By Generations, *For Generations*

FIFTY YEARS OF **TEMASEK** AS TOLD BY THE PEOPLE WHO SHAPED IT

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WHO SHAPED IT

TEMASEK

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50 YEARS

BY GENERATIONS *for Generations*

TEMASEK

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Foreword

Lim Boon Heng

On 27 May 1965, during a tumultuous period three months before Singapore became independent, our founding Prime Minister Lee Kuan Yew gave a lengthy speech in the Malaysian parliament.[1]

It described in detail his vision for a successful nation and included two statements that have stayed with me.

Of himself and his vision of governance, he said, "I don't trade in people's miseries. My business is the people's happiness." It was a clear and simple statement of purpose. This purpose is enshrined in the Proclamation of Independence. We are reminded each time we recite the National Pledge.

Of Singapore, he said, "We are gentle people who believe very firmly in ideas."

I believe those two statements also sum up the spirit of Temasek.

As a long-term investor, our purpose is to ensure longevity for the benefit and "happiness" of future generations. And to do this, we have had to rely on constant innovation and bold ideas to grow, create value and stay relevant in this fast-changing world.

At times, these bold ideas might not have worked out as we expected. But we have always made it a point to learn from our mistakes, so as to regroup and emerge stronger.

Singapore's founding leaders were very clear that while Singapore may be small, it shall survive. Fundamental to the people's happiness was employment. Only with income from employment could people feed and clothe their families, provide a roof over their heads, pay for medical care and educate their children. During a time of high unemployment, the Singapore Government started several companies to create jobs.

The founding of Temasek in 1974 was, in itself, a bold innovation. While we were created to own and manage these assets, the underlying objective was to allow the Government to focus on its core role of policymaking and regulations. As a professionally managed investment company, our decisions are guided by business tenets and commercial discipline. Our shareholder, the Minister for Finance, does not direct our investment, divestment, or other business decisions. It holds our Board and Management fully accountable. And it expects us to deliver long-term sustainable returns.

It has taken enormous wisdom and discipline on the part of the Singapore Government, since independence, to clearly distinguish between its role as shareholder and its role as policymaker for the larger good of Singapore.

Those principles have served Temasek well in the last 50 years and I believe they will continue to serve us well into the future, even in a challenging global environment.

I want to make special mention of Dr Goh Keng Swee, one-time Deputy Prime Minister of Singapore and architect of Singapore's economic miracle. He was not only a numbers man; he recognised very early the role of human capital long before it became a buzzword in the vocabulary of management consultants.

Among his many bold ideas and innovative initiatives, he pushed for the development of human talent and invested in education as the key to unlocking the potential of Singapore's then impoverished population.

Similarly, Temasek has always given our employees opportunities to realise their potential and to go beyond. For a company that was pioneering so many things in so many ways, this approach has been crucial to our success. And I am glad that we have always had the right people with the temerity to take on daunting challenges. They learned the ropes, launched themselves into exciting new waters and thrived in the process.

The journey, however, has not always been smooth.

As we are an island state, I hope you will indulge me the use of maritime metaphors. One could say we have sailed in choppy waters and faced dark clouds. There were times when we had to bide our time, waiting for storms to pass. We might have even had to tack off-course for a while, adjusting our sails when winds changed and currents shifted.

But we have always kept our ship seaworthy. From time to time, we might have had to jettison some load, repair some damage, or cut some rigging. But we always aim to bring everyone home safe.

This is because, as an institution, we build not just for ourselves, but for our shared future with the wider community and ultimately for our next generations in Singapore.

Today, Temasek is a much bigger entity than it was in 1974, unrecognisable from its humble beginnings when it was created to help a fledgling nation fend for itself.

One thing remains constant, though. It must continue to innovate as it ventures further into new and exciting investments, supporting high-growth businesses to scale new heights in a changing world with its evolving needs.

As you turn the pages of this book, I hope you will gain a better understanding of the extraordinary spirit of this unique company, shaped by generations of men and women who have made a significant difference to Temasek's success.

It is this spirit that has moved us since our inception. Our Purpose – *So Every Generation Prospers* – is the compass that guides us on our journey.

Lim Boon Heng is Chairman of Temasek Holdings.

The Temasek Charter
2024

Temasek is a global investment company rooted in Singapore.
Operating on commercial principles,
we deliver sustainable returns over the long term.

As stewards of our assets,
we engage our portfolio companies
to enhance shareholder value and advocate good governance practices.
Together, we contribute to the uplifting of the communities
in which we operate.

We invest in human potential,
build with courage, and catalyse solutions,
with sustainability at the core of what we do.

In all these, we seek to Do Well, Do Right, and Do Good.
Doing things today with tomorrow in mind,
So Every Generation Prospers.

Prologue

Ho Ching

It was the turn of the millennium. The Y2K threat had receded, unnoticed.

As CEO of Singapore Technologies, I had been reviewing a list of potential CEO successors annually with the board.

When Peter Seah[1] became available, it was an opportunity not to be missed. No stranger to Singapore Technologies, Peter would bring a wealth of experience.

Various difficult decisions had already been set in motion, including some sticky personnel challenges. This would give Peter a good start, with a clean, strong and unencumbered hand.

I was ready for an early retirement and a different cadence of life.

Then, I got a call from Mr S Dhanabalan, then Temasek Chairman.

Dhana wanted me to join Temasek as CEO.

I demurred.

I had had a good run, and considerable fun, since my start as a newly minted defence engineer in the Ministry of Defence (MINDEF) in 1976, before moving to the defence industries as Director of Engineering in 1987.

By the early 1990s, I had pivoted to head the newly formed Singapore Technologies Ventures or STV, shepherding an eclectic collection of start-ups. All were loss-making. My plea to include at least one profitable unit fell on deaf ears. Tough, but what to do?

Concerned colleagues had earnestly dissuaded me: STV was a suicide mission, with added political repercussions if I were to fail.

STV was a tough turnaround. Singapore Technologies later was another transformation at scale. Thank goodness for all the mothers who step in selflessly to help their working daughters mind their kids and supervise the household.

So, I was intent on taking life easy when Dhana's call came.

Eventually, I compromised – I would join as an executive director, but not as CEO.

Quek Poh Huat, former President of Singapore Aerospace, would continue as head of Temasek.

It was a happy arrangement. I was free to focus my energies selectively. More importantly, I had time to get to know Temasek, its people and its roots.

And so began a new and exciting chapter for me, and possibly for Temasek too!

ROOTS OF TEMASEK

When Poh Huat first went over from Singapore Aerospace to head Temasek in the 1990s, he was hit by withdrawal syndrome – no emails on the go.

Dutiful office peons were still going from desk to desk, twice a day, delivering and collecting paper folder files. Temasek's parent ministry had long been computerised under the old National Computer Board initiative.

But Temasek was a small outfit, with its spark of ambition breaking out occasionally. By 2002, Poh Huat had already built some heft in the management team, hiring some senior professionals with investment advisory experience, including in the groundbreaking public offering of Singtel shares.

Unlike the derring-do of Singapore Technologies with its "why not, why not, why not" culture, the first impression of Temasek was that of a somewhat staid organisation peppered with little silos.

However, Temasek held an impressive portfolio of storied companies. The likes of Singapore Airlines, Keppel, Sembawang and DBS rang the founding bells of economic history in Singapore. They recall the early years of hard scrabbling for Singapore's survival and transformation from Third World to First.

There was also a later batch of hefty assets – Singtel, PSA and Singapore Power were newly corporatised government entities, divested to Temasek during the 1990s.

The Government had wanted to open up the market for basic services to spur better efficiency and lower cost.

The corporatisation and divestment of backbone services like port, telco and power in the 1990s echoed the earlier 1974 creation of Temasek that freed the Ministry of Finance (MOF) from commercial shareholder duties. Without the S$354 million mixed bag of assets endowed to Temasek, MOF could focus on its core mission of policymaking for the economy as a whole.

Temasek was a mystery to most Singaporeans, despite the fanfare and news during its first decade.

Yet, investment bankers could come to me with their construct of Temasek's portfolio – even 100% Temasek-owned companies like PSA had issued bonds with transparent financials.

I laughed and told these bankers they had got it about 95% accurate.

So Temasek was not really a secret, despite its public image and reputation. The little silos of Temasek, however, were not just figurative. They were real.

Our offices in Treasury Building had cantilevered circular floor plates that could not take the load of filing cabinets at their periphery. To go from one department to another, we sometimes had to take the lift to the ground floor to change to another set of lifts, just to reach an office three floors away.

Yet, there was something charming beyond the stately Temasek name logo twinkling in gold at the main reception entrance.

I dug up and read old Board papers and minutes, starting from Temasek's inception in 1974. Yup! Those paper folder files were a historical trove.

What came through clearly was the picture of a young company constantly searching for an identity and a meaningful role. Should it hire and build its own management team instead of depending on secondees from MOF? Should it co-invest overseas with Singapore companies?

Girding that constant questioning was a seriousness of purpose, a desire to do good and an intangible pride that it had a bigger mission beyond simply making money.

Temasek was a real diamond, unpolished no doubt, but it shared the same ethos of integrity, hard work and professionalism that typifies many Singapore icons like Singapore Airlines and Singapore Power.

STEPPING UP AND BREAKING NEW GROUND

The 2000s saw another series of changes in Temasek, in keeping with its ceaseless search for relevance since inception and its tireless mission to be the best that can be.

There were three areas of change – internally, as well as externally vis-à-vis its shareholder and its engagement with the broader stakeholder base out in the world.

Internally, we decided to pull together, closing small offices in Hong Kong and San Francisco, to re-centre the organisation back into Singapore to rethink the future.

To keep headcount low, we offered our paper file delivery office peons training courses of their choice, to prepare them for roles elsewhere if they could not find a fit after a year.

That gave us room to recruit more investment professionals and technical support staff, including IT, finance, human resource and legal folks.

We also looked for a large-floor-plate office, to open up the silos shaped by an inefficient scattering of personnel across small, disconnected pigeonhole offices at the Treasury Building.

At the new and much cheaper low-rise office at the Atrium next to Plaza Singapura, Temasek staff chose a deep royal purple for our logo, with a certain steadfastness in its hint of navy blue, juxtaposed against a certain liveliness and sense of the unusual in the purple. We voted to keep the font as a link to our roots.

Work also began on our core values, our Charter, and our dreams and ambitions for Temasek.

In the years since, we have revisited our core values. We were terrible at spelling – toggling between MERRIT and MERITT – but there was always the M of Meritocracy, the E of Excellence, the R of Respect, the I of Integrity, and the two Ts of Teamwork and Trust, to gird and guide us.

The Temasek Charter clarified our working relationship with our shareholder, who would be a non-interfering shareholder operating at arm's length, and likewise with our portfolio companies as a non-directive shareholder respectful of the interest of the company and all its stakeholders. It served as a public stake in the ground for Temasek to be an active investor, free to invest and to divest. The scope of this living document has since expanded over time.

We made some ideological changes too. Instead of Government-Linked Companies or GLCs, we began to use the term Temasek-Linked Companies or TLCs for short. Tender Loving Care, some joked, not too far off the mark. Today, these TLCs have been further "de-linked" and unleashed as Temasek Portfolio Companies or TPCs[2].

Our Board revised our dividend policy, taking full ownership of a company that would freely invest, divest, or re-invest to deliver sustainable long-term returns to our shareholder.

We patiently built a long-term incentive infrastructure and system to align our employees towards a long-term "owner" mindset and the right risk-return metrics.

We tracked our risk-adjusted returns – larger risks must come with higher returns. There is no reward if we are not delivering above the risk-adjusted hurdle.

But markets have cycles – credit cycles are typically shorter at about three years, with business and market cycles longer at about six to seven years. So, our deferred bonuses can be earned or clawed back over three-to-12-year horizons – much, much longer than the vast majority of companies anywhere in the world.

People are precious individuals, with life beyond work.

We instituted family-friendly policies, benefits and amenities, especially to nudge people to look after their own learning and health as a long-term personal investment.

It was a case of doing things today with tomorrow clearly in our mind, with people at front and centre.

We alerted our shareholder that we would like to issue our annual report publicly.

Yes, it would be an embarrassment if we had to report poor results. But if we were not prepared to hold ourselves to our aim of delivering sustainable long-term returns, we had no business to be in Temasek, right?

Our annual reviews aimed to demystify Temasek, peeling the onion steadily for our stakeholders, the general public and the larger marketplace.

We were so focused on delivering beyond our own tenure that journalists were counting the dozens of "long-term" phrases peppering our annual review briefings!

We issued bonds, partly to institutionalise financial discipline, also as an added layer of defence.

If we mucked around and weakened our financial position, our bond spreads would widen – a clear and public signal that something may be amiss.

By issuing bonds of different tenures, we created a reference yield curve for others. We were gratified that this helped tighten borrowing costs for our TPCs.

Our teams were very busy transforming Temasek and our portfolio of companies on multiple fronts. We were socialised to the idea of constant change – with the urgency to be a new Temasek every three years, to remain relevant or perish.

We gave ourselves the responsibility to do well, do right and do good.

Companies have a role to play in the larger community beyond just making money. If we don't re-fertilise the ground, we will not be able to grow with a growing region. Hence, businesses and institutions have to go beyond their immediate mission to find sustainable ways to seed a better future.

And so, in 2003, we instituted a policy of setting aside a part of our excess returns above the risk-adjusted cost of capital for community contributions.

But we took our time to find the right construct – Temasek Trust and Temasek Foundation were eventually established in 2007, with a S$500 million endowment for Asia.

STEPPING OUT INTO ASIA

We stepped out deliberately into Asia in 2002.

Why?

The Temasek portfolio had grown, leveraging on and contributing to the growth and success of Singapore in its early decades.

Asia was on the cusp of change too – so why not leverage on Asia's growth and contribute to its success, as a second wing in the coming decades?

In 2003, we dreamt that China could be a triple-A economy in 30 years, with India not far behind, as a double-A economy. Ambitious, but not implausible.

We set ourselves an audacious T2010 goal of doubling our portfolio by 2010, starting from about US$50 billion in 2004.

Our investments into Asia helped us double our portfolio value by 2007.

That gave us the courage to double our target yet again, only to be set back by the Global Financial Crisis of 2008–2009.

But we rebounded in 2010, exceeding our initial T2010 goal anyway, and the rest is history.

Meanwhile, we fine-tuned our engine and spawned new funds and new players in Asia, including in China, Korea, and elsewhere in South and Southeast Asia.

JOINING THE WORLD AND PREPARING FOR THE FUTURE

After the Global Financial Crisis, we began expanding beyond Asia.

As CEO of Temasek since 2004, I started an annual succession review with the Temasek Board. We scoured the world every year for potential Temasek CEO successors, and also gave our internal candidates as much exposure as possible.

Several senior recruitments were aimed at bringing in people with the potential to be CEO. Some worked out well as part of our senior team. Others started new funds, ran other companies as CEOs, or went on to other roles. Yet others were recruited directly by our TPCs.

CEO succession was difficult. Investment bankers or lawyers are in client servicing or advisory roles. Not all can transit successfully into owner-investors who instinctively own the morning after.

The Temasek leadership needs owner-investors who understand and respect our culture of long-term ownership. Its CEO must have that owner-investor sense of mission to want to build a resilient portfolio for future generations.

Our annual lists of potential successors included internal candidates as well as external candidates, in and out of Singapore, over the immediate, short, medium and long time frame beyond five years – just as I had done at Singapore Technologies.

Why immediate? What if the CEO gets run over by a bus, right?

We would try to bring these "immediate potential" candidates in, either on the Temasek Board or as members of the senior team, who can step in as interim or immediate successors.

I was very pleased that the Board had a difficult time in choosing my successor, because there were eventually two excellent candidates who had already been with Temasek for at least 10 years.

Dilhan Pillay Sandrasegara took over from me as CEO of Temasek in October 2021. He was already a seasoned member of the Temasek team who had thought about the future of Temasek several times over. And still continues to do so today.

Yes, the world today is very different from the world 20 years ago.

Globally, the climate is already gyrating more wildly, from Canada to Antarctica, and in advanced as well as developing economies. If the world of nations and a community of human beings don't do anything sooner than later, we will likely tip over suddenly into a turbulent climate disaster bigger, faster and more devastating than humankind can manage.

We must prepare for a climate-unstable world that is riven by deep human divides and geopolitical tensions. A long-term investor must try to pre-empt a climate emergency for better long-term returns.

Despite challenges, Dilhan has taken over a Temasek that is stronger, more capable and more resilient, with a larger network of friends, partners and alumni across the world.

Dilhan was already pushing for a more resilient portfolio. As CEO of Temasek, he is pushing for a future-ready team, including improved processes to spot and cultivate his own potential successors, even as he stakes out the medium-term goals of T2030.

Dilhan has teased out the North Star of the Temasek journey.

So Every Generation Prospers.

Ho Ching was CEO of Temasek Holdings from 2004 to 2021. She became Chairman of Temasek Trust in 2022.

BY GENERATIONS,

FOR GENERATIONS

PART I

Feeling the Stones 1974–2004

"One of the tragic illusions that many countries of the Third World entertain is the notion that politicians and civil servants can successfully perform entrepreneurial functions."[1]

DR GOH KENG SWEE
Singapore's founding Minister for Finance

What is Temasek?

Is it a sovereign wealth fund[2] or a facilitator of local enterprise? Does it have a high or a low appetite for risk? Is it a small, passive Singapore-centric outfit once criticised for being opaque, or an active global investor and trusted partner, lauded as one of the most transparent among its peers?

In truth, Temasek is all of the above. It is a complex organisation that has evolved over its 50 years of existence. And it must continue to evolve.

As Ho Ching, Chairman of Temasek Trust and Temasek's former CEO, said, pithily: "Every few years, we must be a different Temasek. If not, we are dead."[3] The company changes with the world and, in particular, with Singapore, to whose fate it is inextricably tied.

In August 1966, a year after Singapore gained independence[4], its Foreign Minister, S Rajaratnam[5], said in the country's first National Day message: "We must learn to do things today with tomorrow very clearly in our minds."

Temasek has also adopted this ethos as a generational investor, headquartered in a tiny island state half the size of London.

Newly independent Singapore possessed a strong drive for survival that more than made up for its lack of acreage. Among its leaders were Dr Goh Keng Swee, Singapore's first Finance Minister, largely acknowledged as its chief economic architect; and Hon Sui Sen, who was Dr Goh's Permanent Secretary before becoming the first Chairman of the newly formed Economic Development Board (EDB) in 1961.

As Dr Goh crafted the policies, Hon, who became Finance Minister in 1970[6], would make sure the nuts and bolts were assembled properly and the wheels were running smoothly in "Enterprise Singapore".

In 1973, the year before Temasek was founded, Singapore as a nation was barely eight years old. But its future looked bright. The country had clearly picked itself up since independence, first from British colonial rule and, later, Malaysia. Even the threat of unemployment caused specifically by the British withdrawal – a real danger as the British forces employed around 20% of Singapore's work force[7] – no longer posed a problem, thanks to the expanding economy.

Singapore's founding Prime Minister Lee Kuan Yew said in his 1973 New Year message: "We shook off our dependence on British military expenditure. We developed a significant industrial sector. We built up Singapore as a banking and financial centre. We increased our sophistication as a servicing centre, both physical and brain services."[8]

This massive effort to prepare Singaporeans for a changing economic environment had included the conversion of British military bases and the retraining of base personnel, even as EDB worked relentlessly to promote new investments and create new jobs.

The Singapore Government was at a crossroads. On the economic front, the country was shaking off its post-independence doldrums and raring to work with other countries in the region.

But it was hampered by a growing stable of companies it had to manage. Most were start-ups, cutting across diverse industries and straining the time and resources of the Ministry of Finance (MOF).

A number had been formed from former British colonial or military entities – Keppel Shipyard was formerly the Singapore Harbour Board; and Sembawang Shipyard was a conversion of the Royal Navy Dockyard. There were other companies like Cerebos[9], the British manufacturer of Brand's Essence of Chicken, one of the many co-investments made by EDB for jobs in Singapore; and minority stakes in retail businesses like Yaohan[10], a popular but now-defunct Japanese department store which, in its heyday, established five outlets across Singapore, starting with Plaza Singapura in 1974.

There were even offshoots of Government itself, such as Singapore National Printers (SNP)[11], incorporated in 1973. Among the largest of these was Singapore Airlines (SIA), incorporated in 1972 under the chairmanship of J Y Pillay[12], as a split-out from Malaysia-Singapore Airlines which had been jointly owned by Malaysia and Singapore.

In his 1973 Budget speech, Hon announced the Government's intention to commit S$100 million for equity participation in capital-intensive support industries. There was, therefore, an urgent need to rationalise and tidy up these holdings as it became increasingly untenable for the Government to be holding and managing them directly.

So, a separate holding company was formed.

On 30 May 1974, MOF staff suggested four names for it: Temasek, Colossal, Merlion and Solar. Hon looked through the list and ticked the name "Temasek". This was also the name preferred by Pillay. "Temasek"[13], the old name for Singapore, is thought to derive from the Malay *tasik*, meaning "body of water", or the Javanese *tumasik*, which means "sea town".

On 25 June 1974, Temasek Holdings (Private) Limited was incorporated under the Singapore Companies Act[14] and MOF transferred a portfolio of 35 companies and investments with a book value of S$354 million to it. It had two Directors – Chua Kim Yeow and Lim Lin Teng. In August, Pillay came on board as Temasek's first Chairman.

A new chapter in Singapore's economic story had begun. Temasek was officially in business.

COMMERCIAL PRINCIPLES

Despite its provenance, Temasek's founding in 1974 was informed by commercial principles and disciplined governance – not state-nannying and protectionism.

These principles were summed up by Dr Goh in a speech at the Income AGM[15] on 20 June 1977. He said: "We do not own and run enterprises on ideological grounds. We also do not buy over private business in trouble so as to save jobs. If a Government-owned enterprise loses money, it is allowed to go bankrupt and this has happened, fortunately, in very few instances. We expect Government-owned enterprises to be efficient, to make money and to expand whenever feasible. These Government-owned companies, in other words, are run just like private business enterprises are run or supposed to be run."[16]

Temasek's Vice Chairman of Singapore Market and former Chief Financial Officer Leong Wai Leng[17] said: "You look at some of the decisions Hon Sui Sen and Goh Keng Swee made. They were ahead of their time, largely because they understood our vulnerability. I want to give a lot of credit to the people who started Temasek; they recognised that, despite political pressure, the best way to run a bunch of portfolio companies is to make sure that they are run on a commercial basis."[18]

TEMASEK HOLDINGS(PRIVATE)LIMITED

Incorporated in Singapore under the Companies Act (Chapter 185)
Registered Office: 5th Floor, Fullerton Building, Singapore 1.
Authorised Capital: $200,000,000 divided into 200,000,000 shares of $1.00 each.

THIS IS TO CERTIFY that ______
is the Registered holder of ______ *Shares*
of One Dollar each fully paid in TEMASEK HOLDINGS(PRIVATE)LIMITED *subject to*
the Memorandum and Articles of Association of theCompany.
GIVEN under the Common Seal of the Company
this ______

CANCELLED

Number of Shares ______ *Director*

Certificate No. 000088 ______ *Secretary/Director*

A copy of an old share certificate.

TEMASEK HOLDINGS
(PRIVATE) LIMITED

Certificate No. 000188

(Incorporated in the Republic of Singapore under the Companies Act, Chapter 50)
(Registration No. 197401143C)
Registered Office: 60B Orchard Road, #06-18 Tower 2, The Atrium@Orchard, Singapore 238891

No. of Shares ______

This is to certify that ______
of ______ is a
Registered Shareholder of ______ shares in
Temasek Holdings (Private) Limited (the "Company") subject to the provisions of the Constitution of the Company.
The shares are fully paid / partly paid up to ______ .
Given under the Common Seal of the Company this ______ day of ______ .

Director ______ Director / Secretary

In 2017, the design of the share certificate was updated.

In 2010, at the state funeral for Dr Goh, S Dhanabalan[19], Temasek's Chairman from 1996 to 2013, said in his eulogy: "As Minister, Dr Goh never interfered with the day-to-day operations of the Government-linked companies. Even though many of the boards were headed by civil servants with no business background, he gave the boards and management the latitude to pursue their business interests according to the opportunities and imperatives of the market. In my first 10 years in DBS, he only questioned the bank once about a business decision and even in that case did not impose his view on the bank. He established the foundations of the corporate governance model which we now follow in Temasek."[20]

To trace the evolution of Temasek's behaviour as an investor, it is also instructive to understand how, in the context of the Singapore Government's investment vehicles, its profile is different from that of the Government of Singapore Investment Corporation (GIC), which was set up in 1981.

GIC is a manager of Singapore's foreign reserves, which are a form of rainy-day fund. GIC's mandate is to preserve and enhance Singapore's international purchasing power. Hence, it does not invest in Singapore. In contrast, Temasek is an investment company with reserves generated from assets it owns or its ventures, operating under the ambit of the Singapore Companies Act, and free to invest in or out of Singapore. Its sole shareholder is the Minister for Finance – a body corporate[21], an equivalent of an individual owner. The shareholder holds the Board responsible for the business of the company.

Said Ho Ching: "What Temasek owns and manages does not belong to the Government, unless Temasek is wound up. Just owning a share in a company does not give one the ownership of a table owned by the company. Only when the company is wound up and the assets sold can a shareholder lay claim to the proceeds from the sale of the table. If the shareholder wants a particular table, he has to bid for it in a winding-up sale through a proper process or acquire it if the company puts it up for sale."

She added: "We in Temasek run Temasek as an owner. This has a whole lot of meaning at various levels – how we think about who we are, what we are and what we do; how we shape Temasek, how we build discipline for the future. We are a strange animal, rare in the world, with no easy parallels."[22]

A SLEEPY START

Temasek's first five years, from 1974 to 1979, were mainly administrative and custodial. Its tasks included maintaining books of accounts, executing share transactions and carrying out secretarial work on board appointments. All key decisions came from MOF. Indeed, the 35 portfolio companies under Temasek's wing operated independently and their heads would often bypass Temasek and liaise directly with MOF.

When Margina Lee, who worked in Temasek until 2014, joined the company in September 1977, her office was in an attic room in what was then Fullerton Building[23], located next to the Singapore River. The building was home to MOF at the time and was reborn in 2001 as the stately Fullerton Hotel fronting the Singapore River and overlooking the sparkling Marina Bay.

In the 1970s, things were considerably less glamorous. The building's anchor tenant was the General Post Office. Lee's office was on the sixth floor, in a windowless room big enough for only four people.

It was a revelation to young staff like her to be tasked with the manual settlement of trades in shares. She recalled they had to send instruction letters to banks which would then buy the foreign exchange needed to settle the trade.[24]

They had no idea how quickly the banks needed to move and would get short shrift from forex dealers when they had to seek the boss' approval or signature for a decision, or take in three quotes for a job. In those pre-computer times, they also had to ferry signed letters back and forth, making the forex trading process even more arduous.

Lee had joined the civil service under the Ministry of Culture before being posted to MOF's Revenue Division, where she was tasked to help at Temasek. Her salary was S$175 a month. Together with her were three other women – her senior officer and two others from MOF's taxation division. Lee's main job was to record dividends from portfolio companies and handle other administrative matters. She vividly recalls work intensifying when Singapore's sole opposition Member of Parliament at the time, J B Jeyaretnam, had questions in Parliament for the Minister for Finance regarding Temasek. Then, they would find themselves in a flurry excavating data for the Minister's replies. She

The General Post Office in 1953. When Temasek was founded in 1974, its first office was a room in the attic. *Source: Ministry of Information and the Arts Collection, courtesy of National Archives of Singapore* recalled of the late Jeyaretnam: "He asked many questions, like 'How much money do individual Temasek companies make? Which are the loss-making companies? How much is the loss? Why did the company incur losses?' We needed to get a lot of data."[25]

Another of Lee's colleagues was Company Secretary Quek Chee Hoon, who was seconded to Temasek in 1977 from MOF's Revenue Division. He would sit at one side of the attic while the women sat at the other. Resources were so scant they did not even have their own document binders. Whenever there was a board meeting, they would have to borrow one from their external auditor.[26] Quek would later join Temasek full time, eventually becoming its Executive Vice President in 1991.

As a Cabinet Minister at the time, Dhanabalan remembers getting periodic reports summarising the performance of all the companies. He said: "Temasek collated data from portfolio companies but was not given the responsibility to analyse. It was basically a custodian rather than an actual investor and manager of the investments."[27]

J Y Pillay, Temasek's first Chairman, said: "If somebody had to enforce discipline on GLCs [Government-linked companies][28], it would be the Minister really. Maybe sometimes the Minister could ask the Permanent Secretary, but more likely it would be the Minister because the chairmen of those boards were senior to me. So, it would have been a bit difficult for me to read the riot act to them. Theoretically, it was possible but in practice, they'd probably say, 'Okay, I am going to see the Minister.' What do you do?"[29]

Indeed, many GLC chairmen in the 1970s and 1980s were high-profile figures, some of them having served previously as senior civil servants. They included George Bogaars, who was Chairman of Keppel Shipyard; Sim Kee Boon at Keppel Corporation; Lee Ek Tieng at Sembawang Shipyard; Howe Yoon Chong at DBS; and Herman Hochstadt at Neptune Orient Lines (NOL).

"They were so senior that there was no way a civil servant who is a GM in Temasek could actually query or oversee them," said Dhanabalan who, in his career, also served as Chairman of DBS and SIA. "But that was not the intention," he added. "I mean, these were entities led by very senior people and, quite rightly, the Government said, 'They know what they are doing, leave them alone,' which was absolutely the right policy."[30]

Temasek becoming biggest holding in South-east Asia

By QUEK PECK LIM

STATE-OWNED enterprises, vested in an investment holding company called Temasek Holdings Pte Ltd control assets of $1.6 billion.

This places Temasek squarely among the top five largest corporations in Singapore and Malaysia. Measured against Business Times' list of top 100 companies (quoted on the Stock Exchange), it would rank fifth after Oversea-Chinese Banking Corporation, United Overseas Bank, Malayan Banking and Development Bank of Singapore.

But this does not reflect the complete worth of the corporation since it owns the largest stake in DBS (49 per cent) and interests in other companies (below 50 per cent equity) with a book value of $132 million.

If one were to count Temasek's gross assets by board control, the figure could easily come to over $3.5 billion making it the largest enterprise in this region.

Muscle

With such powerful corporate muscle, it seems strange that so little note is taken now of the fact that state-owned enterprises play a vital and increasingly visible part in the economic life of the Republic. It was not so in the earlier days.

A few years ago, when these same enterprises were starting their commercial life, the furore and opposition to their continued operation were intense.

gamut of commercial, industrial and leisure fields.

It controls the operations of the largest shipbuilding yard in Singapore, the largest ship-repair complex, the national airline, the third largest bank, the national shipping line, and a significant stake in the equity of nine quoted companies listed on the Stock Exchange of Singapore.

But Temasek Holdings is not the archetypal monolithic state-owned corporation with dozens of executives busily plotting the course of the many companies under it charge. Nor is it the bury conglomerate with centralised controls and performance orientated plans.

In fact, Temasek has only one company officer — a company secretary (Mr Cheong Boon Liang) — and the only other company officials are its five directors.

Awesome

In keeping with the awesome size of Temasek's holdings, the directors read like a roll call of the creme de la creme of the civil service: Mr. J.Y.M. Pillay (Permanent Secretary, Finance Ministry); Mr. Chua Kim Yeow (Accountant General); Mr. F.J. D'Costa (Director, Revenue Division, Finance Ministry) Mr. Moh Siew Meng (Finance Ministry) and Mrs. Elizabeth Sam (Monetary Authority of Singapore).

It is through these members that control is exerted on operational companies. Mr. Pillay for example sits on the board of Singapore Airlines (as chairman), Mr. D'Costa on the board of DBS. Other major subsidiaries are controlled by such prominent civil servants as Mr. O.E. Bogaars (for Keppel Shipyard) and Mr. Pang Tee Pow (for Sembawang Shipyard).

Otherwise, in keeping with the government's philosophy that state-run enterprises should be as little different

TEMASEK HOLDINGS

PRINCIPAL SUBSIDIARIES	PERCENTAGE OWNERSHIP	NET WORTH	GROSS EARNINGS	GROSS ASSETS
Singapore Airlines	100%	$156,327,852	$58,876,396	$787,501,365
Keppel Shipyard	100%	$159,193,000	$54,397,000	$220,000,000
Sembawang Holdings	100%	$130,000,000	$40,352,000	$269,000,000
S'pore Airport Duty free Emporium	51%	3,446,647	3,468,247	5,984,556
National Engineering Services	100%	8,052,124	( )	9,998,238
International Devt. & Construction	100%	1,805,498	430,826	2,400,000
Primary Industries Enterprises	100%	5,399,998	679,710	7,140,289
Singmanex Pte Ltd	100%	792,333	32,327	1,037,541
Jurong Bird Park	60%	3,801,541	( )	3,801,541
Singapore General Aviation Svc	51%	827,295	( )	827,295
Singapore National Printers	100%	7,711,788	600,000	11,140,000
Neptune Orient Line	100%	49,138,000	( )	191,390,000
		$525,696,076	$158,846,506	$1,610,220,000

*NOTE: computed as of 1975.
( ) losses

	BOOK VALUE	MARKET VALUE
Other investments	$132,000,000	$228,000,000
NET WORTH OF TEMASEK HOLDINGS		$754,696,076

from its incorporation in June 1974 to its year-end in December 1975.

The reason behind this discrepancy in earnings lies in the accounting treatment accorded Temasek. In the opinion of the directors the business of Temasek and that of its subsidiaries are so different that they cannot reasonably be treated as a single undertaking. The profit and loss and balance sheet statements cannot therefore be consolidated.

Subsidiaries

It is not, however, a futile exercise to attempt a consolidation of Temasek's assets since it will show the extent of the government's investment and their relative performance in more conventional financial analysis terms.

The principal subsidiaries of Temasek provide the company with a net

So while circumstances have allowed for Temasek to control the destiny of Sembawang, Keppel and SIA by virtue of the government's claim to these companies, others like DBS had to be forcibly pursued because no private corporation would undertake the task of providing long-term funds for industrial investments.

Beyond these, of course, there are the many social amenities which the government has gone into for the sake of providing a form of entertainment for its people (and also as an attraction for the tourist dollar).

In this vein, it has gone into such exotic ventures as a zoo, a bird park and a cable car company.

The company is perhaps the only one in Singapore with the ability to stomach the losses which these companies will make in their initial

years before the benefits can be reaped.

This is perhaps the reason why the government has amassed so much in the way of investments in so many disparate companies.

Partly to stimulate investments and partly to make sure that the necessary infrastructure industries were in place in Singapore at the right time, the government invested in a host of companies ranging from a steel mill to shipyards, food industries and engineering services.

Vested

These were all vested in a statutory board called the Minister For Finance Incorporated (MFF Inc) which was set up in 1959 the year the present incumbent political party in power took over administration of the government.

As the years passed and the size, scale and scope of these investments grew, it was perhaps felt necessary to create another investment holding company to hold these various stakes.

A senior civil servant, commenting on the transfer of assets from MFF Inc to Temasek, said that the change was to facilitate the operations and control of these investments.

Forming Temasek gave an intermediate holding company between the statutory board and the operational companies. It could fulfil all the regulations and forms required much better than a statutory board could and besides it offered a number of operational advantages which MFF Inc could not provide.

Prominence

It was for these reasons that Temasek was vested with the assets of MFF Inc on Jan 28, 1975 in exchange for 21 million shares—the entire issued capital of the new holding company.

In keeping with its new stance as a commercial enterprise, Temasek has shed its old auditors, the Auditor General of Singapore, in favour of a new one—Goh, Tan and Co.

Its operations are beginning to gain more and more prominence, especially among foreign tankers as its subsidiaries like Keppel and SIA continue to tap the capital markets of the world for their programmes.

Although the 1976 set of accounts for Temasek is not as yet available, early indications are that the principal subsidiaries have made real progress and boosted their profit performance significantly.

All this will add more revenue to government coffers and perhaps provide the fuel for even greater expansion of Temasek to consolidate its place as the largest conglomerate on the corporate scene.

The 1977 article in *The Straits Times* which estimated the size of Temasek's assets. *Source: The Straits Times © SPH Media Limited. Permission required for reproduction.*

Despite the quiet way that Temasek went about its business in those days, the media was taking notice. "Temasek Becoming Biggest Holding in South-East Asia", announced the headline of a lengthy feature article in *The Straits Times,* Singapore's national newspaper, on 16 February 1977. It assessed that Temasek's control over assets worth a total of S$1.6 billion placed the company among the top five largest corporations in Singapore and Malaysia. Furthermore, it calculated that, "If one were to count Temasek's gross assets by board control, the figure could easily come to over S$3.5 billion making it the largest enterprise in this region."[31]

According to the report, while the creation of large state enterprises had caused a great deal of angst in previous years, the atmosphere was more relaxed by 1977 and such ventures were accepted as part of Singapore's normal business landscape. It also noted Temasek's positive contribution to the nation in the form of its employment of some 24,000 people.

However, the article remarked, like many others before and since, that Temasek was a difficult beast to classify, neither an "archetypal monolithic state-owned corporation" nor a "busy conglomerate with centralised controls and performance orientated plans".

Taking the company together with its portfolio, the article quoted an estimate by *The Business Times* which placed Temasek's likely before-tax earnings for 1975 at about S$158 million.

The Straits Times report further pegged Temasek's consolidated net worth at about S$527 million and the market value of its investments at another S$228 million, which meant, therefore, that the company's S$158 million estimated earnings represented an impressive gross return of about 21% on its S$775 million investment. All this within its first year of existence, as of 1975.

Despite the positive tone of the article, Dr Goh, as Deputy Prime Minister, had to reassure a largely trade union audience on 20 June 1977 that the purpose of the Government entering business was to promote economic growth and not, except in special cases, to replace private businessmen.

He declared: "So long as the Government can substantiate its claim that these enterprises are run on business lines, receive no special privileges and are fully competitive with the private sector, that is sufficient justification for the existence and the expansion of these enterprises."[32]

Dr Goh also took the opportunity to update the audience on the 52 companies of which the Government was now a sole or joint owner. These excluded statutory bodies with substantial assets such as the Housing and Development Board (HDB), Public Utilities Board (PUB), Port of Singapore Authority (PSA) and Telecommunication Authority of Singapore (TAS), which were semi-autonomous government agencies answerable to their supervising ministries. Together, the Government-linked companies had a paid-up capital of S$426 million and their 1975 annual sales amounted to nearly S$1.9 billion with net profits before tax of S$157 million. They also employed a total of just under 26,000 people.

The aggregated 1975 net profit before tax turned out to be close to *The Straits Times'* estimate of S$158 million for Temasek's consolidated profits. Later, in 1977, Temasek would report earnings of S$211 million on consolidated assets, with net profit after tax of S$103 million.[33]

Clearly, this was no longer an operation that could be run out of an attic with a handful of staff making handwritten entries in a ledger. There was also a need for Temasek to interact more efficiently and closely with its growing band of portfolio companies.

OUT OF THE ATTIC

In September 1979, Temasek caused a stir when it announced its new General Manager, Dr Chua Yong Hai[34], a high-flying Finance Ministry official and experienced public servant who was a chemical engineer by training.

The market and the media expected a substantial revamp of the company because, as *The Straits Times* reported on 4 September 1979, "the choice of a high-powered deputy secretary from the revenue division of the Finance Ministry is unlikely to be for just a caretaker role".[35]

Pillay, who wore two hats then as MOF's Permanent Secretary and as Chairman of Temasek, said: "By 1979, the workload must have increased to a point that somebody must have said, 'Look, this is too much for us in the Ministry; better find somebody to do it.'"[36]

Dr Chua had come on board with a specific mandate – to set up new management systems and make Temasek a more active holding company as well as investor.

He admitted that he knew very little about the company but got to work quickly, crediting his productivity to Chairman Pillay's empowering management style. He said: "Mr Pillay was such a mentor. He was a person who would tell you what to do and then he left it to you, and you just report to him. He didn't micro-manage. He looked at the big picture and said, 'Well, you report to me what you have done.'"[37]

In 1979, Temasek moved out of the windowless attic at Fullerton Building into the CPF Building on Robinson Road, where MOF was then located. The mood was still relaxed and convivial. Temasek used to battle MOF in inter-department table tennis tournaments. As Temasek only had five employees, all of them had to play. Interestingly, they would usually win.

TEMASEK SHAPES UP

In many ways, 1979 was the effective birth year of Temasek as an investor and shareholder, with its own management team to shape its identity and role.

To begin, it started defining itself outside of MOF. This took shape in 1980 when it moved away from MOF and to a larger space in DBS Building[38] in Shenton Way, Singapore's newly developing financial district.

Wong Heng Tew, now an Advisory Director at Temasek, was overseeing the company's property-related businesses at the time. He said the physical move away from MOF's location had a distinct psychological impact, making Temasek employees feel more independent.

A Temasek staff photo from the 1980s. In the picture are Wong Heng Tew (seated, second from left); Lam Khin Khui (seated, middle); Benjamin Gan (seated, far right); and Margina Lee (standing, seventh from right). *Source: Wong Heng Tew*

The old proximity did have its advantages, though. In the days before email, all physical files had to be transferred by hand. The dispatch staff would now have to trundle back and forth between MOF and Temasek.

Daily work also remained dreary. Lum Choong Wah[39], who took over from Dr Chua in 1982, said: "Most of the time, it was about dealing with shareholders' questions. Like if there was a rights issue coming in or if they wanted to borrow substantial amounts and banks were asking for guarantees, how should they respond? We were like a secretariat."[40]

By 1987, Temasek would move once more, to the Treasury Building where it was again co-located with MOF as well as the Ministry of Trade and Industry (MTI). There it stayed until 2002 when it found a new home with a more conducive floor plate at its current premises at the Atrium@Orchard.

During the 1980s, Temasek began laying the groundwork to be a more active and independent investor. Its three-pronged approach entailed acquiring new investments for expansion; fostering more cohesion and cooperation between its companies; and selling or divesting existing investments.

Its early forays into major investments were baptisms of fire as it attempted to expand, most notably in overseas markets. Initial high-profile overseas acquisitions, like the American canned food company Chun King in 1989 with leading Singaporean F&B company, Yeo Hiap Seng[41], and a New Zealand company called Brierley in 1991, would prove to be unsuccessful and humbling experiences.

While there were lessons to be learnt, they did not blunt Temasek's ambition to expand beyond Singapore's shores, whether as an investor or as a joint venture partner.

Along the way, Temasek continued to straddle the fine line between protecting national reputation as a Government-owned entity and steering for itself a new course as an independent, profit-generating investment company. This balance still characterises Temasek as the unique investment house it is today.

1986

TREASURY BUILDING: SCALING NEW HEIGHTS

Temasek's first major construction project was the Treasury Building at 8 Shenton Way. It was meant to house MOF, MTI and Temasek.

Standing at 52 storeys and 235 metres, it was the tallest cylindrical building in the world then and a prominent landmark in the business district. It was also the first building in Singapore with double-decked lifts. Singaporeans noticed light-heartedly that the skyscraper's unique design resembled a pile of coins stacked high into the sky, making it an apt and auspicious monument to money.

Temasek had financed the more than S$200 million land purchase from the Singapore Land Office with funds from MOF.[42] With a 75% stake, Temasek was the majority owner of the building via a new company it had set up for the purpose, Singapore Treasury Building Pte Ltd. Temasek's partner was DBS Land, the only other owner and also the project manager.

Wong Heng Tew, Temasek's man on the spot for this venture, threw himself into the minutiae of modern construction technology with great enthusiasm. He described the internal structure of the building as "a tree with branches coming out", the "branches" being steel cantilevers extending from a central core to the circumference.[43]

However, during construction, there was some drama when a test revealed that the cantilever design did not meet the required stiffness. Some delay ensued, amid rumbles of potential legal action, but the cantilevers were finally redesigned to meet the required loading and the building was completed in 1986.

In 2007, CapitaLand – formed in 2000 when DBS Land merged with Pidemco Land – sold the building to MGP Raffle Pte Ltd for S$1.04 billion.[44] In 2020, China's Alibaba Group bought a 50% stake in the property in a deal valued at S$1.68 billion. In 2022, Alibaba, together with a consortium led by Singapore-based real estate company Perennial Holdings, announced plans to build on the site a 63-storey mixed-use development. With a maximum approved height of 305 metres, the new building, set to be completed by 2028, will be Singapore's tallest.[45] ■

The Treasury Building in 1993.
Source: Courtesy of National Archives of Singapore

CHAPTER 1

Wading Into the Water

Temasek knew it needed to streamline its portfolio of companies. If divestment, particularly via public listing, was part of the business plan, it was essential to ensure that they were structurally and culturally in tune with international professional and commercial best practices. Market scrutiny would have an impact on the companies' final selling price.

A review of board appointees, therefore, took place in 1981. Singapore Airlines (SIA), Neptune Orient Lines (NOL), Singapore National Printers (SNP), the Insurance Corporation of Singapore, and even Jurong Bird Park and Singapore Zoo, were among those involved.[1]

"Several very senior people were affected in that big reshuffle," said Dr Chua Yong Hai. "Honestly, I couldn't tell you whether they were happy or not."[2]

Another suggestion that bothered some of the portfolio chairmen was the repeated reference in the new guidelines to Temasek becoming a "more active holding company" that would provide "stronger central direction" to its subsidiaries.

It was not an easy ride for Dr Chua. He said: "How did we relate to these Temasek companies, especially those large ones which were chaired by powerful Permanent Secretaries? They had been managed very independently, but now they were requested to submit regular company performance reports and, in some instances, even told what to do."

So, despite the reshuffling of board appointments, Temasek largely left the companies alone, although it still received reports from them. Said Dr Chua: "We also had regular review meetings with the bigger companies, where the chairmen and their management would brief the Minister for Finance and the Temasek Board Directors on what they were doing, their performance, their expansion programmes and so on."[3]

Temasek in the 1980s and 1990s, therefore, managed many of its portfolio companies with a light touch, even though it kept tabs. It required all directors to report back after each board meeting and send minutes; and Temasek staff made annual visits to portfolio companies.

It also tried briefly in the 1980s to encourage them to collaborate and participate in joint ventures or use each other's services. To achieve this without being perceived as taking sides between fiercely competing companies was a delicate task. Said J Y Pillay: "We didn't succeed. After some time, I gave up and said, 'This is a mug's game.' There wasn't that type of synergy, because company A would say, 'Why should I buy something from company B if it is not the lowest price? They are not going to return the favour to me.' How can you argue with that sort of rational explanation?"[4]

The shipyard saga was a key example of this.

1986

KEPPEL AND SEMBAWANG: RIDING THE WAVES

After the global recession of 1982, Singapore's shipbuilding industry was in the throes of a downturn. The industry then consisted of four players: Keppel, Sembawang, Jurong and Mitsubishi-Singapore Heavy Industries (MSHI).

