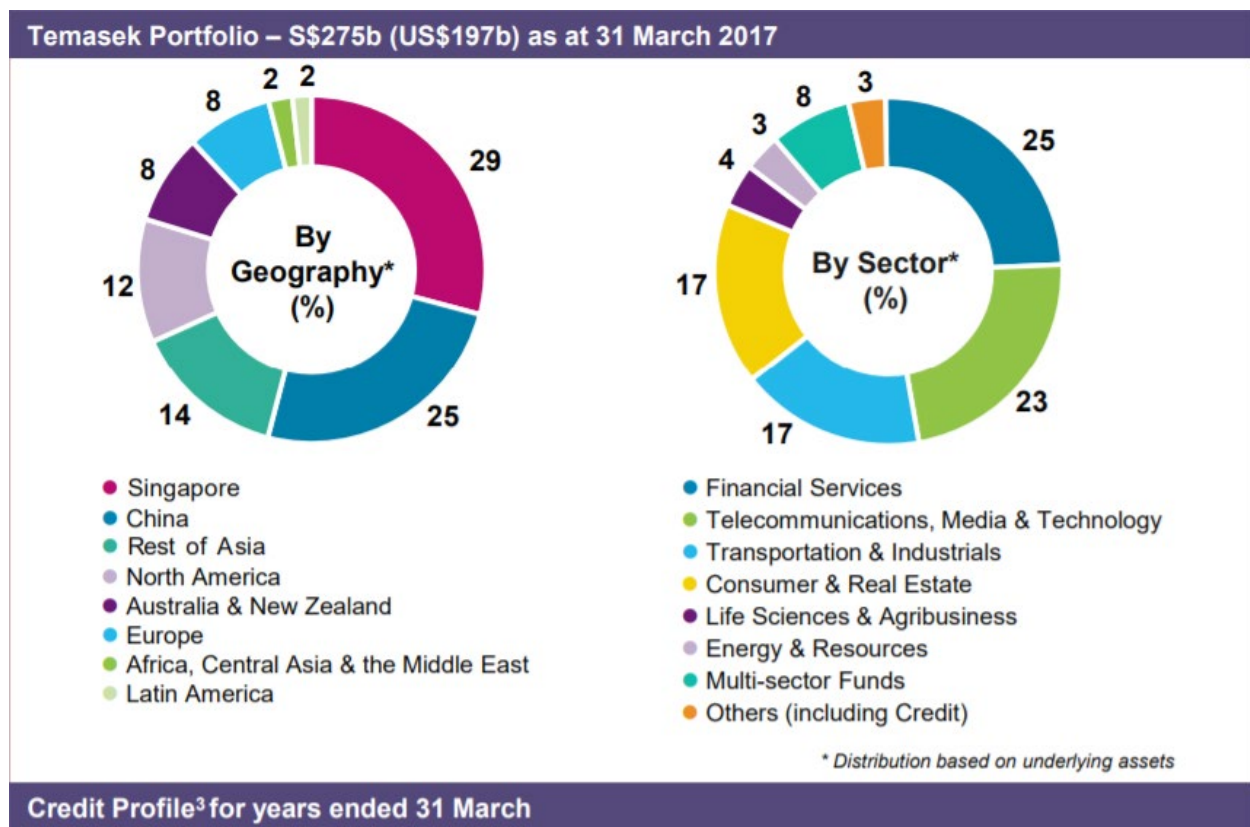
One final differentiating factor for Temasek which sets it apart from any other Singapore corporation is the process of altering the Board's composition or the CEO. Any changes of the BoD or CEO are subject to the approval of the president of Singapore at all times. The board is also accountable to the President of Singapore to ensure all divestments occur at "fair market value." This is meant to be a bulwark against corrupt business behavior from Temasek.

INVESTMENT STRATEGIES

Although Temasek is considered by many to be a sovereign wealth fund, it hotly disputes this moniker. Unlike any other SWF on the planet, Temasek pays taxes, invests in equity, and is the outright owner of all its assets.⁹

It is also unlike any other sovereign wealth fund in its investment activities. Rather than invest in a conservative mix of real estate, debt, and some equities with the aim of barely making a return above inflation (as most all other SWFs do), Temasek is 100% equities and invests heavily in emerging markets around the world. This is a far more aggressive and risky investment strategy than any other SWF on the planet, lending credence to Temasek's claim that they are not an SWF but are an ordinary investment company instead. It is also important to note from this that Temasek is not a REIT in any shape, form, or fashion—they have zero real estate investments.

Temasek specializes in investment in emerging markets and economies. This is both the source of its astounding returns as well as high risk relative to other funds of its size and scope. Since the financial crisis of 2008, Temasek has been attempting to obtain a 40:30:20:10 investment split between Asia (40%), Singapore (30%), OECD countries (20%), and Latin America (10%) respectively. According to Temasek's [2017 Investor Fact Sheet](#), they have nearly achieved this goal, with 39% in Asia (China and otherwise), 29% in Singapore, roughly 28% in OECD countries, and 4% in either Africa or Latin America:¹⁰



The industry breakdown included in the above graph shows that Temasek is highly diversified and involved in businesses from a variety of sectors. Note that although this seems to indicate investment in real estate, it does not; this is merely a graph based on underlying assets. Temasek only invests in some funds which, in turn, may invest in real estate. Temasek is and has always been 100% equities.

Temasek prides themselves on identifying and investing in start-ups or medium-sized firms poised to become household names. They've done this with Singapore Airlines, Amazon, Alibaba, and the China Construction Bank.