MSHI, a joint venture between Temasek and Mitsubishi Heavy Industries of Japan, had been a loss-making enterprise for years and Temasek would eventually wind it up. After MSHI was shuttered, there were three players left, with Keppel and Sembawang being the two major ones.

In 1986, McKinsey, commissioned by the shipyards to study their ship-repair business, proposed a merger to deal with the overcapacity problem that continued to depress prices in the industry. But neither company was keen

Sembawang shipyard dry dock in 1994.
Source: The Business Times © SPH Media Limited.
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on the idea. The rivalry between them was understandably intense. With the cutthroat environment, they were chasing after the same fewer and fewer contracts. Price undercutting was rampant on both sides, sometimes even after a contract had already been awarded to the other party.

Both Keppel and Sembawang believed they could slug it out and survive. And while Temasek's role in the negotiations was that of an honest broker, it found itself caught in the middle. "We constantly had these two companies coming to us, accusing the other of rocking the boat," said Lum Choong Wah.[5]

The merger didn't happen, and just as well. By 1988, the tides had turned and the ship-repair yards would achieve almost full dock occupancy. In 1997, Sembawang Shipyard and Jurong Shipyard came together to form Sembcorp Marine Ltd. Between them, Sembcorp Marine and Keppel would, in their own individual capacities, become leading oil rig platform builders in the world.

Two decades later, the fates would change once again for the offshore and marine industry, which cratered between 2014 and 2020. This was exacerbated by falling oil prices, a transition to renewables and green energy, and a global economic disruption in 2020 due to the COVID-19 pandemic.

There was a need to hive Sembcorp Marine off from its parent, Sembcorp Industries.

Likewise, Keppel Offshore & Marine was restructured and in late February 2023, it merged with Sembcorp Marine, finally bringing together two fierce historical rivals under one roof. The new merged entity, called Seatrium, became one of the world's largest offshore and marine energy engineering companies. In the first six months after the completion of the merger, it reported an increased revenue of S$2.89 billion, 163.5% higher than the previous half-year's revenue of S$1.09 billion, due to consolidation of projects, strong operational execution, the achievement of product milestones and initial contributions from new projects.[6] ■

TAKING BOLD STEPS

When it came to domestic investments, Temasek's mandate in its early days was to participate in high-risk or capital-intensive ventures that were unlikely to attract any other bidders. These ventures were categorised as either "promotional" or "strategic".

The former referred to projects initiated to encourage others to go into new industries, while "strategic" ones ensured the securing of vital supplies for the country, such as fuel, energy or building materials. These included iconic names such as SIA, DBS and NOL.

Key among the bold new ventures was the Petrochemical Corporation of Singapore and the Singapore Petrochemical Complex, Temasek's first large-scale project and greenfield venture, which straddled both the strategic as well as promotional categories.

The project was a mammoth undertaking which paid off in the end for both Singapore and Temasek. The idea originated from EDB, but it was Temasek who played the part of midwife, bringing it into the world and promoting its healthy development in the process.

While Singapore was already the world's third-largest oil refining centre by the mid-1970s, EDB recognised that nearby countries were snapping at Singapore's heels. There was a need to diversify into petrochemicals which, together with electronics and engineering, was seen as the kind of capital-intensive industry to propel the economy up the value chain.

Tan Suan Swee was an industry officer at EDB looking after the project at the time. Later, he would become EDB's Assistant Managing Director, before joining Temasek's senior team as a Managing Director.

He said: "At that time, no one in Southeast Asia had a full-fledged petrochemical complex. We decided to develop one which would integrate with and also strengthen our existing refining industry. Later, when we built Jurong Island, the knowledge and experience we had accumulated in this early venture was very useful."[7]

1984

SINGAPORE PETROCHEMICAL COMPLEX: BUILDING AN INDUSTRY

Oil was on everyone's minds in the 1970s.

The world had experienced its first oil shock in 1973 when the key supplier nations of the Middle East formed a cartel to control prices. Then came the second punch in 1979–1980, driven chiefly by Iraq and Iran, and developments in the Middle East. Both crises were marked by extreme volatility in oil prices.

"There was a fear that we may not be able to secure crude oil supplies for Singapore, for the refineries, for our power stations and for our airlines, our ships and so on," Dr Chua Yong Hai, then Temasek's General Manager, recalled.[8]

However, Singapore, with its high standards of corporate governance and level playing field between local and international companies, was becoming an attractive destination for international enterprise.

In 1973, the President and later Chairman of Japan's Sumitomo Chemical, Norishige Hasegawa, paid a visit to Finance Minister Hon Sui Sen and Prime Minister Lee Kuan Yew, who shared their vision for a petrochemical hub in Singapore.

Some of the location's advantages were clear. For example, there were already oil refineries nearby. This meant that naphtha, the essential raw material for a petrochemical complex, was easily available. Singapore also had good logistical infrastructure and an efficient port.

In 1977, Japanese Prime Minister Takeo Fukuda[9] announced that his government would indeed back the venture. The key upstream plant would be called the Petrochemical Corporation of Singapore or PCS. The equity structure would be 50% to the Japanese consortium led by Sumitomo Chemical, and 50% to Temasek, on behalf of the Singapore Government.

PCS was incorporated three months later, on 10 August 1977. But for the young officers of the still-fledgling Temasek, the work had just begun. It was an exercise bigger and more complex than any of them had anticipated.

Working together with EDB, whose point man on the project was chemical engineer Lee Yock Suan[10], their first task was to attract downstream companies to purchase ethylene, the main product of PCS. Without substantial offtake by onsite downstream companies, the project would not make commercial sense because all the ethylene would then have to be shipped out, adding costs, rather than being delivered via pipeline to locations nearby.

Together with PCS, which would produce ethylene and propylene, four other downstream companies would make up the neophyte Singapore Petrochemical Complex.

Prime Minister Lee Kuan Yew (second from right), Japanese Prime Minister Takeo Fukuda (left) and Minister for Finance Hon Sui Sen (second from left) attending the reception to commemorate the setting up of Petrochemical Corporation of Singapore (PCS) in 1977. *Source: Ministry of Information and the Arts Collection, courtesy of National Archives of Singapore*

Agreements with each of these companies needed to be negotiated, covering the terms of product offtake, technology licensing, export pricing and a variety of legal issues. Japanese companies also had stakes in each of these companies.

The next step was to arrange the financing, which had to be on commercial terms. The loans, which came from a consortium of banks led by DBS and the Bank of Tokyo, took three years to negotiate and finalise.

It was a complex exercise. First, the consortium had to be put together. Then, separate loans had to be negotiated for PCS and the downstream companies. And as the venture was the first of its kind in Singapore, with the viability of the regional market for petrochemicals yet to be proven, the banks wanted government guarantees. Finance Minister Hon wanted equitable risk-sharing between the Government and the banks. So, the guarantees had to be structured to fall away at a point in the future when certain financial milestones had been reached.[11]

Lum Choong Wah, head of Temasek in 1982, said he found the entire subject matter daunting. "Ethylene? How do I know what ethylene is? Ethylene glycol, what is it?" he added. "You just had to be thick-skinned and ask. Anything you didn't know, say 'Hold on, hold on, what's that word again?'"[12] he recalled, laughing.

His predicament also encapsulated the enormous daring that a still-inexperienced Singapore displayed in taking on such a high-stakes project. This boldness and willingness to venture into uncharted territory would also mark Temasek's evolving company ethos: with no risk, there can be no gain.

By 1982, the Complex was ready. However, it was a time of global recession. Oil prices were at historic highs, following the second oil shock the previous year. Margins within the petrochemical industry were being squeezed. Said Lum: "We couldn't agree on whether to mothball the whole thing, meaning that you finish construction but don't produce; or to slow down construction. Or to carry on and hope the market will improve by the time you finish construction."

Temasek and its co-investors persevered with their vision and the opening of the Complex was postponed to 1984 in the hopes of a better business climate.

In the interim, however, PCS became the butt of jokes. "PCS stood for 'plant cannot start',"[13] recalled Temasek's Foo Siang Tien, who had been involved in the project from the beginning and later moved to PCS where he became its General Manager (Commercial).

PCS was to have the last laugh. Although it ran up losses through 1985, a year when Singapore went into recession, it started to turn around by 1987. By 1988, it had recovered all past losses.

In 1989, Temasek decided to divest its stake in the Complex and all the companies in it to Shell, a transfer implemented in stages from 1989 to 1992. Temasek believed that Shell, which was already supplying naphtha to PCS from its Bukom oil refinery, could vertically integrate and add value to the project in a way that Temasek could not.

Shell drove a hard bargain during sales talks. At one point, negotiations had to be suspended because Lum had contracted chicken pox, no small matter for a man over 50.

He recalled: "When we met again, the moment I entered the room, I heard the lawyer telling the person sitting next to her, 'Hey, yah, it's true! Can see some marks.' Then I realised these blighters thought it was a 'tactical' chicken pox, not the real thing, you know."[14]

Temasek's investment in the Complex may have been short-lived, but it had a catalytic effect, encouraging major oil companies to come to Singapore, which they might never have done otherwise.

It would also serve as a blueprint for industry integration in what would eventually become Singapore's "Chemicals Island", Jurong Island, which was then EDB Chairman Philip Yeo's grand vision to amalgamate the seven southern islands through landfill and reclamation, creating a world-class hub for the chemical industry. The amalgamated islands were connected to the mainland by a road link at the end of March 1999[15] and Jurong Island was officially opened on 14 October 2000.[16] ■

PCS was one of the most notable and high-profile investments Temasek made together with EDB in the company's early days. The impetus at the time was a combination of nation building and economic opportunity.

In later years, however, as Temasek found its feet and became more certain about its mission as an active investment company, it would enter ventures alone and with purely commercial principles in mind.

TRIMMING THE PORTFOLIO

By the early 1980s, the Government had made it very clear it wanted to withdraw from commercial activities which no longer needed to be undertaken by the public sector. It wanted to broaden and deepen the Singapore stock market by introducing new counters and releasing more shares in existing counters; it also wanted to avoid or reduce competitive clashes with the private sector.

As a result, a series of non-core businesses were progressively shed from the Temasek portfolio. They ranged from the Ming Court Hotel and the John White Shoe Factory to National Engineering Services.

Said then Finance Minister Dr Richard Hu: "Do we want to be in all of these? Some are quite small; some can be sold outright to whoever can buy them. The ones which are too big to be sold, list them, sell part of the shares and keep what you want. The ones which we, in the end, decide to not sell completely are the ones which we decide are essential to Singapore's future growth."[17]

In Dr Hu's view, what was essential to Singapore's future growth were companies contributing to Singapore as a hub. Examples included SIA, propelling Singapore as an aviation hub. Likewise, DBS was contributing to Singapore as a financial hub, while PSA made Singapore a maritime hub. "These hubs interrelate to each other; they are mutually supported," said Hu. "Air, sea and land links are self-reinforcing."

Not everybody at Temasek was happy with the divestment exercise. Lam Khin Khui, who joined Temasek in 1980 as a Senior Manager and became its Company Secretary from 1988 to 1989, said: "I felt pain! I felt we should have kept some of those investments that were giving us good dividends."[18]

Lum Choong Wah's statutory board colleagues complained to him that they would be under intense pressure from labour unions worrying about their workers' futures.[19] Some GLCs or joint ventures were also concerned about whether they could continue getting credit from banks. In those days, GLCs were not just considered Government-linked but also Government-backed.

The divestment process picked up speed in 1986, the year after Singapore entered its first recession since independence. The economy had contracted 1.7%[20], shocking a country that had become accustomed to strong and stable growth in the last two decades.

Several factors, both internal and external, had played a part. Slumping global demand, particularly from the US, had led to a fall in international trade. This severely affected Singapore, which relied heavily on exports to fuel its economic growth. A policy to maintain a strong currency had also hurt export competitiveness. Internally, because of national policies implemented in 1979, wage increases had outstripped productivity gains, making Singapore a more expensive place to operate. This not only squeezed the profits of companies in Singapore, but also led some companies to take their investments to other locations around the region.

One of the crisis moments of the recession came in late November 1985 when Pan Electric, a Singapore marine salvage company, along with its 71 subsidiaries, collapsed due to its inability to secure refinancing to cover forward contracts. Investigations revealed a series of unethical and fraudulent accounting activities that landed three of Pan Electric's directors, including a prominent Malaysian political and business figure, in jail.

The financial fallout from Pan Electric's difficulties led to the demise of several brokerages in Singapore and forced the Singapore stock exchange to shut down for three days to protect other brokerages and restore confidence in the markets. This was the only time the stock exchange has ever halted trading in Singapore, then or since.

Pan Electric's collapse led to the selling of its various businesses. Temasek, together with Sembawang Shipyard (partially owned by Temasek), stepped in to buy 22 vessels from Selco, which was part of Pan Electric.

During the recession, the private sector once again raised concerns that the Government and public sector enterprises were crowding out private enterprise. Ho Ching, who joined the Sheng-Li Group[21] of defence and engineering companies in 1987, just after the recession, disagreed with the sentiments.

She said: “The Finance Ministry had imposed a penalty of 5% on all GLCs, which meant that if any other company offered up to 5% more than a GLC, that company would get the job. This meant, therefore, that GLCs were deliberately handicapped during the crisis. People have this idea that Government companies had an unfair advantage during that period, but the unfair advantage was actually given to non-GLCs.

“The way I see it, if you cannot win by 10%, you don’t deserve to live anyway. So, what this exercise did was to make the GLCs even more competitive as they had to fight harder.”[22]

“LET AS MANY PEOPLE HAVE THE SHARES AS POSSIBLE”

By the 1990s, the corporatisation and privatisation of statutory boards was in fact more significant than that of GLCs – in terms of introducing new sectors such as utilities and communications to the market stocks, and in its effect on market capitalisation.

Privatising a statutory board supplying essential services was also a good way to avoid conflict between consumers’ and shareholders’ interests: if the consumer and the shareholder were the same person, they would both be happy with higher profits.

Not least of the benefits was to spread the wealth to the Singapore population which could enthusiastically subscribe to a piece of the action, what then Finance Minister Hu called a “desirable outcome”.[23] Temasek’s Lum Choong Wah put it very succinctly: “Let as many people have the shares as possible.”[24]

But there were tricky issues to navigate, especially when it came to the statutory boards which, in some cases, were not only service providers but also regulators and controllers in their respective sectors.

For example, the Singapore Telephone Board, a Government statutory board or agency, was both a telecommunications service provider in Singapore and the Government regulatory arm for all the telecommunications operations and equipment in the country. So, legislation had to be prepared and new regulatory authorities like the Telecommunication Authority of Singapore (TAS) had to be formed.

While much of this planning and analysis was done by consultants in parallel with corresponding regulatory and legislative efforts at the Government end, Temasek staff were always fully engaged, liaising with the consultants constantly to make sure that everything was on track.

In March 1992, the first major corporatisation exercise was launched with the Government carving out TAS from Singapore Telecommunications (Singtel), the newly corporatised service provider. The regulatory function remained with TAS as the new statutory board under direct Government control, while Singtel was transferred, along with Singapore Post, to Temasek to be managed commercially. This was in preparation for the public listing of Singtel which would take place in November 1993.

The Singtel IPO was a huge success and the Government would subsequently divest many more of its assets, via Temasek, through the 1990s.

1993

THE SINGTEL IPO: HISTORY IN THE MAKING

On 1 November 1993, Singtel shares traded for the first time on the Stock Exchange of Singapore.[25] The IPO was a massive undertaking, breaking new ground for both Singapore and Temasek, and giving Singaporeans a stake in one of the jewels in the country's portfolio.

It was the latest manifestation of the Government's asset enhancement policy which had started in the mid-1960s with HDB flats. Allowing Singaporeans a piece of the profitable telco business would enrich and give them another stake in the country, as the IPO could accommodate over a million adult Singaporeans as potential investors.

The IPO eventually took the form of three tranches of Group A, B and C shares. Singaporeans were offered A and B shares at S$1.90 and S$2.00 apiece respectively. All Singaporeans above the age of 21 who had Central Provident Fund[26] accounts could apply for 600 A shares each. A total of 350 million A shares were offered and the pricing was set at what was deemed to be a discount to fair value.[27] For Singtel, this was a delicate judgment as no one had had any experience with such a large-scale IPO before.

If the A-share Singaporean investors continued to retain their shares on the 1st, 2nd, 4th and 6th anniversaries[28] of the IPO trading date, the A-share Loyalty Share Scheme would kick in, enabling them to receive up to 10% of their original holdings. This meant that 600 Group A Singtel shares purchased in 1993 would give the original shareholder an additional 240 Singtel shares by 1 November 1999.[29]

B shares were offered to Singaporeans who could apply for a maximum of 1,000 shares each.[30] Of the total allotment of 200 million B shares, 40.7 million were set aside for reserved applicants.[31]

A total of 550 million C shares was offered on the open market to all investors, including institutions and non-Singaporeans, in a tender – itself a novel pricing method.[32]

Response to the IPO was overwhelming. The tender offer for C shares closed at an unexpected strike price of S$3.60 apiece. All in, more than 1.4 million Singaporeans and foreign and local institutions participated. The shares made a strong debut when they closed at S$4.14 on the first day of trading, after hitting a high of S$5.00 in intra-day trading.[33]

With a share capital of 15.25 billion shares and a market capitalisation of S$60 billion at the time, Singtel became the largest company on the Exchange.

Many queue for Telecom Group B and C share forms

Bids of over $3 a share will be norm for Group C shares: Banking sources

By Kevin Lim and Tan Sung

DESPITE the publicity about the convenience of electronic share application, many Singaporeans yesterday braved sun and rain to queue for Singapore Telecom Group B and C share application forms.

This situation was especially prevalent in the case of banks located within the Shenton Way/Raffles Place area, where long queues were seen outside the headquarter buildings of the local Big Four.

At some of the outlying areas, for example, in Bishan, some branches reportedly gave out all their forms before 12 noon.

Banking sources say bids of more than $3 a share will be the norm for Group C shares, judging by applications for share financing received so far.

Meanwhile, DBS Bank said that it had through its branches distributed nearly 100,000 forms yesterday, while Overseas Union Bank said it handed out some 50,000 forms for Group B shares and 35,000 forms for Group C shares.

OUB staff at its Bedok and Outram Park branches kept wastage to a minimum by restricting the number of application forms given out to a maximum of two Group B forms and two Group C per person.

The sheer size of the Telecom offer probably affected the distribution of application forms to bank branches.

For example, a counter staff at the OCBC branch in Bedok said the branch had not yet received any form when asked by a reporter at about 10 am yesterday. And at the Keppel Bank branch in Chun Tin Road, off Bukit Timah, the bank did not have the bigger envelopes to go with the B forms yesterday morning.

Yesterday was the first day of Telecom's initial public offering of 1.1 billion shares, which is divided into three tranches of Group A, B and C shares. The offer closes on Oct 28.

Group A and B shares are reserved for subscription by Singaporeans at fixed prices of $1.90 and $2 respectively, while application for Group C shares is by single strike price tender, and is open to everyone, non-Singaporeans included.

Besides banks, application forms can also be obtained through stockbroking houses.

The Telecom share offer is part of the Government's effort to give Singaporeans a stake in the economy by allowing them a chance to own shares in blue-chip government companies.

One of the three-tier families lining up for forms outside UOB Plaza yesterday.

■ **How SES, brokers and investors can ensure a glitch-free Telecom launch:** Page 39

■ **Singapore Telecom set for global challenge:** Life! Pages 2 and 3

Investors can trade on 2 counters when shares are listed

INVESTORS can trade on two separate counters of Singapore Telecom shares when it is listed on the Stock Exchange of Singapore from next month.

A spokesman told The Straits Times that the two counters, Singapore Telecom (ST) and Singapore Telecom 100 (ST100), will be opened to separate buy and sell quotes from the market.

Industry sources contacted yesterday said, however, that the two counters were unlikely to result in significant price differences.

An analyst said the ST tranche may end up with a slight premium from time to time because it is likely to be more popular among investors as fund managers will not bother to trade on the ST100 tranche.

However, should such spreads appear, stockbrokers said that the market is likely to react immediately to eliminate them.

Said one: "If the ST100 is cheaper, then buyers will rush in to buy 10 such lots and sell it immediately at a premium on the ST counter.

"But the flurry of demand will in turn cause the price gap between the two counters to close."

Meanwhile, brokers said that the trading of 100-share lots is not likely to create a problem for the industry.

There was talk that trading of the 350 million Group A shares in 100-share lots will cause even more "computer jams" at the local bourse.

Small retail investors may also end up with bad deals as remisiers and dealers may not bother to service them properly.

Brokers said, however, they do not foresee problem in the trading of Group A shares because they expect most of these to be locked away because of the "loyalty scheme".

To encourage long-term holdings, the Government is giving 40 "loyalty shares" for every 100 Group A shares held, to be spread over a period of six years.

The entitlement to these loyalty shares ceases if the shares that have been originally alloted are sold.

Furthermore, retail investors wishing to sell their Group A shares need not do it through stockbroking companies.

An article in *The Straits Times* about the Singtel IPO. *Source: The Straits Times*
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While Temasek still held 89% of Singtel, the IPO greatly expanded the public's participation in the stock market.[34]

In 1996, Temasek offered a second tranche of Singtel shares (ST-2) to Singaporeans, again at a discounted price, reducing its shareholding in Singtel to about 82%. Similar to Group A shares, original ST-2 shareholders were also entitled to loyalty shares representing an equivalent of 10% of the original holding at each of the following anniversary dates: 1st November 1997, 1998, 2000 and 2002.[35]

The tranche offerings gave Temasek leeway to assess the market's response in between. This was especially crucial due to the unprecedented nature of an IPO of this scale. The loyalty bonuses were issued to Singaporeans – the retail investors – to provide some level of protection against market risks and to buffer against potential mispricing.

After the IPO, Temasek would continue to divest more of its shareholding interest in Singtel over the years. As at 31 March 2024, Temasek held about 51% of Singtel shares.[36] ■

After Singtel, the divestment process picked up even more steam. In the early 1990s, several statutory boards were corporatised to become operating companies under Temasek. These included Commercial and Industrial Security Corporation (CISCO), now named Certis[37]; Port of Singapore Authority, now PSA International[38]; Singapore Broadcasting Corporation (SBC), now Mediacorp[39]; the electricity generation portfolio of PUB, now the SP Group; and Post Office Savings Bank (POSB), now part of DBS.

During this period, Temasek generated enormous capital as the Government's shares in newly listed companies were transferred to it. While much of this new wealth flowed back to the Government in the form of dividends from divestments, the Temasek portfolio jumped to about S$60 billion[40] from the market value of Singtel alone as at end March 1994. Before the Singtel listing, the figure was less than S$20 billion.

As custodians of this new wealth, Temasek would embark on the next stage of its evolution as an active investor, a move that would dramatically transform the company in the next 20 years and beyond.

Around the same time, to protect against possible profligate spending by future irresponsible governments, the Singapore Constitution was amended in 1991[41] to designate Temasek a Fifth Schedule Company.[42] This means that its past reserves, like those of the Singapore Government and other Fifth Schedule entities, are safeguarded by the President of the Republic of Singapore, who is elected under the country's one-person one-vote system and has an independent custodial role in this respect.

CHAPTER 2

Laying the Keel

To prepare Temasek for its next phase of development, Chairman Lee Ek Tieng recruited Quek Poh Huat in 1995 from listed ST Aerospace[1] to succeed retiring Temasek chief, Lum Choong Wah. He would be the first head of Temasek to come from the private sector and not the civil service.

Quek, who later moved on to become CEO and, subsequently, Senior Advisor at Singapore Power, had not only taken ST Aerospace public[2], but also led its expansion into international markets. This included setting up a successful base in Mobile, Alabama to provide aircraft maintenance, repair and overhaul services to the American market. The foray would eventually grow into several locations throughout the US, serving major American legacy airlines as well as regional and airfreight carriers.

Temasek in the mid-1990s was not yet connected technology-wise, so he famously retained his Singapore Technologies email network until he got Temasek up and running on its own email system.

Quek brought with him a business sensibility that Temasek would adopt in the next decades. He recruited talented people with commercial and international experience, like Jimmy Phoon[3] and Lim Hwee Hua[4], setting benchmarks for the kind of market expertise the company would be looking for henceforth.

He said: "At the time, I focused more on human resources. I wanted to make sure good staff could be developed by challenging them. It wasn't easy to get good people because, at that time, Temasek was not well-established. We had to knock on a lot of doors of prospective investees and ask to be admitted. We also did that at ST Aerospace; we would go to trade shows and bring our brochures and sell ourselves. That's where the young ones got their training."[5]

Quek was a firm believer in developing human capital. He started offering scholarships to promising talent, seeing these scholarships as a small yet valuable investment. A local scholarship at the time cost S$40,000 only, he recalled. In setting up a pipeline, he ensured that there would be four or five scholars coming into Temasek every year.

"You can recruit mid-career people, but you would not know them well. With scholars, you get them young. You get the chance to see them develop during the course of their study and you can see if they will make it; you get advance time to assess them," he said.[6]

Once they were fully employed by the company, Quek would continue developing the ones who showed potential for bigger things. "You must spot all the good scholars. Take 100 or 150 people and really groom them – send them on courses, test them, rotate them, send them on overseas postings. And when they come back, the good ones will rise and be your future leaders."

One of these scholars was Lim Ming Pey, who joined Temasek in 1999 as an investment officer. She recalled: "I had originally wanted to study Law for my university degree but was offered a scholarship by Temasek to do Accountancy instead. At that time, I was an intern at accounting firm Coopers & Lybrand, which eventually became part of PricewaterhouseCoopers. That gave me a peek into the world of finance and numbers, so I decided to accept the scholarship."[7] After several job rotations, including working as a staff officer to Sim Kee Boon, she moved out of investments into the corporate function. Today, she is Temasek's Chief of Staff, Deputy Chief Corporate Officer, and Managing Director of its Strategy Office.

Temasek would continue to have a steady stream of scholars over the years. Those who joined in the period when Temasek was expanding and spreading its wings found themselves on a constant adrenaline high as they were assigned to new and exciting portfolios.

Sim Wen Hong joined in 2004, at the cusp of Temasek's plans to become an active global investor. It was a very different company from four years before, when he applied for the scholarship.

"The company was about to take on a different direction, to be more active globally, which opened up a lot of opportunities. And as a young scholar who had just started on a career, I was very fortunate to be involved in many high-profile deals," he said. Temasek also later sponsored his Chartered Financial Analyst (CFA) course, as well as his EMBA studies at the University of Chicago's Singapore campus.

In his 20 years working at Temasek, he has covered marine shipping, as part of the team that dealt with NOL and PSA; supported the creation of the Astrea bonds; facilitated the sale of the power generation companies; and was involved in shaping the IPO of CitySpring Infrastructure Trust. In 2018, he was posted to London for two years as part of the Real Estate team. Today, he is a Director at Temasek Trust Asset Management, which invests in positive outcomes for economies, societies and the environment.

He believes no other company could have given him the growth opportunities Temasek did. And he is thankful that he applied for the Temasek scholarship, instead of others.

"If you look at other comparable career opportunities, I don't think any of them would have come close to offering the level of learning and experience I was given. This has been, and continues to be, an invaluable journey that helps to deepen my insights into so many industries and businesses all within a relatively short span of time, at one place.

"To this day, I continue to be motivated and inspired by the numerous conversations that I've had with senior business leaders. The relationships and friendships built within and beyond Temasek have also become very dear to me, both on a professional and personal level."[8]

TESTING WATERS AS AN ACTIVE INVESTOR

Quek summarised Temasek's main directions in the 1990s as three-pronged: oversight of GLCs; direct investment, especially in local enterprises, via an entity called Temasek Capital; and fund management through its own Treasury Unit, which would later become the Fullerton Fund Management Company (FFMC).[9]

Temasek also invested in private equity funds in the early 1990s, including four from the US: AEA Investors Inc, Morgan Stanley, Blackstone and Donaldson Lufkin & Jenrette[10] (real estate).

Under his watch, Temasek started to make bold acquisitions and investments in promising local enterprises or PLEs. However, as it was unsure about its expertise in this area, it decided to partner with others at the start. Hence, Century Private Equity Holdings was created jointly with the Chandaria family led by Kenyan industrialist Manu Chandaria.

Quek added: "The purpose of Century was to help, nurture and invest in smaller companies in Singapore; to give them a chance to go overseas. With Temasek's connections, we could give them leads on how to market their products. But some worked and some didn't."[11]

In 2000, the company came under Temasek Capital, housing Temasek's investments in local companies which fit the "PLE" description. Said Quek: "These included health equipment manufacturer OSIM; Fook Huat Tong Kee, a fruit producer and distributor; and Sunningdale Precision, a plastics injection moulding company."

This was a significant step in Temasek's growth as an active investor, even though, as Quek pointed out, the sums that Century or Temasek Capital invested at that time – around S$5 million to S$10 million – were small by today's standards.

Temasek had started to move away from its passive approach of the past towards a more active stance when it came to investments. It was also learning to take risks, riding the vicissitudes of the market.

One high-profile example of this was its subsidiary NOL's acquisition of California-based American President Lines (APL), at that time the second-largest container shipping company in the US. The NOL acquisition would remind Temasek once again about the uncertainties of market conditions and external forces beyond its control.

1997

NEPTUNE ORIENT LINES: NAVIGATING CHOPPY WATERS

By 1996, NOL had determined that it could not remain viable as a medium-sized shipping company. It needed to gain scale in certain trade routes, which would give it pricing power as well as staying power during downturns in a highly cyclical industry. Making an acquisition was seen as the only quick way to achieve such scale.

The 150-year-old APL which was, in fact, bigger than NOL, came at a hefty price tag of around US$800 million. As NOL's single largest shareholder, Temasek supported the acquisition but wanted NOL to secure its own funding from the capital market first before turning to it as the lender of last resort.

NOL managed to do that. On 14 April 1997, the deal was done. It was a massive acquisition which stunned the maritime world and NOL was propelled into the top five of the world's container operators, boasting a fleet of 113 ships and combined revenues of US$4 billion.[12] The APL branding alone was invaluable to NOL so the American wing was encouraged to retain its name and its identity.

The timing, however, could not have been worse. Barely three months later, the Asian Financial Crisis erupted. With bank credit curtailed, exports plummeted. The shipping industry was badly hit and NOL reeled under a combination of high-cost financing and declining business. In 1998, it made a substantial loss.

However, by 1999, Asian economies had started to recover and NOL's fortunes would turn. It also started to restructure, selling some of its non-core assets.

In July that year, NOL did an international share placement, raising US$500 million in new capital.[13] Temasek viewed the capital-raising exercise favourably as it enabled NOL to repay some of its debts and bring its gearing down dramatically. During the calendar year 1999, NOL was back in profit.

NOL's acquisition of APL came in for much criticism at the time. But, in retrospect, its chairman Herman Hochstadt and his team were vindicated. "Looking back, APL was a good deal," acknowledged Ong Beng Teck, who oversaw Temasek's investments in transport and logistics and eventually became CEO of InnoVen Capital. "The timing was not the best, but it was the right strategic move."[14]

For Hochstadt, one of the key lessons from the APL acquisition was to be mindful of the time horizon. "You have to decide what your timeframe is for an investment like this. If you're looking at a timeframe of two or three years, then it is almost certain you're going to lose. But if you are looking at a longer timeframe, then you will get a fairly good return."[15]

Said Ho Ching: "When I joined Temasek[16], someone told me he had framed his share certificate of NOL, which he'd subscribed to at its IPO at S$4. He added that he would never see his S$4 again. I told Cheng Wai Keung this story when he became NOL Chairman.[17] Under his watch, NOL recovered to S$4 and I sent a bunch of balloons to his office, tied with tags that read 'S$4'. I hope that person who invested in NOL has since managed to divest his shares at above S$4."

Notwithstanding its successful weathering of the Asian Financial Crisis, NOL was to see a lot more volatility ahead. The 2008 Global Financial Crisis dealt a blow to its bottom line, as did a subsequent downturn in the industry.

In 2011, Juliet Teo, a Temasek stalwart who had joined the company in 1996, became Head of Transportation & Logistics[18], and plunged into the nooks and crannies of the NOL business.

"We spent a lot of time looking at the industry, trying to understand it. I remember getting someone to pull back 30 years of data and saw how freight rates were only going one way – down – even as we were building bigger ships than ever.

"Looking at where the industry was, the proposition was we were not going to be good owners of this. It needed to find a better home. Having said that, I worked at it for five years before we finally found a new owner for it."[19]

In 2015, Temasek announced its decision to sell its entire stake in NOL to France's CMA CGM, the world's third-largest container shipper, in a deal valued at S$3.4 billion.[20] ■

A VISIONARY CHAIRMAN

In September 1996, Lee Ek Tieng retired as Temasek Chairman. He was succeeded by S Dhanabalan, who would become the company's longest-serving chairman until his retirement in August 2013.

Fock Siew Wah[21], who was a Temasek Board Director from 1991 to 2005, credits Dhanabalan for transforming the company. He said: "It was from that moment on that Temasek became more exciting and more fulfilling, because we were entering what I would term a more challenging environment of change.

"Dhana is very open-minded; he is a very smart, wise and humble man. Whenever he is not sure, whenever he does not know, he's honest and humble enough to say, 'Look, please, what is this? Tell me.'"[22]

The truth is Dhanabalan knew a lot. A former Cabinet Minister, he had been picked by then Prime Minister Goh Chok Tong to head Temasek because of his commercial sensibilities. He was SIA Chairman at the time of his appointment to Temasek and, prior to his political career, had served 10 years, up to 1978, as Executive Vice President at DBS.[23] He would later become the bank's trouble-shooting chairman in 1999, giving up his position at SIA to focus on the impact of the Asian Financial Crisis on the bank.

Under his watch, Temasek's portfolio grew from S$70 billion in March 1997 to S$215 billion in March 2013[24], amidst a turbulent era which included three major economic upheavals: the 1997 Asian Financial Crisis; the extended post-2000 recession, including the effects of 9/11 in 2001 and SARS in 2003; and the Global Financial Crisis in 2008.

GOVERNANCE REFRESHED

One of the first things Dhanabalan did was to refresh Temasek's governance approach and broaden its talent pool beyond the civil service. He had been spurred to do this by an offhand remark made by a Finance Ministry official to a new Temasek employee: "Oh, you are joining us."

"I wanted to change that. Quite clearly, the civil service was going to be a good resource, but Temasek and Temasek-linked companies were not going to be a field to train civil servants, or companies that civil servants could look to head to when they retired. I felt that had to change because we were competing in the marketplace; we were competing with other companies."[25]

Kwa Chong Seng, former Chairman of Neptune Orient Lines and Singapore Technologies Engineering, who became Temasek's Deputy Chairman in 1997, said: "Put it this way. What if the commercial sector wanted to rotate staff through the Government and asked it to take one of their senior managers and make him a Permanent Secretary? The Government would say no because the person would not have the skill sets. So, in the same way, if you took a Permanent Secretary and told a commercial company to have him run the company or a section of the company, I think the company would be reluctant."[26]

Dhanabalan began to reshape the Temasek Board, bringing in private-sector movers and shakers such as Kwa; the late Kua Hong Pak of Comfort DelGro and SBS Transit[27]; and Koh Boon Hwee, currently Chairman of SGX, who had had a stellar career at Hewlett Packard before becoming an industry investor himself.

This evolution was aligned with Temasek's intentions to bring more experienced business leaders and market professionals onto its company boards. The idea was to create more room for independent directors, to allow companies to gain greater autonomy and to benefit from leaders with varied commercial experience.

Said Dhanabalan: "Many of these people were international businessmen who would be absolutely affronted if they were told, you are representing us, so come back and report to us."[28]

As a result of these changes, corporate terminology also evolved. After 2002, the term "Temasek-linked company" (TLC) would replace "Government-linked company" (GLC), signalling that companies would now be steered by boards chosen on merit and expertise. Today, the term "TPC" – for "Temasek Portfolio Companies" – is used instead, further emphasising the independence of the companies from their parent organisation.

As Temasek professionalised its Board, it also started to become more assertive as a shareholder. There had been cases where Temasek companies made acquisitions first and then went hat in hand to shareholders for funds. Temasek put a stop to this by outlining clear limits to spending, beyond which the companies would have to seek its approval ahead of time or risk having their capital call rejected.

Wong Heng Tew[29] said: "For many years, we preferred not to embarrass our own companies at shareholder meetings. But it reached a point where we said, if you don't consult us, then we will make our own decision at the meeting."[30]

Temasek, therefore, made it very clear that it was prepared to vote against – and potentially embarrass – the management of a company if it was not consulted on shareholder matters in advance.

Another notable example of Temasek flexing its muscle as an active shareholder was its restructuring of PSA.

2000

PSA RESTRUCTURING: TEMASEK AS AN ACTIVE SHAREHOLDER

In 2000, PSA was planning for a public listing and the prospectus was already out in the field. But it found itself in a tight spot.

A rival facility at Tanjung Pelepas in southern Malaysia had just poached one of Singapore's key port customers, Maersk Sealand, partly by undercutting PSA's charges. Following Maersk, Evergreen Marine would also defect to Tanjung Pelepas in 2002 and there was the unnerving possibility that Temasek's own Neptune Orient Lines (NOL) might follow suit for competitive reasons.

Temasek was very concerned. Margaret Lui, a former Senior Managing Director in Temasek who would become CEO of Azalea Investment Management, recalled: "We had gone through the whole due diligence process when PSA started losing Maersk and Evergreen. So, we decided to call the whole thing off."

Temasek felt that PSA needed to implement radical changes and stepped in to help review its costs and operational numbers. "We told PSA it needed to focus on its core business, to get itself in tip-top shape so that it can be competitive, agile, lean and mean," she added.

Most crucially, PSA had to reckon with a large and varied portfolio of assets it had accumulated over time. These included a cruise centre, cable car operations, real estate holdings and even exhibition centres, in addition to its core port operating assets. The biggest of these peripheral businesses was real estate holdings, comprising offices, flatted factories and logistics-related "distriparks". Temasek carved these out into a company called Mapletree.[31]

Said Lui: "When you have so many peripheral businesses, management will tend to neglect some of them, sometimes even to the extent of cross subsidies. We stripped out the non-core assets so that PSA could focus on its port business."[32] Other assets, including the cable car, cruise and exhibition businesses, were placed in separate operating companies.

The restructuring took 18 months and included putting in systems and processes, as well as management better equipped to navigate a commercial environment.

Hiew Yoon Khong, former CFO at CapitaLand[33], was put in charge of Mapletree. "He went in and totally transformed the company," said Lui.

Among his game-changing innovations was to expand Mapletree's reach into the region and beyond, as well as to introduce real estate investment funds and trusts (REITs). Above all, he saw the importance of repositioning Mapletree for resilience, and to deploy what he called a "recycling strategy", which toggles between the company's role as developer, investor, property manager and capital manager to accelerate growth and drive profitability.

He explained: "We manage assets on behalf of third parties and in return we get a fee income. This is the first preference for building the pipeline for our REITs. Or we put the portfolio together and syndicate it as a private fund. The objective is to drive the fee.

"Sometimes, we develop assets or acquire assets that may not be suitable for either the REITs or private funds, in which case we dispose of it to a third party for capital gains. This recycles capital. This is a continuous process that we do."[34]

When he came on board in 2003, Mapletree Investments was a S$2.3 billion company. As at 31 March 2024, it owned and managed S$77.5 billion of assets, with offices across 13 markets in Asia-Pacific, Europe, the UK and the US.[35]

Meanwhile, back at PSA, there was also work to be done to shape up its core port operations. Quek Poh Huat recalled: "We had to recover the business that was lost. But first we had to go after all our other customers to make sure we didn't lose them as well. We had to think of new ways of securing them and to accommodate what they wanted.

"For example, some of them asked to lease and operate two or three terminals on their own because they felt they could do it better and cheaper, and have more control over when their ships come and go. So, we had to adjust our business model to go beyond just selling services to them. PSA had to change its thinking."[36]

In 2002, businessman Stephen Lee became PSA Chairman. By focusing on its core competency, the newly streamlined PSA would expand internationally, running ports elsewhere in the world, and improving its performance dramatically. ■

THE RISE OF REITS

Mapletree was a pioneer in developing Real Estate Investment Trusts or REITs in Singapore.

REITs was a way to democratise investment options for the retail investor who now had the option of investing in asset classes which were previously too large and chunky to be accessible to the general population.

In July 2005, Mapletree Investments launched Singapore's first Asia-focused logistics REIT, the Mapletree Logistics Trust, with 15 properties in its portfolio. It was the sixth REIT to be listed on the Singapore Exchange[37] and had come about as a result of the streamlining of the Port of Singapore Authority (PSA) in 2000, which saw its non-port, largely property, assets being hived off.

PSA's valuable seafront real estate, which included the former World Trade Centre and a disused power station called St James Power Station, was eventually redeveloped to maximise its potential. In 2006, VivoCity – Singapore's largest mall at more than a million square feet – was built on the site of the World Trade Centre, and St James was converted to a nightspot managed by entertainment veteran Dennis Foo.[38] In 2009, the latter was gazetted as a national monument. Tan Boon Leong[39], Mapletree's then COO, said: "I told the board, if we don't do anything, the land will lie fallow. But if we can add value to it, we will raise the value for the whole precinct."[40]

Subsequently, Mapletree Logistics Trust acquired assets overseas and by the end of September 2008, its portfolio's book value had increased by over five times to about S$2.7 billion, comprising 79 properties in Singapore, Hong Kong, China, Malaysia, Japan and South Korea.[41]

The St James Power Station today, after it was redeveloped and gazetted as a national monument. *Source: Mapletree Investments Pte Ltd*

VivoCity, Singapore's largest shopping mall.
Source: Mapletree Investments Pte Ltd

2002

CAPITAMALL TRUST REIT: QUALITY AND ACCESSIBILITY

Singapore's first REIT, CapitaMall Trust, was launched in July 2002 to resounding success. It was four times oversubscribed, with S$1 billion worth of investment demand, and paved the way for Singapore to become a major hub for REITs.

Its road to glory, however, was paved with potholes.

The idea had originated in 1996 from Pidemco Land, which was then under Singapore Technologies, headed by Ho Ching. She had noticed that many of the luxury apartments at Four Seasons Park were empty and dark at night. Foreign buyers had snapped up the units, not to live in, but as an investment and a political hedge.

Liew Mun Leong, Pidemco CEO at the time, recalled: "She said, beyond their own homes, Singaporeans have little chance to invest in the real estate asset class. The Four Seasons apartments are empty and yet Singaporeans can't own them. But if you can distribute them into units and democratise the sales, then Singaporeans can also 'own' a part of it."[42]

Ho Ching was talking about REITs, the nature of which she explained at the commencement of trading of the CapitaMall Trust in 2002: "The REIT unitises big irregular chunks of real estate into smaller standard investment units. This allows small individual investors to invest in affordable shares of large properties or baskets of properties. It also provides liquidity and secondary trading opportunities for such investments. This enables both institutional and retail investors to access a liquid portfolio of real estate investments."

REITs were already an established asset class in the US and Australia, but fairly unknown in Asia. Ho Ching was keen to launch one in Singapore and tasked Liew as well as Pidemco CFO Hiew Yoon Khong to look into the matter.

The two men, however, would face challenges getting the REIT off the ground, chiefly because there were no regulatory guidelines for this new investment product. Also, appetite for real estate had been dampened in the wake of the 1997 Asian Financial Crisis.

Hiew, who later became CEO of Mapletree Investments, tried to work around the lack of REIT guidelines by creating what he called a "synthetic REIT", which he managed to get the legal and tax teams to sign off on.

"But in 1998, the economy was still quite depressed. So, the bank said we needed to put the yield up very high. In real estate, this means we had to further discount our value, which had already been affected by the financial

From left: Hsuan Owyang, Ho Ching, Thomas Kloet and Liew Mun Leong at the launch of the CapitaMall Trust REIT. *Source: CapitaLand*

crisis. I, however, decided that this could not be justified commercially. So, that attempt to launch the 'synthetic REIT' was stopped because of the pricing."[43]

The Pidemco team, however, did not give up trying to convince the authorities and other potential stakeholders, while waiting for the right time to try again. Eventually, in 1999, regulatory changes were made to support the launch of a proper REIT. Then, in 2000, Pidemco Land merged with DBS Land to form CapitaLand, a listed entity that was much bigger than its predecessors.

CapitaLand, however, had an elevated gearing ratio. So, the company developed a business model that would define it in the years ahead. Using a network of funds and REITs, it could avoid using its own capital to hold its assets, enabling it to grow faster than it otherwise would and earning fee income to improve its returns.

Said Hiew, who became CFO of the newly formed CapitaLand: "One of the immediate requirements for the management of the new listed entity was to go to the international market to explain to investors the reasons for the merger. So, we talked about our new business model, which was to be asset-light and focused on capital management and fee income. One of the first significant initiatives was to launch the REIT again."

Shopping malls were chosen as the first REIT because they were easily accessible to the common man. Retail investors could gauge their viability simply by visiting them to see whether they had high footfall and whether people were leaving with shopping bags. Shopping malls also enjoyed high rentals and easy cash flow, which would be important for paying dividends.

Said Ho Ching: "There was creative innovation as well as tenacity in the CapitaLand team, as this was not just a commercial proposition, but had the larger goal of enabling retail investors to invest and participate in the shopping mall space and more."

Only high-performing malls would be packaged in the REIT, which would be called the SingMall Property Trust. Three malls made the list – Funan the IT Mall, Junction 8 and Tampines Mall.

On 12 November 2001, the SingMall Property Trust was launched – and immediately tanked. Liew remembers chairing the press conference at the Raffles Hotel's East India Room with a heavy heart.

"I told the lawyers and the banks I didn't want any finger-pointing and that I would preside over the press conference. I turned on the microphone and apologised that we couldn't launch the REIT as we had planned. Then, I added one line that eventually became a hallmark statement, 'The market has spoken.'"

After the failed attempt, the team went back to the drawing board. The first order of the day was to find out what went wrong. Why had investor demand been so weak?

Said Hiew: "When we analysed the SingMall Property Trust, we found a number of problems. The yield wasn't high enough. And it had been positioned previously as both a bond as well as an equity, leading to confusion. Also, the real estate value – the upside, the growth – of the investment had not been articulated."

When he took over, he decided the REIT was not a bond, but equity. "After all, it's equity that gives you dividends, which grow and provide a higher total return over time," he said.

The team also improved the value of Junction 8, resulting not only in a better investment proposition, but also the creation of spaces to benefit the community at large.

He said: "Junction 8 had an office tower which wasn't making money, even though its retail was doing very well. The Gross Floor Area (GFA)[44], therefore, was not maximised. To make it a bigger retail offering, we decided to remove the office component from the GFA; the phrase we used was 'decanting'. The office space was then offered rent-free to charities and non-profit organisations."

Preserving the value of the real estate was important. Said Liew: "We took the view that these are our best malls which we still own after they become a REIT and earn dividends. The rest of the 80% will be available as funds to build more malls or to enhance and upgrade them. We will also earn fees managing the REITs.[45]

"The REITs were not created as a monetisation exercise. We created them as a second income stream, a second purse, unlike some owners who treat them as an opportunity to sell their assets," he added.[46]

Said Ho Ching: "There were puzzled reactions from other commercial property owners. In their minds, it was stupid to divest ownership of the best-performing malls. They saw REITs as an opportunity in other markets to divest poorer assets and duds.

"However, CapitaLand saw REITs as a long-term conversation with existing and potential investors – sharing the upsides of good assets builds good reputation, attracts a steady pool of long-term investors, and enables retail investors to lower their entry risk in the first instance."

For the new REIT, renamed CapitaMall Trust, DBS was the sole lead manager, underwriter and bookrunner in structuring, managing and distributing it. The bank's former Group Head of Capital Markets, Eng-Kwok Seat Moey, said: "The second time around, we doubled up on investor education and reached out to less traditional equity investors. This involved an extensive roadshow with investors, both locally and globally, to convince them of the merits of the product, and when they understood that REITs provided the best of both worlds, these large institutional investors were happy to come on board."[47]

In 2002, speaking at the commencement of trading for CapitaMall Trust, Ho Ching called it a significant milestone for the CapitaLand Group, marking the successful genesis of REITs as a new investment product in Singapore.

She added: "Mun Leong took responsibility for the first failure of the SingMall Trust and kept apologising. But in my mind, he no longer needs to apologise further, because with today's launch, he and his team showed that they are serious professionals, capable of learning from their mistakes, and come back fighting.

"A lot of good has come out of that earlier failure. He and his team have much to be proud of – I am certainly proud of them – they worked through and refined the fine intricacies of the product, and also developed new ideas for managing their retail malls to improve the yields and development growth potential. That is value creation and real value add, and not simply financial engineering. They have even found a novel way to support charitable causes in the process.[48]

"The CapitaMall Trust was a sterling example of how Temasek and its portfolio companies do well, do right and do good," she noted. ■

In her 2005 speech to mark the launch of Mapletree Logistics Trust, Ho Ching said: "It would be an interesting challenge to see if Singapore can be a hub for another 30 to 50 of the top-quality Asian REITs over the next 10 to 20 years."[49]

By the end of May 2019, Singapore had 44 REITs and property trusts with a total market capitalisation in excess of S$100 billion. Their average dividend yield was 6.5% – among the highest in the region.[50] Temasek's portfolio companies, as pioneers of REITs in Singapore, catalysed the emergence of a new asset class, helping to deepen and broaden Singapore's capital markets.

By 2022, the market value of Singapore REITs (S-REITs) had grown at a compounded annual growth rate of 13% over the past decade, and more than 80% of the 43 S-REITSs and property trusts were holding overseas assets.[51]

CONTINUING DIVESTMENTS

Along with sprucing up boards, flexing its investor muscle and launching innovative financial products, Temasek was also continuing with its divestments, the most complex of which were the power generation companies.

Jimmy Phoon, former Senior Managing Director at Temasek and now CEO of its subsidiary, Seviora Holdings, was closely involved in the long process which would take 14 years. Once again, the company had to feel its way through uncharted territory, navigating unforeseen legalities and implications.

Adding to the complexity was the fact that Temasek had to work on two fronts – understanding the companies themselves, as well as the power generation industry in which these entities would have to operate.

1995–2008

THE GENCOS: CREATING AND OPTIMISING VALUE

In 1995, the power industry was separated from the Public Utilities Board (PUB) and placed under a new Temasek-owned company, Singapore Power, now called the SP Group.

Said Quek Poh Huat: "The Government's desire was to liberalise the energy market because at that time, they could see that it would be a matter of time before you would want to bring the price of energy down. And one of the ways to do that was through competition."[52]

In 2001, Singapore's Energy Market Authority stated that there should be no cross-ownership between a power generation company ("genco") and an entity that owns power transmission and distribution, which would be subject to industry regulations.

Temasek, therefore, had to relinquish ownership of its three gencos – Tuas Power, Senoko Power and PowerSeraya, each with its own board and management.

"Singapore Power became purely the transmission and distribution arm. I call it the lorry driver. We became transporters; we only carried. People put in goods and we carried them from the generation plant to the consumer. We were not allowed to own any gencos, so we didn't give any special favours, like 'I carry yours, I won't carry his' and that sort of thing. You signed a contract with the buyer and we delivered for you. We were very neutral," he added.

However, the regulatory framework still hadn't been properly developed for this new state of play. Said Jimmy Phoon: "Buyers were asking about the rules and regulations, and whether there would be material changes to them in future because when you buy such businesses, you are talking about a long term of 20 to 30 years. The regulatory framework had to be comprehensive and consistent to minimise risks.

"So, we brought in a third-party consultant from the US to conduct a thorough review which the Ministry of Trade and Industry jointly sponsored. It was through this joint effort with the Government that necessary changes were implemented, which created stability for the electricity market."[53]

In June 2007, with the new regulatory framework as well as revised guarantees in place, Temasek announced it was ready to start divesting the gencos, with a view to completing the process by mid-2009. The gencos were to be sold one at a time, via direct sale through tender, with no limits placed on foreign ownership. This route was preferred because it meant that Temasek would not have to hold any residual stakes in the gencos, which it might have had to do if it listed the companies.

There were several potential buyers and Temasek received a number of indicative proposals for Tuas Power – the smallest but newest and most efficient of the three gencos. Shortlisted bidders made their final binding offers after a road show and inside look at the genco, which included a peek at its books. In mid-March 2008, Tuas Power was sold to China Huaneng Group for S$4.24 billion.[54]

Following the same procedure, Temasek announced the sale of a second genco, Senoko Power, on 5 September 2008. Singapore's largest power station was eventually snapped up by the Lion Power consortium, which included French power and water utility giant GDF Suez and four Japanese companies led by Marubeni Corp.[55]

A weekend later, the Global Financial Crisis hit with the fall of Lehman Brothers, scuppering Temasek's tender announcement in October 2008 for its third and last genco, PowerSeraya. On 25 November, Temasek called off the sale, citing market conditions, although it stressed that it remained committed to selling the genco at an acceptable offer.

A week after, Malaysia's YTL Power International offered S$3.8 billion, clinching the deal. Temasek said that YTL had "put forward an unsolicited proposal which met our requirements".[56] Temasek had managed to divest its last genco, well before its planned mid-2009 deadline and despite a difficult environment.

In all, Temasek divested the three gencos for around S$12 billion, against the carrying value of S$3 billion, setting a new benchmark for the power industry. ■

TAKING CARE OF PEOPLE

While the genco divestment exercise made business sense, a lot of workers were worried about their future under new owners. Temasek wanted to make sure they would be taken care of.

Wong Kim Yin[57], who was part of the genco divestment team at Temasek, remembered: "Around the 2003 to 2004 timeframe, hundreds of people were let go, so there was quite a lot of restructuring involving the union."[58] In Temasek's discussions with the Union of Power and Gas Employees (UPAGE), it worked with its leader, Nithiah Nandan s/o Arumugam, who had set up UPAGE in 1996 after the corporatisation of PUB's electricity and gas departments under Singapore Power.

Nithiah was a passionate unionist. When PUB was corporatised, workers expected the company to be listed and that they would be given shares. This had been the case with former statutory boards which had gone down the same road. However, with the uncertainty of Singapore Power's listing, there was much unhappiness amongst the workers. Nithiah met with then Deputy Prime Minister Lee Hsien Loong[59] and managed to negotiate an ex-gratia payment for the affected workers.[60]

By 2005, Nithiah had been diagnosed with renal cell cancer. But his work was not over. Temasek had decided to sell the gencos to private bidders and he was concerned about the rights of the workers under new management.

In a 2015 speech at UPAGE's 20th anniversary dinner, Lee Hsien Loong, who was Prime Minister at the time, said of Nithiah: "Until a few days before he passed away, he ensured that collective agreements were completed and signed with the gencos that were going to be sold. He made sure that the workers in those gencos were taken care of. I think he negotiated with Kim Yin who was then in Temasek and he settled that. After that, he said, done, I can go in peace."[61]

Wong had gone to see Nithiah with Ho Ching, who became Temasek CEO in 2004. He recalled: "Nithiah stretched his hand out to me and said, 'Kim Yin, can you promise me that the collective agreement will be signed?' I took his hand and replied, 'Nithiah, I can't promise you, but I will do what I can.' We worked with him and his team; we engaged the genco CEOs and boards. The genco senior management also

As Executive Secretary of UPAGE, Vice President of NTUC and a Nominated Member of Parliament, Nithiah Nandan s/o Arumugam dedicated his life to championing the interests and well-being of workers. *Source: The Straits Times © SPH Media Limited. Permission required for reproduction.*

went to visit him at his home. He made it happen. The various parties all played a role."[62]

Nithiah passed away on 21 June 2007. On 12 June, he had gone through the Singapore Power Collective Agreement with Lynn Loh-Gan, Singapore Power's Head of Human Resource and Administration, and signed the collective agreement in his home at Serangoon North. On 14 June, he signed the Memorandum of Understanding with Senoko Power Limited to extend the expiring collective agreement for another three years.[63]

Apart from the gencos, there have been other examples of Temasek's compassionate approach towards its people. For example, in the early 2000s, Temasek was in the midst of updating and modernising its internal processes, which included getting everyone on an email platform.

Said Ho Ching: "We still had people pushing pushcarts to deliver files and eventually we realised we didn't need that anymore. But we recognised these employees would be left vulnerable. So, we gave them one year to take any course they wanted. After one year, they would be free to go anywhere. If you pick a course, you can train and become a computer operator and you can stay with us. If you pick cooking, you can go and set up your own cooking school, or whatever."[64]

Cheo Hock Kuan[65], who was tasked with reorganising the company at the time, recalled: "We looked at what they could do, then we looked at other possible work opportunities, and then we sent them for courses. And in some instances, we helped to place them.

"Many a time in business, when we think about having to retrench staff, we're thinking more about the cost and how much to compensate. But Ho Ching was very adamant about the need to help retrain and reskill people for other jobs."[66]

The retrenchment exercise at Temasek-owned PSA is another example of this concern. In 2003, the port made the tough decision to shed 800 staff to remain viable in the face of new competitor Tanjung Pelepas.[67] "But when it did well later, there were bonuses given," said Ho Ching. "We actually spoke with the PSA folks to say these bonuses should not be given only to existing PSA staff, but also the people who left. It was a small amount of money, something like S$1,000. But you must always remember the people who enabled you to succeed."

For Ho Ching, Temasek is only as good as its people, which is why taking care of them is of prime importance. She said: "Although we are not perfect, we do try to respect the individual and we want to help the individual grow. It's not like, I hire you for this job, squeeze everything I need from you and then throw you out on the street. We are not that kind of organisation."[68]

CHAPTER 3

Setting Sail

By the early 2000s, Dhanabalan felt Temasek was ripe for its next stage of expansion, one which would propel the company from its conservative custodial roots to greater, albeit riskier, heights. He certainly understood the nature of risks when it came to investments and wanted to hire people who would be brave and confident enough to take them.

As Dhanabalan said: "The point to underline in investment is that there is always risk. If an investment house makes investments and, at the end of five years, shows that it has never lost on any investment, then the conclusion you've got to come to is not that it's a good investor, but that it really did not take the right kind of risk.

"When you take risk, there is no situation where you can be 100% right. There will always be some losses. If you are playing it very conservatively and carefully, then you are going to miss out on the returns; you are not going to find the kind of attractive investments you should be investing in."[1]

He added: "Investment activity is one where you cannot score all the time. It's not possible to get 10 upon 10. You make 10 decisions, one or two decisions are bound to go wrong."

Moreover, he explained: "If you make 10 decisions and all of them are right, then you are really making very safe decisions and not taking risks. So, you are not really balancing your return and risk in the right way. You can have low returns with no risks, or you can get higher returns with some risk. It's a question of how you balance it."

An example of this bold stance was Singtel's bid in 2000 to acquire Cable & Wireless' controlling 54% stake in Hong Kong Telecom (HKT), of which the Chinese government owned another 10%. Temasek's then Executive Vice President, Peter Ong[2], said: "It was a US$35 billion investment, probably the largest cross-border merger and acquisition deal in Asia at that time, outside of Japan."[3]

Given the emergence of new technology in the telco market, Singtel's strategy was to venture overseas. Hong Kong, as a gateway to China, was attractive. Cable & Wireless was ready to sell and Temasek, then holding about 75% of Singtel, was prepared to be diluted in this venture. Singtel decided to make a General Offer for listed HKT.

The bid caused an uproar in Hong Kong and beyond. In the end, Pacific Century CyberWorks Ltd (PCCW), a local Hong Kong internet company chaired by Richard Li, son of the formidable Hong Kong tycoon Li Ka-shing, won with US$38 billion.[4] "As telecom deals are typically sensitive, you can expect that there will always be those sentiments, like 'Why is a Singapore company taking over a Hong Kong company?'" said Ong, who was involved in the deal.

"Although we failed, the bid created a kind of wow effect on corporate Singapore because of the very fact that Singapore had the audacity to attempt such a massive acquisition. It also caused some of the GLCs to think that they, too, should be 'daring enough' to contemplate something like that and go establish a bigger global footprint," he added.

Dhanabalan's quest for people with such an appetite led him to eye Ho Ching as a potential CEO for Temasek in the late 1990s.

At the time, she was head of Singapore Technologies, a subsidiary of Singapore Technologies Holdings, commonly known as the Singapore Technologies Group[5] (ST Group). In 1985, she had married Lee Hsien Loong, then Singapore's Minister of State for Trade and Industry as well as Defence, which placed her under public scrutiny.[6]

But Dhanabalan recognised her business acumen, noting that she had focused on institution-building at the ST Group, putting in place processes and structures to create a viable organisation. He realised that was what Temasek needed as well.

He had noticed Ho Ching also because of the ST Group's wide range of investment activities, which enabled it to function almost as a "group within a group". This, he realised, did not make much sense. "Here is a group which is more or less duplicating what Temasek has and is doing," he thought to himself.

1990

SINGAPORE TECHNOLOGIES: THINKING OUT OF THE BOX

The history of Singapore Technologies (ST) dates back to the early days of Singapore's nationhood. At that time, the Ministry of Finance (MOF) owned a group of defence-related companies. Some had been created when British military base assets were converted into commercial businesses.

These included Singapore Electronic and Engineering Limited or SEEL, which was formed from the naval yard electronic and electrical workshops servicing the British naval ships.

Others had been started in the late 1960s, along with the formation of the Singapore Armed Forces (SAF) post-independence. Among these was Chartered Industries of Singapore (CIS), which produced small arms and ammunition for the fledgling SAF.

There was also Singapore Food Industries, set up to supply military rations to SAF camps after several cases of fraud, corruption and cheating by private contract suppliers, as well as SAF Enterprises or SAFE, established to supply kits for soldiers.

Sheng-Li float at the 1980 National Day Parade. *Source: Ministry of Information and the Arts Collection, courtesy of National Archives of Singapore*

The Ministry of Defence (MINDEF) set them up as companies so that they would be subject to market discipline and operate efficiently. They tendered for MINDEF projects against competitors, built their own capabilities and scale, made profits, and grew using internally generated funds.[7]

In January 1974, Sheng-Li Holdings Co (Pte Ltd) was set up to house these defence industry entities. Sheng-Li, which means 'victory' in Mandarin, rationalised the defence industries, monitoring their profitability and providing management services, especially for the investment of surplus funds.

By the time the group changed its name to Singapore Technologies in 1990, it was boasting total annual sales in excess of S$1 billion, with 10,000 employees[8], and planning to move into non-military industries in and beyond Singapore. Philip Yeo, who was Chairman of CIS from 1979 to 1992, spearheaded this diversification into non-military work, opening new business opportunities. It also tapped the capital markets in Singapore and abroad. By 1995, defence-related activities would make up just 27% of ST's turnover.[9]

ST also became, like Temasek, a Fifth Schedule entity[10] in 1991 with its own reserves protected under the Singapore Constitution. In 1994, the Government further rationalised ST to become a company under Temasek Holdings. This removed the need for the defence companies to have separate reserve protection responsibilities.[11]

In 2004, ST's assets, which encompassed around 40 companies including CapitaLand, Chartered Semiconductor Manufacturing and ST Engineering, were transferred to its parent company, Temasek. This restructuring reduced debt and staff costs, saving Temasek S$30 million annually.[12] ■

One of the issues that had made Dhanabalan sit up was how ST's unlisted Pidemco Land had bought DBS' listed DBS Land. The new listed entity, CapitaLand, then came under ST, not Temasek.

Temasek had little access to the individual companies held by ST, except via the ST holding entity. Dhanabalan soon decided that many of these operations should come directly under Temasek.

He said: "In the course of deciding what to do, I had quite a lot of interaction with Ho Ching, their President and Chief Executive Officer. I concluded that this was someone who could take Temasek in a different direction, because she had a very clear vision and clear analysis of the current situation."[13]

Ho Ching was an impressively qualified electrical engineer with a Masters in Electrical Engineering from Stanford University. She began her career with the Ministry of Defence and had a reputation for getting things done.

Logistically, her appointment to Temasek would effectively bring the ST Group that she headed under Temasek's control, considerably boosting the company's critical mass.

Dhanabalan, understandably, had a difficult time convincing her husband, Lee Hsien Loong, of his decision. "We were going into general elections then, and it could have become a political issue. So, I let it lie." The issue became more complicated, however, after 2001 when Lee Hsien Loong became Finance Minister – Temasek's shareholder – and then Prime Minister in 2004. Her father-in-law, then Minister Mentor Lee Kuan Yew, was not only the founding Prime Minister of independent Singapore but also Chairman of Singapore's Government Investment Corporation (GIC).

However, Dhanabalan knew what he wanted and raised the issue of Ho Ching's suitability again after the elections in 2001. He offered to distance Ho Ching from having to deal directly with MOF by taking on a more personal role in the contacts between MOF and Temasek than he had previously done.

"So, after some persuasion, they agreed," said Dhanabalan. Ho Ching joined Temasek's Board as a Director in January 2002 and was appointed Executive Director in May that year.

2000

CAPITALAND: CREATING SOUTHEAST ASIA'S LARGEST REAL ESTATE COMPANY

What would eventually become one of Asia's largest real estate companies and a shining star in Temasek's portfolio had decidedly unglamorous beginnings.

In 1989, the Property Investment Development Agency (Pidemco) was formed to own and manage the resettlement projects of the Urban Redevelopment Authority (URA) – what insiders half-jokingly called "third-class properties in first-class sites".[14]

In 1992, Pidemco Land, which would eventually also enter the property development business in Singapore and overseas, was handed to Temasek. There were early plans to list the company, in keeping with the general drive to privatise state companies, but these were aborted as there was some difficulty in trying to recruit a CEO from the private sector. Eventually, in 1996, Temasek transferred the entity to Singapore Technologies (ST) to own and manage, with a view to preparing it for an eventual IPO.

The company was looking for a way to compete against much bigger names like Far East Organization and City Developments Limited, a task it found difficult when saddled with illiquid and unexportable fixed assets. Its public sector beginnings were also hardcoded in its DNA, which meant its ventures and investments were all undertaken with the same caution and prudence as with public funds. To grow, it needed a more robust and aggressive strategy.

That opportunity came in early 2000. With just four days to go till the Lunar New Year, Pidemco CEO Liew Mun Leong received news that ST might be able to acquire a controlling stake in DBS Land, the property arm of the DBS Group.

This was because some banks in Singapore, including DBS, were starting to sell their non-core assets ahead of a Monetary Authority of Singapore announcement in June which would require banks to divest their non-banking businesses within three years.

DBS Land at the time was a much larger entity than Pidemco. Unlike Pidemco, it was also listed. A merger would be tricky but, if successful, it would allow a "backdoor listing" of the state-owned Pidemco, allowing it to spread its wings as a professionally managed real estate company.

In a speech to the Singapore Stock Exchange at the launch of the CapitaMall Trust in July 2002, Ho Ching recalled that the strategy for Pidemco was to "develop new value-add services and products, with the potential for scaling up and travelling to international markets. That is one way for Pidemco to build a distinctive advantage and differentiation from other competitors."[15]

Said Liew: "We could grow ourselves organically, but this would be more costly and take a longer time. The other way was to merge with DBS Land and double our size immediately. DBS Land was an established successful company with a proven business model, tangible assets both in Singapore and overseas, and staff who were dedicated and experienced. A merger would create a stronger group with a much larger market capitalisation that was better equipped to grow internationally."[16]

The Pidemco team had to return to the office on the first and second days of the Lunar New Year. On 9 February 2000, Liew and his CFO Hiew Yoon Khong, together with Ho Ching, who was ST's CEO at the time, met with DBS Group's CFO Jackson Tai at the Empire Café in Raffles Hotel. There were five rounds of offers and counteroffers before the final deal was sealed with a handshake at the price of S$2.98 for each of the 324.15 million shares in DBS Land belonging to the DBS Group.

Tai had only one caveat: He needed 48 hours to go back to two other suitors who were already in talks with him. Eventually, Pidemco emerged with the prize.[17]

Liew and his team naturally assumed that they would oversee the new merged entity. But they found out that they were expected to compete with DBS Land to see which team was best suited to head the new company. A board committee comprising three directors each from Pidemco and DBS Land would make the decision based on plans submitted by Liew as well as DBS Land CEO Han Cheng Fong. The man who submitted the best recommendations would be chosen to head the new company.

The team from Pidemco won. Their winning proposal had recommended exiting non-core businesses, building fee-based businesses as a second growth engine, and selectively moving into overseas markets in key gateway cities. It also recommended that the group be divided into "pure play" business units, each with its own management and accountability structure.

At the Extraordinary General Meeting of 18 October 2000, however, shareholders expressed concern about the Pidemco team's lack of commercial experience, leading DBS Land Chairman, Hsuan Owyang, to state: "There seems to be this impression that big bad wolf Pidemco Land is swallowing up the innocent Red Riding Hood DBS Land. But this is not the case."[18]

Eventually, 87% of the votes cast were in favour of the merger, easily above the 75% required. The new entity, CapitaLand, made its debut on the Stock Exchange of Singapore on 21 November 2000.

Liew recalled: "Some of the top key people in DBS Land had been our competitors. When we merged, they were not in agreement with us, so we had to manage their exit. They did not want to join us. It was quite a tense situation at the time."[19]

Once the key people were in place, the actual consolidation work began, to integrate functions across both companies. A management retreat was organised and people from both groups were made to share hotel rooms to foster interaction. An IT task force was created to merge the two companies' systems and get them onto a common email platform to facilitate internal communications.

There was also the question of a name for the new company. An external consultant was hired to come up with recommendations, but staff members were also encouraged to participate. In the end, the management decided on new chairman Philip Yeo's "CapitaLand", which was a variation of the employees' initial suggestion of "Capital Land".

The name reflected the company's vision. "Land", of course, denoted its core property business, while "capital" referred to the financial returns it aimed to reap.

"Capital" also held a deeper meaning that was not immediately obvious until CapitaLand became a pioneer in real estate financial services, entering capital markets with innovative vehicles and bridging the gaps between global investors and real estate opportunities in Singapore and Asia.

This started in 2001, at the tail end of the Asian Financial Crisis when the American and Japanese economies were beginning to slide. Singapore was entering its deepest recession and the 9/11 attacks happened. The neophyte company made bold investment moves which made people sit up: it issued a S$200 million six-year bond, with collateral backing from three residential projects. This internationally rated securitisation bond was the first of its kind in Singapore. The year after, it issued S$380 million worth of convertible bonds.

Also in 2001, it launched the first Singapore-dollar wholesale office property fund together with German insurance giant, ERGO. The S$875 million fund would tap on global capital markets and make full use of CapitaLand's knowledge of investing in the region and Singapore.

But its most notable achievement was, arguably, the launch of Singapore's first REIT. Called CapitaMall Trust, it debuted in 2002, focusing on quality income-producing retail properties. This was followed swiftly by the first commercial property Singapore REIT (S-REIT), called CapitaCommercial Trust. The Ascott Residence Trust[20] and CapitaRetail China Trust[21] were launched in later years.

CapitaLand would go from strength to strength as it moved into new markets in Asia, especially China, even while it shed legacy investments in its portfolio which included holdings of sentimental value. These included The Ascott Serviced Residence and Scotts Shopping Centre under the Ascott Group and the Brown's Hotel in London under Raffles Holdings. ■

After a brief overlap with Quek Poh Huat's role as President at Temasek, prior to his appointment as CEO of Singapore Power, Ho Ching became CEO in 2004, Temasek's 30th anniversary year. By the end of 2004, all ST Group shareholdings had been transferred to Temasek.

As expected, there was a buzz of anticipation among the rank-and-file when her appointment was announced. Said Margaret Lui: "There was a sense of excitement and anxiety as she was reputed to be a high performer. We looked forward to Temasek doing something new under her leadership."[22]

EXPLORING AND UNDERSTANDING

Despite the excitement around her, Ho Ching was in no hurry to create a stir. She recalled: "I took my time to understand the people and the organisation; to think about its strengths and read all the files and minutes of past meetings. That was when I started feeling, 'Oh, this is an interesting organisation.'"[23]

In particular, she noted the constant evolution of Temasek, from its early days of being a "post box" in the 1970s. "Every now and then, they had to ask themselves the questions, 'What should Temasek do? What is our role?' From Day One, it was like that." This need to change and move along with – or move ahead of – the times is an ethos she would later embed into the company.

She also noted a feeling of stagnation and restlessness around her. "Some of the guys were complaining they didn't get a chance to look at investments. Whenever there was a big project, it would get taken away from them and given to GIC. So, they felt like poor cousins, the poor fellows," she added.

A big part of the problem, she felt, was a lack of trust: "I remember that any investment over half a million had to go to the full Board."

In July 2002, she made some key appointments at the managing director level which were indicative of the areas she felt Temasek should focus on, both regionally and globally.

Cheo Hock Kuan, a seasoned senior civil servant who had already worked closely with Ho Ching for seven years at the ST Group as Director of Executive Resource and Corporate HR, joined Temasek as Managing Director, Organisation Development & Corporate Services.

Charles Ong, an investment banker who was Head of Corporate Finance, Southeast Asia at Deutsche Bank, was recruited as Managing Director, Strategic Development (Global Hub), to develop international investment opportunities. And Tow Heng Tan, an accountant and investment banker who was Senior Director of DBS Vickers, joined as Managing Director, Strategic Development, with special responsibility for ASEAN regional investments, as well as knowledge-based businesses (KBBs) and promising local enterprises (PLEs).

Finally, existing Temasek staffer Jimmy Phoon added to his title of Managing Director, Corporate Stewardship, the concurrent title of Managing Director, Strategic Development, with responsibility for Asian investments in regional services such as banking and finance, telecoms, health, education and utilities.

Of the four, two still serve in key roles in Temasek subsidiaries. Tow is CEO of Pavilion Capital and Chairman of Sembcorp Industries; Phoon is Executive Director and CEO of Seviora Holdings. Cheo is a board member of Temasek Trust; Ong left in 2012 and is now co-Chairman and co-CEO of RRJ Capital, a global investment firm.

Crucially though, Ho Ching understood that for Temasek to fly as an investor, some apron strings had to be loosened. There needed to be a formal delineation of and respect for Temasek's function, as well as the roles of the Board and the shareholder. Temasek had to have its own strong identity and be left to do its work, without having to shuffle back and forth for unnecessary approvals.

This formalisation of objectives eventually took shape as the Temasek Charter of 2002, the company's first-ever public communications document. The Charter, as a living document, would later be modified and revised in 2009, 2012 and 2024 in accordance with the company's evolution.

"Putting it together engendered a conversation with MOF at the working level, and then eventually the Minister, on one side. And on the other side, it was also a conversation with the Board and the management," said Ho Ching.[24]

The Temasek Charter
2002

Temasek Holdings holds and manages the Singapore Government's investments in companies, for the long-term benefit of Singapore.

By nurturing successful and vibrant international businesses from its stable of companies, Temasek will help to broaden and deepen Singapore's economic base.

Temasek will work with its companies to:

Values
Promote and maintain a strong culture of integrity, meritocracy, excellence and innovation;

Focus
Foster a strong focus on core competence, value creation, customer fulfilment and shareholder returns; and divest non-core businesses, so as to maximise long-term shareholder benefit;

Human Capital
Nurture and cultivate a strong and internationally competitive cadre of board and management leadership, as well as outstanding employees to build successful businesses;

Sustainable Growth
Support and institutionalise high standards of business leadership, financial discipline, operational excellence and corporate governance to achieve scaleable and sustainable growth; and

Strategic Development
Shape strategic developments, including consolidations, mergers, acquisitions, rationalisation or collaborations as appropriate, to build significant international or regional businesses.

Temasek will divest businesses which are no longer relevant or have no international growth potential.

Temasek may also, from time to time, invest in new businesses, in order to nurture new industry clusters in Singapore.

Past Temasek heads had tried to professionalise the organisation, she noted. “But I suppose part of their handicap was their chairmen then were permanent secretaries. And the permanent secretaries tended to run the company like a department.

“It’s almost like when we initially went to China and tried to explain what governance is. They didn’t understand the difference between shareholder, board and management. They tended to think of everything as lumped together. And in some of our family-owned companies in Singapore, they also tend to lump everything together. There was no clear delineation,” she added.

Apart from clarifying Temasek’s role, the Charter also communicated it to the general public, ensuring full transparency. It was essentially Temasek’s first attempt at publicly framing its corporate governance.

This new openness was a far cry from the undefined processes of the past, as well as a signposting of what was to come. The Charter outlined Temasek’s future directions – in particular, overseas investments which might have deeper implications.

VENTURING INTO ASIA: FINANCING MIDDLE-INCOME POPULATIONS

With its new Charter in place, Temasek started fanning out across the region, investing in China, India, Indonesia, Thailand and Vietnam.

The view was that with Asian middle-income populations on the rise, the region would need more sophisticated financial services with greater scope to meet its growing aspirations. In 2006, it acquired 11.5% of Standard Chartered Bank, owned by the family of the late Singapore tycoon Khoo Teck Puat.[25] Temasek saw the bank not as a British entity, but as an emerging markets franchise with a portfolio of assets in Asia, the Middle East and Africa.

When Temasek considered investing in financial institutions in early 2000, it decided to set up a dedicated financial services entity with the requisite expertise and skill sets. This entity would also provide some distance from the parent company, given the sensitivities of investing in such services.

So, in 2002, Asia Financial Holdings (AFH) was established. Later, in 2007, it was renamed Fullerton Financial Holdings (FFH).

AFH's first investment was Indonesia's Bank Danamon in 2003. After the Asian Financial Crisis, many banks that went under had been nationalised and restructured. With recovery in sight, the Indonesian government was beginning to exit these banks, inviting investors both local and foreign to bid for them.

It would be Temasek's first of several direct investments in the financial services sector. Said Jimmy Phoon: "We didn't have extensive experience ourselves, but we applied common sense and were thorough in looking at this opportunity, doing detailed due diligence, determining what were the key issues and how to solve them."[26]

Danamon was the first working proof of a new operating model in the emerging-market space and defined how Temasek would position and project itself to other government sellers and partners. The lessons learnt from the Danamon experience, as well as the financial services expertise that was quickly built up, would be applied not only in Indonesia, but in China, India, Pakistan, Malaysia, UAE, Vietnam, Cambodia and Myanmar. This cross-fertilisation of know-how between different entities became a crucial element in the progress of Temasek's strategy for FFH.

2003

BANK DANAMON: A NEW BUSINESS MODEL

In May 2003, Temasek, in partnership with Deutsche Bank, bid successfully for a 51% stake in Indonesia's Bank Danamon, to the tune of US$347 million.[27] It was one of Temasek's largest deals at that point and a significant one. Formed through a merger of nine restructured banks, Danamon had 462 branches throughout Indonesia, with around 13,000 employees.[28]

Investing in a bank is effectively a leveraged play on the economy. Temasek had to form a view on the Indonesian economy, which proved to be challenging at the time given the nascent recovery of the country and the lagged nature of published economic data. Jimmy Phoon and his team, therefore, applied some creative but effective methods to get around this problem, looking instead at the informal economy – the self-employed, the entrepreneurs and the small-business holders – which was doing very well. It formed a very good proxy for the overall Indonesian economy.

Another vital clue was the number of motorcycles that had been sold in early 2003. The team found that it actually exceeded the figure for the same period, pre-1997 crisis. Said Phoon: "That added to our confidence in the firm recovery of Indonesia, in addition to official statistics."[29]

After the acquisition, Bank Danamon's new management team decided to focus on what it defined as the Self Employed Mass Market (SEMM). Building on that thesis, a microfinance division called Danamon Simpan Pinjam (DSP) was launched in 2004, with 1,200 branches located mainly in major cities. It strategically avoided the rural areas that were already being served by Bank Rakyat Indonesia, the country's oldest bank, which pioneered loans to the poor in the 1960s.[30]

DSP would prove so successful that, by 2009, it made up 65% of the bank's profits.[31]

But while the acquisition of its stake in the bank turned out to be smooth, the immediate aftermath was rather dramatic, with Temasek being called upon to demonstrate its values as a responsible and caring employer – which it did, without hesitation.

Francis Rozario, the bank's first President Director and CEO, recalled: "It was still the early days when we had just taken over control of Danamon." He had asked a banker to lunch with him at the Jakarta Marriott. "My car drove up and my driver had some difficulty turning around because there was a Toyota

Market vendors could access microloans through Danamon Simpan Pinjam.
Source: Bank Danamon

Kijang SUV parked right in front. So we jumped out, walked through the lobby, got into the lift and went up to the third floor to the Japanese restaurant."

The pair was led to their table. But before they could sit down, a bomb went off. "The bombs had been placed in the Kijang. The glass from the front of the building blew into the reception area. Luckily, there was a sort of screen that protected us in the restaurant because we were on the other side, but the false ceiling fell," he recounted.[32]

"We quickly walked down the emergency staircase onto the tennis courts and then walked back to the office. While this was happening, the noise had reached the office, which was only about 200 or 300 metres away from the Marriott."

Rozario's secretary urgently despatched the company security guards to locate him. "My driver said he had felt the impact of the air after the bomb went off because he was no more than 100 metres away. He told my secretary over the phone that 'I had gone', but they didn't understand what 'I had gone' meant," said Rozario.

“So, they all panicked and were getting ready to rush over to the hotel when I coolly walked back into the office. We hadn’t stopped to see all the mess that had been created. I was worried that there could be another bomb.”

Media reports said as many as 14 people were killed and 150 injured.[33] The Marriott bombing would be the catalyst for the bank management’s decision to include employee care as part of its core values.

This value would be demonstrated in the aftermath of a second bomb explosion, this time outside the Australian embassy in 2004.

Muljono, a mid-level officer at the bank, was driving by when the bomb exploded, blowing off his jaw. The bank immediately arranged for an emergency airlift to Singapore, where he spent months undergoing a series of reconstructive surgeries. Rozario told his staff to “do whatever you need to do” to ensure Muljono was well cared for, not only covering the treatment costs but continuing to pay his salary to his wife and children. Later, when further surgery was needed, the Australian embassy sent him to Australia and took over the medical costs.

Said Rozario: “We made sure that we looked after him. This was Danamon, but we viewed this as Fullerton’s and Temasek’s corporate social responsibility and the value system that we bring to our investments. It didn’t exist in Danamon until we took over the bank; it came through the new management and ownership.”

There would be other examples of Danamon’s compassion. When the 2004 Boxing Day tsunami devastated the Indonesian province of Aceh where Bank Danamon had three branches, Rozario immediately flew in. Without fanfare, Danamon quietly built houses for employees affected by the disaster. “We bought a piece of land and we resettled at least 20 families or households. We just decided to do whatever it took to resettle our people and give them a normal life,” said Rozario.[34]

Another incident proved that good begets good. There had been a fire in a town marketplace where Danamon had a branch and many of the shops were razed to the ground. Danamon staff arrived quickly on the scene where they met with distraught shopkeepers whose entire inventories had been destroyed. As the shopkeepers had nothing, least of all collateral, the management decided to give them whatever money they needed.

Said Rozario: “It’s amazing the effect that had. Every one of them paid back. It became the talk of the marketplace and they made sure that everybody knew what we had done.”[35] The traders renamed the marketplace after Danamon and the bank wound up with a 50% market share in the area.

In 2005, Danamon had over 4,500 new employees.[36] By the end of 2013, the bank would have close to 68,000 employees.[37] In 2019, Temasek divested all its shares in Danamon to Mitsubishi UFJ Financial Group (MUFG).[38] ■

THE MONEY MARKETS

As part of its strategy to ride on Asia's growing middle-income populations, Temasek also initiated Singapore-based investment vehicles and institutions. Among these was a fund management arm called Fullerton Fund Management Company (FFMC), created out of Temasek's Treasury department.

By 1999, Treasury had expanded and was placed under the watch of Gerard Lee, formerly of Deutsche Asset Management. But it was still a relatively small outfit, with only 19 people. Lee found that there was no systematic approach to strategic asset allocation. "Nobody was asking questions like, should we be in equities, commodities, hedge funds, or distressed assets? How much should we allocate to different asset classes?"[39]

In February 2003, Treasury started investing in hedge funds, which eventually became one of its core businesses. Said Lee: "There were two possible approaches to investing in hedge funds. One was to manage the money as if we were a hedge fund, and the other was to seek out good hedge funds and put them together into a portfolio. We chose the latter because it was less labour-intensive and it allowed us to avail ourselves of various strategies. We took the pragmatic and realistic approach and set up a fund of hedge funds."[40]

With Treasury now bearing a closer resemblance to a classic fund management operation, Lee proposed that the department be renamed the Fund Management Department (FMD). "FMD was a good name – until Foot and Mouth Disease came along," he quipped.

In December 2003, the department was spun off as a subsidiary, renamed FFMC and incorporated as a new company with Lee as CEO. Extra precautions were taken to ensure a clear separation from Temasek.

FFMC's performance would be subject to the same scrutiny and review by Temasek as any other client. In the first two years, Temasek was mainly concerned about its systems and processes. Lee recalled: "They were especially particular that our middle and back offices were properly established. At that time, they were not so concerned about the rate of return we earned, but more about our reputational risk."

FFMC certainly received no preferential treatment, taking nine months to get a licence from the Monetary Authority of Singapore to operate as a fund manager. The regulatory body had to be satisfied that the company had the appropriate expertise, systems and corporate governance, as well as the financial wherewithal, to be in the business.

After FFMC was well-established, the rate of return became a key issue for Temasek. "We reported on performance to Temasek," said Lee, who left in 2010 and went on to become the CEO of an asset management company. "And we viewed our relationship with Temasek as no different from that with any other clients."[41]

The boundaries with Temasek were clear. "I had no automatic access to Temasek's offices," Lee pointed out. "My magnetic card only worked for the fifth floor, not the sixth floor where Temasek was located. I had the feeling the tea ladies had easier access to Temasek than I."

In 2004, FFMC began to offer fund management services to external clients. It targeted wholesale rather than retail clients, essentially banks or securities firms that could co-brand with FFMC on investment products that they didn't have the capability to manage on their own. But it had to start from scratch, competing with what was by then a crowded field of fund managers, ranging from blue-chip international names to boutiques and local banks.

Lee and his team made a considered decision to position FFMC as an Asian markets specialist, offering specialised, Asia-focused funds. "If we offered ourselves as a global investor, we'd be one among thousands," he explained. By positioning itself as an Asia expert, FFMC reduced that universe to the hundreds. "Plus, we had a solid shareholder and are native to the region."[42]

No other Asian fund management firms, apart from those in Japan, had the ability to manage assets on a pan-Asian basis. "The firms in places like Thailand, Malaysia, Taiwan and Korea had been around for 10 to 15 years, but they only specialised in managing their domestic market. Singapore, on the other hand, already had exposure in managing money internationally since the time of its independence." This was not a durable advantage, however, as other Asian firms would eventually catch up. "I figured I had a three- to five-year window," he added.

FFMC also found other opportunities in Asia through joint ventures. In 2006, it established a greenfield-venture finance company called Lotus India Asset Management with Indian private equity firm

Sabre Capital Worldwide Group. Lotus India was sold to Indian financial services firm Religare Enterprises in November 2008. And in September 2008, it signed a memorandum of understanding on a joint venture with a China-based mutual fund, Bosera.[43]

INNOVATIVE VENTURES

Temasek, at this stage of its development, was also looking beyond vanilla investments and was hungry for new, commercially viable ideas to bring to fruition.

In fact, as early as 1988, one of Singapore Technologies' subsidiaries, Vertex Venture Holdings, was set up to invest in emerging companies and leading venture capital funds throughout Greater Asia and the US. As at September 2023, Vertex had more than US$6 billion of assets under management and over 300 active portfolio companies.[44]

In January 2014, it launched a S$100 million fund to help local start-ups, especially those in the infocomm technology and healthcare sectors. At the launch, Vertex Chief Executive Chua Kee Lock said: "We're looking for start-ups with disruptive and innovative businesses that can become Singapore's next billion-dollar companies."[45]

Shortly after, in April 2014, Vertex announced that it was leading a group of largely Malaysian investors to put "an eight-figure sum" into the taxi booking app, GrabTaxi, with the view to expanding its use beyond Singapore and Malaysia. The money would also go into product innovation and building larger local teams to develop and market the app.[46]

But perhaps the most notable of Temasek's innovative ventures was the creation of the low-cost carrier, Tiger Airways. It was one of Temasek's first "enterprise development" projects, in that it identified a potential growth area which had been previously untapped and created a new business out of it.

In subsequent years, Temasek would put added emphasis on creating new platforms out of previously unexplored propositions to develop whole new industries and viable business platforms for the future.

2003

TIGER AIRWAYS: MOVING THE MASSES

It was perhaps logical that Temasek would want to invest in a low-cost carrier (LCC), considering that a rising Asian middle-income population would be looking to travel more and at affordable prices.

The Ryan family, which had started the successful Ryanair, had expressed interest in setting up an Asian LCC; and Temasek was interested. The Ryans had approached Temasek together with William A. Franke, founder and managing partner of Indigo Partners, an American private equity firm focused on air transportation. Franke would later serve on the Tiger Aviation board from 2004 to 2009.[47]

But critics noted that Asia lacked cheap secondary airports near major cities and places of popular interest. Governments in the region also tightly regulated access to air routes – unlike in the US and Europe. Furthermore, the market was already getting crowded with a number of lower-cost rivals.[48]

There were also concerns that the new LCC, which would be named Tiger Airways[49], would cannibalise some of the operations of Singapore Airlines as well as those of SIA's regional carrier subsidiary, SilkAir.

SIA, however, would eventually take a 49% stake in the venture, but with the proviso that it would not manage the airline. SIA's then CEO Chew Choon Seng said at the announcement of Tiger Airways in December 2003: "We have observed that almost all attempts by full-service network airlines to operate wholly owned low-fare carriers have been unsuccessful. This is because the low-cost model requires completely different methods and procedures, marketing approaches and skills, and it is hard to be both premium full-service and low-cost, no frills at the same time."[50]

It therefore fell to the other shareholders – Indigo Partners (24%)[51]; Irelandia Investments, representing the interests of Tony Ryan (16%); and Temasek Holdings (11%) – to rise to the challenge.

Temasek's Margaret Lui, who handled the investment and sat on the Tiger board, found herself put to the task.

"We worked on a shoestring budget. The start-up costs for Tiger were very low. With SQ behind it, it had no trouble leasing planes," she said. "But we had to do a lot ourselves, right down to designing uniforms. The designs for the uniforms were drawn up in our office, and we went searching for fabric ourselves.[52]

One of Temasek's innovative ventures was Tiger Airways which identified a potential growth area that was previously untapped and created a new business out of it. *Source: The Straits Times © SPH Media Limited. Permission required for reproduction.*

"We only had four months to the opening. I wanted tiger stripes, but I was told that it would take a year to design, print and deliver bales of fabric. So, I told the Tiger team to go to the shops and look for enough tiger-stripe fabric to make scarves. I also decided against having skirts because it would mean we needed stockings and we couldn't afford that. So I said, 'Stick to pants first!'"[53]

The fledgling company even got the board of directors involved in deciding airplane livery and markings. Said Lui: "Someone drew different sketches of tigers and everybody just voted."

There was also discussion on where to position the tiger image on the plane. One suggestion to place the image at the door was vetoed by a member of the board because it would appear as if the tiger were eating boarding passengers. "So, we pushed the tiger away from the door a little bit and closed its mouth so that it didn't seem to be leaping and mauling the passengers," she said.

Starting with two aircraft and a network of three routes, Tiger had, within four years, a fleet of new Airbus 320s and was flying to more than 25 destinations in eight Asia-Pacific countries.

Tiger Airways was listed in 2010 and Temasek eventually exited the business in 2014.[54, 55] ■

AN ANNUAL SCORECARD

In 2004, on Temasek's 30th anniversary, the company opened itself to even wider scrutiny with the publication of its first *Temasek Review*, an annual disclosure that revealed, for the first time, its portfolio numbers and group financials. As an exempt private company, Temasek had no legal compulsion to open its books. However, Ho Ching was astute enough to recognise that secrecy had become largely superfluous.

"Nobody in the past knew the official size of our portfolio," said Ho Ching. "But a lot of our companies are listed with mandatory public disclosures. At the same time, the unlisted companies issue bonds, which means their financials are also public. With a bit of work, anyone can reconstruct our whole portfolio, which means the information is out in public already. Any smart investment banker would be able to come up with a calculation and ask me, is this what you look like? And he'd be 95% there."[56]

The 72-page *Temasek Review* of 2004 described the company as an "Asia investment company" and was generous with numbers, revealing a global portfolio worth S$90 billion, with geographical and sectoral breakdowns; a net wealth added at S$21.6 billion for the financial year ended 31 March 2004; and a total shareholder's return of 18% per annum over the past 30 years.

The report also disclosed that, over the past 30 years, Temasek had divested over 100 companies, reaping gains of S$15.1 billion to fuel its investments programme and sustain healthy dividends for its shareholder, MOF.[57]

In a speech to the Institute of Policy Studies in July 2009, Ho Ching said: "Our *Temasek Review* was also meant to introduce us to our friends and potential partners, as well as to our portfolio companies and other interested parties or stakeholders in the market. Our first *Temasek Review* marked the beginning of a new phase in Temasek's journey to engage and be engaged with the wider community."[58]

It was also part of her larger plan to introduce financial discipline and public accountability to the company, a plan which included getting Temasek credit-rated.

2004

RATING AGENCIES: TEMASEK SCORES FOR CREDIT QUALITY

In the same year the *Temasek Review* was published, Temasek offered itself to be credit-rated by Moody's Investors Service and Standard and Poor's (S&P),[59] both of which gave it triple-A ratings.

Having the highest possible investment grade ratings would also enable Temasek to start issuing bonds to a wide set of investors, providing yet another "public marker" of financial discipline. As Temasek continued to expand in the decades ahead, these markers would become even more important.