However, they've also invested in a gamut of cutting-edge start-ups and research firms. These include things as radical as a company focused on manufacturing healthy artificial meat, to biologically identical artificial leather, to Singapore-focused coworking firms, to things as mundane as the Singapore Zoo and paint manufacturing companies. These investments are guided by four principles established in the Temasek Charter:

- Transforming Economies
- Growing Middle-Income Populations
- Deepening Comparative Advantages
- Emerging Champions

From their website:

As an investor, we remain focused on intrinsic value and our core risk-return framework. We decide on investments and divestments based on bottom-up intrinsic value tests, and our investment returns are tracked against a risk-adjusted cost of capital. This risk-return framework drives our investment strategy, capital allocation, performance measurement and incentive system.

This framework also guides us as we strive to be an enabler across all stages of enterprise growth, from start-ups to later stage businesses. We seek out disruptive business models that can transform industries and uplift growth.¹¹

Overall, this paints a picture of Temasek as an aggressive investment firm that has the backing and support of the government of Singapore. The fact that Temasek's one shareholder in the Singapore Ministry of Finance means that Temasek's health is ultimately directly tied to the well-being of Singapore itself.

Temasek's investment decisions are not always based 100% purely on potential returns, though. They sometimes invest in companies in Singapore to preserve Singaporean-majority ownership of certain key firms. This is why Temasek is heavily invested in things like Singtel (Singapore's primary telecoms firm) and ST Engineering (a major Singaporean defense contractor).¹²

Overall, however, Temasek is focused on returns for its shareholder. In this respect, they

have performed exceedingly well. They've had a total shareholder return of 15% since their inception, with a 4% return to shareholder in the last ten years. However, this 10-year averages mask the volatility of these returns: in 2004, Temasek posted a shareholder return of 46%, while in 2009, they posted a 30% shareholder loss.¹³ This volatility is because they are 100% in equities. However, this volatility is a double-edged sword—it is what makes Temasek's excellent rate of returns possible.

COMMUNITY ENGAGEMENT

To cultivate a strong brand with the people of Singapore as well as give back to the community, Temasek is involved in a variety of philanthropic endeavors. It has created six philanthropic foundations, all of which are funded and governed by the Temasek Trust.¹⁴ As previously mentioned, the Temasek Trust has committed S\$2bn (USD \$1.4bn) for community initiatives in Singapore and Asia more broadly. This S\$2bn has been utilized by the six major foundations in a variety of ways. The six foundations, as well as their primary objectives and activities, will be sketched out below.

- 1. Temasek Foundation International:** According to their website, Temasek International is the “organization that funds and supports programmes, which aim to build capabilities with programme partners in Asia and beyond.”¹⁵ This includes training health-care professionals, training teachers and ed-

ucators while enhancing their equipment capabilities, student leader exchange programs, assisting public policy and urban planning, disaster relief, and youth camps. This is what one typically conceives of when discussing philanthropic foundations.

2. **Temasek Foundation Cares:** This foundation focuses on Singapore and improving the lives of the people therein. This includes operating a donor human milk bank, a business emergency preparation course for business owners and leaders in Singapore, a program aimed at helping pregnant women detect and prevent diabetes in their children, and occupational therapy for students with learning disabilities.¹⁶
3. **Temasek Foundation Connects:** This program is aimed at reducing international tensions in the geopolitical region around Singapore. According to their website, “the foundation’s programmes promote dialogue and advance collective knowledge and mutual understanding in key areas that are important to Singapore and on a global front. These include various issues such as security, geopolitics and economic imperatives of emerging markets, as well as best practices in areas such as corporate governance and stewardship.”¹⁷ This includes teaching foreign languages of the region to Singaporeans and funding scholarships aimed at increasing regional regulatory cooperation by finance industry leaders.
4. **Temasek Foundation Nurtures:** This is a straightforward education-focused foundation. The organization “funds and supports

programmes are focusing on education and professional development. It aims to develop talent and foster learning and growth, especially for youths to make the leap in areas such as music, arts, sports, math and science, engineering and technology.”¹⁸

5. **Temasek Foundation Innovates:** This foundation manages the Singapore Millennium Foundation (SMF) Research Grant Program, a competitive grant program aimed at funding research in “niche or under-funded” areas of science.¹⁹ They have a heavy emphasis on research into food security as well.
6. **Temasek Foundation Ecosperity:** This is an environmentally focused foundation prioritizing research on solutions for improving livability. They do two calls for proposals per year to identify projects for funding. According to their website, “Interested parties, such as individuals or groups, researchers, collaborators, institutions, organisations or companies, are invited to apply for funding for their project in focal areas such as air, biodiversity, chemical safety, energy, food, infectious disease management, land, noise, waste management, water, and weather and climate. In line with the aim of eventual commercialisation, applicants are encouraged to work closely with industry partners who can support the scaling-up and operationalising of their technologies.”²⁰

These six foundations together show the powerful benefits to the community which result from an alignment of incentives between a sovereign wealth fund and the welfare of the citizens of

a jurisdiction. They support programs in everything from education, to care for the needy, to the environment and sustainability. These programs seem to have a significant impact on Singapore and surrounding communities while, in many ways, buttressing the business and investment interests of Temasek. In that way, these programs are multimodal, serving to help Temasek's publicity and brand, help the local community, and potentially identify ground-breaking and highly profitable new industries all at once.

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