Moody's first report in 2004 gave Temasek a tick for credit strengths such as "sound financial profile", "very strong asset quality of the investment portfolio", "excellent liquidity" and "constitutional safeguards".

S&P's 2004 report similarly ticked Temasek across the board, commenting that the company enjoyed "exceptionally strong flexibility as a holding company". It added: "At the holding company level, Temasek maintains a very conservative capital structure and extremely strong liquidity." At the time, S&P had given only one other company in Asia the highest rating – Toyota Motor of Japan, the world's biggest carmaker by market value.[60]

Ho Ching saw the credit rating as a useful boundary marker: "Credit rating for us is like a tripwire. So if we move from AAA to AA, that means we are moving the wire closer to the edge. Is it worth it? What's the trade-off? If you go from AAA to AA, it will allow you to borrow more, but at a higher price. Does that make sense for us? But if we did move from AAA to AA, every step would be a conscious decision because it is public."[61]

While Temasek has held on to its triple-A ratings even through the Global Financial Crisis of 2008, it decided in 2015 to add its own credit ratios in its *Temasek Review* as a complement to the credit ratings. These ratios reflect Temasek's performance as an investment company.

This is pertinent as the unlisted portion of Temasek's portfolio has grown in the last few years, to capture innovation and early-stage opportunities which have generated higher returns for Temasek.

In 2012, the unlisted portion of Temasek's portfolio was S$53 billion. By 2022, it had grown to S$210 billion, a four-fold increase in a decade.[62] ■

PART II

Crossing the River 2005–2014

"And at every stage of Temasek, if you go back to the early days, you find that every generation asks, 'What is Temasek? What are we supposed to do?' You know, it's all these existential questions that we ask. And in a way it's good to ask those questions, because it reflects the fact that Temasek exists only if you bring value. If we don't bring value, then you and I are completely dispensable, and there's no need for a Temasek."[1]

Ho Ching
Executive Director & Chief Executive Officer
Temasek Holdings (2002–2021)

WITH TEMASEK'S FOUNDATIONS and culture now clearly framed, a purse in hand and a mandate to make it grow, the company's executives started to look for longer-term investment opportunities, making bold forays into new territories and new sectors, based on the trends that they could see.

First off, it decided to tap into the emerging Asian economies, including India and China. Many were at a similar stage of growth to Singapore's a few decades earlier – on the cusp of great expansion, fuelled by growing middle-income populations and the attendant need for infrastructure development. All would offer fresh opportunities for Temasek. Additionally, the Asian Financial Crisis of 1997 had thrown up interesting and affordable pickings in the region, most notably in the banking and finance sectors.

The success of the Indonesian bank acquisitions[2] in previous years had also been a positive precedent, encouraging Temasek to add more foreign financial institutions to its portfolio as an early proxy to the emerging economic growth. Like Indonesia, other countries such as Thailand and Vietnam were also reforming.

The company's investment outreach had slowed during 2003, partly due to the SARS crisis which hit the transport and tourism/leisure industry sectors particularly badly, but which also had ripple effects throughout many other sectors of Asian economies. Temasek's investment levels from 2003 to 2004 were understandably low, with just S$3.3 billion invested in 35 companies.[3] But by the time the 2005 *Temasek Review* came out, new investments – mostly in Asia – had jumped to almost S$13 billion.[4]

Drawing key lessons from Singapore's own experience, Temasek came up with a set of criteria to assess Asia's changing economic landscape.

One criterion was good governance, which had been a pillar of Singapore's success. "We looked at the big picture in China and India," Ho Ching said. “These countries were prepared to join the global economy, prepared to move. And we would move with them.”[5]

During the financial crisis, China had resisted devaluing its currency, even though currencies across the region had plummeted, partly because it had attached greater importance to longer-term regional stability than short-term competitive gains. Under Premier Zhu Rongji[6], it had also taken the brave decision to join the World Trade Organization in 2001 and had begun to open its economy.

“They were prepared to sacrifice short-term for long-term; they were prepared to do the right thing,” said Ho Ching. “So, we said they were worth investing in.” Temasek’s investment drive resulted in a balanced and diversified portfolio with approximately equal emphasis on Singapore, Asia and the OECD (Organisation for Economic Co-operation and Development) economies.[7]

The Indian economy, too, had gone through a transformation in both policy and attitude. “In 1991–1992 when the country opened up, the Indian business world was apprehensive,” she said.

But by 1999, things had changed. “The factories might not have looked very pretty – they were not all plate-glass and all that – but the operating lines were fully automated and they were selling to businesses all around the world. We saw that, so we said, okay, right direction, because our horizon is not one year; it is 10 years, 15 years.”

Temasek was prepared to take a long view on India, trusting the long-term transformation of the Indian economy as middle-income populations grew and local industrial champions emerged.

INDIA: BANKING ON INFRASTRUCTURE

To get an unemotional and direct feel of the ground, Ho Ching embarked on an exploratory trip to India in 2003, visiting Delhi, Mumbai, Hyderabad and Chennai.

She was already keen on India, but the trip reinforced her sentiments as she saw an opportunity to go in early, before other investors, to build the Temasek brand. In 2004, Temasek chose to open an office in Mumbai to keep it close to the ground with business families and the government.

Manish Kejriwal, who was Temasek's Senior Managing Director of Investments, International and India during that period, said: "The timing was fortuitous, as the Indian economy was benefiting from strong macroeconomic trends, secular growth and improved governance. We saw a strong rally in the public markets in subsequent years, and also identified a series of attractive private equity opportunities. Equally importantly, we built up one of the strongest local teams 'in country' to source ideas, deals and provide a richer and deeper context to our investment programme."[8]

Temasek's Head of India Ravi Lambah (right) meeting with
Mohit Bhandari and Nishant Chandra in the Mumbai office.

The Indian investments focused on two main fronts: companies that mirrored the growth of the domestic economy in sectors such as banking, telecoms and automotives; and companies that capitalised on India's comparative advantage as a globally competitive resource base for products and services, especially in areas such as biopharma and healthcare, information technology, business process outsourcing and the automotive component sector.

In 2005, Temasek's Asia Financial Holdings (AFH)[9], which focused on financial and related services in emerging markets, decided to venture further into India as the country had become more welcoming of external financial institutions that could reach out to the self-employed and lower-level salaried segments. At the time, India was a potential market of more than one billion people, most of whom were at the lower end of their respective scales and lacked access to basic financial services. According to a report by the Asian Development Bank, in 2005, there were only 2.3 ATMs and nine commercial bank branches per 100,000 adults in India.[10]

Moneylenders, who traditionally filled the gap, charged excessive interest rates. As India's economic growth moved into high gear, hundreds of microfinance institutions, including non-profit organisations, sprouted up across the country, some of them operating at the village level. Multinational banks with operations in India were also moving into the microfinance sector, attracted by its growth and low default rates. Methodologies for lending had improved by then, with self-help groups (SHGs) emerging as the nucleus of lending programmes. For example, India's state-owned National Bank for Agriculture and Rural Development (NABARD) financed more than 500 banks that lent to SHGs under an SHG-Bank Linkage Programme, the largest microfinance programme in the world.

AFH, therefore, faced intense competition. But it had a novel business model, focusing on the financial inclusion of lower-income groups. In 2005, it acquired Dove Finance, a Chennai-based auto-finance company, and changed its name to Fullerton India Credit Company (FICC). Willie Chan[11], who was involved in setting up the India venture and who later went on to run his own consultancy, said then: "Fullerton India is not a bank. It's a non-bank financial company (NBFC). Its business emphasis is microfinance; it started off making loans and grew the branches quickly and aggressively."[12]

FICC was used to pilot AFH's mass-market model, with great success. Adapted to Indian conditions, the model was tested with 25 branches in 2006. As of 2024, FICC[13] had more than 800 branches spread across 600 towns and around 65,000 villages providing financial solutions to over 2.7 million customers.[14]

In the back office of its Indian venture, AFH also installed appropriate systems and processes, including risk-management systems, as well as compliance and internal audits. "We hired top-calibre people in India and spent a lot of time designing the human resource system," said Chan.

Today, India remains a key focus for growth in Temasek's portfolio. As at 31 March 2024, it made up 7% of Temasek's total portfolio.[15] Ravi Lambah, Head of India and Head, Strategic Initiatives at Temasek, said: "Over the years, we have been selective with our investments, but are now accelerating our pace of investments in India due to the positive macro environment. The Indian government's focus on increasing infrastructure in the country will lead to widespread benefits for the economy. India's capital market is now the fourth largest globally and the increasing GDP per capita will drive consumption spend higher. All these factors give us the confidence to increase allocation of our capital, of course, provided we can continue to find the right opportunities that can generate the required returns. And that's really where we are currently in our journey."[16]

CHINA: BREAKING NEW GROUND

Between 1994 and 2004, China's share of global GDP jumped from around 5% to nearly 9%[17], while the size of its economy more than tripled.[18] In 2003, it established the State-owned Assets Supervision and Administration Commission of the State Council (SASAC) to supervise and manage its state-owned assets.

Temasek, like many other foreign investors, had been looking from the sidelines, figuring out how to break into this promising market. Although it had been active in China since the 1990s, its investments had always been made as part of a consortium of investors, either with Temasek portfolio companies or Hong Kong-based parties.

The turning point came in 2003 when the Temasek team offered to speak about mergers and acquisitions at a SASAC conference because it knew the Chinese were keen to learn how to rationalise their assets. This opportunity allowed Temasek to meet SASAC and some of the leaders of China's state-owned enterprises (SOEs), paving the way for more invitations in subsequent years to speak at SASAC events.

Temasek had two objectives: it wanted to increase its visibility to China's central authorities; and it wanted to make itself known in key Chinese cities and regions, to be well-placed for future business opportunities. Over time, Temasek delegations would fan out to different Chinese cities, conducting sessions in Chongqing, Liaoning and Hangzhou. Soon, China, too, began sending delegations to Singapore to visit Temasek.

But Temasek still had no physical office in China.

Cheo Hock Kuan[19], then Managing Director, Organisation Development & Corporate Services, said: "What I observed was that our investment colleagues were going in and out of China. But I wondered if going in and out was the way to do it. I always believe that if you want to be serious about any market, you must be there. You cannot be managing by remote control.

"So, I decided to look for a team to focus on China. I wanted seasoned investment professionals, so I spent quite a few months with the search firms, interviewing candidates. But my colleagues didn't have the time and couldn't give priority to looking at them. So, I was a bit frustrated by early 2004. And I thought, look, I must get it done."[20]

From left: Temasek's China staff Wenzel Guo, Fran Shen and Kang Lei in the Beijing office.

The truth was Cheo's colleagues were too busy sniffing out business opportunities and closing deals in China to be concerned with having a ground presence. Temasek would take a 7% stake in Singapore-listed Cosco Corporation[21], China's largest shipbuilding and ship-repair company, as well as a 3% stake in China Power International[22], the country's fifth-largest electricity generator.

With everybody else preoccupied, Cheo decided she would relocate to China herself. "I hadn't even talked it over with my husband," she recalled. She also had her three children to consider. Her youngest child was 12 and just about to start secondary school.[23] But off she went.

In late 2004, she set up the Beijing office with a small team, in a totally unfamiliar environment. Once there, she found to her dismay that all her pre-arranged appointments in China had suddenly been cancelled, apparently because of a diplomatic incident – Singapore's then Deputy Prime Minister Lee Hsien Loong[24] had made a private visit to Taiwan in July 2004 just before becoming Prime Minister. "Nobody wanted to see me. Basically, I got put in cold storage," Cheo said. "I had to work hard to get back slowly."[25]

But the fates would intervene in her favour when China called for some urgent assistance regarding China Aviation Oil.

2005

CHINA AVIATION OIL: BUILDING RELATIONSHIPS

In November 2004, China Aviation Oil (CAO), the Singapore subsidiary of China's largest jet fuel supplier, shocked the Singapore stock market by announcing that it had lost US$550 million from derivatives oil trading. This swiftly led to a suspension of the company's once high-flying shares as CAO filed for bankruptcy protection.

CAO's China-based parent company at the time, China Aviation Oil Holding Company (CAOHC), was managed by SASAC, one of China's most powerful entities. Even though Temasek held less than 2% of CAO at the time, the Chinese company asked it to help restructure its operations by investing further.

Cheo Hock Kuan, who had set up the Beijing office, knew how valuable this opportunity would be to growing Temasek's business relationships in China.

She said: "It was a very tough call because, at the time, nobody knew how deep the hole was. Nobody knew if we would be able to get out should we decide to get involved."[26]

The proposal caused intense debate inside Temasek. But she had support from Tow Heng Tan and Tan Suan Swee, who were then Temasek's Managing Directors of Strategic Development. The proposal was green-lit and, with Temasek's help, CAOHC put together a rescue package with partners, including Temasek. CAO was re-listed in March 2006 and announced an increase in profits by March 2007.

The process of restructuring CAO took a lengthy 18 months and placed heavy demands on Temasek's resources. Wong Kim Yin, who went on to become Group CEO of Singapore Power and subsequently Group President and CEO of Sembcorp Industries, was one of Temasek's energy cluster executives who handled the CAO project. He pointed out: "A lot of things could have gone wrong. On the face of it, it seemed like a small investment with a lot of downside, including reputation risk. But in the end, with skilful navigation by the project leaders, the restructuring was completed, and along the way, the trust level amongst the key stakeholders was greatly enhanced, advancing Temasek's strategic positioning."[27]

A new friendship had been forged. SASAC started to send its executives for leadership, governance and discussion forums with Temasek in Singapore, and doors began to open in China. ■

Temasek's participation in CAO's rescue package was well received within the Chinese system. People were starting to sit up and pay attention, as Cheo soon found out when she was in Beijing and looked up Koh Beng Seng, former Deputy Managing Director at MAS and later Deputy President and Executive Director of Singapore's United Overseas Bank.

At the time, Koh had just left the bank to set up his own financial services consultancy called Octagon Advisors. He had made a trip to China to reconnect with business acquaintances in the country's banking and regulatory space.

He took Cheo to meet a senior official of Central Huijin Investment, a company newly created by the Chinese government to oversee and restructure the country's four state-owned banks.[28] Koh had met this senior official when the latter was working at the People's Bank of China (PBOC)[29].

China had become a member of the World Trade Organization[30] and its government wanted to reform the banking industry by restructuring the shareholdings of the banks and improving their corporate governance so they could operate on a commercial basis on the global stage. The ultimate objective was to have strategic foreign investors acquire stakes in the banks and for the banks to list on an international exchange accepted by global investors, subject to proper disclosure and listing requirements.[31] The first bank on Huijin's list was China Construction Bank (CCB).

Said Koh: "The senior official of Huijin thought I might know of potential reputable foreign strategic investors and asked me to help look for investors. His team gave us a presentation on what they had done to clean up the books and improve governance. Basically, they had moved all the non-performing loans into an asset management company."

Knowing that Cheo was representing Temasek, Huijin offered the company 20% of CCB and gave her 10 days to consider. "Because the stake was so big, Koh and I asked to meet Zhou Xiaochuan, then governor of the PBOC. We were granted the audience and Zhou confirmed that the offer by the senior official was genuine. And that was how I brought the CCB offer back to Temasek," said Cheo.[32]

Koh added: "We didn't just talk to Huijin, but also to officials and our contacts at various financial bodies and authorities, all of whom told us they were not embarking on this exercise to get foreign money. They didn't need the money. The government had, in fact, injected money into the bank. They also said the banks would be properly audited by the Big Four accounting firms and that they would give the new investors a board seat to offer inputs on governance, business practices and the latest banking technology so as to improve the banks.

"I was confident the Chinese were genuine and serious about their offer, not only from what I had observed of their restructuring efforts, but also because I had a strong relationship with the senior official of Huijin and other senior Chinese officials built on years of trust. He had spoken to me as a friend; we had no contractual agreement at that time."[33]

But, of course, there was a need to independently assess what still appeared to be a very risky investment. Francis Rozario was on the Temasek team evaluating this opportunity: "There was this perception then that the Chinese banks were riddled with NPL problems," he said, referring to Non-Performing Loans. "So, we were worried it would all be a big black hole. The foreign banks were all sitting on the fence."[34] Again, a debate ensued within Temasek, resulting eventually in the decision to go ahead.

Rozario, who put a lot of stock in personal face-to-face interactions and straight talk, felt good about his dealings with CCB personnel and the auditors he had met. He assessed the bank less in terms of a liquidation-style valuation, and more in terms of it being a going concern with good prospects.

He said: "As it turns out, even on a liquidation basis, because of the way the Chinese authorities had approached the clean-up of the banks, there was a tremendous protective layer that the government had built in. But it was not so apparent at that time that they had done enough. CCB clearly was different because it was evolving from a public sector-led type of institution to wanting to run on commercial lines."[35]

Frank Tang, who headed Temasek's China team from 2005 to 2007 and went on to run his own fund, said of the China banks: "You can easily get intimidated by too many details. Those who looked at the negative newspaper stories about the Chinese banks – you know, officials stealing money, being corrupt and directed by the government to offer bad loans and all that – just felt it was a black hole. But on the ground, it was quite a different picture."[36]

He added: "The Temasek Board had witnessed the last few decades of Asia's development and gone through the Asian Financial Crisis and many other crises in the past; it had the experience and judgment to know that this was a golden opportunity. Temasek played to its strengths of understanding Asia, and its ability to move very fast and put big capital to work when there's a great opportunity."

In July 2005, AFH signed a definitive agreement with CCB to invest US$1 billion in its upcoming Initial Public Offering (IPO). In August, AFH also purchased a 5.1% stake, amounting to US$1.5 billion, in CCB from the majority owner, China SAFE Investments Ltd (HuiJin). By the time of the bank's IPO in October 2005, Temasek had more than doubled its initial commitment to close to US$2.5 billion.[37]

In hindsight, Koh said: "We could have brought the deal to Temasek and Temasek could have told us we were crazy because, to be honest, we could not guarantee the deal would be successful and there were significant risks involved. And that would have been the end of it. But Ho Ching and Hock Kuan saw that it made sense and knew how to go about executing the deal, as well as building the relationship with the investee Huijin and the Chinese government for the long term. So, besides gaining financially from the investment, Temasek also established a credible track record and reputation in China and went on to make many other investments there."

Temasek's investments in China were initially big on banks. This was the quickest way to get exposure to its growing economy. As the Chinese capital market and business sectors developed further, Temasek would then rotate out into specific sectors like security and insurance companies, and more. These sectors, explained Deputy CEO Chia Song Hwee, mirrored the development of capital markets and growth of middle-income populations. Likewise, the company has, either directly or through subsidiaries, invested in technology, e-commerce and logistics-related businesses.

Said Chia: "The logistics warehousing and distribution business was one of the fastest growing spaces in China because of growth in consumption and the underlying trend of urbanisation. Also, the rise of the Internet had led to a growth in business-to-consumer transactions. These businesses needed warehouses to store and redistribute their inventory and all this drove logistics warehouse growth, not just in coastal cities but also further inwards, into China's second- and third-tier cities."[38]

China continues to be an area of focus for Temasek, making up 19% of its portfolio exposure as at 31 March 2024.[39] While COVID-19 knocked the wind out of the country's economic sails, Temasek's Head of China, Wu Yibing, remains upbeat.

He said: "What really makes me believe in the long-term promise of China is it has 1.4 billion people – two entire generations – believing one thing, which is that tomorrow will be better than today. And the world has only ever experienced that once, in the post-war US. That drove, from 1945 to 1990, 45 years of people's prosperity. China now has the entire ecosystem: it has the capital, it has the innovation, it has the talent, and it has hardworking people."[40]

THAILAND: A LESSON IN POLITICS

One of the most controversial of Temasek's investments would take place in Thailand and it would test the patience and resilience of the team. What was meant to be a straightforward investment in competition with other potential bidders waiting in the wings, ended up being politicised in the fight between a populist prime minister and other more conservative forces in Thailand.

By the late 1990s, several telecom companies in Southeast Asia, particularly in Indonesia, Malaysia and Thailand, would find themselves overextended in the wake of the Asian Financial Crisis, having incurred high US-dollar debts in the process of expanding their networks. In addition, with regional currencies having weakened against the dollar, these companies, whose revenues were in local currencies, had significant funding needs. The post-crisis period, therefore, presented opportunities for investors in many sectors in Asia, including the telecom sector.

Temasek, together with Singtel, had started evaluating opportunities in telcos in the region, including Advanced Info Service (AIS) in Thailand, Maxis in Malaysia, Komselindo in Indonesia and Smartone in Hong Kong.

Temasek's investment strategy regarded telecom assets as a key growth market in the rise of the Asian middle class. The assumption was that new consumers would fuel a demand for telecommunications services, as well as facilitate the exponential growth of network providers.

In 2005, Temasek started considering an opportunity to acquire control of Thailand's largest cellular operator, AIS, where Singtel already had a 22% share.

On paper, everything seemed right. Said Ho Ching: "When we went into Thailand and into Shin, one of the premises we held was that ASEAN had a lot of potential. Thailand was becoming the Detroit of ASEAN, attracting a lot of car assembly plants and manufacturers of auto parts. Their skill sets were improving. And if you look at a company like Shin and, underneath it, AIS, there was professional management. We love that kind of thing – professional management – which can bring a proper perspective to a business. If you invest in that, you can support the country's growth."[41]

The parent of AIS was Shinawatra Computer and Communications, renamed Shin Corp in 1999.[42] In acquiring control of Shin Corp, Temasek would find itself embroiled in a political maelstrom where it was accused of plundering Thailand's national assets, as well as illegally enriching its polarising Prime Minister at the time, Thaksin Shinawatra[43].

In March 2006, thousands of Thais demonstrated outside the Singapore Embassy in Bangkok and on the streets. Temasek, which had never faced such a heightened situation before, was taken aback by the violent reaction to what it regarded as a purely commercial investment, aligned with its long-term strategic plans.

Dhanabalan felt Temasek had approached the Shin deal with necessary caution. "I wanted to be, first of all, sure that the Thais would not consider an investment in a major company in the telecom space as something reserved only for Thais. The second-largest company in Thailand in the same space had been sold," he said, referring to Telenor's takeover of DTAC.[44] "Telenor was a Norwegian company, so that was the first indication that Thai policy allowed foreigners."

2006

SHIN CORP: CAUGHT IN THE CROSSFIRE

In 2005, Thailand was in the process of selling off its telco businesses. In October that year, the Bencharongkul family sold a 40% stake in United Communication Industry – the parent company of DTAC, Thailand's second-largest mobile phone operator – to Norway's Telenor.[45] And in December, the Vilailuck family sold a 24% stake in mobile phone distributor, Samart I-Mobile, to Telekom Malaysia.

In this climate, on 23 January 2006, the Shinawatra and Damapong families – Bhanapot Damapong is Thaksin's brother-in-law – agreed to sell their 49.6% stake in Shin Corp to a consortium comprising Temasek, Siam Commercial Bank (SCB) and Kularb Kaew, a holding group of Thai investors. Under the agreement, Cedar Holdings Limited (Cedar) and Aspen Holdings Limited (Aspen), both Thai-incorporated companies, would acquire 38.6% and 11% shares of Shin Corp respectively. Cedar was 49% owned by Temasek, with the remaining 51% held by SCB and Kularb Kaew. Aspen was a wholly owned subsidiary of Temasek.

Under the Securities and Exchange Commission's takeover rules, ownership of more than 25% of any company required a mandatory offer to be made for the remaining shares. The Temasek-led consortium, therefore, made a general offer for the outstanding shares of Shin Corp. At the same time, Temasek sought other partners, and this resulted in Thai-born businessman Surin Upatkoon acquiring a 68% stake in Kularb Kaew.

The Shin purchase, at 73.3 billion baht[46], was the biggest acquisition in Thailand's corporate history and, quickly, there was criticism of the fact that Thaksin's family was exempt from tax on the sale, although the media also noted that the Bencharongkul family had not paid taxes on its sale of DTAC.

Given the potential sensitivities of the investment, Temasek believed that it was important to bring in respected Thai partners to invest alongside Temasek.

Temasek abided by the rules, doing its best to reduce local sensitivities by partnering reputable Thai institutions in the country. However, media interest in the deal quickly intensified, sparked by allegations that Temasek planned to infringe on Thai sovereignty by controlling its telecommunications sector, that it had made secret offshore payments to Thaksin and that it wanted to help Thaksin out of his political difficulties. None of the allegations was true. As such, Temasek refrained from engaging the media.

Said Jimmy Phoon: “We had initially felt that if there was nothing wrong, there was no reason to talk. But by not engaging the media when the controversies escalated, it added to the problem.”[47] By the time Temasek started countering the unfounded accusations, much damage had been done.

It is noteworthy that the Singapore Government did not intervene at any point in this high-profile melee. In Parliament, MPs Inderjit Singh and Alvin Yeo asked “whether the Government agrees with Temasek acquiring such a large percentage of the strategic asset of another country”. To this, then Second Finance Minister Tharman Shanmugaratnam[48] replied: “A decision on an investment is only taken after a clear-headed business analysis and weighing up of the risk-reward trade-offs. Temasek applied this process to its investment in Shin.” More importantly, he added the Government’s long-standing view that “Temasek’s investments are commercial decisions, taken independently of Government”.[49]

On 19 September 2006, Thaksin, who was in the US, was overthrown by a military coup.

Phoon, Temasek’s man on the ground in Bangkok, became increasingly concerned about the volatility of the events that were unfolding and quickly put together a plan to evacuate the Temasek team from Bangkok. He was particularly concerned about Juliet Teo, who was six months pregnant.

“We did not know how long the coup would go on for, and whether the airport and roads would stay open for me to bring the team home. It was critical for me to take Juliet back to Singapore, which we did, in case she needed medical attention and family care,” he said.[50]

Teo added: “Jimmy told us there was a possibility we wouldn’t be able to fly out if they took over the airport. If that happened, we would have to maybe drive to Laos or Cambodia and be taken out from there. They were even talking about getting an aircraft carrier to come and pick us up. I was like, seriously, would Singapore send an aircraft carrier to take us minions home?”

The scariest thing was when she turned on the television and realised there was a total media blackout. “The only station we could get was Fox News because I think it was on a different frequency. But they were certainly not reporting on Thailand. Our only connection to the world outside was through our phones. What if they cut that too?”[51]

Phoon, Teo and three other Temasek staff managed to get a flight back to Singapore in the early hours of the morning after the coup. A few days later, all of them flew back to Bangkok to continue working, coup notwithstanding. Teo however, was not allowed back. “I was banned from travelling by the team,” she said, somewhat ruefully.

There was a lot of work to be done. Within a week of taking office, Thailand’s new military government had set up a nine-member commission to investigate all projects approved by Thaksin's government in the previous five years, including the Shin Corp deal. Shin Corp shares took a nosedive and the controversy consumed a huge amount of management time for both Shin and Temasek as they had to address the concerns of the authorities and handle the media at the same time.

Said Ho Ching: "The team had to continue meeting up with the authorities, to answer questions and provide various documentary records of the Temasek investment. At the same time, they were also working with the Shin/AIS management to ensure that the business continued to be managed professionally with good governance. So their job entailed a lot more than just answering questions from the media."

Their patience, resilience and hard work in ensuring good governance would pay off. By the end of 2008, with political pressures having largely abated and the company streamlined, Shin Corp was "in pretty good shape", according to Phoon. In 2014, it changed its name to InTouch Holdings.

By 2020, Temasek had steadily sold much of its stake in InTouch, while protecting its commercial interest. ■

Similarly, with the support of well-connected investment partners, Temasek had considered Shin a good deal. But, said Dhanabalan: "What we could not anticipate and what we did not anticipate – and what even our Thai partners did not anticipate – were the political repercussions arising out of the fact that Thaksin did not pay taxes on his profits.

"The Telenor sale had been exactly the same. The major owner was an opposition politician; he also did not pay taxes because the law was such that if you did the sale in a certain way, you don't pay taxes. But the Thais took the view that if others don't pay tax, it's okay; but the PM must pay taxes. Now who could have anticipated such a turn of events?"

According to Juliet Teo, Temasek didn't just import the Telenor model wholesale, but tweaked it to make it even more rigorous, watertight and well above board. "We made sure everything was properly structured and we were all within the rules, that everything could actually stand and hold water; even if our directors were to be invited to the police station for coffee, we could hand-over-heart say that everything was proper," she said.[52]

Dhanabalan, therefore, politely but firmly dismisses Temasek's critics when it comes to the Shin affair. "I don't think anybody knew exactly what was going to happen. It's easy now for people to say, oh you should have anticipated this, you should have anticipated that," he said.

However, in the wake of the debacle, Temasek did engage in some serious soul-searching. While the coup leaders wanted Thailand to progress and succeed, despite disagreements on the approach and policy front, investors at that time saw it as a setback in terms of economic opportunities.

Lim Siong Guan, Deputy Chairman of Temasek at the time of the controversial acquisition, said: "The lesson learnt from the Shin Corp deal is that we must be extra careful about any political dimensions. I think the lessons are really about risks – how do you assess the risks and how should you manage them?"[53]

After Shin Corp, Temasek quietly shelved its plans to open an office in Bangkok to pursue other investment opportunities.

In the years since, Thailand's economy has prospered, to the benefit of Temasek portfolio companies with interests in the country. It continues to be an important investment destination in Southeast Asia.

CHAPTER 4

Charting the Course

CONCURRENT WITH TEMASEK'S bold forays overseas, the company was also carving out its own niche in the financial world with new and pioneering instruments that would open and transform the Singapore market.

There were several reasons for this – to identify and address gaps in the market, to broaden the pool of existing investors and, ultimately, to give Singaporeans a stake in Temasek's journey. The latter was particularly true when it came to bond issues.

As the company grew bigger, Ho Ching was mindful of the need not only to keep the ship moving full steam ahead, but also to keep it in the strictest order. "It would be harder to try to do any monkey business if we subject ourselves to various external disciplines and scrutiny," she said succinctly.[1]

So, she put in place three "public markers" which would always keep Temasek transparent and accountable for its actions.

One was the publication every year of the *Temasek Review*; the second was credit ratings; and the third was the issuing of bonds.

With the *Temasek Review*, there would be no way to hide poor results, she added.

"We saw and reported a 30% drop in our net portfolio value during the depths of the Global Financial Crisis in 2009, and its 42% rebound the following year as markets recovered," she noted by way of example.[2]

TEMASEK REVIEW: OVER THE YEARS

2004

2005

2006

2007

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2009

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2012

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2014

2015

2016

2017

2018

2019

2020

2021

2022

2023

2024

Of credit ratings, she said: "While we are not wedded to maintain a triple-A rating, whenever we cross a notch down, it is a tripwire to ring a public alarm bell. And that alarm bell will ring louder and louder if our credit worthiness edges closer and closer towards the junk bond cliff." Since 2015, in view of fast-evolving investment climates, Temasek has also added its own credit ratios and parameters in the yearly *Temasek Reviews*, to allow readers to independently assess Temasek's credit quality.

The third marker was to issue bonds, which would expand the base of stakeholders who pay attention to Temasek's balance sheet, investment posture and credit worthiness.

While the inaugural Temasek Bond was not offered to retail investors, Ho Ching said that was always the ultimate objective: "At the time, we already thought of letting retail investors buy our bonds, but it took 13 years for that to happen."[3] Regulatory and structural frameworks had to be established before Temasek eventually launched its first retail bond in October 2018, followed by a second in November 2021.[4]

She added: "As an investor rooted in the history and growth of Singapore, we ultimately want retail investors in Singapore to have an interest in the performance of Temasek as a bondholder."[5]

In the meantime, aware of growing investor sophistication, Temasek introduced in 2006 a co-investment vehicle called Astrea which allowed institutional investors access to its private equity funds. Astrea purchased Temasek's interests in a portfolio of 46 buyout and venture capital funds[6], well diversified by vintage and geography.

Astrea was the first such product to be originated by an Asia-based institution and raised nearly US$810 million in debt and equity, denominated in both US dollars and Euros. S&P and Moody's rated the debt tranches at AAA/Aaa and AA/Aa respectively.[7] The transaction was well subscribed for all classes of securities in the capital structure, paving the way for future Astrea series of private equity co-investment vehicles.

2005

TEMASEK'S BOND ISSUES: ADDING NEW SOPHISTICATED STAKEHOLDERS

Riding on its newly minted triple-A credit ratings the year before, Temasek issued its maiden Yankee Bond[8] on 15 September 2005. It was big news as it was the first top-rated global bond in Asia, outside of Japan. The 10-year issue was for US$1.75 billion, with a coupon of 4.5% of Temasek-guaranteed, fixed-rate medium-term notes. Due in 2015, it was put out by its subsidiary, Temasek Financial (I) Ltd.[9]

The banking and finance community also saw the debt sale as a reference for any future borrowings and for bond sales by other Singapore companies.

Although Temasek did not need to raise capital, the bond issue – and subsequent ones – enabled it to gain financial flexibility and underpinned its financing framework. "It gives us the fullest range of options in funding," said former CFO Leong Wai Leng. "It is one of the options we look at when raising liquidity, alongside bilateral borrowings from banks, dividend payments and divestment proceeds."[10] Over time, Temasek would issue bonds of multiple tenors and establish a yield curve for Singapore corporates, which would also serve as a useful benchmark for pricing risk.

Ho Ching pointed out that bond issues also create a new group of stakeholders in Temasek – its bondholders. "They are smart people, and they will be watching us," she said.[11]

She added: "We set ourselves the discipline of meeting up with bondholders and potential bondholders to update them twice a year, until COVID-19 hit.

"This gives us a window to the perspectives, concerns and ideas of our bondholders and other investors, and keeps us grounded in having to answer to sophisticated financial investors around the world."[12]

Taken together with the triple-A credit ratings, the bond issue burnished Temasek's growing reputation as an institutional investor as it positioned itself for global expansion.

Temasek has since issued triple A-rated Temasek Bonds in Singapore dollars, US dollars, Euros, British pound sterling and offshore CNY, with maturity of over 18 years as at 31 March 2024.[13] ■

In April 2014 came Astrea II, featuring a diversified portfolio of 36 private equity funds.[14] This was followed two years later, in June 2016, by Astrea III which was launched by the Azalea Group, a Temasek subsidiary which invests in private equity funds. Astrea III was a co-investment innovation, offering diversified assets to a broader range of investors. It was also a milestone in the development of Singapore's bond market because it marked the first time notes were backed by cash flows from private equity firms.[15]

Lee Theng Kiat, Temasek Holdings Board Director and Chairman of Temasek International, said at the time: "Platforms such as Astrea I and Astrea II are part of our phased approach to developing co-investment products. They help us test market interest and fine-tune our thinking and product positioning for eventual participation by retail investors. When we are ready to launch suitable products for the retail market, we hope that retail investors in Singapore will welcome such opportunities to co-invest with us."[16]

It was only in June 2018 that those retail opportunities would materialise with the launch of Astrea IV. Before Astrea IV, most retail investors could not invest in private equity funds unless they were high-net-worth individuals with accreditation. Astrea IV's retail tranche of S$121 million was priced off an equivalent Singapore dollar placement tranche for institutional and other investors outside the US and was more than seven times subscribed by some 25,600 applicants.[17]

Looking back, Ho Ching said about Astrea's institutional origins: "The initial plan was to test the concept first with institutional investors in a liquid and sophisticated market like London. And then to come back to Singapore two years later to launch the PE-linked bonds, first to institutional investors, and then to retail investors, followed by the equity piece. But the timing to come back to Singapore was derailed by the Global Financial Crisis.

"After the GFC, there was so much stimulus money sloshing around that we had to do a serious rethink and revamp the product offering before we launched the institutional bonds in the Singapore market. This was done with an eye to eventually offering retail bonds. We wanted to launch retail bonds only after we were satisfied that we had a market-friendly but robust framework in place to protect retail investor interests – that required a lot of effort working with the authorities.

"The dream was ultimately to offer retail investors the opportunity to invest in the equity piece of the private equity space, through a well-diversified basket of PE fund assets across sectors, vintages, fund managers and so on. Again, the approach was to test with the sophisticated institutional investors first, before opening the product to retail investors in a steady, methodical and thoughtful way."[18]

In subsequent years, Azalea would continue to launch more Astrea bond series, opening more opportunities to retail investors and furthering the vision of connecting individual investors to private equity. In May 2022, Astrea VII offered retail investors, for the first time, access to Class B bonds, which pay a higher fixed interest rate.[19]

Azalea's Chief Executive, Margaret Lui, called it a "deliberate phased and measured approach to bring retail investors closer to private equity and to increase the number of bond investment options available to retail investors."[20]

Temasek's Deputy CEO, Chia Song Hwee, said: "You can see Temasek's step-by-step evolution in that direction over the years – from first offering bonds to sharing part of our portfolio now and then, eventually, maybe a slice of our entire portfolio. But all without turning Temasek into a listed public company."[21]

This last point is particularly crucial because, in order to preserve Temasek's investment philosophy and key differentiations, it must remain privately held, even as it recognises the value of becoming more open – both to public scrutiny and participation.

CitySpring is yet another of Temasek's innovations. Conceived as a stable-yield product and listed on the Singapore Exchange in 2007, it was the first infrastructure business trust in Asia, one that was tax-efficient and which democratised large infrastructure-based businesses into tradable units.[22] CitySpring allowed retail investors to access an asset class previously not within their reach, while giving global investors a widely accessible and liquid platform to participate in Asia's growth.

THE GLOBAL FINANCIAL CRISIS

The period between 2007 and 2008 could very well be called Temasek's *annus horribilis*. When the housing bubble burst in the US in 2007, the fallout was immense and global, and Temasek found itself inextricably tangled in what experts were calling the worst financial crisis since the Great Depression of the 1930s.

In 2007, just as the subprime crisis was unfolding, Temasek became interested in investing in the US and had set its sights on investment bank Merrill Lynch & Co. Temasek started to seriously consider Merrill Lynch in December that year after its beleaguered CEO, Stan O'Neal, was ousted in October. His replacement, John Thain, had previously been CFO and President of Goldman Sachs, and CEO of the New York Stock Exchange. Thain was viewed as seasoned, clinically effective and a safe pair of hands, and Wall Street had hailed his appointment.

Looking back, Ho Ching reflected that while Temasek had believed the financial crisis was deeper than most players thought at the time, the scale of the crisis turned out to be far worse than it had anticipated.

She said: "I think on the investment itself, we did whatever we could to ring-fence the risk. We were also fortunate that John Thain did the right thing by raising capital and not leaving it till too late.

"But the main risk that we overlooked, or took for granted, was the US itself. We assumed the regulators knew what they were doing and we never analysed the US as a whole. It was only later that we saw the leverage wasn't good. We started asking, how much leverage is there in the whole system? And people said they didn't know. And these were people who should have known."

It wasn't just a housing bubble that the US had gone through, she added. "It was much bigger; it was a credit bubble. If we had known about the leverage, we would probably not have been in Merrill. But we assumed that the US regulators were tracking all of this."[23]

2007

MERRILL LYNCH: CAUGHT IN A MOMENT

Temasek decided to invest in Merrill Lynch when John Thain stepped in with a new team. Said Ho Ching: "We would not have gone in had there not been a new team. The new team had the same interest we did – to clean house."[24] While Merrill had a good asset management franchise and some valuable assets – including stakes in BlackRock, one of the biggest listed fund management firms in the US, as well as the media giant Bloomberg – it became clear that the broker-dealer needed more decisive action to purge the losses that had accumulated during the O'Neal years.

On Christmas Eve 2007, Temasek invested US$4.9 billion in Merrill Lynch, taking a 9% stake.[25] The indirect exposure to BlackRock and Bloomberg was an important consideration.

But the investment also came with an important provision. Temasek had taken the view that the financial crisis would deepen, the markets would continue to be under pressure and Merrill would have further write-downs to do. "We anticipated that they would need to come out to raise more capital," said Ho Ching. Temasek, therefore, structured the investment in Merrill with a reset clause: if Merrill were to raise more capital during the next 12 months at a lower price than Temasek had paid, Temasek would be compensated the difference.

On 17 July 2008, Merrill reported a loss of US$4.9 billion for the second quarter due to US$9.4 billion in write-downs. It also said it would sell its 20% stake in Bloomberg back to the financial news and data provider for US$4.4 billion and raise another US$3.5 billion through additional asset sales.[26] Thain and his team were cleaning house, but they were in a race with rapidly deteriorating markets – and the markets were winning.

On 28 July, Merrill sold some of its mortgage-backed collateral debt obligations (CDOs) with a face value of US$30.6 billion for US$6.7 billion. Merrill also lent the buyer 75% of the purchase price to make the sale.[27] Thain said the sale represented "a significant milestone in our risk-reduction efforts".[28] But some other observers pointed out that, given the illiquidity of the secondary market for CDOs and the subsidised financing, the securities had not been sold at what could reasonably be called a market price.

The heavily discounted sale meant that Merrill needed to book more losses, and therefore raise additional capital. On 29 July, Merrill announced a share offering of US$8.5 billion. Temasek decided to participate, announcing it would buy US$3.4 billion worth of common stock. Of this sum, US$2.5 billion came in the form of Merrill's compensation payment to Temasek as per the terms of the reset clause, while US$900 million was new capital.[29]

Temasek did not walk away with its US$2.5 billion, choosing instead to plough it back into Merrill, simply because of Merrill's circumstances at the time. "You don't want to pillage the very company you're investing in," explained Temasek's then Senior Managing Director, Manish Kejriwal.[30]

At this point, things began to take an unprecedented turn as Temasek found itself drowning in unique circumstances created by a larger systemic failure in the US banking system. On 8 September 2008, the US government took control of the two largest government-sponsored mortgage-finance agencies, Fannie Mae and Freddie Mac, which had been placed under conservatorship. Lehman Brothers was also reported to be on the verge of bankruptcy and investors were fleeing from all financial firms.

An emergency session involving bankers and regulators was called on the weekend of 13-14 September at the New York Federal Reserve. While Lehman Brothers was the focus of the discussion, Thain knew that Merrill, too, was in danger. He called Kenneth Lewis, the CEO of Bank of America (BoA), who had earlier approached Merrill to negotiate a possible stakeholding. Goldman Sachs and Morgan Stanley were also reported to be interested in taking a stake in Merrill.[31] After 24 hours of negotiations, on 14 September, Thain and his team struck a deal. BoA would buy all of Merrill Lynch for US$50 billion in stock, or around US$29 a share. This was a 70% premium to Merrill's closing price on Friday 12 September.[32]

Temasek's response to the merger, which was formally completed on 1 January 2009, was positive. "It was the right thing to do under the circumstances," said Kejriwal. "To have a strong deposit franchise behind you is quite critical. And the combined Merrill-BoA would be a strong franchise going forward."[33]

But the situation did not improve. Merrill's losses continued to balloon as the credit crisis worsened further after the Lehman bankruptcy in September, reaching US$15.8 billion for the final quarter of 2008.[34] BoA, too, faced cascading losses on its consumer loans, and its share price continued to plummet.

And then in January 2009 came reports that billions of dollars in bonuses – which are normally due in January – had been paid to Merrill employees in December, just days before the formal takeover by BoA. This was also the time BoA was approaching the US government for additional funding to help digest its Merrill acquisition. The move sparked widespread public outrage. On 22 January, after a brief meeting with BoA's Lewis in Merrill's New York offices, Thain resigned.

In May 2009, Temasek sold its entire 3.8% stake in Bank of America Corp, as revealed in a quarterly report filed with the U.S. Securities and Exchange Commission.[35]

According to Ho Ching, Temasek had debated whether to sell its entire BoA stake, keep half or even hold on to all of it. She recalled that influential people in the US, like Lawrence Summers[36], had been pushing for the nationalisation of the country's banks. But there were also other opportunities that could yield better returns.

She asked: "So do we sell BoA shares and recognise the loss, which would be controversial, and take the money elsewhere, which could, on paper, give us better returns? Or do we keep with the expectation that good sense will prevail and that a bank like BoA would recover over time?"

Ho Ching chose the first option of a full divestment, although some senior team members were strongly for keeping or selling only half the BoA stake.

Tow Heng Tan, who was Chief Investment Officer at the time, remembers diametrically opposing views from the members of his investment team, all of whom felt very strongly about their positions. Ultimately, however, he supported Ho Ching's decision. "There was a lot of uncertainty at the time. But I knew one thing for sure – if we divested fully, this would no longer be our problem. I was confident that there were high-return opportunities in Asia and elsewhere for the exit proceeds. So, I told Ho Ching I would take care of it."

As it turned out, the US did not nationalise its banks, even as they came under huge constraints for several years after the Global Financial Crisis.

Ho Ching added: "Incidentally, BoA was an investor in China's CCB and was able to restore its balance sheet by selling its CCB shares, partly to Temasek. But that is another story." ■

Some two years later, in 2011, Temasek conducted a post-mortem based on market performance data since the investment.

"We calculated that if we had done everything right, we would have gained a few billion dollars more – and if we did everything wrong, we would have lost an equivalent amount. So, we were kind of in the middle of the pack and gave ourselves a B grade for our response to the Global Financial Crisis," said Ho Ching.

Temasek had been unwittingly caught in a black-swan financial storm. With hindsight, it became clear that Merrill, like most other investment banks, was doing business in highly leveraged and risky securities that credit rating agencies had mis-rated as triple-A. It became clear too that the incentive structures throughout Wall Street – the payments of bonuses based on short-term results and without claw-back mechanisms – had encouraged excessive risk-taking behaviour.

The investment understandably attracted much public attention. It also cemented Temasek's resolve to not go into specific public disclosures about individual investments because of its unique makeup and its long-term investment horizons.

In May 2009, in response to a question on the Merrill Lynch/BoA investments by Member of Parliament Inderjit Singh, the Ministry of Finance (MOF) revealed that Temasek's portfolio value had declined by S$58 billion, or by 31%, between the end of March 2008 and November 2008 when global markets plummeted.

However, a large part of this had been due not to Merrill Lynch, but to the decline in portfolio value of Temasek's investments in Singapore. Of the S$58 billion, S$32 billion was attributable to the drop in market value of the 10 largest publicly listed Temasek-linked companies in Singapore. Their share prices had fallen by about 41% on average over the period, in line with the movement of the Singapore market as a whole.

MOF added, by way of context: "What matters however is not how Temasek did in this last year, when the markets were in collapse, but how it has done over the cycle as a whole. The S$58 billion decline in value between March and November 2008 came after a much greater gain in Temasek's investment portfolio of S$114 billion over the preceding five years, from the time the market cycle began in 2003. This means that even after taking into account the recent sharp decline, Temasek's portfolio had still grown by S$56 billion over the course of the cycle."[37]

Said Dhanabalan: "We obviously had some bad investments – BoA and Merrill Lynch, in a way; and Barclays[38]. But we also had some very good investments. We must stick to the principle that we do not talk about profits or losses that we make out of specific investments because this can lead us to all kinds of problems.

"We are owned by the Government of Singapore. Where we make losses, the Singapore public will think that we have lost their money. If you make money, the party on the other side will think, 'Oh, Singapore Government has made money from them.' So, we have taken the view that it's best not to talk about where we lose and where we make. Instead, we look at the total at the end of the year and that's all. We are not prepared to break it down into where we make money and where we don't."[39]

Of course, this general approach has opened Temasek to criticism, both domestically and internationally.

Indeed, around the time of the Global Financial Crisis, there was renewed international interest in, and some anxiety at, the idea of sovereign wealth funds (SWFs), especially in the US. As more and more SWFs were being created, questions were raised about their possible impact on asset classes. There was also a fear that they could secure control of strategically important industries in foreign countries for political rather than financial gain.

Chua Eu Jin, Temasek's Managing Director of Institutional Relations, said: "Many SWFs were opaque in their operations and no one knew who they were. Therefore, the US government thought it was important to convene meetings to try and promote good governance and transparency standards. In a sense, it was also to assure themselves that these were legitimate investors. And so, through a series of negotiations attended by these sorts of entities around the world, sponsored by the US government, the Santiago Principles were built up. Singapore had three sets of stakeholders who participated: MOF, GIC and Temasek."[40]

Formally known as the Generally Accepted Principles and Practices of the International Working Group of Sovereign Wealth Funds, the Santiago Principles signal a commitment to transparency and independence from political interference. Temasek was one of 23 leading state-owned international investors from around the world who shared their insights and practices, following discussions with global groups such as the G20, the International Monetary Fund and the US Department of the Treasury.[41]

Simon Israel, Temasek's first non-Singaporean Board Director[42], added: "Everybody judges you by virtue of their own experience, values and political system. It was just incomprehensible to most people I met in senior government and commercial circles that the government wouldn't be involved in the decisions we make. Because in their own political system, they just couldn't see how it would work."[43]

Israel, who was born in Fiji and who is now a Singapore citizen, had seen for himself how Temasek works independently of government interference. "The Board of Temasek identifies who they want to bring in and, ultimately, it's the President who has to concur with those appointments. But in my experience, MOF really plays the role of shareholder and confines itself to shareholder matters. It just sits back, lets the Board make the strategic decisions together with the management. It judges us on the performance of the portfolio as a whole and not on individual investments; and over time, not in a given year. So, how it is described is really how it works. But it's not easy to convince people."

He would find this out on 5 March 2008, when Temasek took part in a hearing by the joint sub-committee of the US House Financial Services Committee to discuss the role of "Foreign Government Investment in the US Economy and Financial Sector". The hearing was attended by representatives of the US Department of Treasury, the US Securities and Exchange Commission, the Federal Reserve Board, Norway's Ministry of Finance and the Canada Pension Plan Investment Board. Despite some dicey moments, Temasek came out of its engagement with US lawmakers very well.

But while Temasek had won over its international audience, it still battled persistent misconceptions back home, particularly over what Singaporeans considered was their money, parked in Temasek. The truth is the Government's assets are mainly managed by GIC.

2008

TEMASEK'S GLOBAL TESTIMONIES: CLEARING THE AIR

Simon Israel, then Executive Director at Temasek, was the firm's emissary to the US House Financial Services Committee. His mission was to go in with open hands, to clarify any misgivings and show the committee – and the world – the unique nature of Temasek's investment structure.

"When one talks about sovereign wealth funds, one thinks of the Norwegians, of course, with their tremendous wealth from oil and gas. Singapore is the odd one out because our wealth is not due to natural resources but created by hard work, fundamentally through investment activity and the sweat capital of all the people who came before me. So, our source of wealth is quite different from that of other sovereign wealth funds," he said.

"I thought it was very important to understand that these countries had their processes and it's much better to participate and be a 'white hat' than to refuse and be classified as a 'black hat,' particularly when you can walk in there with your head held high and what you've got to say will stand up to scrutiny."

Despite his conviction, composure and many years as a business leader, he still found the experience of appearing before the US Congress intimidating.

"You sit there at that green baize-covered table. Your lawyer sits behind you and you are confronted with three tiers of congressmen. You suddenly feel like you're the defendant and you are about to be prosecuted. And the nature of the questions that come at you are such that, well, you really do feel like you are being interrogated. And whilst you're there by invitation, you have accepted out of your own decision, so you certainly go through three or four hours where you really feel you're getting groped," he said with a laugh.[44]

US domestic political concerns were also a constant subtext, he noted: "The other thing that you must sort out in that situation is that this is being broadcast on C-SPAN[45], an American cable television network, so you have to actually figure out what is a serious question and when someone is making a political statement. There was a fair amount of grandstanding going on."

Israel recalled: "The questions went something like this, 'Now Mr Israel, you are a corporation, is that right?' 'Yes, Congressman, we are a legal juristic entity.' 'That means if you break our laws, we can prosecute you, we can incarcerate you to full extent of our laws.' 'Yes, Congressman, I believe so.' 'But you are a government; what are we going to do? Do we have to invade your country?'"

Nonetheless, because of the hearings, many people finally realised Temasek was more transparent than other entities it had been compared to. "It was very valuable for Temasek to testify and differentiate itself from others. We were told by people in circles which understand the impact of these things that it was positive for us," he recalled.

This positive perception was also bolstered by the publication of the company's yearly *Temasek Reviews*; its concerted efforts to reach out and meet potential investors and other stakeholders face-to-face; as well as its active participation that same year in crafting the Santiago Principles.

Of the latter, Chua Eu Jin said: "Like all multilateral negotiations, drafts of ideas would be proposed, then each party would look at what was wearable and counter-propose formulations. You can imagine, with so many parties, you would arrive at a common denominator as to what was acceptable to everyone. I don't get the impression that it was too much heavy lifting for us, because many things that were proposed within the Santiago Principles were well within our capabilities. We were already set up as a private company. And, therefore, we were already professionally managed and commercially oriented, earlier in the process than other funds that were at a different developmental stage."[46]

Chua feels Temasek's association with the Santiago Principles left a lasting positive legacy, acting as a useful "calling card" and "kitemark" in international business dealings. "I think if you venture beyond your geographic or natural environment to go to a new place to conduct business activity, it really behoves you to be able to articulate and explain yourself. The ability to operate somewhere else is not a right but a privilege." ■

The Government had initially seeded Temasek with cash and assets at its inception in 1974. And Temasek has grown that initial sum through its investments over the years.

For example, in 2008, Temasek's net portfolio value was S$185 billion. This was partly made up of the S$30 billion which the Government as shareholder had invested in it since 1974, in exchange for shares.

The rest of the figure, however, was made up of profits generated by companies like SIA, CapitaLand and Singtel over the same period, as well as from investments elsewhere in China and India – in other words, the result of the efforts of the Temasek management and Board, and of all its portfolio companies.

Imagining himself in the shoes of MOF officers, Kwa Chong Seng, former Deputy Chairman at Temasek and former Chairman of Fullerton Fund Management Company, asked: "Do we put our money in gold where there is zero return? You hope there is appreciation; if there is no appreciation, there is no return. Do we put it in Treasury Bills? The US Treasury Bills, where you get 2% and it gets depreciated because the US dollar is going down? So, what do you do with it? Do you just buy real estate? Do you give it to the people? Temasek Holdings was created to make sure whatever money there is makes more money."[47]

By 2009, after enduring an exhausting rollercoaster ride in the global markets and helping to create a public document of best practices set out in the Santiago Principles, Temasek decided it was time to distil these new developments in an updated Charter.

While the 2002 Charter was Singapore-centric, nurturing local companies with global potential, the revised charter would emphasise Temasek's role as a commercial investor even as it maintained its core focus of delivering sustainable stakeholder value over the long term, in a way that also creates and maximises shareholder value.

This was a logical update because by 2009, Temasek had expanded its international coverage to 12 offices and affiliates in Asia and Latin America, adding Chennai, Hanoi, Mexico City and São Paulo in 2008. Of its 380 staff, 36% were from other countries.

There were some notable changes to the Charter.

The first was that instead of focusing on its owner, the new Charter highlighted Temasek's credentials as an investment company managed on commercial principles. This was a timely declaration, in view of the recently established Santiago Principles and Temasek's intention to be an active player in the global investment arena.

Secondly, it was now ready to position itself as an independent, agnostic global investor, not a nanny for local enterprise. In a media roundtable at the launch of the revised Charter, Dhanabalan explained: "The focus on how to make more space for Singapore companies in Singapore is absolutely the wrong focus. Today, this has been recognised by the business community and by the many who comment on these matters. It's quite clear from the way that our companies have expanded overseas and built up their overseas networks that we are no longer talking about how to compete in Singapore, but how to compete on the global stage."[48]

Indeed, by 2009, Temasek had concluded most of its intended divestments in key Government-owned assets. In particular, in 2008, it had concluded the sale of its final genco, PowerSeraya, to Malaysia's YTL Power International for S$3.8 billion.[49]

Lastly, the updated Charter added a commitment by Temasek to serve the community as a "responsible corporate citizen".

This point would take on greater implications as Temasek expanded its influence and recognised the positive impact it could have on communities. While it is an investment company which follows commercial principles, it is also mindful of its responsibility to the lives of people where it does business, and even beyond.

In the opening paragraph of the 2009 Charter, Temasek, an investment company managed on commercial principles, made public its wider role – to create and deliver sustainable long-term value for its stakeholders.

Sustainability had found its way into the language, with Temasek now looking beyond maximising shareholder value, into delivering sustainable returns.

The Charter also signalled the company's long-held belief that it has a duty beyond just to its shareholder, that it needs to also nurture and refertilise the ground that gave it opportunities and enabled its success. The concept of sustainable returns was reinforced in action by its commitment to contribute a part of it to support, foster, and encourage the growth and development of the wider community.

The Temasek Charter
2009

Temasek Holdings is an investment company managed on commercial principles to create and deliver sustainable long-term value for our stakeholders.

Temasek is an active value-oriented investor and may increase, reduce or hold its investments in companies or other assets, or pioneer innovative products or businesses in order to create and maximise shareholder value.

Temasek is an active shareholder and aims to achieve sustainable returns by engaging the boards and managements of its portfolio companies to:

Values
Foster a deep culture of integrity, meritocracy and excellence;

Focus
Maintain a clear focus on core competence, customer fulfilment, innovation, commercial discipline and consistent value creation;

Human Capital
Cultivate high calibre board and management leadership, as well as committed and responsible employees;

Sustainable Growth
Institutionalise superior business leadership, financial discipline, operational excellence and sound corporate governance;

Strategic Options
Create strategic options to build significant international or regional brands or businesses.

Temasek is a responsible corporate citizen and is committed to contributing part of its returns to encourage the growth and development of the wider community.

CHAPTER 5

Cool Heads, Warm Hearts

SAID HO CHING: "As a company, you must be very conscious of your social licence to operate. Not just your legal licence or business licence to operate, but your social licence. If you lose that, you will not have longevity. So, an organisation like Temasek which builds for longevity must understand this."[1]

And it does. Since 2001, its people have done volunteer work via a staff-led initiative called *T-Touch*. Every year, the anniversary of Temasek's incorporation date, 25 June, marks Community Day, when the entire company comes together to give back as one. These community efforts are also undertaken at Temasek's international offices.

While Temasek had already been contributing to the community on an informal basis, both monetarily and through staff volunteer efforts, it decided in 2003 to institute a policy of setting aside a portion of its net-positive returns above its risk-adjusted cost of capital for community gifts.

Notably, in 2005, Temasek took an active role in relief efforts after the Indian Ocean tsunami. It committed US$10 million for relief, recovery and reconstruction; and deployed staff to liaise with the relevant aid organisations, companies and agencies for emergency assistance. Temasek portfolio companies like ST Engineering, Keppel Engineering,

As part of Community Day 2022, Temasek organised a carnival with Lion Befrienders for 320 socially isolated seniors, in which CEO Dilhan Pillay Sandrasegara (standing, centre) participated.

SIA, Tiger Airways, NOL-APL, PSA and SembCorp Logistics also joined the relief efforts, providing their expertise in logistics, supplies and other services.

Temasek Chairman Lim Boon Heng sees the company's philanthropic and community work as part of a total ecosystem of responsibility: "We are part of that broader community, so we learn, we earn and we return. We learn by doing, with some occasional missteps; we earn by taking a long-term view; and we return to our shareholders and to the community. So, as a company we pay taxes like other companies, we pay a dividend to our shareholder, the Government, and we provide funds to help the community."[2]

Ho Ching also sees another value in giving back – scrutiny and involvement by the public at large. "We have created one more group of stakeholders which will be tracking the performance of Temasek closely. They will not only benefit from Temasek's success but also contribute to the larger community by sharing that success," she said.[3]

2007

TEMASEK TRUST: INSTITUTIONALISING PHILANTHROPY

In 2007, Temasek was ready, after several years of hard thinking and study, to formalise an unusual philanthropic governance structure. Temasek Trust was set up with an initial endowment of S$500 million and a board of trustees from across Asia to independently oversee the management and distribution of the company's philanthropic endowments and gifts. With an annual disbursement rate of 4%, subsequent infusions to the Trust have been pegged to Temasek's excess returns, based on its Wealth Added metric that measures its excess returns above a risk-adjusted cost of capital.

The Trust started with one main beneficiary, Temasek Foundation (TF), focusing on building human capital and social resilience in the region through collaborations and partnerships. In 2009, Temasek Cares (TCares) was added to pilot community outreach programmes for under-served communities in Singapore. Today, to maximise synergies, these and other entities have come together under the "One TF" umbrella.

Various entities were added over the years. These included Stewardship Asia Centre in 2017, dedicated to activating stewardship practices; and Mandai Nature, focused on conservation, in 2020.

Benedict Cheong, TF's former Deputy CEO who is now Chief Systems Integration Officer at Temasek Trust, said: "When we first started, we looked around and saw that there was much good work being done in the region and we had to carve an area for ourselves to contribute meaningfully. So, we decided on capacity building as well as focusing on institutions. The idea is to leave behind something that can continue to grow and multiply, long after the programmes are concluded."[4]

He added: "What's important is that the local community must articulate its desired outcomes. Then we help co-define and co-design programmes; and bring together content experts that can share their knowledge and experiences and guide the process of learning and of change. But ultimately, the local communities must take ownership and leadership."

This watchful mindset was on display in TF's approach to providing support to communities affected by disasters. Aside from immediate disaster relief, its key focus was on sustainability and rebuilding lives of communities. Take, for example, its work in West Sumatra in Indonesia, an area which has

Chairman S Dhanabalan speaking at the launch of Temasek Trust and Temasek Foundation in 2007.

experienced numerous earthquakes that have caused major damage to infrastructure and disruptions to livelihoods.

In 2008, the region's Andalas University and Singapore's Nanyang Technological University worked with TF to strengthen the facade of the local polyclinic as well as other low-rise buildings in the province. The team used a special cost-effective, wall-strengthening canvas method which can prevent or delay the collapse of buildings in an earthquake. Instructors and engineers from Andalas worked closely with local masons and builders to implement these reinforcement techniques. Dr Febrin Anas Ismail, a professor in the department of civil engineering at Andalas University, said: "We hope that this collaboration can continue in future, especially in humanity programmes, such as disaster risk reduction."[5]

Since then, TF has enabled the technique to be taught in many other disaster-prone areas, including various provinces in China, regions in the South Philippines, India and Nepal.

TF CEO Ng Boon Heong stresses the importance of relationships and alliances as the organisation grows: "Temasek Foundation started its journey by focusing on the delivery of good-quality programmes. As we progressed and grew, we saw the importance of building strong partnerships through collaborations with organisations who share the same intent of doing good in a way that is sustainable and can multiply the good beyond the initial programme."

For example, in 2021, TF called upon Indonesia and Singapore companies to provide more than 12,000 oxygenators to support Indonesia during one particularly infectious and nasty wave of the COVID-19 pandemic. This included tapping on Temasek's connections in China's huge manufacturing base, as well as companies such as Garuda for transport and logistics, and facilitation by the various government ministries and agencies in Indonesia and Singapore.

He said: "It was a humbling and gratifying opportunity to come alongside like-minded partners. Through the pooling of resources, the impact of this collective donation by a network of donors was amplified in response to a dire need."[6]

Meanwhile, Temasek Trust has also been growing its own capabilities and capacity. It has become a responsible steward of philanthropic assets, trusted advocate of sustainability and proactive catalyst of positive impact.

Desmond Kuek, its CEO, said: "These three roles have been shaped over time. They came from the original idea that Temasek Trust should be a responsible steward for our philanthropic assets. That means we need to invest our assets well and purposefully to generate sustainable long-term returns and to disburse them to our beneficiaries in an impactful way. Our role as a steward is fundamental.

"The advocacy and catalyst roles have become more important under our Temasek Trust vision for 2030. We are actively building ecosystems for good, together with like-minded partners, to catalyse the innovative solutions needed to build better for every generation.

"Lastly, we know we can't do everything by ourselves. We convene and galvanise partnerships across the public, private and philanthropic sectors to address the complex challenges confronting us."[7]

Today, the Trust directs a lot of attention to building and nurturing a non-profit ecosystem. In 2019 it started Temasek Trust Asset Management, which invests in positive outcomes for economies, societies and the environment; and established the iconic Temasek Shophouse as a social impact hub.

And in 2022, it launched a Centre for Impact Investing and Practices (CIIP) in Asia and beyond. This was a culmination of work that Temasek Trust's board member, Cheo Hock Kuan, had done previously with the United Nations (UN) to develop SDG Impact, a practical investing framework aligned to achieving the UN's Sustainable Development Goals (SDGs) by 2030.

Today, the CIIP is SDG Impact's anchor partner for Asia, working with regional and global stakeholders to build knowledge assets and enhance capabilities, champion industry standards in impact investing and management practices, and convene stakeholders to bring about positive action in impact investing.

Investor maps for Indonesia, Thailand and Cambodia have been launched, with more to come. The maps are market intelligence tools that connect the private sector to investment opportunities with the potential to advance SDG goals.

Said Cheo: "For impact investing to be a driver for channelling private capital, investors need to see a disciplined focus on sustainable returns, in achieving measurable outcomes with consistency and robustness. Our partnership with SDG Impact is centred on providing investors and businesses in Asia with the clarity, insights and tools to support their contribution towards achieving the SDGs."[8]

But perhaps the most important change is the fact that Temasek Trust now has more autonomy over how its money is managed and distributed, as it was meant to be.

Shaun Seow, Temasek's Head of Community Stewardship, said there is now more clarity in the role that Temasek plays versus that of Temasek Trust: "In the past, Temasek was designing the endowments. Now, we are donors who also enable Temasek Trust to do their work. We're really thinking about impact and active ability, giving the fishing rod and not the fish."

This delineation also allows Temasek to focus on delivering sustainable returns for the long term. Said Seow: "Supporting communities and protecting the planet through grants is led by Temasek Trust, alongside our non-profit entities."[9]

In 2022, after stepping down as CEO of Temasek Holdings, Ho Ching was persuaded to become Chairman of Temasek Trust, taking over from Dhanabalan. In that same year, Temasek Trust set up Philanthropy Asia Alliance (PAA) to promote collective thought leadership as well as sustainable and scalable humanitarian action in the region.

As of 2023, over 80 global members and partners from the Americas, the Asia-Pacific, Europe and the Middle East have joined the Alliance. These include the Bill & Melinda Gates Foundation, Dalio Philanthropies, Li Ka Shing Foundation, the Wellcome Trust and the World Economic Forum. Collectively, more than S$1 billion (US$777 million) has been pledged, including US$100 million from Temasek Trust, to grow the ecosystem and support PAA's working capital.[10] ■

Helping to foster sustainable communities is not limited to regions where Temasek does business and beyond; it's also about ensuring that everybody takes ownership to uplift communities and build capabilities and capacity, while working for the larger good of planet, people, peace and progress.

Today, these go beyond just plain philanthropic giving. They also extend to working with partners to address pressing issues that can impact the global community, like climate change, pandemic preparedness and food security, for example. These partnerships include building capabilities and knowledge in corporate governance and stewardship for more sustainable and inclusive growth and development.

A TIME OF TURBULENCE

It is no surprise that the world was going through a turbulent period when Temasek boldly made public its commitment to embed its value of giving back. It was an unusual move for a commercial investor, much less one that is often deemed to be a quasi-government sovereign wealth fund.

The millennium had begun with a huge jolt on 11 September 2001, when New York City's Twin Towers were attacked. While world markets were not adversely affected, there was a definite switch in global mindsets – from one of complacent certainty and faith in institutions to one of volatile insecurity. This was exacerbated by the SARS crisis in Asia in 2003, which added a new element of panic to world markets, especially in Asia.

The Internet would also make a giant leap in the first decade of the 2000s, engendering a new world order where things move swiftly in the blink of an eye and where opinions and people can be rallied from the ground up. On 4 February 2004, a bunch of Harvard students led by Mark Zuckerberg would create a social networking platform called Facebook. A year later, on 14 February 2005, three former employees of PayPal would create YouTube, revolutionising and democratising the way videos would be shared globally.

And then, in 2008, the Global Financial Crisis threw markets into disarray. Financial jitters continued into 2011 with the European sovereign debt crisis and in 2013 with the "taper tantrum" effects on global markets.

Said Ho Ching: "Temasek redefines its longer-term goals every three to five years. In so doing, it looks not only at the investment world, but also at global trends, including geopolitical, social and other nascent trends like emerging technologies, and other enablers for a different and better world."

These thoughts would inform the Temasek Charter of 2012 which emphasised, as a third pillar, Temasek's role as a trusted steward which encompasses its commitment to grow its assets for the benefit of future generations. It also reiterated the company's commitment to "act with integrity" as a "forward-looking institution" by always adhering to the tenets of financial discipline and corporate governance. This was a practice that had long been established and drummed into its company culture, from the debut of the first *Temasek Review* and credit ratings in 2004 to the subsequent issuing of bonds as public markers.

Said Ho Ching: "The 2012 Charter was really a continuation of the 2009 Charter, but in a simpler and more succinct fashion. The term 'across generations' is not specific to Singapore because Temasek, as a global investor, has a broader stakeholder base well beyond Singapore."

What was becoming increasingly pertinent by this time was Temasek's role as a steward. Apart from establishing Temasek Trust to manage the disbursement of funds to philanthropic causes in Singapore and Asia, stewardship also meant safeguarding its reserves for the long term and protecting against possible profligate spending by future irresponsible leaders.

At the same time, a major organisational change happened in July 2011 – the splitting of Temasek into Temasek Holdings (TH) and Temasek International (TI). This put in place a structure that was already common among global investment houses – separating asset ownership from operating entities. TH became the asset owner and maintained its role as a Fifth Schedule company under Singapore's Constitution, while TI became the management and operating arm that could freely and flexibly roam the world as a global investor.

The Temasek Charter
2012

Temasek is an active investor and shareholder.

We deliver sustainable value over the long term.

Temasek is a forward-looking institution.

We act with integrity
and are committed to the pursuit of excellence.

Temasek is a trusted steward.

We strive for the advancement of our communities
across generations.

Aside from the CEO of TH, all other employees were transferred to TI. Ho Ching became the Chairman of TI in addition to her role as CEO of TH. Lee Theng Kiat became TI's first CEO in 2015 and succeeded Ho Ching as TI Chairman in 2019. In that year, Dilhan Pillay Sandrasegara became CEO of TI; and in 2021, he also assumed the position of CEO of TH.

BUILDING INVESTMENT MUSCLE

In keeping with the evolution of the Charter, Temasek found itself once again closely examining its business focus and capabilities, as it has had the habit of doing every three to five years. The objective this time was to devise ways that would make the company even more agile and fast-moving – a forward-looking investor – when faced with new kinds of opportunities that were being thrown up by the "new normal", a 24/7 investment environment that was often disruptive.

Said Cheo Hock Kuan, reflecting on the company's evolution over the decades: "No other organisation has the same kind of portfolio we have. We have so many kinds of assets and these different assets require different management and, therefore, different engagement and decision-making processes."[11]

So, in April 2011, Temasek's management launched a detailed strategy to transform itself from an investment holding company into a global investor by 2020. Three things were needed to achieve this goal: Temasek needed to grow its global footprint, enhance its operational dexterity and sharpen its edge.

Since the early 2000s, it had also been investing along the following themes:

- ***Transforming Economies*** – Tapping the potential of transforming economies like China, India, Southeast Asia and Latin America through investments in sectors such as financial services, infrastructure and logistics.

- ***Growing Middle-Income Populations*** – Leveraging growing consumer demands through investments in sectors such as telecommunications, media and technology, and consumer and real estate.

- ***Deepening Comparative Advantages*** – Seeking out economies, businesses and companies with distinctive intellectual property and other competitive advantages.

- ***Emerging Champions*** – Investing in companies with a strong home base, as well as companies at inflexion points with the potential to be regional or global champions.

These themes coalesced nicely in March 2014 when Temasek agreed to buy a 24.9% stake in health and beauty retailer A.S. Watson for about US$5.7 billion from Hong Kong tycoon Li Ka-shing. The offer marked Temasek's single biggest investment at the time and one that boosted exponentially its exposure to Asia's fast-growing consumer sector.

In a press release on the deal, Chia Song Hwee, who was Temasek's Head of Investment Group at that time, said: "The consumer retail sector is a good proxy to growing middle-income populations and transforming economies. This is very much part of our investment themes as we shape Temasek's portfolio for the long term."[12]

ASSESSING RISK

While Chia, who is now Temasek's Deputy CEO, noted the company's long-term investment style, he said steps still must be taken to mitigate short-term risk.

"If you have a short view, it is difficult to see through certain investment theses. Temasek has always focused on the long term, which allows us to ride through short-term uncertainty. But we realise that our short-term performance may suffer. One year of bad performance is okay, but three to five years of bad performance will have an impact on our long-term growth. So, we need to look at what else we can do, on top of our traditional approach to investments."[13]

To help the company navigate investment complexities, it has used a methodology called Risk-Adjusted Cost of Capital or RACOC since the early 2000s. This assesses a company's or investment's expected returns as well as its possible risks – specific to geography, sector, company, as well as global events and trends. The difference between the two values is called the spread. Temasek's aim is to optimise returns over its RACOC.

Ho Ching said: "To us, a 25% investment is not necessarily a better investment than a 15% or 10%. It really depends on the spread. For us, that is very important because without understanding your risk, you run the risk of Temasek becoming rogue or, like some others, going into areas which they really don't understand. Therefore, judge our performance versus that risk and not the absolute number."[14]

She added that the RACOC is a "sanity check" but not a target or a benchmark. "We obviously would like to have our investments deliver above the RACOC. But we may also choose to go into investments which may be below their RACOC at the point of investment, so long as the returns remain positive and the negative spread is not so horrendous. We could try to find ways to mitigate some of the risks, but we also could find ways to bring value which will either lower the risk or increase the returns. Thus, the RACOC acts like a signalling light, rather than as a target or even a benchmark. While beating the RACOC makes us feel good, we should not be carried away. Nor should we be downcast when we fall below the RACOC."[15]

CREATING DIVERSE PLATFORMS

During this period, Temasek also created several subsidiary companies in the asset management space which continue to have an impact today. Former CFO Leong Wai Leng saw them as a logical expansion and extension of Temasek's reach. "If your base engagement or your approach is to develop a deep understanding of your companies, then it makes sense that you should be able to invest not only in the equity side, but also across the capital structure. It then becomes a matter of whether you want to do this through the main company, which has a certain focus, or not. Instead of doing everything through the company, you can actually seed what I call dedicated platforms."[16]

Among these early dedicated platforms were SeaTown Holdings, Pavilion Capital, Clifford Capital and Heliconia Capital Management. In subsequent years, more would be launched, adding agility, breadth and depth to Temasek's evolving investment landscape. These platforms form Temasek's "partnership engine" which, as at 31 March 2024, had assets under management of S$83 billion.[17]

SEATOWN HOLDINGS: PURSUING ALTERNATIVE STRATEGIES

SeaTown, a wholly owned global investment company, was set up in 2009 under Temasek with committed capital of more than S$4 billion to generate returns by investing in multiple asset classes, including stocks and bonds in both private and public markets. The company was helmed by Jimmy Phoon from 2011 to 2020.[18]

Phoon said SeaTown was created for several reasons. "Temasek is a long-term investor mainly in the equity space. And if you look at the 2007–2008 crisis, the problems started off in the US credit market with the CDOs (collaterised debt obligations). We would have benefited from

From left: Lee Theng Kiat, Goh Yew Lin, Ho Ching and Jimmy Phoon at the opening of SeaTown Holdings.

the signals emerging from the credit market if we had been an active participant in that market.

"The other thing is that when a crisis happens, many investments with very good risk-adjusted returns are actually in credit. When you look at things from a risk-adjusted basis, during the GFC, all the credits were sold at very low levels. Default risk was actually quite low. In other words, on a risk-adjusted basis, many of these made really good returns. But we were not set up to invest in credits in a big way then as we were largely an equity house."[19]

Today, SeaTown is part of an umbrella platform called Seviora Group, headed by Phoon. Set up in 2020, Seviora houses Temasek's asset management companies, which also include the Fullerton Fund Management Company and Azalea, home of the Astrea bonds; as well as InnoVen Capital. The latter, a venture debt platform focused on Asia, was set up in 2015 as a joint venture with United Overseas Bank.

PAVILION CAPITAL: FOCUSING ON NORTH ASIA AND CHINA

Shortly after SeaTown was set up, Temasek, which had been an early and constant investor in China, started to think about how it could better respond to the opportunities that were rapidly being presented by the country's exponential growth. The company realised that its focus on big-ticket investments could lead to it missing out on smaller but no less strategic offerings, particularly in the private enterprise sector.

So, in January 2012, Pavilion Capital was formed to invest in privately held small and medium enterprises in North Asian markets, including China, as co-investment opportunities were coming up swiftly and decisions needed to be made quickly.

Pavilion Capital, which also looks at investments in South Korea, Japan and Taiwan, offers growth capital to promising companies. Its business model is simple, said CEO Tow Heng Tan. It invests in funds and collaborates with them to make selective direct investments in entities which the funds have evaluated.

HELICONIA CAPITAL AND CLIFFORD CAPITAL: SUPPORTING SINGAPORE COMPANIES

Recognising that there were also opportunities in Singapore, Temasek set up Heliconia Capital Management in 2010 to invest in growth-oriented Singapore SMEs with annual revenues of under S$500 million, with the realisation that the key to growing exceptional businesses is to support their vision with patient growth capital. It also invests directly into Singapore-focused private equity funds – funds which have at least 50% of their committed capital in Singapore companies.

The hope was for symbiotic relationships to arise between the projects Heliconia invests in and Temasek portfolio companies, thereby resulting in mutually beneficial business relationships, especially overseas. That way, the SMEs can best widen their geographical reach. The aim was to help them regionalise and also to expose them to the Temasek ecosystem wherever possible, beyond Singapore-based TPCs.

Clifford Capital is a specialised finance company set up in 2012 which offers debt financing to the infrastructure and offshore marine sectors. These sectors deliver customised products and solutions to the projects of Singapore-based companies on a global basis.

Temasek CEO Dilhan Pillay Sandrasegara said, with particular reference to Heliconia: "It's not just about putting money with funds and getting them to invest. It's also not just about investing directly in those companies. It's about us trying to figure out how we can bring value to those companies.

"Capital is available not just from us, but from other parties. We have to bring more things. So, in each of these companies, we try to identify markets where we can bring value to them, like China or India; or linkages to our network and portfolio companies, whether they are controlled companies or investee companies that the investment group has associations with. That's the value-add that we bring."[20]

DEVELOPING ENTERPRISE

In 2013, Temasek created the Enterprise Development Group (EDG) to house innovative platforms like Heliconia and Clifford Capital. The group would map out future business value chains by identifying and developing macro business trends, as well as new business enterprises that have the potential to be global, regional or domestic champions. It would also develop from scratch or invest in innovative businesses which could become the next big thing.

To Dilhan, who had helped to set up EDG, its mission harks back not only to Temasek's roots of being an enterprise builder growing the first batch of Government-owned companies into the leading enterprises they are today, but even further back to what the Singapore Technologies Group was doing when it created commercial businesses for the defence industry. It is a business proposition but pitched at what he called "a very long game."

He explained: "We don't have the typical horizon one may have on investments. You can't build a company if you are going to sell it in three years' time. That would make you no different from a private equity or some sort of opportunistic approach. This is about looking to create sustainable long-term value over the long horizon. This is to say we realise that it may be a future generation of Temasek that will reap what we sow today. Just as we today are reaping what was sowed before."[21]

One of EDG's biggest projects is the redevelopment of Mandai. In 2007, the Singapore Tourism Board had put up two plots of land for tender, with the aim of developing a "fourth gate" at Mandai alongside the Singapore Zoo, the Night Safari and the River Safari. Temasek decided to step in when no bidders showed up.

In one of its many proposals to the Government, Temasek suggested in April 2013 that the Jurong Bird Park also be brought into the cluster. Relocating the attraction from its original site in Jurong made sense as the site was largely unknown to tourists and was too far away from the other attractions in Mandai.

Consolidating all the nature and wildlife attractions would enable visitors to enjoy them in a single location and create economies of scale in the park operations. The newly integrated and refurbished destination, called Mandai Wildlife Reserve, now houses all of Singapore's existing wildlife parks, as well as a new one called Rainforest Wild, which will offer explorations within a rainforest setting.

Manatees at Amazon Flooded Forest – a crowd favourite
at River Wonders. *Source: Mandai Wildlife Group*

2013

DEVELOPING MANDAI: A VISION FOR AN ECO-FUTURE

To Temasek CEO Dilhan Pillay, Mandai Wildlife Reserve (MWR) is the one project that fulfils all three roles mapped out in the 2012 Temasek Charter – an investor and shareholder, a forward-looking institution, and a trusted steward.

"People can say, 'Oh, what returns will you get?' Yes, you may not make as much in returns as you would investing in an MNC. But more importantly, though, we have something that everyone will remember," he proclaimed boldly.[22] It also embodies Temasek's ethos of incorporating sustainability at the core of everything it does.

The MWR houses five wildlife parks with green public spaces and an eco-friendly resort, offering sustainable and ethical wildlife experiences to the public that not only provide recreation and entertain, but also educate.

A Marabou Stork soars above guests during an avian presentation at Bird Paradise's Sky Amphitheatre. *Source: Mandai Wildlife Group*

The Singapore Zoo, the Night Safari and River Wonders (formerly River Safari) were already on site, while the Jurong Bird Park, renamed Bird Paradise, moved to Mandai in 2023 – a feat which took more than a year of planning and execution as 3,500 birds from 400 species were carefully relocated and acclimatised to their new environment.[23] The fifth attraction, Rainforest Wild, will be built from scratch and open by 2025.

Neo Gim Huay, Temasek's former Managing Director of Enterprise Development as well as Climate Change Strategy, was part of the project from the start.[24] She described the vision for Rainforest Wild: "We planned to tell the stories of the rainforest and introduce the world's first zoo in the air. Visitors can enjoy the multi-layered habitats, from treetop to the canopy to the forest floor and to an underground cavern. They will be able to explore and enjoy the richness of the rainforest and through this, we hope to inspire everyone to play a part in nature conservation."[25]

Mike Barclay, CEO of the Mandai Wildlife Group which oversees MWR, said he hopes "Mandai" will become as globally synonymous with Singapore as "Changi", with people around the world associating it with Singapore's nature and wildlife conservation work.

"Our rebranding comes at a critical time when action is urgently needed to mitigate climate change and reverse the devastating decline in the Earth's biodiversity," he added.[26]

There are currently 15,000 animals from 1,000 species housed across the Singapore Zoo, Night Safari, River Wonders and Bird Paradise. A quarter of these species are classified as threatened with extinction.

So, apart from the adventure and leisure elements, what is also important are the educational and conservation components of the reserve. There will be partnerships with institutions to strengthen and enhance wildlife conservation and research.

Said Neo: "MWR seeks to strengthen efforts in wildlife conservation, education and research. It hopes to work closely with partners, including government agencies as well as universities, museums and various nature groups, to support efforts in environmental sustainability and wildlife conservation."

With this development, MWR could also test-bed and build new scalable capabilities for the future.

Dilhan offered, by way of an example: "We're trying to figure out now how to bring down ambient temperature in an environmentally friendly way to make it much more pleasant for people to visit during the day because, otherwise, you would only visit between 8.30 a.m. and 10 a.m., and then again from 4.30 p.m. to 6.30 p.m. when the weather is cooler. So, how do you bring the temperature down by two to six degrees?

"When we do this, the immediate benefit will be to MWR. But the follow-on benefit is to other parts of Singapore because you could conceivably look into lowering the ambient temperature for all outdoor areas in Singapore.

"So that is the thing about MWR. It allows us to look at concepts and technologies that could have implications beyond Mandai, and if we do succeed, then that's a plus," he added.[27] ■

The Once Upon a River presentation introduces River Wonders' most popular animal ambassadors, including the capybara.
Source: Mandai Wildlife Group

CHAPTER 6

New Horizons

Apart from Asia, as part of its expanding global footprint, Temasek also started moving purposefully into developed markets – notably Europe and the US – in the early 2010s, despite the fact that both regions still faced economic uncertainty coming out of the Global Financial Crisis. Temasek saw opportunities, especially in American companies' edge in sectors like energy, healthcare and technology and European firms' global reach.[1] In Europe, the strategy was to focus on companies that derived much of their revenue from outside the continent.

In 2014, Temasek opened offices in London and New York. San Francisco and Washington, D.C. would follow in 2017, Brussels in 2020, and Paris in 2023.

Boon Sim, then based in New York, was hired in 2012 as Temasek's Head for the Americas. He remembered being given the mission to build a sustainable business and a team in the US. Temasek would subsequently expand Sim's responsibilities to include managing all Temasek's international offices outside of Singapore and building a new credit business.

"My day would start off with literally a blank sheet of paper. With any job, there's always some constraints, right? But there were no capital or structural limitations when we reviewed prospective investment opportunities. I think Ho Ching was trying to have people think 'outside-the-box' and not place a limit on creativity. And that was what was really appealing about the position – to really challenge the status quo."[2]

Prime Minister Lee Hsien Loong with Chairman Lim Boon Heng
at the New York office opening reception in 2014.

Deputy Prime Minister Lawrence Wong giving a speech at the
official opening of Temasek's Paris office in April 2024.

At the same time, he was aware it wasn't a case of doing whatever he wanted. "There's a constraint, but you want to think beyond the four walls so that you're not missing something because of the way you think. And that's the Ho Ching approach. It's not like she'll let me do anything, but she didn't want me to feel constrained and therefore eliminate things that are interesting."

He said there was no issue persuading Americans to work with what was then a relatively unknown company from halfway across the world. "We were not targeting the retail American. We were targeting sophisticated, international companies who knew who we were. Also, Temasek was already invested in the US at that point, so it was about strengthening existing relationships and being in the same time zone so that we could be more responsive and work with them in real time."

While he acknowledged that there might have been more challenges dealing with regions outside of the coastal gateway cities, he said these tended to be quickly resolved once people got to know Temasek.

"They recognised our ability to help them with their business internationally, especially in Asia. So, we actually had a competitive advantage. Initially, American companies didn't realise how global we were. However, once you explained to them the benefits of partnering with us because of our global reach, the light bulbs went on. Once we made the effort to explain ourselves, they grew to like Temasek and Singapore."[3]

He remembers turning down the opportunity to invest with Elizabeth Holmes, the biotechnology entrepreneur who was later convicted in 2022 of fraud for claiming her company, Theranos, could revolutionise blood testing with rapid and accurate tests that required little blood. At its peak in 2014, Theranos was valued at US$9 billion and had secured US$700 million from venture capitalists and investors.[4]

"They had initially contacted Ho Ching, and they flew Elizabeth Holmes and George Shultz[5], a board member of Theranos, to Singapore to personally pitch the idea to her and senior Temasek executives. They wanted Temasek to be an anchor investor. Ho Ching directed the matter to me, and we ultimately decided to pass on the opportunity. Frankly, it was easy to say no. They didn't even have a data room![6] I mean, how do you do investments when you don't even have a data room for me to look at your business plan? It was like a blind investment. I told Ho Ching we shouldn't do it for these reasons. She said, 'Good. Thank you for looking into it. We're good.'

"That's the thing about Ho Ching. Look, she can be intimidating as she is an intellectual powerhouse. If you are not prepared when you speak to her, you'll feel the heat. But she's also very supportive, loyal, possesses high integrity and is an unmatched out-of-the-box thinker. She will not blame you if something goes wrong; the buck stops with her. It was a delight to work for her. I would say I've never worked for a boss quite like her, and I probably never will again."[7]

As at 31 March 2024, the Americas accounted for 22% of Temasek's portfolio exposure or S$86 billion, about a seven-fold increase from 2011. Europe, Middle East and Africa (EMEA) made up 13% or S$48 billion, an increase of about five times.[8]

Boon Sim left Temasek in 2017 to spend more time with his family. In 2018, he started his own investment firm but, like many ex-Temasek staff, still stays close to the company.

In particular, he stays in touch with Dilhan, who was his co-head of the Americas at the time. The two worked well together, he recalled. "He's a pretty cool guy, unflappable in the most stressful of times. We decided that if we couldn't agree on a project, we wouldn't move it forward. Neither of us would do it alone. We have had different points of view, but we never had any big disagreements. Dilhan was a great partner and delightful to work with."

Dilhan, a top corporate and M&A lawyer, was a partner at Wong Partnership. He joined Temasek in 2010 after a three-year courtship and was one of the key people with domain expertise hired to beef up Temasek's "bench strength", a term that comes up often when talking to the company's senior staff.

BUILDING BENCH STRENGTH

Part of Temasek's restructuring was spurred by the fact that it now had a strong senior management team which had chalked up at least 10 years with the company. There was a need to maximise their skill sets while, at the same time, attracting new potential leaders into the company.

Said Cheo Hock Kuan: "During the transformation from end 2002 up to 2011, we intensified the succession process. We had a total change of the senior team and others thought that we were quite brave to do it – how could you have a total turnover of senior folks? But that was done on the basis that we believed the foundation had been laid. And we also believed that having a change of leadership was not about losing talent, but about them moving on to grow our platforms where there are new areas of growth."[9]

Dilhan was one of the potential star hires Temasek was eyeing during this period. Apart from him, Temasek also recruited during this time high-profile and accomplished experts in their field, who have gone on to assume senior roles in the company. These include current Deputy CEO Chia Song Hwee, who was hired in 2011; Chief Financial Officer Png Chin Yee in 2011; and Chief Investment Officer Rohit Sipahimalani in 2008.

Looking back, Dilhan recognises that Ho Ching was planning for leadership succession, while still keeping people from the earlier generation and involving them in the quest for new talent.

He said: "We had an email grouping for them called 'ex-SMD' or Senior Managing Directors. They were Charles Ong, Jimmy Phoon, Tow Heng Tan and Gan Chee Yen.[10] I believe her thinking was that these people could be a fallback in case the new team failed. Every CEO must think that way; you cannot put all your eggs in one basket.

"To be frank, she never wanted to hold on to the reins of Temasek forever. People misinterpret her. She was ready to move for a new generation. She empowered us and, of course, she brought in Theng Kiat. I think bringing in Theng Kiat was her way of making sure that she could take a step back and there would be somebody there who could make sure that we were going in the right direction effectively."[11]

LEADERSHIP SUCCESSION

Lee Theng Kiat, Chairman of Temasek International, joined Temasek in 2012 as President and General Counsel. Previously, he had been Founding President and CEO of ST Telemedia. Known to keep a low profile, he is widely credited for being an astute investor. Alongside Cheo, he is also known to be able to spot, not only a star performer, but also one who possesses the ownership mentality crucial for a company like Temasek.

He said: "Banks give very good training and grounding in being able to hunt and always be on the move. But they do not provide what I would call a grounding in stewardship and ownership.

"I look at the two terms as being very key and integral to each other. We must have a core group of senior, mid- and lower-level executives who think as owners in everything they do and invest in. To me, it would be totally lacking if ownership does not come with a clear perspective that we should be managing all of our assets as good stewards."[12]

This ownership mindset is embedded in the company's compensation framework. While base salaries are benchmarked against relevant global, regional and local markets, short-term bonuses are driven by annual targets.

Medium- and long-term incentives, which form a major proportion of Temasek's annual total compensation, are driven by portfolio returns, which can be positive or negative. Positive returns go into an incentive pool while negative ones go into a clawback pool. Deferred incentives and clawbacks are integral to Temasek's remuneration package. Longer-term incentives can be deferred up to 12 years and are subject to market risks and clawbacks, to account for the sustainability of returns over market cycles.[13]

Said Ho Ching: "We had puzzled over how we could foster an owner's mindset in Temasek. We mulled over various ideas, and finally decided to introduce deferred compensation plans, linked to risk-adjusted returns. For senior staff, a substantial part of their bonuses and incentives are deferred for as long as 12 years, or about two business cycles. If the returns are not sustained, we share negative bonuses – in other words, bonus clawbacks. In so doing, we try to align interests and behaviour towards long-term ownership. These are unusual disciplines to which we subject ourselves in order to build the institution for the long term."[14]

The ownership mindset also extends beyond a wage formula. She added: "Whenever economic storms threatened, management in Temasek set an example by reducing their own salaries, no different from what the first self-government of Singapore did. During the Global Financial Crisis of 2008, Temasek senior management volunteered cuts of up to 25%, while junior staff took smaller cuts. It was a show of solidarity. But it also served as a sharp, quick signal to the rest of the Temasek portfolio companies in Singapore to be prepared for very rough weather ahead. It was this collective drive for survival, and a commitment to the long term that enabled Temasek and the Temasek portfolio companies to survive and thrive."[15]

Apart from the Global Financial Crisis, Temasek staff also took wage cuts or salary freezes during the Singapore recession of 1985; in 1999 due to the Asian Financial Crisis; the dot-com bust in 2001 and 2002; SARS in 2003; the global financial correction in 2019; and the COVID-19 pandemic in 2020 and 2021.

Ho Ching feels it is important to instil an ownership mindset in new hires, particularly if they have come from large brand-name firms with purely opportunistic and transactional mandates.

"Dilhan, for example, came from a law firm; others came from investment banks. These are service industries, so they service their clients well, but they have not learnt to take ownership for the morning after. Investment bankers can advise you to buy this thing, right? They have all the financial skills. But they leave the client to do the morning-after work because it's not their job. Their job is to help the client with the acquisition. Then, they are done, they collect their bonus, and they leave. Where is the sense of ownership for the morning after?"[16]

Before he joined Temasek, Dilhan had served on the boards of several TPCs since 2000, including that of PowerSeraya. "They gave me a red tie, produced for Temasek by Hardy Amies. I still have it and I use it sometimes when I do the *Temasek Review* presentations," he said.

He recalled the first time he met Ho Ching, when he was representing Temasek in a complex transaction.

"Charles Ong had asked me to attend a meeting with Temasek on a Saturday morning. This was in October or November 2002, and it was at their old office at Treasury Building. I didn't know at the time, but there had been an internal disagreement about whether the offer I structured would work, so Charles asked me to come in and present to them. She asked only a few questions. She was always in listening mode, she let others ask. And the big question was, did I think it could work? I said yes, I think it could work."

He would meet Ho Ching many times after that. One notable encounter was in 2008, in a somewhat surreptitious arrangement facilitated once more by Charles Ong. "Charles asked me to go to the Shangri-la Hotel. It was late at night, like 9.30 or 10 p.m. I thought I was just meeting him. In those days, there was a Japanese restaurant called Nadaman on the ground floor, with a private room at the back. The door opens and there's Ho Ching. That's when she asked me to consider joining Temasek. I told her no because the time was not right; I felt I still had things to do at my law firm. I think we had maybe a half-hour or 45-minute chat."

Dilhan was then asked in 2009 to join SeaTown, an offer he also declined because he said he was not a public markets person.

In May 2010, Ho Ching asked him for lunch again and popped the question once more. This time he said yes. "It was a Friday. I called her on Monday to confirm my decision and said I would start on 1 January 2011, figuring it would be better for me to complete 2010 before joining.

"Straight away, I got a call from Wai Ching[17] to go to the office to sign the contract. I looked through it very quickly and did not negotiate anything. The only clause I paid attention to was the termination clause. And then I just signed the contract then and there.

"Ho Ching, I think, was quite surprised. She went and told Dhana and then I got a call from Dhana's PA, Jasmine, asking to meet. I dropped everything to go see him the next day. He asked, 'Why didn't you negotiate your contract?' I said, 'Well, I'm not coming here for my career; I'm coming here to give back.' And he replied, 'But you're a lawyer!' I said, 'Yes, I'm a lawyer but the only clause that is relevant to me is the notice period. Either it's going to work out or it's not.' He laughed."[18]

For Dilhan, who was born in Malaysia, joining Temasek was "the right thing to do" because he wanted to give back to the country he was now a citizen of, which had given him and his family tremendous opportunities.

"I was born in Malaysia to Malaysian parents who became Singapore citizens four years later, in 1967. As a result, I got 'minor citizenship', which meant I had a pink identity card, went to Singapore schools, and did National Service even though I was technically stateless at the time. After NS, I was required, within one year, to swear allegiance to Singapore or forfeit the right to be a Singaporean. I did it straight away. I didn't even wait a year."[19]

He admitted that he saw Temasek as a job he would do for three years and then go back to legal practice. "It was not in my contemplation to have a career at the firm. Yet in those three years, many things about it resonated with me.

"Temasek is a unique company because it touches individuals in Singapore in a direct as well as indirect way, because of the companies that we own and because of the fact that we also invest in Singapore. GIC doesn't invest in Singapore. Everything that GIC does is to preserve the international purchasing power of Singapore's reserves by investing outside of Singapore.

"But Temasek's companies and how Temasek supports these companies affects everybody. Whatever I can contribute and do, if I do it well and the company does it well, then there's a broader Singapore society that benefits. I always had that correlation in my mind."[20]

One of his personal convictions is the need to empower working women. "I was only born in Malaysia because my mother, who was a lawyer and whose law school contemporaries included Tommy Koh[21] and Chan Sek Keong[22], needed support from my grandparents. That was why she had to go back to Kuala Lumpur to give birth to me," he recalled.[23]

In 2021, he backed CFO Png Chin Yee's idea to set up the Temasek Women's Network, to support frameworks and programmes that help female employees as they go through their different life journeys. "Society demands a lot of us in the different roles that we have, but even more so of women as individuals, mothers and caregivers,"[24] he said.

Once he joined Temasek, he was quickly put through his paces, heading numerous portfolios concurrently and in succession – these included Investment, Portfolio Management and Enterprise Development, as well as leading the Singapore and Americas teams. “I had so many designations my name card would have lots of lines and would change every few months,” he recalled.

In October 2017, he was named Deputy CEO. “I could finally take away everything from my name card; I now only had two words, ‘Deputy CEO’.” In 2019, he was appointed CEO of Temasek International and later CEO of Temasek Holdings in 2021.

ATTRACTING THE RIGHT PEOPLE

To former CFO Leong Wai Leng, having the right people on board solves all problems. “If you have good people, their insights will take us into new phases of growth. If you have a great idea, even if you don’t have enough money, you will always be able to find people who will come alongside you to invest. If you are smart, you can always structure things and make a business out of it.”[25]

In practice, that can be difficult. Temasek’s Chief Corporate Officer and Head of Organisation & People, Chan Wai Ching, said the real challenge is identifying the right kind of people who can thrive in the unique Temasek environment. “We always say we don’t have a roadmap laid out for us; we create our own path. Similarly, I may not have a strict job description for every candidate I interview. This doesn’t sit well with certain individuals, especially those who come from very structured environments and need to be told, ‘This is your job spec, this is what I want you to deliver, this is how it should be delivered.’ These people will find it very challenging to thrive in the organisation.”[26]

Robert Chong, Temasek’s former Managing Director of Human Resources, joined Temasek in 2006[27] at the peak of the financial boom. When he came in, staff retention was a challenge as there was intense competition for talent in the financial sector. “Workload was also a problem. Staff were quite stretched. Temasek’s HR policies needed to be more appropriate for a company with a global outlook so we could attract the right talent,” he recalled.[28]

Chong and his team, therefore, revised the HR policies and strategies in talent acquisition and compensation design and philosophy to make the company more competitive and globally oriented.

Temasek emphasises certain qualities that differentiate it from others. "Apart from competency in the necessary financial and functional skills, attitude and alignment of values are extremely important," said Chong. Temasek looks for institution builders and multi-faceted individuals who can participate in activities across the spectrum, who can both build and lead. It also puts a premium on people who can operate in countries outside their comfort zones.

This last attribute speaks to the growing international reach of the company. As at 31 March 2024, about 60% of its 1,001 staff across 13 offices in nine countries are Singaporeans. Chinese (11%), American (7%), Indian (6%), British (3%) and Malaysian (2%) constitute the next five largest nationality groups.[29] They are spread across offices in Singapore, Beijing, Shanghai, Shenzhen, Hanoi and Mumbai in Asia; and London, Brussels, Paris, New York, San Francisco, Washington, D.C. and Mexico City outside Asia.

VALUE SYSTEMS

For Ho Ching, Temasek is, and must remain, Singaporean in essence and in spirit. "We say you have to maintain the DNA of Singapore," she said. "What is the DNA of Singapore? What are the values and systems that have enabled Singapore to grow? As S Rajaratnam[30] said, being Singaporean is not a matter of ancestry, it's a matter of choice and conviction.

"So, what Singapore stands for, as far as we at Temasek are concerned, is meritocracy, excellence, being reliable and trustworthy – all those core values," she added. "Those are universal value systems. We're also multi-religious, multi-racial and pragmatic – we don't have any ideology. We want to build for the future and build for the long term."

Thus, the nationality of an employee, for Temasek, is not the issue. "As far as I'm concerned, I don't care about the colour of your passport or your eyes or your hair," she said. "But if the value system is there, if the integrity is there and you have the commitment to build something larger than yourself, larger than your personal interest and larger than this moment in time, then that's it, you're part of us."[31]

Said Dhanabalan: "Is the objective that this company should be run by locals so therefore it is an employer of locals? Or is it that investments must give us the maximum returns?"[32]

As Temasek is into delivering sustainable returns over the long term, it requires the best management to do this, regardless of nationality or creed. While some think that a foreigner might stay for only five years or so, Dhanabalan's reply is: "What makes you think a Singaporean would not leave after five years?"

Based on those principles, it is, therefore, possible for a non-Singaporean to be CEO of Temasek, said Ho Ching.

"We asked ourselves this question a long time ago. I went to see then President S R Nathan and he said, yes, but first you must bring in non-Singaporean Board members."[33]

That first non-Singaporean Board member was Simon Israel. "But he later became a Singaporean without telling us beforehand! This opened the door, however, for other non-Singaporean Board members, from Europe, USA, China, and elsewhere," she added.

There had to be a gradual process. "And that's how we got Chip Goodyear."[34]

On 6 February 2009, Temasek announced that BHP Billiton's ex-CEO, Charles "Chip" Goodyear, had joined the Temasek Board and would become CEO-designate commencing 1 March 2009; thereafter, succeeding Ho Ching from 1 October 2009.

Goodyear had been identified as a possible candidate for the top office in 2007, when the Board began reviewing internal and external CEO candidates from early 2005, and he would have been the first non-Singaporean to run Temasek.[35]

However, on 21 July 2009, the Temasek Board and Goodyear mutually agreed that he would not be taking over as CEO, citing differences in opinion on strategy. Instead, Ho Ching would continue in the position, while Goodyear stepped down on 15 August 2009.

Goodyear, who now runs his own investment company, remains a friend and business partner of Temasek.

Said Ho Ching at the time: "The strength of the Temasek team and the confidence of the Board played a part in our decision to invite Chip to be the next CEO for Temasek. It is unfortunate that both the Board and Chip recently came to the amicable and mutual conclusion that it was best not to proceed with the CEO transition. This does not mean, however, that we should stop this discipline of succession review. We will continue to do so, regardless of who takes the helm as CEO at Temasek. This is part and parcel of our institutional discipline and Board governance to build for the long term."[36]

This leadership governance would be strengthened further in 2011 with the splitting of Temasek into Temasek Holdings and Temasek International, separating asset ownership from management and operations.

Said Ho Ching: "And so, you can have a non-Singaporean running the investment part under Temasek International, while a Singaporean heads the non-investment part under Temasek Holdings. The person looking after Temasek Holdings as an institution does not necessarily need to have experience in investments.

"TI is also a very good testing ground to see if you can take ownership of your decisions. Before Dilhan was CEO of TH[37], he was running TI."[38]

NURTURING DIVERSE TALENT

For sure, integrating staff recruited from different countries with different professional backgrounds has its challenges.

"One thing I strongly believe is that people have lots of capabilities," said Ho Ching. "If you put them all together, it's like a wonderful palette with thousands of colours. It's a question of how you tease that out."[39]

Leong Wai Leng appreciates that it has been a gradual evolutionary process to achieve bench strength: "If you want to grow timber, you need time. In the beginning, we had zero people in terms of corporate finance, investor relations and tax teams. Over time, however, we started growing them as we developed capabilities. For example, when we started the Treasury team, we only had one bond issued in 2005. We started to issue more bonds in different currencies, markets and tenors. So, we began to get recognised and people started thinking they might want to join the Treasury team in Temasek. Similarly, we never did investor relations before. But because we now have a fairly deep bond issuance programme, we do, and people who are trained in investor relations find it worthwhile to join us. Once you come through a particular inflexion point, people begin to see your worth."[40]

One common sentiment mentioned by most employees is the breadth of opportunities available in Temasek, which can be overwhelming and gratifying in equal parts.

Margaret Lui, CEO of Azalea Investment Management and former COO of SeaTown, has been with Temasek since 1985, playing an instrumental role over the years in a variety of projects, including the setting up of Tiger Airways and the consolidation of PSA. She attests to the fluid nature of work in the company and added that it is this dynamic work environment – which happened largely after Ho Ching came on board – that has kept her going at Temasek.

"I have done so many things here, in terms of geographical regions and types of transactions," she said. "And it is the variety of the work, the different complexities and the interesting mix of people that have really sustained me. This spirit is really the fun part. Every day is like a new job or a new assignment."[41]

She confessed that she was slightly hesitant when asked to take on her first non-investment position at SeaTown. "It was something new and I didn't mind trying it. But I had never done a single day of back-office work, so I had to learn. I called people up and asked them for their advice, and after I understood things better, I went in and set things up and got people in. I think I have been blessed with very good teams throughout my career."

Ho Ching places a lot of importance on giving space for diverse people and views to flourish, as long as everyone shares the same values: "One overriding priority is to expose, train, build up and empower all our staff, young and not so young, experienced and new alike. This interest in giving our people the maximum opportunity to learn and grow, to stretch and test them, professionally and individually, is underpinned by our firm belief that our people, equipped with the right values, are the core foundation for Temasek over the long term."[42]

Up until recently, portfolios would have two heads co-leading. This was intentional, for several reasons. It allowed employees to pool their expertise; it also revealed if they could work collaboratively as a team. Said Dilhan: "We used to have joint appointments that forced us to collaborate and also to compromise. A number of us are actually quite driven and we would do things a particular way. But if you're co-heading, you have to always sit back and consider the perspective of the other person."[43]

For Chan, therefore, what is key is finding people who can strike the right balance. "We cannot take in someone who is an entrepreneur through and through, who will only do things that he or she likes to do. That would mean ignoring the institution-building. We have processes that we need people to follow but we don't want the processes to cramp an individual's output and ideas. It is this balance that is very key."[44]

Lui feels that empowerment is the starting point towards attaining this balance. She said: "As long as you think it makes sense and you have the courage and the conviction to back your actions, then you go and execute it. I think that is important. It is up to you to draw up that mandate and drive yourself. So, really, what Temasek will be depends on the people in charge and how they want to chart the course."[45]

This sense of empowerment is manifested not only in how employees work, but also administratively. Take, for example, leave applications. Unlike most other companies, at Temasek, no "approval" is required when one applies for leave. The leave is automatically approved and a notification sent to the staff member's immediate bosses for their reference. The assumption here is that all staff can be trusted to make their leave decisions responsibly.

LOOKING AFTER PEOPLE

Said Ho Ching: "We try as far as possible to treat our people as people and not just production engines," even as she acknowledges that people who work at Temasek tend to be workaholics.

Chan, who shares the same sentiment, said: "We had people who kept on accumulating leave. We as an institution believe that people need a break. Leave is really for you to relax, reflect and come back refreshed in order to contribute better. But people were just not taking leave. They didn't even mind having their leave forfeited."[46]

Said Ho Ching: "So, I said, if you don't use up your leave, I'm going to take it away. You will not be allowed to carry the leave days forward, because otherwise you will keep doing it and never take leave. That also didn't work because people would show up to work even when they were supposed to be on leave.

"This was when I decided to enforce a period of leave. Today, everyone's calendar is blocked for leave from Christmas until the end of the year when the office closes. There is no work because the whole office is shut."[47]

Temasek is also a pioneer in granting generous paternity leave in Singapore. It allows fathers to take 20 weeks, which may be used on a flexible basis, within one year from the birth of the child. In comparison, government laws from 2013 mandated only one week, which was increased to two weeks in 2017. As of 1 January 2024, an additional two weeks was added, to be granted on a voluntary basis by employers who will then be reimbursed by the Government.[48]

Chan recalled: "We all said at the time, 'This is the highest paternity leave we have come across. Usually, it is only two or three days!' But Ho Ching personally believes that the father should also play a part in taking care of the baby.

"We also extend leave for parent care because family goes beyond spouse and child. One also has parents. The company is focused on the well-being of all employees, whether you are a man or a woman, married or single. A lot of the benefits and HR policies are always geared towards that thinking."[49]

The Temasek office also offers facilities for breastfeeding mothers to express and store milk, accessible only to female staff. Shower facilities are provided so staff can clean up if they cycle to work or after a lunchtime exercise programme.

Said Ho Ching: "The CEO Challenge every year encourages staff to pick up a new language or learn a new musical instrument or dance. These activities are also associated with lowering the risk of dementia in their retirement."

More salient is her willingness to sacrifice speedy results for long-term development when it comes to people: "Where it made sense, we were sometimes prepared to sacrifice opportunities when we were not ready to take certain risks. But when it comes to developing our team, we are almost always prepared to sacrifice some efficiency or effectiveness to maximise training and learning opportunities for our staff, both individually and as a team. We are prepared to take the short-term inefficiency pains for long-term people gains."[50]

THINKING BEYOND BUSINESS

Temasek was, by this time, a full-fledged global investor – with successful investments under its belt and a burgeoning team of talented people from different countries. While its investment activity had been focused on transforming economies and growing middle-income populations, it also recognised that this global prosperity would have an impact on the environment.

So, true to its roles as set out in the 2012 Charter – as an active investor, a forward-looking institution and a trusted steward – it launched, on its 40th anniversary in 2014, *Ecosperity*, an annual conference which convenes global leaders from the private and public sectors, academia and civil society to exchange views, share best practices and push the agenda on sustainable development.

In truth, sustainability had long been part of the Temasek consciousness. Sustainable development and climate change had already been raised in 2011 during Temasek's strategy plan to become a global investor by 2020. And, as early as 2009, it was decided that the

Temasek Deputy Chairman Cheng Wai Keung delivering the opening address at the first *Ecosperity* conference in 2014.

Temasek Review would be printed on paper that was environmentally friendly, with wood pulp from forests certified in accordance with the rules of the Forest Stewardship Council. Over the years, the print edition has been scaled down, with more content being moved online.

Said Dilhan: "Ho Ching was, in addition to being our CEO, our first Chief Sustainability Officer. She was the flag bearer for sustainability within Temasek, educating us and pushing us to put sustainability at the core of all that we do. She did this in a gradual manner, bringing the institution along with her as she embarked on initiative after initiative."[51]

In the programme report of the first *Ecosperity* conference, Temasek's Deputy Chairman Cheng Wai Keung said: "As we reflect on the past and look to the future, we realise we are at the beginning of a long journey. But it is not one which we make alone. As societies become more prosperous and aspirational, businesses need to find ways to enable and manage both consumption and conservation. So, not necessarily 'less', but 'better'; better in dealing with our physical and social environments, and the impact of economic growth on communities."

These words would have greater resonance in the decade to come, not only for Temasek, but also the world.

PART III

Surfing the Waves

2015–*Present*

"Somebody just told me he likens Temasek to surfing the waves because you have got to understand the trends, know where the waves are and run to catch them by jumping neatly onto your surfboard. Once you do that, it's a beautiful ride."[1]

Ho Ching
Chief Executive Officer, Temasek Holdings (2004–2021)

"Frankly, if you don't want to build for the next generation, you just sit pat and do what you're doing – it's easier to just invest, but you would be mortgaging the future for the present. I could have a view that at my age, I only have to think for the next five or six years and then appoint a successor. Ho Ching could have done the same thing, but she didn't."[2]

Dilhan Pillay Sandrasegara
Chief Executive Officer, Temasek Holdings (2021–present)

WITH THE LAUNCH of *Ecosperity* in 2014, Ho Ching already knew that environmental and sustainability issues would have a growing impact, not only on Temasek's business and how it operates, but on the investment world at large.

She would prove prescient in the following year when history was made at the 2015 United Nations Climate Change Conference in Paris, France (COP21), as 196 countries came together for the first time to adopt a legally binding international treaty to combat climate change and its effects.

The treaty committed nations to hold "the increase in the global average temperature to well below 2°C above pre-industrial levels" and pursue efforts "to limit the temperature increase to 1.5°C above pre-industrial levels". Called the Paris Agreement, it required members to report every five years on its climate change mitigation plans or Nationally Determined Contributions (NDCs).

In that same year, Ho Ching also became a member of the Business and Sustainable Development Commission, a two-year global initiative that harnessed leaders from business, finance, civil society, labour and international organisations to consider how business can contribute towards achieving the UN Sustainable Development Goals (SDGs).[3] The Commission's report, released in 2017, identified over US$12 trillion worth of economic opportunities over the next decade.[4] From food and agriculture to health and well-being; from cities to energy and materials, these opportunities were expected to create 380 million new jobs globally.

In addition, about US$5 trillion[5] worth of these opportunities were forecast to be in Asia, with ASEAN and India each accounting for US$1 trillion's worth.

Said Dilhan: "She saw the opportunity, and the imperative, for investors to commit to the SDGs in order to play their part in making the world more sustainable."[6]

In a 2018 address at the ASEAN-Australia Business Summit in Sydney, Australia, Ho Ching articulated how businesses could shape a sustainable future by considering three bottom lines – profits, institution and the community.

She said: "We are all familiar with the first bottom line of profits and financial returns – this is the fuel for investments and ultimately for jobs. The second bottom line is our own institution – how we shape our organisational values and build our people. Businesses are in the front line of technological change. In this age of disruption, it must be a shared responsibility between businesses, governments and our labour movements to help reskill and upskill our workforce for the future. We must help prepare our workforce for the exciting, but unsettling, world of change ahead.

"The third bottom line is our wider community – how we contribute, as businesses, to a fair, equitable and sustainable future for all; how we find solutions to make a difference, to be more inclusive, to make life better. Hence, businesses must play their part as stewards of our communities for our common good, alongside governments and the civic society."[7]

The bottom lines would also be a key driver of Temasek's ethos as an intergenerational steward, forcing the organisation to explore deeper the implications of its role as an institutional investor and the type of returns it seeks.

Ho Ching was, in effect, setting the wheels in motion for Temasek's next big evolution – embedding sustainability within the company. It was to that end that the Sustainability and Stewardship Group (SSG) was formed.

2016

THE SUSTAINABILITY AND STEWARDSHIP GROUP: BEYOND PROFITS

While Environmental, Social and Governance (ESG) investing is a commonplace concept today, it was less so in 2016 when Cheo Hock Kuan set up the Sustainability and Stewardship Group (SSG) and brought on board Robin Hu, the former CEO of the *South China Morning Post*, to succeed her.

Because Cheo's then portfolio comprised Institutional Relations, Public Affairs and Community Stewardship, she decided to include them under the newly formed SSG, adding Sustainability to the mix.

In an email to staff informing them of the formation of the group, she defined sustainability as "the defining challenge of our time", where challenges such as resource scarcity, demographic shifts and climate change were redefining societal expectations, public policies and regulatory frameworks, which alter business environments and impact investment outcomes.

She added: "The institutional potential of Temasek to create and deliver value over the long term will be increasingly shaped by our readiness to embrace sustainability, both in our strategy and execution; our ability to innovate and build change capacity within our organisation; as well as our commitment to invest in and develop communities. The enhanced focus on sustainability as a key pillar of development augments Temasek as a forward-looking institution."[8]

The new group, however, did not have an easy task. Said Dilhan: "I must admit that when it was first proposed, I wasn't sure that we should do it – not because I didn't believe in having Sustainability as a key tenet for Temasek as an institution, but because I wasn't sure we were ready to make such a big public pronouncement of our stand. However, Ho Ching was right to require us to put that stake out there, so we would do what it takes to get to the right outcome."[9]

Said Cheo: "Sustainability at that time was still very nascent. And some folks were concerned that we had a number of investments which could be accused of contributing to air pollution. That was their investment concern. But for me at that time, I felt if we didn't do this, we would be too late to the game. An institution would need to take several steps to move up the ladder. Taking the first step allows you to create a different pathway, to tell people that you are serious about doing this and that we have to move with sustainability in mind."[10]

For Hu, embedding sustainability into the company's functions was a natural extension of Temasek's role as a long-term investor for future generations. "Temasek really exists for one purpose and one purpose only, and that is to accumulate wealth for future generations. I think there comes a point in time when doing one more deal, accomplishing another million dollars in profit, pales in comparison to doing something that's everlasting and enduring. Sustainability and stewardship underscore all this and are, therefore, the very essence of our reason for existence."[11]

To him, countering the naysayers boiled down to accounting, or speaking in terms of numbers which investment folks understand: "Unless you turn it into accounting, an investment organisation like Temasek will have an emotional distance to it. It doesn't mean that intellectually you're not persuaded by it, or emotionally it doesn't pull your heartstrings. But it just doesn't connect with you in your day-to-day work. So climate, first of all, has to be defined by science. Science must then turn into accounting. Accounting must then turn into deployment of capital. Accounting must also turn into the consciousness of the corporate world. And all that – galvanising policymakers, consumers and businesses – then results in tangible, real and impactful action."

Putting words into action, Temasek started embedding ESG into its systems, guided by its Charter's stewardship values of doing well, doing right and doing good.[12]

It started factoring ESG into its investment methodologies, what Hu calls "an additional screen", together with the legal and cost-of-capital "screens" that are deployed regularly. By this time, because of the Paris Agreement, organisations around the world were also starting to think of the impact of climate change. Temasek rode on that momentum.

"We then made the bold decision – as others had declared they would reduce the overall carbon footprint by a certain amount by a certain time – that we in the Sustainability team would develop a methodology on how to compute our own carbon footprint, for Temasek as an organisation and also our portfolio companies. Our cost of capital would also be a climate-adjusted cost of capital. And that became a central part of the conversation of investing for the organisation. By that time, certain self-disclosure and reporting standards had been introduced and that provided the necessary ingredients for action," he added. ■

SIA Group will replace 5% of its total fuel requirements with sustainable aviation fuel (SAF) by 2030. *Source: Singapore Airlines*

The moves paid off. By 2020, Temasek as a company had achieved carbon neutrality. In the context of its operations, a significant part of its emissions had comprised electricity consumption across its offices as well as business travel. Residual emissions were offset through purchase and retirement of carbon credits from voluntary carbon markets. In 2021, it set an internal carbon pricing of US$42 per tonne of CO_2 emissions to be imputed into its investment decisions.

It also announced that it would be addressing the carbon footprint of its portfolio companies by committing to reduce their net carbon emissions to half their 2010 levels by 2030, with the aim of achieving net zero by 2050.[13] It will use recommendations from the global Task Force on Climate-Related Financial Disclosures (TCFD) as well as the Greenhouse Gas Protocol.[14]

In that same year, it partnered with BlackRock to form Decarbonization Partners, which will launch a series of late-stage venture capital and early-growth private equity investment funds focused on advancing decarbonisation solutions for a net-zero economy by 2050.[15]

To speed up decarbonisation, in 2024, Temasek raised its internal carbon price[16] per tonne of carbon dioxide emitted to US$65[17], with the aim of making it US$100 by the end of the decade. This also aligned the actions of the firm's staff with its carbon reduction commitments.

Apart from accounting for and managing carbon emissions, a private equity fund called ABC World Asia was set up in 2019 under the auspices of Temasek Trust, Temasek and Pavilion Capital. Its mission was to define its own robust model of impact investment for the region. Headed by David Heng, ABC World stood for Temasek's vision of a world with an Active Economy, a Beautiful Society and a Clean Earth, building on the ideals of the 17 UN Sustainable Development Goals.

In 2022, it was renamed ABC Impact[18] but its mission remains the same – to invest in companies, especially in Asia, committed to financial and digital inclusion, better health and education, climate and water solutions, and sustainable food and agriculture.

Said Heng: "Going forward, we continue to see compelling investment opportunities in solutions addressing inclusion, climate change and the energy transition. Our strategic goal remains to seek out relevant and applicable technologies and business models for the Asia context. As an Asia specialist, ABC Impact is well-positioned to help these companies achieve scale and deliver meaningful impact in the region."[19]

Frederick Teo, formerly Managing Director of the Temasek Sustainability team, recalled: "The Sustainability team had three major pillars – Policy, Investing and Financing, and Solutions. The Policy work focused on developing an ESG methodology and the company's path to Net Zero, while the Investing and Financing work looked at green taxonomy and impact investing. ABC Impact was a result of that.

"The Solutions team worked with a division in Temasek called Emerging Technologies (ET), which invests in high-potential early-stage technologies that also include decarbonisation."[20]

ET is headed by Russell Tham, who came from ST Engineering and had a two-decade career before that leading various functions in a Silicon Valley tech company.

Its job is essentially to pick the winners of tomorrow. Doing this requires a particularly agile way of thinking and framing investments. Said Tham: "Our minds are inclined to think in incremental steps, so it's common that many people tend to think in linear terms. However, advances in science and technology often take exponential and disruptive trajectories."[21]

Therefore, ET supplements the existing institutional capability within Temasek by assessing emerging foundational technologies at an early stage. It has three focus areas – net-zero energy transition technologies; next-generation materials; and computing and cognition technologies.

The SSG Solutions team worked on two initiatives which would eventually be spun off into independent entities. Climate Impact X (CIX), a global carbon exchange and marketplace, was jointly established in 2021 by DBS Bank, Singapore Exchange, Standard Chartered and Temasek.

GenZero, an investment platform company focused on decarbonisation solutions globally, was launched in June 2022 and is now headed by Teo.

Of his new role, Teo said: "I see it as the natural extension of my work in sustainability solutions. Before, while we worked on concept development and supported pilot projects, we didn't really have the independent capability to invest in solutions that we thought would make sense. But now, we have to do it. Part of GenZero's beauty is the fact that it's not just focused on technology, but also on climate solutions and nature. I think GenZero very nicely encapsulates this idea of tech, nature and carbon markets all in one."

Its mission, said Teo, is to deliver sustainable financial returns and climate impact, which can sometimes be a difficult balance to strike. To that end, in June 2023, his team launched GenZero's Climate Impact Measurement Framework, a methodology featuring development benchmarks for delivering meaningful impact.

"In more conventional terms, you can liken carbon impact or carbon yield to that of an investor seeking dividend yield. Now, if you invest in a bank or a telco, you roughly know what kind of dividend yield you should be expecting. So, similarly, if you were to deploy a billion dollars, how much climate impact should you be reasonably expected to achieve? If I'm given a task by the shareholder to achieve both climate impact and financial returns, there's a duty for me to explain to my shareholder what 'good' looks like. I can't just report whatever is residual. I should have some sense of what a reasonable target is," he explained.

EMBEDDING SUSTAINABILITY

Today, climate-related considerations are well-embedded in Temasek's governance structures. In January 2022, a Board Risk & Sustainability Committee was established to enhance focus on opportunities and risks arising from sustainability trends, including climate change and other financial, reputational, operational and cyber risks. At the management level, a Strategy, Portfolio and Risk Committee oversees the company's ESG policy and the integration of ESG considerations – including climate change – in the firm's strategy, investment, risk and operational management processes. Temasek's Senior Divestment and Investment Committee also considers climate-related risks and opportunities as it manages and shapes the company's portfolio.[22]

Franziska Zimmermann, Temasek's Director of Sustainability and Climate Change Strategy, said: "We have very robust and sometimes heated debates about individual investments. But those debates sharpen our intuition about deals. For every transaction, we have to ask ourselves if they have environmental issues or negative social impact, and whether we should consider them as opportunities. This trains our muscle. It builds a culture and collective understanding of what we at Temasek want to prioritise and what type of investments we believe have positive outcomes, not just for Temasek financially but also for the environment and for society at large."[23]

This is all a far cry from the early days of SSG.

Hu, who is currently an advisor at Temasek, recalls: "The group then was finding its feet. We defined things as we went along, we struggled to gain our own footing and to earn recognition and respect from the rest of the organisation. But you keep pushing, pushing, pushing. Then one day, the doors open. And the reason they open is because people realise you are not going to will away sustainability issues. I think many things in Temasek are that way. You need to be tenacious."

He emphasised, however, the importance of having "a very strong, powerful sponsor" to champion the cause.

"In the case of sustainability and stewardship, the chief sponsor was Ho Ching herself and that made it a lot easier for me and my team. People in the organisation know she is the spiritual leader of sustainability."[24]

In her closing address at the *Ecosperity* conference in 2021, Ho Ching expressed her views in no uncertain terms: "Climate action, if you're not convinced by now, is not simply a cost – it is also an investment opportunity that will uplift returns beyond 2030. There are no returns from a dead planet or a divided society. As investors and businesses, we share a collective responsibility, with governments and the labour movement, to ensure that there is a future for our workers and our people. We must help people to prepare for life beyond work and help them invest for a retirement with dignity."

She also issued a clarion call for climate action: "We are facing a climate emergency. Investors, businesses and societies must work urgently together to avert a 1.5°C increase in 2040. This is a critical milestone to deliver a net-zero global economy by 2050."[25]

As an example of this collaborative effort, in June 2022, after Singapore's Energy Market Authority (EMA) issued its first electricity import licence to Keppel Electric, Singapore received its first supply of renewable hydropower from Laos, via Thailand and Malaysia, marking the first multilateral cross-border electricity trade involving four ASEAN countries.[26]

And in 2023, Sembcorp Utilities received a letter of intent from EMA to explore the development of offshore wind farms in Vietnam to export electricity to Singapore.[27] Keppel Energy has also inked an agreement to import large-scale, low-carbon electricity generated from various renewable energy sources in Cambodia.[28]

In Singapore, the electricity grid will be at the centre of the country's energy transition plans, which include the integration of a two-gigawatt peak of locally produced solar energy by 2030 and four gigawatts of low-carbon electricity imports by 2035. This will also enable the electrification of transportation as Singapore completely phases out the internal combustion engine by 2040.

As renewable energy sources become more prevalent, the grid's adaptability is crucial. SP Group, as owners of Singapore's electricity grid, therefore, will have a key role to play in maintaining a resilient and stable power supply system.

Stanley Huang, Group CEO of SP Group, said: "The energy landscape in the energy transition will be transformed into a complex system with many new challenges. Renewable energy sources will not only be increasingly distributed but also inherently intermittent, relying on weather conditions and available solar irradiance; while electric vehicle charging loads will be distributed and highly variable.

With the electrification of transportation, Singapore aims to phase out the internal combustion engine by 2040. *Source: SP Group*

"SP Group is developing and piloting various advanced technology solutions which will become the foundation of a robust, flexible and smart grid to enable the transformation."

In short, Dilhan added: "The entire industry, including Temasek, will have to work with the Government on the structure of the new electricity market, to take into account the green energy world of the future."

Outside of Singapore, Temasek has invested in H2 Green Steel (H2GS), a Swedish start-up which is building a plant in the town of Boden to produce green steel using hydrogen from renewable energy. Steel production accounts for about 7% of global carbon emissions[29] and is expected to continue to increase, especially because of economic expansion in India, ASEAN countries and Africa,[30] making it important to invest in decarbonisation solutions in this space.

H2GS' green steel will have up to 95% fewer emissions than steel produced from traditional processes. Commercial production is targeted for 2026, reaching 5 million tonnes later in the decade. Customers for this green steel are expected to include Mercedes-Benz, Cargill, Scania and car parts maker ZF.[31]

TRANSITION INVESTING

Steve Howard, Temasek's Vice Chairman of Sustainability[32], recognises the tough decisions the company has to make to realise its climate ambition. One of these is mitigating or eliminating possible negative impacts in existing businesses.

"There are shades of grey, not black and white. So, the debates are much more around how significant the negative impacts are and how we can play an influential role. Is there value creation? Is there a viable plan to be had? That's where the discussion should lie."[33]

In 2022, Sembcorp Industries sold one of its subsidiaries, Sembcorp Energy India Ltd (SEIL), which includes two coal-fired plants, to an Omani company called Tanweer Infrastructure. Tanweer is indirectly owned by a consortium led by Oman Investment Corporation (OIC), a business partner of Temasek's.

With the sale, 51% of Sembcorp's energy capacity became renewable, compared to 43% previously[34], accelerating its aim of reaching net-zero emissions by 2050.

Sembcorp shareholders overwhelmingly approved of the sale, which will see Tanweer financing the purchase via a deferred payment note from Sembcorp, payable over 15 years, with specified performance targets.

However, to ensure smooth operations and support the reduction of SEIL's greenhouse gas emissions, Sembcorp will continue to offer technical advisory services, as well as a financial incentive where the interest rate payment will reduce correspondingly with improvements in SEIL's emissions intensity.

While some have criticised Sembcorp of "greenwashing" and kicking the can down the road, Nagi Hamiyeh, Head of Temasek's EMEA team who formerly led its Portfolio Development Group, strongly disagrees, noting that shutting down the plants was not an option because of existing power purchase agreements and the fact that the plants provide power to 2.5 million households. Sembcorp, he asserts, is not washing its hands of its sustainability responsibilities, by providing a financial incentive to the buyer regarding decarbonisation of the assets.

"We're not talking about shutting down the plants and repowering them as green, because that's not realistic for this project per se. But there are many coal-fired plants now that are much cleaner environmentally, so we use the best ones as a benchmark – this is the target which the SEIL team will help them get to over time. And if the team brings down the carbon footprint, at every level, there is a financial incentive in terms of the interest rate that is paid to Sembcorp. So, besides wanting to do good, they are also not worse off. They are better off financially if they do that and work with us. This is the element which justifies our actions against accusations of greenwashing."[35]

Howard, who used to be the Chief Sustainability Officer of IKEA, understands the complexities of working with partners and suppliers towards sustainability objectives: "Working in the supply chain, we could work with a supplier and everything wouldn't be perfect at Day One. But if we knew we could work with them, it was better to engage as long as there was the willingness to pursue a process with clear metrics and a clear plan."

In an interview with Singapore's Chinese daily, *Lianhe Zaobao*, Park Kyung-Ah, Temasek's Head of ESG Investment Management and Managing Director of Sustainability, said that rather than exiting portfolio companies, Temasek actually prefers to actively support their climate transition plans.[36]

She added that portfolio companies like Singapore Airlines and SP Group, for example, have made strides in their energy transition plans, which Temasek welcomes.

"While we do not prescribe that our portfolio companies follow a fixed path to reduce their carbon emissions, we will lean in to work with them and actively support their business model transformation and abatement actions where it makes financial sense to do so, rather than divesting," she said.

In a similar vein, Temasek is also interested in companies that are moving through the energy transition, including companies that are not entirely green yet but have a plan to get there.

Take, for example, Origin Energy, a major integrated electricity generator and electricity and natural gas retailer, which also operates Australia's largest coal-fired power station at Lake Macquarie, New South Wales.

In 2023, Temasek became a member of a consortium led by Brookfield Renewable Partners which announced an offer to acquire Origin's Energy Markets business, Australia's largest integrated power generator and energy retailer, with a view to speeding up the development of its renewable generation capacity.

The deal would have involved at least A$20 billion of additional investment over the next decade to construct up to 14GW of new renewable generation and storage facilities in Australia, resulting in a less carbon-intensive grid. In turn, this would enable the gradual retirement of one of the country's largest coal-fired power generation plants, Eraring, by 2029 at the latest.

At the same time, absolute greenhouse gas emissions produced by Origin would eventually be reduced by more than 70% by 2030, making a material difference to Australia achieving its net-zero targets.[37]

The acquisition was eventually voted down by Origin's shareholders – 69% voted in favour of the deal, falling short of the 75% required – despite the recommendation of the Origin board.[38]

Hamiyeh, however, says this has not changed Temasek's approach towards investing in the energy transition: "Besides us wanting to reduce our carbon footprint, we would also like to be part of the solution for others; and that's what excited us about this opportunity. With Origin, we would have been adding a significant emitter to our portfolio, but we were putting our money where our mouth was because we had a clear plan and a clear path to decarbonisation. At the same time, as an investment firm, we were also mindful of getting adequate risk-adjusted returns."[39]

To Howard, the complexities of transition investing are not always immediately obvious. "Environmental impact can be measurable from a carbon point of view. But when things are broken down into hundreds of business models and technology decisions – how do you transition and grow that, how do you scale the new, how do you manage out the old? – the interaction between public policy, supply chains and investments becomes a hugely complicated challenge.

"But obviously, we've put much more comprehensive guidelines in place around the externalities and the social and environmental impacts of business, where we are going to be very cautious and make sure that if we do invest, we're highly informed and there's a plan. We can look at a business, see if there are negative social impacts today and ask if we can mitigate them and, in the end, eliminate them or turn them into positive impacts," he added.[40]

Perhaps, he said, the biggest complexity in addressing climate change is geopolitics. "As an investment firm, can we solve global geopolitics? No, we can't. But we can be a highly intentional leader in capital markets and help create clarity for the businesses we invest in."

INVESTING IN HUMAN CAPITAL

This sense of playing a part in a bigger connected world was also permeating the company in other ways. Temasek's "bench" was getting stronger as its employees took on major investments in the global arena.

Internally, Temasek's people culture was also getting more cohesive and defined, particularly since the articulation in 2003 of its MERITT values – Meritocracy, Excellence, Respect, Integrity, Teamwork, and Trust – which are embedded in employees' year-end performance appraisal process.

Holding all this together is HR, which plays an important role in Temasek, not as a supporting function but as a partner, says Chan Wai Ching, Temasek's Chief Corporate Officer who also oversees its organisational and people development function, or HR. "When you participate as a partner, you have insights on what the organisation is looking for and, therefore, you think alongside the business. We keep abreast of trends in the market and try to pre-empt them by putting structures in place so that we can start to build capabilities for those trends," she explained.

Externally, this has also had benefits. As Temasek grew, it went on the hunt early for new talent and found itself rubbing shoulders and working together with powerful and influential people who were keen to work with, if not work for, Temasek.

This, however, did not happen overnight. Chan remembers the early days when the company would lose potential hires to investment banks. That, she said, no longer happens because the Temasek brand has established itself and is a proven entity.

While Temasek has no problem attracting talent today, she admitted she was still pleasantly surprised at the great response when the company set up its Temasek international and regional advisory panels.

"The Temasek International Panel has been in existence for a long time and we are always able to find the right people for it. When we went out to establish the Americas and European panels, we were very grateful for the strong response from those we approached. It was just so amazing.

"These were captains of industry, and they were so willing to support and help us. That, I thought, was very assuring of our presence and reputation in the global developed markets."[41]

2016

THE REGIONAL ADVISORY PANELS: SEEKING BROADER PERSPECTIVES

Temasek's evolution from its original Singapore focus to become an investment company with global reach is best epitomised by the establishment in 2004 of the Temasek International Panel (TIP), a group of global business leaders which, until today, provides Temasek with insights and guidance. It meets once a year in Singapore to discuss issues affecting the global business and investment environment, and the list of panel members is regularly refreshed.

Explaining the reason for the panel, Ong Boon Hwee, who was formerly Managing Director for Strategic Relations, said: "We felt that there was scope for international business leaders to help bring an international and broader commercial perspective to aid Temasek as it ventured beyond Singapore and our traditional investment focus."[42]

Panel members are chosen for their wisdom, insights and experience in their respective industries as well as their invaluable networks. Members of the pioneer 2004 panel included David Bonderman, the American co-founder of TPG Capital; Ratan Tata, former Chairman of India's Tata Group; Australian Leon Davis, former Rio Tinto boss and Westpac Chairman; and Minoru Makihara, the late President of Japan's Mitsubishi Corporation.

The yearly conferences were so valuable that Temasek also decided to set up regional advisory panels, starting with the Temasek European Advisory Panel in January 2016, then the Temasek Americas Advisory Panel in June that same year.

Temasek Chairman Lim Boon Heng explained the move to TIP members at their annual meeting in 2015: "Our aim is to bring together a relatively small group of eminent leaders in key markets, who will help us focus on issues relevant to our operations in those markets, as well as share their broader perspectives with us."[43]

The two regional panels meet three times a year, usually in cities in their regions. In 2019, however, both panels met outside their geographies – in Shenzhen, China – broadening the opportunities for cooperation and knowledge sharing, with Temasek acting as a bridge between east and west.

In his opening speech that year, Lim said: "This meeting marks a new stage of closer exchanges across Asia. It is an opportunity for us to directly experience the latest developments locally, together with our Europe and Americas advisors. I believe that this exchange of views from around the world will lead to beneficial takeaways for all of us. Hopefully, our local Chinese

From left: Truong Gia Binh, Mohd Hassan Marican, Noni Purnomo, Lee Theng Kiat, Yozua Makes, Mai Huu Tin and Chartsiri Sophonpanich at the first meeting of the Temasek Southeast Asia Advisory Panel.

guests will benefit from these shared exchanges as much as our advisors from Europe and the Americas. Through this, we gain greater insights that add to our views of not just opportunities within Asia, but between a rising Asia and the world."[44]

Said Lee Theng Kiat, Chairman of Temasek International: "Each time, our Temasek team has come away with new perspectives and insights from the discussions. These guide a deeper understanding of the environment in which we invest, whether in Europe, or the Americas. The discussions also go beyond the local context, to reflect on global geopolitical and economic trends. After all, the world is increasingly interconnected and so are businesses."[45]

Lee also chairs the newest regional panel – the Temasek Southeast Asia Advisory Panel, which was launched in August 2023 to complement the other panels and to reflect Temasek's increasing investments in the region in recent years.

In the press release announcing the panel, Dilhan said: "Temasek is looking to deploy more capital into Southeast Asia, where growth is underpinned by strong fundamentals such as a young demographic, rapid urbanisation and accelerated digitisation."[46]

There are also great opportunities in the region to grow a green economy aligned with Temasek's sustainability vision. According to a joint report by Temasek and Bain & Company, green business opportunities for Southeast

Asia could attract over US$2 trillion in new investments, ensuring that over a quarter of energy comes from renewables, achieving 100% access to electricity, and creating over 5 million new jobs.[47]

However, as Temasek has learned in the past, there are also political sensitivities to consider.

Said Lee: "There will always be tensions created by social, economic and political factors peculiar to each of the countries we operate in. We just have to be prepared and well-placed, with good friends and enduring friendships that allow us to operate as a trusted investor.

"I think those are the hallmarks that we can continue to exhibit. I'm not saying that issues we confronted in the past will never happen again. They can happen anytime. But we're probably better placed today to navigate them, especially with the advice of the Southeast Asia regional panel members."

Interestingly, Lee advocated for the inclusion of Japan in the grouping. "Japanese corporates have very diversified investments and interests in various Southeast Asian countries. They have a very long-term view of what they should be doing and, therefore, are pretty much entrenched in the region. They have been able to sustain this effort regardless of which government might be in power in any of the Southeast Asian countries at any point in time.

"So, when I got to thinking about the panel, I proposed that Japan be included because I feel the Japanese voice within the panel would be very useful."[48]

There are challenges, however, in corralling such a rich and diverse region where English is not the lingua franca and where there is a cultural tendency to be less vocal in large groups.

Lee's first priority, therefore, is to get people settled in and comfortable with each other. "These are men and women who have done exceedingly well in their respective fields and countries. Our task is to create an environment that is conducive for them to share their views, that will draw out words of wisdom and nuggets of useful data."

The setting up of the Southeast Asia regional panel dovetails with what Lee sees as an increasingly positive investment climate in the region's countries and a history of strong ties with Temasek.

"Many of them have been our friends for a while. If not, they have come to us highly recommended. From my interactions with them, I feel that they regard us very highly. They feel that we have got frameworks and systems in place that they would like to learn from. At the same time, they are excited about being able to share their individual and collective experiences with us," he added. ■

Said Robin Hu: "In order for us to deploy our capital safely and profitably, do we profess to have all the understanding and knowledge, notwithstanding the collective brainpower of the organisation and the fortitude and industrious nature of our workforce? We don't. So, we must have access to people across the world – in multiple geographies, in multiple sectors, in multiple concentrations of expertise and knowledge. And many of those relationships have got to be at a personal level."[49]

REASSESSING PRIORITIES

While Temasek was making waves in global arenas, some matters closer to home were weighing on its mind. One particular problem was its subsidiary, Singapore Mass Rapid Transit (SMRT), one of Singapore's public transport operators. It was facing a new set of challenges and would eventually be delisted in 2016.

In 2000, it had been listed to much fanfare because it was the first time an urban rail operator had done so, outside of Japan.[50] Such a sale had not been done before because, historically, such operators have generally not been profitable.[51]

At the press conference announcing the delisting of SMRT, Temasek's current Deputy CEO Chia Song Hwee said that, as a long-term investor in SMRT, it supported the management's plans and had no intention of losing money.

He also emphasised Temasek's role: "Temasek is an active investor but not an operator. We want to provide an environment to focus on improving the company. There are risks but it also means the company needs to work to make a decent return."[52]

The work on SMRT continues today, but away from public eyes and for the public good.

2016

THE SMRT DELISTING: OF PUBLIC GOOD AND PRIVATE PROFIT

In 2016, the recent history of Singapore's public rail network came full circle when SMRT, which was listed in 2000, was taken off the Singapore Exchange, with all operating assets reverting to government control.

The *Temasek Review* of 2017 announced that Temasek had acquired all shares of SMRT Corporation for S$1.2 billion. Following this, SMRT was delisted, finally freeing it from the opposing obligations it faced – to shareholders on one side, and commuters on the other.

SMRT had been formed in 1987 to run Singapore's urban rail system and, more notably, to run it on commercial principles.

Dr Yeo Ning Hong, then Minister for Communications and Information, said at the time: "This privatisation is in line with the Government's overall policy of allowing the private sector to operate in areas when Government's direct participation is not essential."[53]

It was also part of the Singapore Government's public sector divestment exercise which aimed to eventually allow the public to own shares in the company through listing on the Stock Exchange. This had also been done with Singapore Airlines, Neptune Orient Lines and Singapore Bus Services.

With the Government responsible for the costs of both the existing and future rail infrastructure, SMRT's business was to own and manage all operating assets so as to provide rail services efficiently and profitably.

However, cracks started to appear around 2011. Due to an increase in Singapore's population, there were multiple service disruptions and overcrowded carriages, which outraged consumers. Amidst much public unhappiness, something clearly needed to be done.

Juliet Teo, Temasek's former Head of Transportation & Logistics, recalled that SMRT was asked to add more trains to the network to ease passenger congestion. However, from a business standpoint, the math did not work. Profits had been declining, largely because fare prices – which SMRT could not control[54] – had not increased.

In the preceding five years, actual fares had only gone up by 1% year-on-year.[55]

To address these challenges, the Government decided it would take over ownership of the operating assets while operations would still lie with SMRT, under the New Rail Financing Framework (NRFF)[56]. This would relieve SMRT of over S$2 billion in capital expenditure obligations and a long tail of subsequent asset renewals, allowing it to devote its attention and financial resources to enhancing rail reliability.

While the proposed solution made sense in theory, putting it in practice was not easy as the model needed to balance the provision of a public service with the pressures of the public markets.

"The mechanics were too complicated. The public markets would not be able to understand the implications on SMRT's financials and, more importantly, its profitability," said Teo, who had to refer to an illustration of the labyrinthine framework on her office wall for clarity.

"There was a cap and collar on the revenue, as well as on the EBIT[57], to allow for sharing of risks between Government and SMRT. But there were also clawbacks if SMRT's performance exceeded thresholds," she added.

Temasek swung into action. According to Teo, Ho Ching decided to take the company private because she knew it would take time to resolve the issues and, more importantly, to improve service reliability.

"When we saw the work that needed to be done and that the promised dividends at IPO were unlikely to materialise going forward, she said we have to take it private, fix it, and maybe rethink listing the company in the future. It seemed like we were taking a step backwards, but we had to do the right thing."

With a decision in hand, Temasek decided to break the news to the public a few days after the NRFF announcement, as a response to the new operational framework.[58]

In a joint press release, Temasek and SMRT acknowledged the long road ahead: "SMRT is expected to face challenges, even under the new framework, with costs and uncertainties associated with an ageing and expanded network. SMRT will also need to focus on delivering on existing and new multi-year programmes to support an ageing and expanded network, including the need to deliver a higher order of rail reliability and service in line with the heightened Maintenance Performance Standards to be determined by the LTA."[59] ■

SMRT was formed in 1987 to run Singapore's urban rail system.
Source: SMRT Corporation Ltd

CHAPTER 7

Taking the Plunge

WHILE TEMASEK HAD previously taken a hands-off approach to its investments, trusting in its companies and their management teams to make the right decisions, that thinking took on a different flavour as the organisation expanded and, indeed, as the world became more complex.

There was a sense that markets were spinning out of control and investments carried greater risks but could come with higher rewards; and that exciting new opportunities were presenting themselves to those who were bold enough to step into the fray.

At Temasek, there was some deep thinking about how it would navigate this volatile geopolitical global climate. Increasingly, it would move towards more targeted bets rather than blockbuster deals.

Said Dilhan: "If you look at our Europe and US portfolio, it's not like we have any banner deals. Rather than take a concentrated bet on the US market, we decided that we would focus on areas which were in line with what we call 'trends of the future' – like technology, consumer, life sciences and financial services – all of which did quite well for us. I would say the big shift at that time was to focus a lot more on growth and early-stage venture. And the reason why we did that was not just for the returns – obviously returns are important – but also because we needed to be at least in step with the trends of the future, if not trying to discern where those trends will lead to."

At the same time, Temasek still had to keep an eye on its legacy portfolio, to ensure that it was keeping pace.

"We also have the long tail risks in our portfolio of Singapore companies – we can't just easily sell PSA, Singapore Airlines or CapitaLand and so on – so it's important for us to know the new innovative ideas, business models and concepts which are coming up. And for us to also take a dip in so that we can be ahead of the curve. That also informs us when we engage our companies about the future."

He added: "The standard of our investments includes repositioning the existing investments we have, which is essentially a reinvestment. So, if we have $5 billion to put into two or three new investments, but we have our existing investments which have a long tail risk, we might decide to put the $5 billion into the existing investments because of those tail risks we have to deal with. That trade-off is one every CEO and senior management team of our companies need to think about."[1]

Concurrently and because of this progressive approach, Temasek's philosophy regarding its core portfolio was shifting towards what Ho Ching described as "proactively sharing insights on trends, like longer lifespans and emerging technology; and nudging the boards and management to consider the implications of longer-term, over-the-horizon developments that may not be obvious today."

She added: "It was a much more intense and concerted effort to bring businesses and workers along with the changes that we see are rapidly emerging. And then there was active pushing to get things done, so as not to leave money on the table or end up with stranded assets."

Sometimes, she said, these sharings took the form of tripartite conversations involving governments, unions and companies – TPCs as well as firms that were not in the Temasek fold.[2]

2019

THE PORTFOLIO DEVELOPMENT GROUP: ENHANCING VALUE THROUGH PARTNERSHIPS

In 2019, a Temasek press release announced the setting up of a Portfolio Development function within the company's Investment Group.[3] It would build on "existing portfolio management capabilities in the firm, to adopt an active approach to enhancing the value of our core assets through partnerships, innovation, growth strategies and/or restructuring across Temasek's portfolio". This function was led by Nagi Hamiyeh, who eventually became Head of Temasek's EMEA team.

Hamiyeh, born in Lebanon and educated in the US, has lived in Singapore for almost three decades and worked in Temasek since 2005. "I love Singapore because I grew up in a country torn by civil war. Every day I went to school, I didn't know if I'd come back alive or not. Every day might be your last day. There was no safety net; there was zero structure, as you can imagine – Singapore provided me with much-needed stability and structure."

Structure is indeed what drives the Portfolio Development Group (PDG). The passive portfolio management of the past, in Hamiyeh's opinion, wasn't working. "We used to do a lot of outside-in work. We used to recommend things to the boards and management. Nine times out of 10, our recommendations were not fully taken into consideration.

"Our current approach hinges on partnership with the TPCs. We approach the problem with practical solutions, committing capital behind our recommendations, coming up with 'win-win' solutions for all stakeholders."[4]

He had a supporter in Dilhan. "I expressed my frustration at how we were leaving so much value on the table. We did one analysis of the TPCs, which were 40% of our portfolio, and they were a real lag compared to everything else. I told him, 'Look, give me a chance to fix this.'"

Dilhan was a natural champion for the move, having been the first head of Temasek's Enterprise Development Group (EDG) when it was set up in 2013. While EDG focused on identifying and developing new business enterprises that have the potential to be global, regional or domestic champions, one of its mandates was also to rejuvenate existing portfolio companies.

Hamiyeh quickly got to work in what he calls the most complex role he's ever had in his career, but also the most fulfilling. He earmarked six companies to start with – Olam, CapitaLand, Sembcorp Industries, Sembcorp Marine, Keppel and Singapore Power.

"I told people we needed – and there was a lot of debate – to be on the board of these companies because lots of decisions were happening which we were not privy to. Secondly, I had small SWAT teams working with me but coordinating with the company's management or seconded to the company to fix things.

"That model has worked well because we have dedicated teams spending 100% of their time on one asset at a time with clear short-term, medium-term and long-term granular KPIs. I told these guys, 'For two years, I want you to do nothing else but focus on one company.' And that was the first time it had been done in Temasek because previously in the Investment Group, everybody would be looking at four or five companies at a time. Here, I told them, 'I just want you to live, breathe, eat, sleep this one company and nothing else.'"

He was not surprised when he faced resistance from the companies at the beginning. "This is human nature. Nobody likes change. Nobody likes an outsider who is supposedly not an expert in this industry telling them what to do because, by deduction, it means that they were wrong. But at the end of the day, it is as much the legacy of the board and management of these companies. And most importantly, we tell them we will put our money where our mouth is. For the right transformation strategy, we will back you financially. Then it's hard for most people to say no."

In June 2019, CapitaLand acquired Ascendas-Singbridge for S$11 billion, creating one of Asia's largest diversified real estate groups with over S$123 billion of assets under management.[5] CapitaLand subsequently restructured into two clearly defined entities, with a listed global real estate investment management business and a privatised real estate development business. In June 2020, the demerger of Sembcorp Industries and Sembcorp Marine was announced, following a recapitalisation of the latter through a S$2.1 billion renounceable rights issue.[6] In January 2022, the Olam Group, under a strategic reorganisation, created two operating entities, Olam Agri and Olam Food Ingredients, both of which are eyeing listings.[7] In February 2023, Sembcorp Marine merged with Keppel Offshore & Marine to create a potential leader in offshore and renewables called Seatrium.[8]

Hamiyeh said: "It's the same playbook for every company. We have a thesis, we push for a strategic review. We've created tremendous value for all stakeholders in a very short period of time with big results that move the needle. It's not rocket science. It's just discipline, rigour and stamina." ■

Hamiyeh acknowledged that this more deliberate collaboration with the TPCs almost feels like Temasek has come full circle – back to its early days when the company started taking a bold stance in legacy holdings led by incumbent senior civil servants.

The difference now, though, is the growing alignment between Temasek and its portfolio companies. "When I see them, I always joke that I talk to them more than I talk to my mother – it's so intense. But eventually they see, firstly, that it's OK to trust us. Secondly, we're aligned; we're creating value for everyone and not asking for a special deal for us. Thirdly, what it means to them – and this is universal, it's across the board – is that they will take all the credit for it," he said.[9]

Said Chan Wai Ching: "The engagement with Temasek has improved on many fronts. I remember in the early days, when we had deep dives of companies, it could be quite hostile because we were coming in from an investor perspective, not as operators. So they would always say, 'What do you know about us?' and things like that. But that has evolved today to, 'You have a view, why don't I leverage on it?' Perhaps our capabilities and the way we engage have also evolved – people are now more open to listening and find that we also bring value to the table."[10]

CHARTING THE INVESTMENTS OF THE FUTURE

When it came to assessing new deals, it was clear that old strategies would not work for a fast-paced, highly fragmented and diverse investment landscape. This was particularly so with technology-driven start-up opportunities that were popping up almost every day, as well as the impact of climate change, the disruptions of digital innovations and the unnerving sabre-rattling of political struggles in parts of the world.

Temasek was also, by this time, a much larger organisation at an inflexion point in its evolution.

Said Chia Song Hwee: "In the past, everything was done bottom up. There was no steer in the portfolio, which was fine because when you're investing in a rising and emerging market, it's a growth story, so it doesn't quite matter. But when you reach a certain size, you can't continue to do that. You need to have a certain direction. If we continue to do all things bottom up, do we know where we will end up 10 years from now? Of course, we won't."[11]

Dilhan, who became CEO of Temasek International in 2019, therefore decided to embark on a new strategic plan that would steer the organisation for the next decade. Called T2030, it would continue where T2020 – spearheaded by Ho Ching a decade earlier – had left off. Back then, the goal was to transform Temasek from an investment holding company to a global investor, which it had, by this time, achieved in no small measure.

Said Ho Ching: "The first strategic plan was T2010. All the plans follow the practice of very seriously reviewing what comes next. What does Temasek want to do when it grows up? From investing as a 35-year-old, to a more mature investor with a portfolio that is over four times bigger, in S$ terms, than in 2002/2004."

Dilhan added: "To be honest, Ho Ching had already remade the company in a massive way. Today, I don't have to do it in that same massive way. The task for this generation of leaders is to improve and evolve a structure that is pretty much there."[12]

T2030 focuses on four pillars for Temasek to thrive in a highly volatile world marked not only by financial, but also social and geopolitical, uncertainty and risk.

- Building a resilient and forward-looking portfolio
- Embedding sustainability at the core
- Creating the "Temasek Operating System"
- Developing the organisation, talent and capabilities.

The four pillars can be summed up in this elevator pitch: Temasek aims to build a resilient and forward-looking portfolio with sustainability at the core, through agile and efficient cross-functional capabilities, supported by a strong, knowledgeable and diverse talent pool.

Said Dilhan: "Sustainability must be at the core of everything we do. It should be in the way we operate ourselves, in our portfolio companies, in the way we allocate capital.

"And there's a reason for that. If we are truly long-term investors, then we have to think about what the world might look like in 10 or 15 years and figure out whether our companies are going to be competitive

in that world. Climate change is a reality. And if our companies are not on a journey to mitigate, adapt or effectively transition their business models, then the long-term value of our assets could be impacted and the financial return that we look for may not be achievable.

"So, it's about cost of capital at the end of the day: what is our cost of capital in a future world which is going to price carbon in order to achieve our goals? That's what we think about."[13]

In the T2030 model, the catalytic capital supporting these pillars should be financial, of course, but also human (supporting human potential and well-being), social (promoting social progress) and natural (considerate of the planet and the environment).

PORTFOLIOS AND ECOSYSTEMS

Under T2030, the Temasek portfolio is divided into two components – "resilient" and "dynamic". "Resilient" is the bedrock and majority of the portfolio, comprising long-term investments that tend to hold their own despite the ups and downs of the market. These include TPCs; compounders, which are direct investments that give a good return above cost of capital over the long term; and asset management businesses.

Parked under "dynamic" are short- to medium-term bets which Temasek will divest once the investment thesis has played out, to generate capital for new direct investments. These bets, which focus on growth and higher returns with potentially higher risks and volatility, continue to be guided by the four structural trends which underpin all of Temasek's investments – Digitisation, Future of Consumption, Longer Lifespans and Sustainable Living.

They include very early-stage bets in things Dilhan described as "not just about the road ahead, but the road around the corner". These include the areas of food, water, waste, energy and materials, but also seemingly esoteric things like quantum computing.[14] Said Dilhan: "This is important, not just because of sustainability, but because these might be new business models that will find their way into our portfolio over time."[15]

Three "engines" drive the portfolio. Firstly, the Investment Engine where Temasek goes in directly; secondly, the Partnership Engine, via one of its platforms like SeaTown or Vertex, for example; and thirdly, by seeding capital in R&D, early-stage or deep-tech businesses which it feels are relevant to its four investment trends. This is the Development Engine.

Hamiyeh said: "For the longest time, we were debating if we had the right people to invest in venture capital (VC) because it's a completely different mindset. And I think the majority of us believe that people are either private equity investors or venture capitalists. You cannot do both because they require completely different mindsets. As such, we started getting people who are only focused on VC. First with the innovation team, then with AI and blockchain, getting people to do that. And that, by and large, has worked."[16]

Rohit Sipahimalani, Temasek's Chief Investment Officer, said: "We've been good at identifying the four broad trends, which makes sure that we focus, go in depth and then execute in those areas. That part is clear cut and I think we're on the right path. But we are always looking at the evolving environment to see if we need to adapt our approach to these trends or examine new frontiers."[17]

He also highlighted that, while the investment themes are clear, there is still a need to work with different platforms to make sure there is no duplication and, on the flipside, to maximise potential synergies.

"There could be one platform doing private debt, one platform doing early-stage VC, one platform doing venture debt – all of us may be seeing the same company at different stages of its lifecycle. If we can connect the dots, that's when we can be most powerful; that is the strength of what Dilhan calls the Temasek Operating System. Being able to bring everything together and offer options is what differentiates us from others."

He cites a few examples of this operating system at work. "In the last few years, there have been five companies that Vertex has invested in that we've gone into at a later stage. We were able to identify them early because of Vertex pointing them out as winners in their portfolio, which led to us tracking them.

"Similarly, there have been situations where we have gone to a company offering equity, but SeaTown's private debt arm said they could offer a debt solution instead. The company in question might find a combination of the two options attractive."

The ecosystem also adds value in other functional and basic ways. Sipahimalani recalls an incident when some early-stage companies Temasek invested in were hit by ransomware attacks.

"They didn't have the resources to deal with it. So, we got Istari[18] to parachute people in within 24 hours and hand-hold the CEO for the next two weeks to make sure everything was managed properly. Temasek as an investor has an ecosystem which can be tapped into for value beyond just the money that we bring to the table."[19]

This competitive advantage can make a difference in a world where investors are all starting to look the same. Said Dilhan: "We figured that the colour of our money is no different from that of anyone else's. So, we have to bring something more to the table when we invest.

That means building up new capabilities which are relevant for all our portfolio companies – what we call the horizontals. Which is why we have increased our exposure to AI and blockchain. We have access to 3,000 cyber professionals from around the world that we can bring to our companies when they need it, together with their digital capabilities."[20]

MANAGING RISK

While early-stage investments carry more risk, these have the potential to provide outsized returns. This risk is something Temasek is prepared to accept, in a calibrated manner, said Ravi Lambah, Temasek's Head of India and Head, Strategic Initiatives. "In the past, we were less competitive than other investors because many would show up and submit term sheets within a week or so and close the investment within four to five weeks. We organised our processes to be nimble and have been able to carefully take advantage of this opportunity in early-growth investments. Since early-stage investing is inherently riskier, we have instituted some internal controls. For instance, these early-stage investments cannot exceed 6% of Temasek's portfolio value, as per the limits set by our Board.

"It's possible that many of these investments don't provide us a return, and early-stage investing requires us to accept that outcome. But to continue with such investments, we have to be clear that many of them need to break out and pay back a multiple of our aggregate investment made in the entire portfolio of our early-stage companies. The ones that have not worked out or struggle, we continue to work with other stakeholders to manage our exit."[21]

In late 2022, Temasek wrote off an early-stage tech investment that attracted much scrutiny and attention in the public eye. FTX, a cryptocurrency exchange headquartered in the Bahamas, filed for bankruptcy in November after a run on customer deposits exposed a US$8 billion hole in its accounts. Its founder Sam Bankman-Fried has since been convicted and sentenced for misappropriating billions of dollars of customer funds deposited with FTX and defrauding investors in FTX.[22]

Contrary to popular misconception at the time, Temasek was not investing in cryptocurrencies. In a statement, Temasek said the thesis for its investment in FTX was to invest in a leading digital asset exchange which would provide it with "protocol agnostic and market neutral exposure to crypto markets with a fee income model and no trading or balance sheet risk".[23]

Temasek had invested US$210 million for a minority stake of ~1% in FTX International and invested US$65 million for a minority stake of ~1.5% in FTX US, across two funding rounds from October 2021 to January 2022. It was one of the exchange's largest external investors, which also included big names like Sequoia Capital and Canada's Ontario Teachers' Pension Plan.

The cost of Temasek's investment in FTX was 0.09% of its net portfolio value of S$403 billion, as at 31 March 2022. Due to the impact on its reputation, Temasek swiftly conducted an independent review of the investment.

In a statement, Temasek Chairman Lim Boon Heng said: "Although there was no misconduct by the investment team in reaching their investment recommendation, the investment team and senior management, who are ultimately responsible for investment decisions made, took collective accountability and had their compensation reduced."[24]

Temasek also decided to review its internal processes. Chief Financial Officer Png Chin Yee said: "We will use this experience to further strengthen our approach on reviewing the governance, management and controls of a company based on the nature of the business, whether it is an early-stage or mature company. This is especially so if the company is growing rapidly."[25]

Temasek also reiterated that it does not intend to invest in cryptocurrencies – FTX was an exchange – and will also be circumspect when considering new investments in the blockchain space.

However, it accepts that there will always be risks in early-stage investments which, at a portfolio level, have generated good returns for the company, with internal rate of returns in the mid-teens over the last decade – higher than the industry averages.[26]

CHAPTER 8

A Tempest Unforeseen

As it was with Ho Ching, Dilhan recognised that people and relationships have always been the bedrock of Temasek's success. The T2030 strategy expanded on this spirit by emphasising not only financial capital, but also human and social capital.

Said Dilhan: "I believe every successful organisation has to be a networked organisation. The reason why Temasek created all these investment entities is so that we can be a networked organisation and be able to leverage the intellectual capacities within the people we partner with."[1]

Ho Ching put it succinctly: "People prefer to do business with friends; and friends will look out for you and your investments."[2]

Friends also help you in other intangible ways, as Temasek would find out in early 2020 when battling the deadly and fast-spreading SARS-CoV-2 virus. The company's strong relationships, nurtured over the years, would pay priceless dividends.

Its intrinsic roles as institution, investor and steward would also take on added resonance as the COVID-19 pandemic caused chaos and death, shutting down most of the world, including Singapore.

Temasek rose to the challenge, mobilising its staff, deploying capital from funds it had been setting aside from prior years' returns for its community initiatives, and came up with innovative solutions to address this massive and unprecedented global crisis.

Ng Boon Heong, who took over as CEO of Temasek Foundation (TF) in April 2020 just when COVID-19 hit, said: "I feel we were honestly operating as a trusted steward not because we are a Singapore company, but a global investment company. And, therefore, we are stewards of wherever we go as well."[3]

Cheo Hock Kuan added: "COVID-19 gave us the opportunity to show what Temasek will do and can do, because what we did wasn't prompted by the Government or directed by the Government. Everything originated purely from Temasek."[4]

"We were clear from the beginning that we were dealing with an exponential challenge – every day was one day more for the virus to multiply and continue its spread in the community. Not only did we need to respond to immediate needs, we also had to anticipate future needs," said Dilhan. "No one is safe until everyone is safe."[5]

Another thing that stood Temasek in good stead was its highly qualified staff and its early business focus on healthcare and the life sciences.

Said Ho Ching: "Already in 2008, we had hired people like Fidah Alsagoff because we wanted to go into the biomedical sector and deepen our domain expertise there. With these hires, we identified trends like infectious diseases and longer lifespans, and started trading globally and working with players in these fields.

"So, when COVID-19 hit, we already knew the players well and could link them to the Government."[6] One of Temasek's investee companies, for example, is BioNTech, which developed a coronavirus vaccine together with Pfizer.

Dr Alsagoff[7], a trained medical doctor, is Vice Chairman of Life Sciences (Global Partnerships) at Temasek. During the pandemic, he was effectively the chief of staff of Temasek's COVID-19 taskforce. In the early days, when it was every man for himself, he remembered how countries were competing for supplies. Singapore, as a small nation, had very little bargaining power on the world stage.

"But Temasek is not a country. We are a shareholder and investor with strong business relationships and the importance of those relationships over the years really came to the fore during COVID-19.

"For example, we'd been a Thermo Fisher[8] investor since 2010. So, at the beginning when we needed test kits, we called them. We called the CEO and he said they would always provide for Singapore. Part of this is due to our Economic Development Board who has always treated them well; and they manufacture here. Part of it is also because we've been shareholders and we have a relationship."[9]

During the active period of the pandemic, which lasted almost three years, Temasek rallied its ecosystem. This included its staff, TPCs and TF, working with Singapore and foreign governments, as well as non-governmental organisations.

More than 450 Temasek employees – half the company's staff strength – took part in the relief efforts, together with the whole of TF. They focused on five areas: Testing & Diagnostics; Containment & Contact Tracing; Care & Treatment; Protection & Prevention; and Enablement.

Said Woon Saet Nyoon[10], TF's Head of Community Networks & Partnerships: "This was beyond anybody's fight alone. Temasek had strengths in terms of their network and analytical skills. And with Temasek Life Sciences Laboratory, they had that medical and scientific knowledge. We at Temasek Foundation had the knowledge of application and what would work for the community. That was our strength."[11]

In 2022, the Singapore Government acknowledged the pandemic relief efforts of Temasek Holdings, Temasek International and Temasek Foundation by presenting each organisation a President's Certificate of Commendation as part of the National Awards (COVID-19).[12]

In its White Paper on Singapore's Response to COVID-19, it said: "Private sector partners like Temasek were indispensable sources of support during COVID-19. Learning from the experience of COVID-19, the Government will more proactively partner the private sector to identify gaps in our resilience plans and develop responses to address these gaps, by tapping on their capabilities and global supply chain connections."[13]

2020

THE COVID-19 PANDEMIC: "HOW MUCH IS A LIFE WORTH?"

The pandemic began in Wuhan, China, in December 2019. A month later, on 23 January 2020, Singapore confirmed its first case of the virus from a man who had arrived from Wuhan. It was clear that this was no ordinary virus and it had no respect for borders.

On 27 January, the third day of the Lunar New Year, Ho Ching called an emergency meeting of Senior Managing Directors. Fidah Alsagoff was also present. "I think I was there because it's a public health issue and I'm the only public health-trained person in Temasek. I had also been covering the company's Business Continuity Planning (BCP) for the past few years so, on both fronts, I guess it was natural for me to be there."[14]

The immediate concern at the time was supporting Temasek's staff in China, which was in the grip of the disease. "Shanghai and Beijing were under lockdown. Our staff were scared and we had to keep their spirits high. We also tried to make sure they had enough supplies. Sanitisers, in particular, were in short supply," he said.

Temasek had a stake in Jiahui International Hospital, which was located in Shanghai[15], and the hospital offered itself as a base for Temasek to support its staff in the city. GenZero CEO Frederick Teo, who was part of Temasek's BCP team at the time, recalls: "We leveraged the power of our networks and our hospital investments. We organised our staff and those of our TPCs into WeChat groups. They could write in and get support from a medical coordinator and hospital staff, and have dedicated access to the hospital. And then, of course, Fidah was very active in terms of sourcing medical care equipment."[16]

This ability to procure supplies and move nimbly on a large scale would also come into play in April 2021 when COVID-19 was spreading quickly in India. The death toll was rising at an alarming rate and hospitals were overwhelmed.

Said Alsagoff: "We were hearing reports that our staff were losing their family members. They were scared. If they went to hospital, they could get COVID-19. But if they stayed home and got into a respiratory crisis, they could die.

"So, we decided to send over pulse oximeters – I think we're the largest aggregator of oximeters in Singapore – and oxygen concentrators because we had stock. We shipped them within 24 hours and told our staff if they felt uncomfortable but the oximeter reading was normal, to stay put. But if the reading dropped below a certain point, they were to use the oxygen concentrator. If it remained low, they had to go to hospital because the chance of dying at home would then be significant.

"I remember calling them and they were scared. But they held it together and also created a logistics chain. Just as it was in Shanghai, our hospital investments in India helped look after our people and TPC staff.

"We didn't lose a single employee.[17] But without the concentrators, there might have been a few deaths. Till today, their bond with Temasek goes very deep and you understand why. We went the extra mile for this and that really was a very special moment for me. But she never says anything."[18]

"She" is Ho Ching and Alsagoff was referring to her not taking credit for her foresight in insisting on a stockpile of oxygen concentrators a year earlier, when there was strong resistance to the idea. Temasek had had a vigorous debate around ordering them for staff BCP purposes because of their hefty cost.

Alsagoff said: "They cost about S$500 each and some people were saying, this is Singapore and we don't need them because staff can be treated in hospital. We also had to think about paying for warehouse storage because they were bulky items. It was suggested we could buy 100 pieces rather than one for every employee."

Shaun Seow, Temasek's Head of Community Stewardship, who oversaw the Temasek Community Fund from which the COVID-19 monies were being disbursed, recalled a suggestion to pace the purchases, rather than buying all the concentrators at one go.

"At the time, we were trying to spread things out and someone recommended not shipping them to our overseas offices. Then, Ho Ching asked, 'How much is a life worth?' Now, that was a wakeup call for all of us. After those very sobering words, we all began to understand there's a much bigger stake here, that we really should be thinking about lives before money."[19]

"I remember that conversation," said Alsagoff. "I'll never forget it. 'Is it S$500,000? Is it a million? To me, it's more than a million, and if the total for this bill is S$100,000 or S$200,000, what do you think the answer should be?' We ordered the concentrators."[20] ■

Temasek and Temasek Foundation played a strong supporting role in COVID-19 efforts back home. Early on, Ho Ching had anticipated the need for more medical facilities, which led to Temasek spearheading the set-up of Singapore's first Community Care Facility (CCF) at Singapore Expo, the country's largest convention centre and exhibition venue.

Said Juliet Teo: "She was probably thinking, let's not deal with the now because that's what the Government is trying to do. Instead, we should be thinking about what might happen three to five steps ahead."[21]

Ho Ching had been examining the COVID-19 infection numbers closely and knew that hospitals would soon be stretched to the limits. There was an urgent need to create extra facilities. "She was almost clairvoyant about the exponential spike in numbers," said Seow.

One Sunday evening, Dilhan's wife shared an idea with him. Why not convert the Singapore Expo to a care facility? "I then called Wong Heang Fine, who was CEO of Surbana Jurong at the time," said Dilhan.

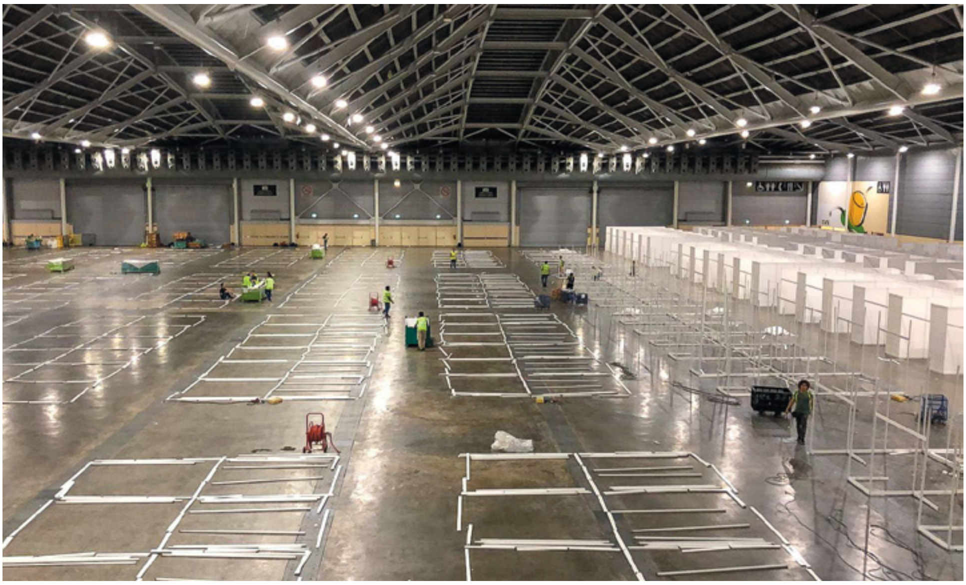
Ho Ching then convened Wong as well as then Group CEO of PSA International, Tan Chong Meng, for a lunch meeting over fishball noodles.

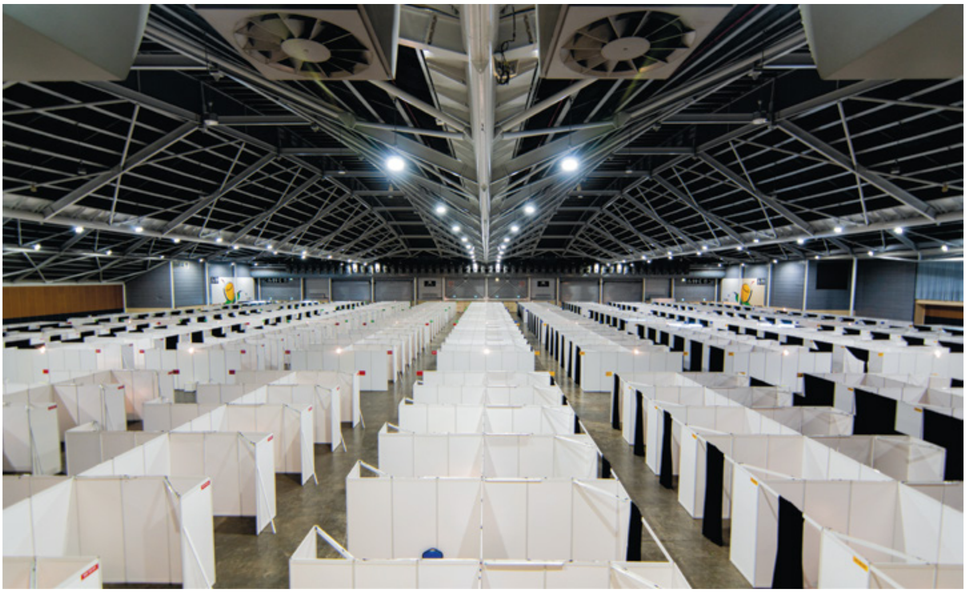
"That's where the Temasek portfolio, the Temasek ecosystem, really kicked in," said Frederick Teo. "Our relationships with our medical life sciences and healthcare guys, our real estate, Expo, Surbana Jurong and so on. There were things that we could do because we had that operating capability as an ecosystem."[22]

Wong recalled that while Expo was ideal due to its size and existing utilities, a lot more needed to be done to make it a healthcare facility. "For example, we needed more toilets and shower facilities because, traditionally, conference halls don't cater for people staying overnight. We also had to install a negative pressure ventilation system to extract the air through a very fine particle filter so that the virus could be filtered out of the hall. There were a lot of technical requirements. It's not so simple. We were able to do it because we had all the skill sets."

The first hall was set up in a mere six days and 8,400 beds were installed over the five weeks that followed.[23]

Wong remembered the deadline coming down to the wire, as the Government had just announced the Circuit Breaker[24] and the team was still putting the finishing touches to the facility. "I recall we had it ready by 5.30 p.m. and the first patient came in at 8 p.m. Chong Meng will





Singapore Expo was converted into a COVID-19 Care Facility. The first hall was set up in six days and 8,400 beds were installed over five weeks.
Sources: (top) Surbana Jurong and (above) Constellar

know. We had to call contractors in to help with quite a lot of things, including marking the floors."[25]

PSA International's Tan, who was eventually appointed to lead Temasek's CCF taskforce and co-chaired the Government's Emerging Stronger Taskforce, helped to ensure the delivery of critical supplies amid global supply chain disruptions. In 2022, Singapore awarded him a Meritorious Service Medal (COVID-19) for his work.[26]

He said: "I think Temasek showed a forward-looking and courageous attitude towards the nation, prioritising national interests. I also found, during the experience, that the TPCs themselves are also very capable and willing to work together, with excellent relationships at the lateral level."[27]

Another initiative that Temasek is remembered for is its nationwide #BYOBclean campaign, which started in March 2020 in collaboration with CapitaLand, People's Association, Singapore Post, as well as corporates, unions, universities and community organisations.

Over two weeks, some 600,000 households benefited from the campaign, showing up at 125 designated Community Clubs and CapitaLand malls with their own 500ml reusable containers to collect the zero-alcohol hand sanitiser[28] which Temasek had procured.

The operation went smoothly, a testament to the intense preparation and planning that had gone on behind the scenes.

First, there was the sourcing. Thanks to then Temasek Managing Director Tan Suan Swee, who was also on the board of Temasek Life Sciences Laboratory (TLL) at the time, the company had secured a concentrated disinfectant from South Africa, which would be diluted in Singapore – there was no point importing water. The sanitiser also had to be alcohol-free to remove any large-scale flammable risk.

Once it arrived in Singapore, there was the logistical challenge of diluting and storing it. Said Tan: "It so happens that I'm also on the board of a warehouse and logistics company called Singapore Storage and Warehouse (SSW), which is the designated warehouse for the nation's rice stockpile. I always thought SSW should play a role in a national emergency, so I roped them in at this early critical part of the campaign."[29]

The concentrate had to be diluted 100 times per litre. The question was how to do it safely and in a decentralised manner across different centres.

Over 450 Temasek employees – half the company's staff strength – took part in COVID-19 relief efforts, together with Temasek Foundation.

"We had to find a suitable system," said Tan. "On a visit to a factory, I explored the idea of using IBCs or intermediate bulk containers common in the warehousing and storage industry to do the dilution and the distribution.

"As a trained chemical engineer, I knew that it could be done because there's no chemical reaction involved in simple dilution with purified water. But I consulted scientists from TLL to see how we could use tap water and they suggested doing tests on the tap water for bacterial contamination before we used it."

Ng Boon Heong then wondered how to package the sanitiser for public distribution, seeing as bottles and dispensers were in short supply; and what the right quantity per person should be.

"I remember standing at the Cheers convenience store near my home and staring at the refrigerators. I realised most drink bottles were about 500ml, which meant most people would have 500ml bottles at home. Then we calculated how much sanitiser would be dispensed in one squirt and, if so, how long 500ml would last a family of four. We figured it would last three or four months."[30]

There was also the issue of getting enough volunteers to help with the pouring of the sanitiser at the distribution points. This was when staff from Temasek and its TPCs stepped up, with Dilhan being among the first to raise his hand.

Ng recalled: "He said, 'Boon Heong, I don't want a photo op. I want to be there to pour the hand sanitiser.' He wanted to be hands-on, to roll up his sleeves."

All in, there were seven pilot trials before the exercise was launched. Said Tan: "We did a lot of system checks. Ho Ching went down personally to check and she gave on-the-spot advice. We were able to move and do it very quickly because SSW was on hand to rectify and modify equipment, if necessary."[31]

TF distributed the sanitiser to transport workers, migrant workers and frontline healthcare staff, including 79 nursing homes and hospices; 50 day rehabilitation and care centres; senior care centres, active ageing hubs, maintenance day care centres; and 160 senior activity centres.

A year later, it would launch a second sanitiser distribution, this time via customised vending machines located at Community Clubs and the Temasek Shophouse.

The idea to use vending machines was a Temasek innovation, first deployed in an earlier distribution exercise for face masks.[32]

INNOVATING IN A TIME OF CRISIS

While Temasek conducted many pandemic relief programmes in Singapore – including giving free oximeters, mouth wash and test kits to households – it is the distribution of face masks that most Singaporeans remember it for.

That is because over two years, TF distributed about 153 million free disposable and reusable masks[33] over seven nationwide exercises as part of its StayMasked campaign. TF also sent masks to voluntary welfare organisations, social service agencies and migrant worker dormitories, as well as frontline workers and the non-profit sector in general.

Lim Hock Chuan, TF's Head of Programmes, remembered the logistical challenge of getting masks to the whole country during lockdown – without encouraging queues and crowds, and without the need for thousands of volunteers: "How can we create a distribution method where people can come down any time they want, 24 hours a day, seven days a week, to minimise the forming of queues?"[34]

The answer? Vending machines, procured from China through Warburg Vending, Singapore's largest vending machine operator[35], to be placed at Community Centres and Clubs, Residents' Committee centres, bus interchanges and shopping malls.

But that only solved one part of the problem.

"We also had to think about how to identify the people collecting the masks, to ensure there was no double collection. Their names had to be checked against the National Registration Identity Card (NRIC) database, but the Government was not going to give that to us because we are a private company. Also, there were Personal Data Protection Act (PDPA)[36] concerns for us. We didn't want to store any data."

So, the team worked on a solution where the Immigration and Checkpoints Authority (ICA) would entrust the database to the Government Technology Agency or GovTech[37] instead.

"The vending machines would scan the identity cards of people collecting the masks and send the encrypted details over secure cloud to GovTech, which would conduct the necessary back-end checks. GovTech would then send the verification back to the machine to dispense the masks. The machines did not hold any identity records," Lim explained.[38]

To set up this system, the 2,000 machines first needed to be modified. "As part of the condition for purchase, we required the vendors to give us their source codes so that we could amend the program. Most of them refused, suggesting instead that we tell them what we needed and they would do the amendments. We didn't want that. In the end, we were lucky to find a vendor in Shenzhen who agreed."

For both the masks and sanitiser distribution exercises, Temasek and TF conducted several trials before they launched the programme nationwide.

"We did a few trials and stress tests; we even replaced the scanner because it was not sensitive enough. Yet, we made a big mistake on the first day of our very first exercise. We activated all 2,000 machines at the same time at 9 a.m. – and the system crashed.

"We took two hours to recover and learned a hard lesson about the nature of IT. The server couldn't cope with integrating everything at the

Staff from Temasek and its portfolio companies volunteered to dispense hand sanitiser to the public.

Temasek used vending machines to distribute masks as well as hand sanitiser.

same time. So, for subsequent exercises, we turned the machines on in batches from midnight and things were alright."

The machines, because they were efficient, secure and minimised human contact, were a huge success. Later, because Temasek owned the source codes, they would also be repurposed to dispense TraceTogether tokens[39] as well as test kits.

Today, the machines are owned by an operating entity of Temasek Trust, ready to be deployed should the need arise again.

Over time, Temasek Foundation would also distribute food, personal protection equipment (PPEs) and medicines beyond Singapore and to the region, largely through a collaboration between Temasek, Singapore Airlines and the World Food Programme.[40]

Benedict Cheong, then TF's Deputy CEO[41], recalled some 20,000 oxygen concentrators were delivered to India on five Boeing jets. "They were strapped into the seats with seat belts. Once they arrived, Tata Airlines[42] offered to deliver them to the provinces that needed the most help."[43]

Said Shaun Seow: "Some countries that never really knew us got to know of us through these donations, and friendships were made."

Alsagoff added: "Ultimately, it boils down to people and trust, to partnerships and alliances. We worked hand in hand together to develop innovations. I think COVID-19 pulled us together and helped us to learn about ourselves as an institution. It has been the highlight of my working life at Temasek. In a time of great uncertainty, we rode on the principles that we learnt here and pushed forward."[44]

To show solidarity with its portfolio companies and the wider community, Temasek also implemented salary restraint measures in 2020, channelling the funds towards wider community efforts to fight COVID-19. Temasek staff, management and Board also contributed S$3.2 million in support of COVID-19 initiatives, with the company matching donations dollar for dollar.

Temasek also distributed food and medical supplies beyond Singapore.
Source: Singapore Airlines

A DIFFERENT SIDE OF TEMASEK

While the distribution exercises were happening, Temasek also felt a strong need to keep the public informed with current and accurate safety information.

The early days of the pandemic, in particular, were a period of confusion and panic. People didn't know what kind of masks were most effective or how to wear them properly; they didn't know how to use oximeters; they didn't even know how the virus was transmitted.

Lena Goh, Temasek's Managing Director of Public Affairs, said: "People were looking to us for accurate information and, over time, they came to rely on us and trust us. I don't think I've read so many White Papers in my life. I learned everything about masks, sanitisers, oximeters and vaccines because it was important that we knew what we were saying and that we had verifiable facts behind us."[45]

The team even had a WhatsApp chat group set up with doctors from the country's vaccination team, so they could verify medical information before it was put out to the public. That, said Goh, was extremely helpful and was demonstrative of the teamwork and collaboration that went on behind the scenes.

Said Goh: "The nationwide community distribution exercises made a huge impact. But before they could even happen, a lot of work needed to take place upstream. For example, before we could decide on what kind of masks to procure, we had to do research, and we worked with A*STAR[46] and ST Engineering to do this. So, what we did was very much linked to the distribution exercises and obviously impactful when seen through a communications lens as well as a community one."

In the early days, before the masks were procured, Temasek disseminated information on how to make masks, alongside advice to stay home if ill and to practise social distancing. During the Circuit Breaker when people were stuck at home, it supported an initiative to rally a group of seamstresses to sew masks, including masks for children, which were hard to find. These masks were delivered to disadvantaged families and vulnerable groups as part of the Masks Sewn With Love[47] campaign.

"Temasek sponsored the packaging while Singapore Post sponsored the courier services. It was a true community effort. We also put out ads showing people how to sew their own masks. A*STAR added information on how to make a better-quality mask – like, which layer to put outside so the mask is waterproof and how to make ear loops. It was very educational, even for me. We worked with many agencies and community groups to enable this," she said.

As the pandemic wore on, clear and accurate information became even more critical amidst the rising flood of false and misleading news. Goh recalled late nights and lost weekends as the team pored over data and fact-checked every little detail.

Stephen Forshaw, who was heading Temasek's Public Affairs team during the pandemic[48], said: "I said to the team, 'I'm less concerned with how you do this or what it costs if you're being responsible. Work with the agencies you need to do this design work. The thing I care most about is accuracy. So, get it right. If you're in doubt, speak up. If you see something that's not right, speak up. Even if it's not your work, speak up.' We developed this really strong culture of challenging things that didn't look right. And the team did it, fearlessly, with strong collective support."[49]

As a result, there were no mistakes in any of the public information material – a remarkable achievement considering the volume, intensity and pace of work, as well as the constant evolution of data.

"The fact that there were no mistakes was a testament to the team's devotion to accuracy. We were aware that there are many people out there who would have wanted to poke at us, or to find the smallest little reason to give us grief," he added.

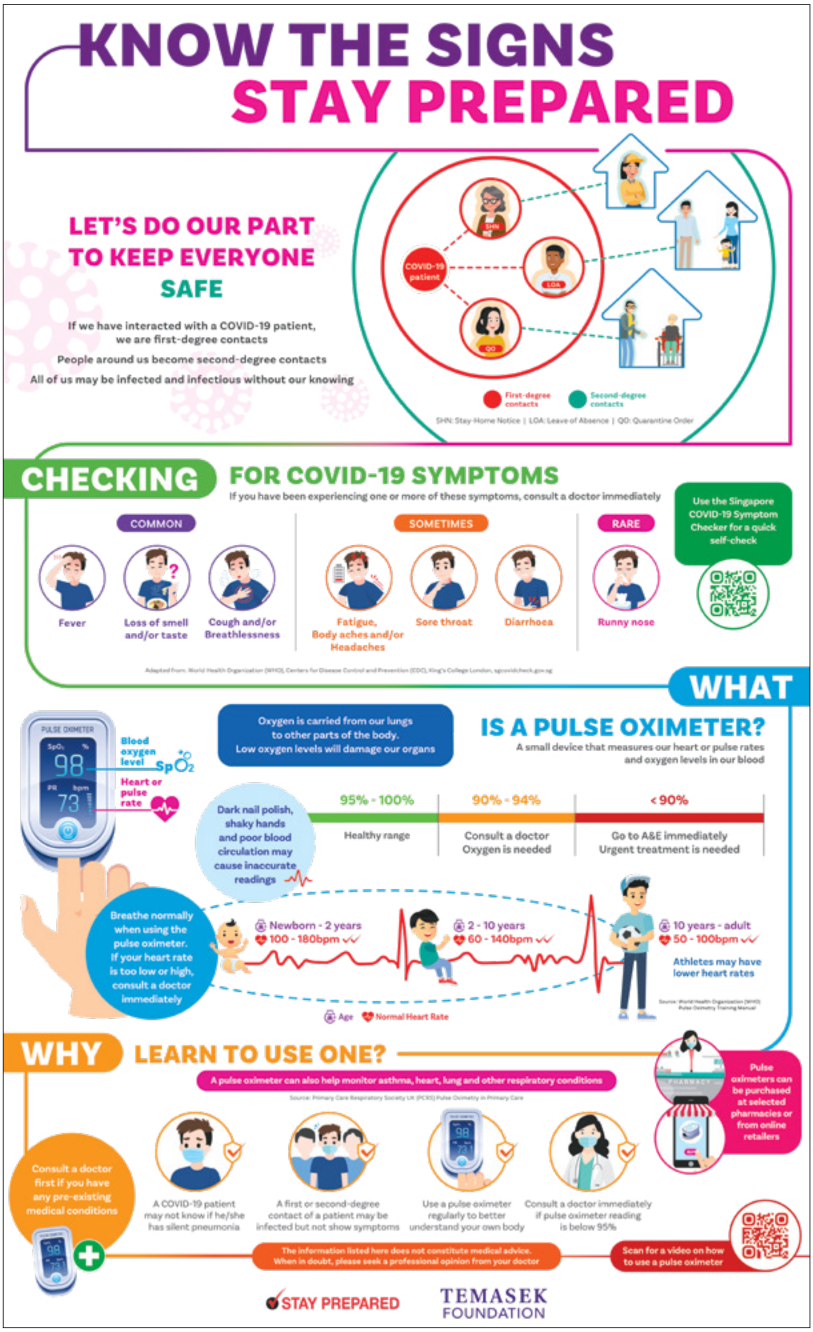
Instead, far from finding fault with Temasek, the public was grateful and appreciative of its pandemic relief efforts. In a 2021 brand perception survey, Temasek clocked its best-ever results across the board.

Goh felt the public saw a softer side of Temasek: "We hit the highest level in terms of positive awareness for our brand, largely due to our stewardship work. Under Community Initiatives, the needle had moved from a neutral 50% base to a positive 70%. Dinner conversations with my friends and family, which used to centre around questions about whether Temasek was investing their CPF money or advice on how to invest wisely, suddenly swung to discussions around the type of masks we were giving out, as well as questions on whether they were waterproof or came in different colours. The whole conversation had shifted."[50]

Forshaw added: "For the first time ever, Temasek's brand recognition was up there with DBS, Singapore Airlines and SMRT, all of which are consumer-facing brands. Our reputation and brand recognition had jumped 30 points on a scale to be up in the high 80s to early 90s, which is where these companies are. But we are not a consumer-facing brand and we don't sell things to people. It was our community work – the giving out of masks, oximeters and sanitisers – that contributed to the massive uptick in our brand rating."

For Goh, everything hit home when her 12-year-old son asked her about the reams of COVID-19 information she was checking. "I had all these White Papers which had been marked up, as well as calculations and charts. He was puzzled and he said, 'I thought you worked for an investment company.' I told him I did, but that there were more important things in life than money. It was more important that people are safe."

Her family was also her sounding board, with their roles evolving from asking her questions to serving as her test audience. "I would run the public messages past my son, my husband and my father before we



Temasek provided clear and accurate information about COVID-19 to the public, which was critical as the pandemic wore on.

put anything out, to see if they understood what we were saying. Pretty soon, they started telling me what I should be educating people on.

"I had my moment of pride when my son told me he was telling his schoolmates how to wear their masks. He even took one of the ads to school one day. He was so proud that his mother was doing something meaningful and wonderful. That, to me, was priceless."

INVESTING FOR A POST-COVID-19 FUTURE

While lives were on the line during the pandemic, so too were businesses, especially airlines, most of which were severely impacted by border closures. Some carriers in bigger countries could still operate domestically, but this was clearly not an option for Singapore Airlines (SIA).

Said Dilhan: "I remember in March 2020 when Choon Phong[51] came to tell me that the airline had to shut down operations. We were looking at a 96% drop in revenue from S$18 billion to less than a billion dollars a year. That was the forecast he showed us, the one-year forecast to FY2021. The support that we and other shareholders gave to SIA – because we knew that there was something valuable to be preserved – shows the strength of our balance sheet. And today, SIA is doing incredibly well because of that funding."[52]

At S$12 billion, it was Temasek's biggest transaction as a firm, recalled Forshaw. "Providing the funding for SIA when it was badly affected by COVID-19 was a defining decision and I have a lot of admiration for the fact that we did what we did, by ourselves and on our terms."[53]

2020

SINGAPORE AIRLINES: WEATHERING THE STORM

Pre-pandemic, SIA had been performing respectably, with strong core fundamentals. But when the world changed, it found itself in a tailspin through no fault of its own.

Like many other airlines around the world, it needed cash urgently. Unlike other airlines, it had the option of going to the Government – or to its majority shareholder, Temasek.

Stephen Forshaw remembered there were fewer than 10 senior management staff in the room that day deciding on SIA's fate. They included Ho Ching, Dilhan, Chia Song Hwee and Juliet Teo.

"The decision-making was very rapid, very 'we need to do this'," he said.[54]

Temasek was determined that SIA must continue to meet its sustainability targets and protect its premium quality well beyond the pandemic.

Said Dilhan: "Pre-COVID-19, SIA emitted 16.6 million tonnes of CO_2 because it's a medium-to-long haul airline. The airline was going to embark on a three-year fleet renewal programme, with its new fleet 25% to 30% more fuel-efficient than the older planes that were to be replaced. That's 90 planes replacing the existing fleet, bringing the average age of the fleet down to five years and making sure that we can be as fuel-efficient as we can be."[55]

It was vital, therefore, that SIA continue with this programme, even during the pandemic.

Another concern was the effect cost-cutting might have on the airline's ability to rebound and its premium reputation. The airline had learned from SARS in 2003 that when things rebound, they rebound very quickly – a lesson not lost on Forshaw, who was working at SIA at the time. The airline needed to be able to do the same once the COVID-19 pandemic eased, while also maintaining its status as a top-quality airline.

Temasek, therefore, worked closely with SIA to continue the fleet renewal exercise as well as to minimise the impact on the labour force by redeploying crew where possible.

"We very quickly set the terms of the transaction. I think that was probably done within 24 hours or so, with the teams coming together and then making the announcement to SGX that Temasek would underwrite the rights issue to shareholders," said Forshaw.

On 26 March 2020, SIA announced that it would issue new shares to current shareholders to raise about S$5.3 billion; as well as mandatory convertible bonds (MCBs) to raise up to S$9.7 billion.

While Temasek was prepared to underwrite the new shares, issued at a deeply discounted price of S$3.00 each, that proved unnecessary as they were substantially oversubscribed, indicating that shareholders still believed in the company. However, Temasek had to take up about 95% of the MCBs, which were received with less public enthusiasm.

This eased the pressure on SIA which managed to raise additional funding on the back of the equity, adding up to S$23.5 billion.[56]

Said Juliet Teo: "To give credit to SIA, they took the chance to rethink, relook and re-engineer their processes and found new ways to do things. In so doing, they reduced operating expenses from over S$400 million at the start to about S$100 million before borders reopened. They did the right things."

She noted that the Government also extended invaluable support to the aviation sector in Singapore; for example, in the form of the OneAviation Resilience Package[57] which SIA also benefited from. "So, I think it was a multi-faceted approach that saw SIA to where it is today."[58] ■

More than 1,400 staff members from Singapore Airlines volunteered to take on frontline roles to support Singapore's fight against COVID-19.
Source: Singapore Airlines

The lifeline extended to SIA paid off. Singapore launched vaccinated travel lanes in September 2021 and fully reopened its borders in April 2022, just as the rest of the world was easing air travel restrictions. At each juncture, the airline was among the first to ramp up flights. With enough operational aircraft and crew on payroll, it was faster than its competitors when it came to restoring manpower and capacity.

In 2023, it reported its highest net profit in its 76-year history for FY2022/23. Group operating profit came in at a record S$2.69 billion, reversing the S$610 million loss in FY2021/22. Operating profit for SIA was a record S$2.6 billion, an increase of S$2.71 billion from the previous financial year.[59]

Apart from ensuring swift and efficient recovery operations, the financial buffer also had positive business ramifications beyond what the Temasek management could imagine back in the dark days of 2020.

In 2022, it acquired a one-quarter stake in the Air India group[60], giving it a strong foothold in the world's third-largest aviation market. Said Dilhan: "SIA has not sat still. The most important and interesting thing that has come about is the deal with Tata Sons on Air India, because we now have the possibility of a second air hub for SIA in a world that continues to have a form of globalisation that benefits countries."[61]

SIA Group has also stayed the course on its re-fleeting objectives, possessing one of the youngest and most fuel-efficient fleets in the business, with an average age of six years and nine months, compared to the industry average of 15 years and eight months.[62]

Apart from the airline, during the same period, Temasek subsidiary Heliconia Capital Management also made an investment forged in the unusual circumstances fired up by the pandemic.

At the end of 2020, it offered Pacific International Lines (PIL), a distressed Singapore shipping firm, a US$112 million credit facility to pay its vendors and meet other operating cash requirements. In addition, another US$488 million was committed, via a mix of equity and debt investment, to "repay critical vendors and recalibrate PIL's capital structure to sustainable levels".[63]

Juliet Teo, who was tasked to help Heliconia with restructuring the company, together with Tan Chong Lee[64], said: "We knew that this would be an investment for the long haul as the shipping business is capital-intensive and long-term cyclical in nature. So, Heliconia was prepared to wait it out for up to 10 years."

It didn't need to. In 2021, PIL posted its first profit in three years when freight rates shot up due to pandemic disruptions and the rise of e-commerce, taking in US$2.6 billion in earnings on a turnover of US$5.8 billion. In 2022, it posted US$3 billion in earnings.[65]

Said Dilhan: "Instead of taking a dividend from PIL, which is what a regular private equity fund would do when there is a turnaround, Heliconia suggested that the company use the unexpected profits to repay all outstanding debts in full with interest and restore the salaries and pay cuts taken by management and staff during the pandemic."

Its bondholders, who had earlier agreed to a 50% haircut because the company was in dire straits, were repaid the original value in full. "This gesture by the company was an unexpected surprise and, together with the payment in full of the borrowings, engendered much goodwill for the company from the financial community," Dilhan added.

PIL also reviewed its compensation framework to attract top talent at senior and mid-levels.

"Only then was a capital-reduction exercise undertaken to pay Heliconia. After the payout, PIL still had over US$1 billion in cash," said Dilhan.

To him, this was a good example of how Temasek and its companies could step in at moments critical to national interest and yet have a good commercial outcome.

"The returns were not just financial, but also in terms of the transformation and professionalisation of a family enterprise. It was about doing the right thing by employees, suppliers, financiers and bond investors," he added.

CHAPTER 9

A Whole New World

LIM MING PEY joined Temasek in 1999 right after university, making her one of the longest-serving employees in the company. Today, as the company's Chief of Staff, Deputy CCO, and Managing Director, Strategy Office, she has seen the evolution of Temasek over the decades and witnessed its transformation with every twist and turn in its journey.

Still, she said, it was only when she was helping to summarise the firm's achievements over the past decade, as part of the development of the new T2030 strategy, that she truly grasped the meaning of Temasek's purpose statement, *So Every Generation Prospers*.

"That was the moment when I felt the generational baton had been passed. When I fully appreciated what the previous leadership had been doing over the years and how it helped get Temasek to where it is today.

"And now, as I engage and work with our employees on our purpose and strategies and explain why we do what we do… hopefully some of these younger colleagues will, at the end of the T2030 journey, say 'I now know why they did all that and I thank them for it', just like we thanked the previous generation for all that they had done."[1]

Landing on the definition of Temasek's purpose was a crucial component of the T2030 strategy. Which is why the organisation took a year to engage its staff in what it called the Purpose Conversation.

Said Dilhan: "Purpose defines who we are and, most importantly, why we do the things we do. Being a purpose-driven organisation and having a clear purpose will drive us to achieve our T2030 objectives and give the impetus for the decisions – which will encompass trade-offs – that we will have to make. Purpose gives life to our culture, underpinned by our values and exhibited by our behaviours."[2]

Almost 70% of Temasek's employees across the organisation gave their views, either directly or via online channels. There were more than 750 survey responses, as well as many sessions, workshops and interviews.

In 2021, the Temasek Purpose statement was finalised: The company exists "so every generation prospers". And the four actions that undergird this Purpose are building with courage, investing in human potential, catalysing solutions, and growing for generations.

During the Purpose exercise, Stephen Forshaw remembered a colleague's querulous comment: "You mean after all these years, we don't know why we exist and what our purpose is?"

He replied that he saw it from a different angle – that perhaps, over the years, Temasek's greatest challenge was having too many answers to the question about why it exists. Everyone saw it differently.

"It's not that we didn't know our purpose – it may have been we had too many. And what we lacked was a single, unifying thread that brings together all of what we do, that allows someone in Finance or Public Affairs or the Investment Group to get up in the morning and, when asked why he or she was going to work, to answer definitively, 'I contribute to that'."[3]

Said Lim: "The future is going to be so complex. There won't be a manual that says, 'If A, do B'. All we have is a compass, our Purpose, to figure out solutions. So, if we are faced with any issues or challenges, we should look to our Purpose and MERITT values[4] and ask ourselves what we can do that will best serve Temasek, even if the answers are not clear."

This sense of purpose becomes even more important in an increasingly complex and potentially multi-polar world; and as Temasek prepares to evolve and transform itself again.

Our Purpose

WHY WE DO WHAT WE DO

So every *Generation* prospers

We Invest in Human Potential | We Catalyse Solutions | We Build with Courage | We Grow for Generations

Our Charter

WHO WE ARE & WHAT WE DO

A Global Investment Company Rooted in Singapore
Delivering Sustainable Returns over the Long Term
Doing Things Today with Tomorrow in Mind

Our T2030 Strategy

HOW WE WILL GET THERE

Resilient & Forward-Looking Portfolio	Sustainability at the Core	Temasek Operating System	Organisation, Talent & Capabilities

Our MERITT Values

HOW WE ACT

Meritocracy | Excellence | Respect | Integrity | Teamwork | Trust

What Purpose Means to Me

REFLECTIONS FROM TEMASEK STAFF

"What we do transcends generations and centres around ensuring a better tomorrow – not just for Temasek, but our communities and their people as well."

Choo Ya Li

Assistant Vice President, Finance (Financial Management)

"Prosperity helps build a foundation that you can keep moving forward on, providing some sort of a security blanket and resilience. As you think about the challenges and opportunities of the world going forward, one thing that we should strive for – at least what I'm striving for – is making sure that we all prosper. It's something that I think of for my family and for generations ahead as well."

Andrew Leo

Director, Special Projects, Temasek Trust

"The word 'every' stands out for me because it tells a story around being inclusive. Being inclusive isn't just a statement; the action is important. I had been volunteering before COVID-19, befriending elders in Chinatown and helping with food distributions. During COVID-19, I befriended the elderly who are living alone or who are lonely, and I had conversations with them. And I think that gives me a different perspective of the Purpose Statement, from a community lens."

Wendy Yeo

Director, Organisation & People (Business Partners)

“Prosperity, to me, goes beyond just financial wealth and includes things like health, wellness and other aspects as well. And it’s not about thinking here and now, but also beyond the current generation to include future generations going forward. I can’t say that I was a particularly purposeful person when I started at Temasek. But since then, I have had the privilege of meeting many like-minded colleagues across business units who are very motivated by a sense of purpose. And that has become the reason why I chose to stay.”

Kenny Tay

Assistant Vice President, Investment (Agri-Food)

“Although I’m originally from Australia, both sides of my family immigrated to the country in part to seek a better life for their children. Growing up, it was always made clear to me the luxury and privilege I had been afforded and as a result, a North Star for me has been a duty to contribute and give back to society, both professionally and personally. Therefore, one of the things that I really connect with in Temasek is the Purpose Statement and particularly when I see colleagues of all seniorities, from management to peers, espousing this same Purpose. This alignment for me is quite motivating. *So Every Generation Prospers* is something I can believe in. It’s something that is genuine because I believe it’s achievable.”

Aubrey Keller

Vice President, Emerging Technologies

"It's important for us to really have this Purpose as our leading North Star to guide our decisions, whether it is in terms of our investments or in terms of us uplifting the communities which we are operating in. *So Every Generation Prospers* is something which is really intrinsic and very dear to me and the team within Temasek itself. It's something which we see encompassing our actions on a day-to-day basis."

Alexander Koh

Assistant Vice President, Investment (Technology & Consumer)

"I enjoy being actively involved in the business-building process, working closely with management and thinking about various ways that we can bring the business to the next level. That allows me to feel that I'm contributing to a much bigger purpose. Hopefully my kid and the future generations to come will get to see the tangible impact of the projects and platforms that I'm involved in."

Jonathan Ng

Vice President, Portfolio Development

"The Purpose Statement is simple yet impactful, and it definitely conveys our desire to invest for the future. I'm very thankful for what I have today and I want to pay it forward. A simple guiding question that I always think of when I look at my work is, will the next generation thank me for what I do today?"

Teo Hui Keng

Director, Portfolio Development

"The Purpose gives us that common language across Temasek as we innovate and as we transform. To me, it means to be at my personal best, not just as a professional but outside of Temasek – as a daughter, a wife, a mother and a global citizen – as I love my family and as I give back to the communities in the world at large."

Sejal Nair

Director, Investment (Investment Group Office)

"We play a critical role as a beacon of best practices and trend-thinking in the Singapore corporate scene. We're a first-mover on many important things such as climate change, sustainability and agri-tech."

Amil Shah

Joint Head, Public Market Investment Strategies

"To a certain extent, I feel that my professional and personal purposes are intertwined because of the very nature of my work in sustainability reporting. In my personal life, I try to make conscious choices to reduce waste, add greenery to my living spaces and recycle, where possible. As we inch closer to our climate goals in 2030 and 2050, I hope that our collective efforts today will leave our descendants or the next generations in a better position than the one we are living in right now; so that they can benefit from the seeds that we are planting today and enjoy a better future."

Ryan Tong

Vice President, Investment Services (Sustainability Reporting)

To Ho Ching, the Purpose was a logical culmination of Temasek's periodic review of its values over the years, through its past Charter exercises. The 2012 Temasek Charter, for example, already mentioned the advancement of communities "across generations".

She said: "The surprising and yet satisfying part is that the firm, collectively, through years of working, thinking and rethinking together about Temasek's place in the future, arrived at the conclusion that the purpose of Temasek is *So Every Generation Prospers*. This embodies the idea of delivering sustainable returns by adding and not destroying value. It also embodies the idea of doing well, doing right and doing good."

SINGAPORE CORE, GLOBAL MINDSET

Today, as a global investor, Temasek is thinking deeply about the systems it needs to manage its expanding international reach.

In its 50-year history, Temasek has operated as an active global investor only in the last decade or so. In its first 20 years, it focused on making its TPCs relevant globally. In the 20 years after that, it focused on opening offices around the world and putting senior people on the ground to build them.

It was only in the last 10 years or so that it started functioning as a true global entity, with overseas offices and a worldwide presence.

With that wide global reach comes challenges, not least of which is the ability to move swiftly while respecting institutionalised processes.

Chia Song Hwee acknowledges the challenge. "The market teams have become matured and are very competent. And these days, the deals are being done in the countries, not in Singapore."[5] He recognises a need to realign the organisation to this new reality while also ensuring the necessary checks and balances are still kept in place.

He recalls an episode in 2013 when Temasek was considering investing in Tianhe Chemicals Group, a Chinese lubricants additive producer. At the time, the company had attracted a US$300 million investment from one of Asia's top private equity firms, Morgan Stanley Private Equity Asia, and was seeking a listing on the Hong Kong Stock

Exchange.[6] It had also appointed Deloitte Touche Tohmatsu as its auditor. On paper, everything looked great and it was a hot pick.

"At that time, I was Co-Head of China. The business profile and the superior margin of the company made it very attractive. But, during the process, the China market team became uncomfortable when they did their due diligence checks. A few things didn't add up," he said.[7]

While the China market team suggested not going ahead with the deal, the sector team wanted to proceed, pegging their decision on the big names that were underwriting the deal. So, they went to Chia to arbitrate.

"I decided that our own due diligence and expertise – the investigations and insights by our own team and not others – was more important. So, we didn't do the deal. After Tianhe launched its IPO in 2014, its share price went up 20% within a week and I got an email from the sector team telling me we could have made money already. But, of course, soon after, Tianhe blew up."

In 2017, Hong Kong's Securities and Futures Commission, an independent statutory body that regulates the territory's securities and futures markets, suspended trading of Tianhe Chemicals shares. In 2020, the shares were delisted by the Stock Exchange of Hong Kong. Investigations revealed that Tianhe had overstated its revenue by more than RMB 6.7 billion (S$1.05 billion) for the financial years from 2011 to 2013, just before its IPO.[8]

Said Chia: "The lesson here is that nothing can be a substitute for proper due diligence on the ground. Having a presence in the places where we invest is really, really important. At the same time, having a two-key system, where both sector and market are involved in deciding on a transaction, does have its benefits when both sides can present their views constructively. They may disagree but if they can land on a decision, that's great. If not, then it goes to the senior management to make the call."

Nagi Hamiyeh said this debate is always a work in progress: "We are now in a position where we can discuss if we should decentralise and give geographies their own access to balance sheets. But then, we might lose the Singapore DNA as well as the same discipline and rigour across the board. We keep debating this. Are we the nimblest people?

Absolutely not. We're not a hedge fund. We'll never be one and we should never be one. But at the same time, for the right deals, as long as due diligence is done and we tick all the boxes, I think we can move within a few weeks, which is good enough."[9]

For CFO Png Chin Yee, it's about striking the right balance. "It's important to create and be very thoughtful about the role of the Singapore office in the context of global teams, and that's something that I think we are paying a lot of attention to."[10]

In recent years, Temasek has stepped up efforts to rotate staff to global offices. "Singapore and Singaporeans have got an important role to play because we are at the heart of Temasek. So, we need to make sure that we have the right experience, the right exposure and the right understanding of the world. That's a balance that we have, which is why we encourage rotation – you go out there, take a look, see what the world looks like and then you come back, and you can add value to us," she explained.

Said Dilhan, outlining his vision for the future Temasek core: "You cannot be a global investor with a Singapore-centric mindset because the challenges on the ground in different countries are very different when you're there.

"We have to have a Singapore core with a global mindset, and this is only possible if our people have collective global experience. I would like our regional offices to be run by people from that region but with our DNA. That means I also need Singaporeans to be there, to be in partnership with our folks overseas so that we can share and embody the same values, culture and behaviours."[11]

THE FUTURE OF TEMASEK

As Temasek commemorates its 50th anniversary, it can be sure of only one thing – more change and challenges ahead as the world will only get more complex, not less. But, armed with a collective Purpose and a deep understanding of its core duties as an investor, institution and steward, it stands ready.

"As an organisation for the future, we have to be a continuous-learning organisation. We must be open-minded to the fact that we have to deal with shifting paradigms and how we need to make our own way in this fragmented world with these shifting paradigms," said Dilhan.

Considering the seismic changes in the external environment, as well as the T2030 Strategy and the Purpose exercise within the organisation, it was timely to update the Charter, which was launched in June 2024 on Temasek's 50th anniversary.

He said: "The 2024 Charter does not represent a radical change. It reflects our multi-generational journey, encapsulating how we see ourselves going forward, but also taking into account all our experiences since 1974 when Temasek was established. We're not forgetting the past when looking towards a new future. Instead, we recognise that our history has been an evolutionary process."

The Charter harks back to Temasek's core principle of changing and reinventing itself every few years, which was articulated by Ho Ching several years ago.

When asked what she felt were the key inflexion points in Temasek's history, Ho Ching replied: "There's no one inflexion point because we started off saying we need to remain relevant and must not be afraid of change.

"We want to build an organisation which is comfortable with change so, as I've said many times over, every few years we must be a different organisation. If not, we would have failed. People must get used to the idea that we always keep moving. At the same time, they must also feel they are valued."[12]

In 2019, in her keynote address to the St Gallen Symposium Forum in Singapore, she almost foreshadowed the crossroads Temasek is facing today, by speaking about the importance of human capital for a small population with global connections.

The Temasek Charter
2024

Temasek is a global investment company rooted in Singapore.
Operating on commercial principles,
we deliver sustainable returns over the long term.

As stewards of our assets,
we engage our portfolio companies
to enhance shareholder value and advocate good governance practices.
Together, we contribute to the uplifting of the communities
in which we operate.

We invest in human potential,
build with courage, and catalyse solutions,
with sustainability at the core of what we do.

In all these, we seek to Do Well, Do Right, and Do Good.
Doing things today with tomorrow in mind,
So Every Generation Prospers.

In her speech, she recalled what Singapore's founding pioneer Dr Goh Keng Swee had said in the 1970s – that population size is not the key driver for economic development. Otherwise, China and India would not have languished in the past few centuries. He had also noted that natural resources were not a key driver either. Otherwise, Africa would have been the most advanced continent.

Dr Goh had concluded that the key to progress was human capital. Ho Ching then built upon that thinking by drawing a colourful analogy for success, in the form of a hawker expanding her business.

"At the simplest level, a hawker can invest in some basic equipment and start a business by herself. As her business grows, she may rope in family members, or hire employees and train them.

"When her business expands to several locations, she may need a central kitchen. She will also need systems and organisation to manage ingredients, recipes, supplies and delivery.

"To deliver quality consistently to multiple outlets, her business grows in complexity and function. This complexity requires human capital – people trained in different functions but, also as important, working together as a team.

"But human capital is more than just skills. It is also about individual and societal values. Do we work together as one team for the larger goal? Or do we push for selfish gains at the expense of others, and end up as a scrabbling, quarrelsome mess?

"A society makes progress when there is trust – this requires a fair and just system of norms and values among its members and institutions."[13]

Temasek may have started life as a hawker, back in the 1970s. But today, it is very much a bustling, state-of-the-art central kitchen, employing people from around the world of different skills and strengths, all united by a central Purpose.

As it moves ahead into the future, the key to its success depends, as Dr Goh said, on this human capital. It also hinges on whether its people can work together as a trusted team – to deliver consistent, if not excellent, quality meals that nourish, so that every generation prospers.

Epilogue

Dilhan Pillay Sandrasegara

Life is a journey which opens up pathways in the many facets of our life – personal, social, and professional.

I joined Temasek in September 2010 as Head of Portfolio Management and Co-Head of Singapore. It was a leap of faith; a mid-career switch which carried risks. I had then spent over 20 years as a lawyer in Singapore with a fulfilling career, especially in the prior 18 years in a law firm of which I was a member of the founding team. I loved my colleagues, my work, my clients. I was co-leading the firm with the best partner one could have.

This somewhat predictable and comfortable, perhaps even idyllic, state of affairs was disrupted by the persistence of Ho Ching, who spent almost three years persuading me that Temasek represented a far more interesting and rewarding future for me.

I didn't fully understand what Temasek was about. As a lawyer, I had represented it in a handful of M&A transactions and, in fact, I was on the opposite of it more often than representing it.

Singapore is my family's adopted home – my parents came to Singapore for their university education and stayed on. I was born in Kuala Lumpur, Malaysia, but I am a Singapore citizen and have lived here all my life. It has been good to me and to my family. And I felt that it was time to give back to the country.

There was a good reason for me to do this by joining Temasek. In late 2000, my law firm faced a significant crisis moment, one that was existential for the practice that I was part of. Temasek and some of its portfolio companies were amongst the first to give us support, which allowed us to rebuild the practice to what it continues to be today. That support from Temasek, coming through a phone call from Jimmy Phoon, and others, gave me and my colleagues hope and a future.

I intended to stay at Temasek for just three years, returning after that to my law firm to resume my practice. In fact, my former colleagues had kept my room intact, even after moving to their new premises a few years later. But over the years, I was given new roles at Temasek, with new horizons, and I kept putting off my return even though I came close to doing so at the end of 2017 after completing an almost two-year term in the US.

The truth is that I could not think of another organisation that excited or resonated with me more than Temasek. There were few reasons to leave but many more reasons to stay.

We all have dreams, aspirations, aims and goals – things that drive and motivate us. We all want to progress in life and make a difference. For most (if not all) of us at Temasek, the journey starts with it being an attractive place to work, where our skills, qualifications and interests are aligned with the needs of the organisation as we develop *careers*.

But for some, perhaps most, it becomes a *calling* when Temasek's purpose – embodied in its three roles of being an investor, a forward-looking institution and steward – converges with our own personal purpose.

To know where we are going, we must know where we have come from to get to where we are today.

This is even more important now as we are operating in a VUCA[1] world, in an era of persistent inflation, higher interest rates, geopolitical tensions and contestation, fragmentation and rising populism, and nationalism and protectionism.

I became CEO of Temasek International in April 2019. Within a year, we had our first global pandemic in over a century, the worst crisis the world had seen since World War II.

In October 2021, I succeeded Ho Ching as CEO of Temasek Holdings. Within a few months, Russia marched into Ukraine and "transitory" inflation became persistent inflation, reversing more than a decade of a benign business and investment world, with low inflation and low interest rates.

I cannot predict the future, but I believe we will continue to be in a VUCA environment for some years to come.

Climate change remains the existential challenge of this generation and future generations. Technology, including Generative AI, will bring about opportunities but will also impact the workplace and livelihoods. Social progress and national resilience will be tested from time to time.

In July 2019, my colleagues and I put together our Temasek 2030 or T2030 Strategy to take us through the decade ahead. It was an evolutionary extension of our Temasek 2020 Strategy which had guided us in the past decade.

T2020 was, in turn, built on the earlier T2010 directional goals, which had their roots in the history and ethos of Temasek since its founding in 1974.

This sense of purpose and continuity, seeded even in the early years, meant that successive management teams were always trying to figure out the path ahead. They were always trying to build a new Temasek that is not only fit for purpose, but also true to its larger responsibility as an investor and institution that carries the DNA of Singapore.

These Singapore values always serve the greater good, for the past as well as the present, but especially for future generations.

The four pillars of our strategy comprise building a resilient and forward-looking portfolio; embedding sustainability at the core of what we do; developing horizontal capabilities through our Temasek Operating System; and organisational development, talent and capabilities. These have been highlighted in the chapters of this book.

Undergirding these four pillars are three foundations. Firstly, we must continue to be a networked organisation – both internally and externally, leveraging our skills and capabilities and augmenting them with those of our partners and friends. We cannot believe, or pretend, that we have all the relevant capabilities needed to navigate the complex environment we operate in. We build strong relationships not just for our investment strategy, but also for knowledge, views and perspectives. We tap on these partners and friends for their expertise, wisdom and judgment. As someone once told me, "Knowledge is good, know-how is better, but know-who is best!"

Secondly, we operate in a multi-stakeholder world. Every company has a set of stakeholders, and not just shareholders. Therefore, we must ensure that our capital is catalytic not just in financial terms and outcomes, but also in human, social and natural terms.

We will ensure that our capital is catalytic by investing in innovation and growth, seeking good risk-adjusted returns, enhancing human potential not just in terms of our own organisation but also in developing and supporting programmes that build capabilities in Singapore and beyond, contributing to social progress and social resilience; and doing our part for a better planet.

And in all things, we will be guided by our Purpose, inculcated in our values, our culture, our actions and our behaviours. In his book, *Deep Purpose*, Professor Ranjay Gulati of the Harvard Business School, who advises us on our organisational development, sees purpose as an operating system for the entire organisation, as well as a compass to guide strategic decision-making. Research has shown that purpose-driven companies can develop a high performance culture and achieve superior operating and financial performance with better workforce satisfaction.

Defining our Purpose, therefore, is crucial because it is our compass in a complex world and future. It defines who we are, what we do and why we do the things we do. It explains Temasek in terms of our three roles – investor, institution and steward.

So, following the launch of our T2030 Strategy, we engaged in a year-long organisation-wide Purpose journey. Almost two-thirds of our employees participated in this engagement. In November 2021, at our virtual Temasek Connection[2], we unveiled our Temasek Purpose statement, *So Every Generation Prospers.*

Our Purpose encapsules four tenets:

Firstly, we build with courage. We are an investment firm, but we are actually more than that. We are owners and builders. That has always been part of our DNA. We are owners and builders of our long-term portfolio, continuously focusing on the transformation of our organisation and our portfolio, and extending this to our portfolio companies. We are also prepared to undertake the birth pangs of developing new organisations with capabilities needed for our portfolio and the marketplace. Our cybersecurity services companies, Ensign and Istari, are recent examples of this.

Secondly, we catalyse solutions. We have resources at Temasek and amongst our portfolio companies to solve problems, to delve into new areas and to optimise performance. For example, our AI Solutions team works with our portfolio companies to co-develop AI applied solutions for their workflows, products and services.

Thirdly, we grow with generations. This is our commitment to ensure that we continue to do well, do right and do good in all our roles of investor, institution and steward. We have the resources to achieve the aims of our shareholder and to do what we can for our other stakeholders, including the communities in which we operate.

Last but most importantly, we invest in human potential. This comes about directly and indirectly. As an investment house, we are primarily in the People business. We cannot do the things we do and do them well without the right talent and capabilities in place. Which is why we have a relentless focus on organisational development, talent and capabilities, developing and managing talent, giving our employees opportunities to broaden their exposures and even develop new skills unrelated to their jobs.

Our focus on building human capital also extends to the rest of the Temasek ecosystem – comprising our portfolio companies, partners and associates. We have formed a group to look at the transformation of the workforce in our Temasek portfolio companies, given the pace of technology adaptation and change, such as the impact of Industry 4.0 and Generative AI. In this, we work with partners and their unions, in the spirit of tripartism.

These initiatives enable our human capital – both in Temasek and the broader ecosystem – to possess collective competencies and experiences to deal with not just the road ahead, but also to form a view of the road around the corner. They help us move forward with clarity of thought, purpose and confidence.

George Bernard Shaw said, "Some people see things as they are and ask 'Why?'; I dream of things that never were and ask 'Why not?'" This has been the ethos of Temasek – always willing to go beyond today to address the issues of tomorrow.

My colleagues and I, the present generation of Temasek employees, guided by our Purpose, will build on the foundations laid for us and strengthen them for future generations of Temasek employees, just as prior generations have done for succeeding generations. We will sow the seeds for others to reap.

To whom much is given, much is expected. Temasek is no ordinary company; nor can it be. Just like Singapore, our relevance, indeed our survival, lies in us striving to be exceptional. All the more so given the complexity of the environment that we are operating in as we go through our 50th year and into the decade ahead.

We have not seen a global environment like this in the last 40 to 50 years, with macroeconomic factors such as persistent inflation and higher interest rates, as well as a confluence of external factors, such as geopolitical contestation against the backdrop of rising populism, nationalism and protectionism. These come with ever-increasing risks when one considers technology advancement, climate change, cybersecurity and workforce displacement.

But, we remind ourselves that Temasek was born in a turbulent environment back in 1974 and we embraced the world as it was then, navigating our way forward in a clear-eyed manner, emerging from a very difficult decade with a resilient portfolio, delivering the returns expected of us and building lasting institutions, some of which continue to be mainstays of our portfolio today.

Singapore's founding Prime Minister, Mr Lee Kuan Yew, said, "We have to live with the world as it is, not as we wish it should be. We must remain nimble to seize opportunities that come with changing circumstances, or to get out of harm's way."[3]

That has been the way of Temasek these past 50 years, and it will continue to be our DNA as we go forward. We must have the courage of our convictions; embody tenacity of purpose; know that change is a constant; and because of that, be comfortable with ambiguity, to operate as an agile and adaptable organisation.

This book is more than a historical account of the evolution of Temasek. It is also a testament to the vision, grit and character of the many generations of leaders and staff of Temasek and its portfolio companies who have, over the past 50 years, built the foundations for an ever-changing business and investment environment; giving us the confidence to navigate whatever challenges we face in the future as we continue to strive and thrive for the benefit of our stakeholders.

Even more than that, it is a gift to the future generations who will continue the Temasek journey by reinforcing these foundations and embodying the values at the heart of Temasek.

We will do things today with tomorrow clearly on our minds.

So Every Generation Prospers.

As every generation matters.

Dilhan Pillay Sandrasegara is CEO of Temasek Holdings.

Notes

FOREWORD

1. Lee Kuan Yew, "Speech by Singapore's Prime Minister, Mr Lee Kuan Yew, during the debate in the Federal Parliament on 27th May, 1965, on the motion of thanks to the Yang Di-Pertuan Agong for his speech from the throne", National Archives of Singapore, https://www.nas.gov.sg/archivesonline/data/pdfdoc/lky19650527.pdf

PROLOGUE

1. Peter Seah was appointed President and CEO of the Singapore Technologies Group in 2001. He is currently the Chairman of DBS Group Holdings and Singapore Airlines Limited, and a Director on GIC's board.

2. In 2023, Temasek Portfolio Companies were further defined as long-term investments of which Temasek owns no less than 20%. These include companies not incorporated in Singapore.

PART I: FEELING THE STONES

1. Goh Keng Swee, *The Economics of Modernization* (Singapore: Asia Pacific Press, 1972).

2. A sovereign wealth fund is a state-owned investment fund or entity that is commonly established from balance of payments surpluses, official foreign currency operations, the proceeds of privatisations, governmental transfer payments, fiscal surpluses, and/or receipts resulting from resource exports. Source: Sovereign Wealth Fund Institute.

3. Ho Ching, personal interview, May 2009.

4. Singapore gained independence on 9 August 1965.

5. Sinnathamby Rajaratnam was the first Foreign Affairs Minister in post-independence Singapore. He was also the Second Deputy Prime Minister in 1980 until he stepped down in 1985 and became a Senior Minister in the Prime Minister's Office.

6. Hon Sui Sen was the Minister for Finance from 1970 to 1983.

7. "Singapore – Patterns of Development", Country Studies, https://countrystudies.us/singapore/28.htm

8. Lee Kuan Yew, "Prime Minister's New Year Message, 1973", National Archives of Singapore, Document Number: lky19730101, https://www.nas.gov.sg/archivesonline/data/pdfdoc/lky19730101.pdf

9. Cerebos went on to expand its operations and become a highly successful foods and health supplements company. Temasek divested its stake in Cerebos in 1985. The company was acquired by Suntory of Japan in 1990.

10. In the earlier years, Yaohan's operations in Singapore were successful. However, the company went into bankruptcy in 1997, following an aggressive expansion into China. In March 2000, it was bought over by the AEON Group of Japan and later changed its name to Maxvalu Tokai.

11. Singapore National Printers, formerly the Singapore Government's printer, was sold to Toppan Printing of Japan in June 2008.

12. J Y Pillay was Temasek's first Chairman, from 1974 to 1987.

13. In the 1330s, a Chinese traveller Wang Dayuan visited the island, describing it as a small Malay settlement called Dan Ma Xi (Temasek). This was recorded in his 1349 book, *Daoyi Zhilue* (the only Chinese first-hand account of 14th-century Temasek).

14. Under the Singapore Companies Act (Chapter 50), an exempt private company has no more than 20 shareholders and no corporate shareholder, and is exempted from filing its audited financials with the public registry.

15. Income was established in 1970 to provide affordable insurance for workers in Singapore; also, AGM means Annual General Meeting of co-operative unit holders. At the AGM, companies present their annual report, and elect the board of directors.

16. Goh Keng Swee, "Speech by Dr Goh Keng Swee, Deputy Prime Minister and Minister of Defence at the Income AGM held at Trade Union House on Monday, 20 June 77", National Archives of Singapore, Document Number: GKS19770620, https://www.nas.gov.sg/archivesonline/data/pdfdoc/GKS19770620.pdf

17. Leong Wai Leng is also Chairman of SP Group. She joined Temasek in 2006.

18. Leong Wai Leng, personal interview, January 2010.

19. Dhanabalan served as a banker in the Development Bank of Singapore (later DBS Bank or DBS) in his early career, and later as Chairman of DBS.

20. S Dhanabalan, "Eulogy delivered by S Dhanabalan, Chairman, at the State Funeral Service for the Late Dr Goh Keng Swee, Singapore Conference Hall, 23 May 2010", Temasek, https://www.temasek.com.sg/en/news-and-resources/news-room/speeches/2010/eulogy-delivered-by-s-dhanabalan-chairman-at-the-state-funeral-s

21. The Minister for Finance is a body corporate under the Singapore Minister for Finance (Incorporation) Act 1959.

22. Ho Ching, personal interview, May 2009.

23. Formerly the Singapore General Post Office, where mail barges would ferry between anchored ships and the basement, carrying mail during the colonial period.

24. Margina Lee, personal interview, July 2009.

25. Margina Lee, personal interview, July 2009.

26. Quek Chee Hoon, personal interview, November 2009.

27. S Dhanabalan, Temasek Oral History Interview, September 2008.

28. Government-linked companies were known as GLCs in the early years. These included those under Temasek, but also those under various ministries and statutory boards.

29. J Y Pillay, Temasek Oral History Interview, August 2008.

30. S Dhanabalan, Temasek Oral History Interview, September 2008.

31. Quek Peck Lim, "Temasek becoming biggest holding in South-east Asia", *The Straits Times*, 16 February 1977.

32. Goh Keng Swee, "Speech by Dr Goh Keng Swee, Deputy Prime Minister and Minister of Defence at the Income AGM held at Trade Union House on Monday, 20 June 77", National Archives of Singapore, Document Number: GKS19770620, https://www.nas.gov.sg/archivesonline/data/pdfdoc/GKS19770620.pdf

33. "Temasek's first GM is a top ministry official", *The Straits Times*, 4 September 1979.

34. Chua Yong Hai was General Manager of Temasek from 1979 to 1982.

35. "Temasek's first GM is a top ministry official", *The Straits Times*, 4 September 1979.

36. J Y Pillay, Temasek Oral History Interview, August 2008.

37. Chua Yong Hai, Temasek Oral History Interview, September 2008.

38. Now OUE Downtown 2.

39. Lum Choong Wah joined as Temasek's General Manager in 1982. He later moved up and became President and Board member of Temasek.

40. Lum Choong Wah, Temasek Oral History Interview, September 2008.

41. "YHS, Temasek sign deal with Nabisco", *The Business Times*, 23 June 1989.

42. Wong Heng Tew, personal interview, July 2009.

43. Wong Heng Tew, personal interview, July 2009.

44. Siow Li Sen, "CapitaLand sells Temasek Tower for $1.04b", *The Business Times*, 24 March 2007.

45. Gabrielle Andres, "Singapore's tallest skyscraper to be built by Alibaba and local partners", *Channel NewsAsia*, 5 August 2022, https://www.channelnewsasia.com/business/singapore-tallest-building-alibaba-perennial-axa-tower-guoco-2860921

CHAPTER 1: WADING INTO THE WATER

1. Chua Yong Hai, Temasek Oral History Interview, September 2008.

2. Chua Yong Hai, Temasek Oral History Interview, September 2008.

3. Chua Yong Hai, Temasek Oral History Interview, September 2008.

4. J Y Pillay, Temasek Oral History Interview, August 2008.

5. Lum Choong Wah, Temasek Oral History Interview, September 2008.

6. Felicia Tan, “Seatrium reports $264.4 mil loss for first-ever 1HFY2023 results since combination”, *The Edge Singapore*, 28 July 2023, https://www.theedgesingapore.com/capital/results/seatrium-reports-2644-mil-loss-first-ever-1hfy2023-results-combination

7. Tan Suan Swee, personal interview, May 2014.

8. Chua Yong Hai, Temasek Oral History Interview, September 2008.

9. Takeo Fukuda was the 67th Prime Minister of Japan from December 1976 to December 1978.

10. Lee Yock Suan worked at EDB from 1969 to 1980. He was the Deputy Managing Director of the Petrochemical Corporation of Singapore from January to September 1981. He was a Cabinet Minister from 1981 to 2004, helming various ministries including Education, Labour, and Trade and Industry.

11. Foo Siang Tien, personal interview, April 2009.

12. Lum Choong Wah, Temasek Oral History Interview, September 2008.

13. Foo Siang Tien, personal interview, April 2009.

14. Lum Choong Wah, Temasek Oral History Interview, September 2008.

15. “Jurong Island”, PCS, https://www.pcs.com.sg/singapore-petrochemical-complex/jurong-island/

16. “Goh formally opens Singapore’s Jurong Island”, *Associated Press Newswires*, 14 October 2000.

17. Richard Hu, Temasek Oral History Interview, December 2008.

18. Lam Khin Khui, personal interview, July 2009.

19. Lum Choong Wah, Temasek Oral History Interview, September 2008.

20. Jonathan Rigg, “Singapore and the Recession of 1985”, *Asian Survey* Vol. 28, No. 3, March 1988.

21. The Sheng-Li Group was renamed Singapore Technologies Holdings in 1990.

22. Ho Ching, personal interview, March 2014.

23. Richard Hu, Temasek Oral History Interview, December 2008.

24. Lum Choong Wah, Temasek Oral History Interview, September 2008.

25. Alvin Chua, “Singapore Telecommunications (SingTel)”, Singapore Infopedia, https://www.nlb.gov.sg/main/article-detail?cmsuuid=dd78b9f6-29f9-4b7b-bd2a-eb6bbdfe1f8c

26. The CPF is a mandatory social security savings scheme funded by contributions from employers and employees.

27. “Singapore Telecom initial offer at S$2 next week”, *Reuters*, 9 October 1993.

28. On 1 November 1994, 1995, 1997 and 1999.

29. “Singtel Share History”, Singtel, https://www.singtel.com/about-us/investor-relations/share-information/singtel-share-history

30. Mano Sabnani, “S’pore Telecom flotation set to be a roaring success”, *The Straits Times*, 10 October 1993.

31. "Shares fairly priced because such stock commands a premium: Mah", *The Straits Times*, 10 October 1993.

32. Mano Sabnani, "S'pore Telecom flotation set to be a roaring success", *The Straits Times*, 10 October 1993.

33. Caroline Chan, Chan Sue Meng and Ann Williams, "S'pore Telecom debut ushers in new era for stock exchange", *The Straits Times*, 2 November 1993.

34. Alvin Chua, "Singapore Telecommunications (SingTel)", Singapore Infopedia, https://www.nlb.gov.sg/main/article-detail?cmsuuid=dd78b9f6-29f9-4b7b-bd2a-eb6bbdfe1f8c

35. "Singtel Share History", Singtel, https://www.singtel.com/about-us/investor-relations/share-information/singtel-share-history

36. "Share Information", Singtel, https://www.singtel.com/about-us/investor-relations/share-information

37. "The Corporatisation of Cisco", Temasek, https://www.temasek.com.sg/en/news-and-resources/news-room/news/2005/the-corporatisation-of-cisco

38. "Formation of the Port of Singapore Authority", National Library Board Singapore, https://www.nlb.gov.sg/main/article-detail?cmsuuid=a7193804-3862-4f99-8b3b-46c867073a95

39. *Temasek Review* 2014, p. 92.

40. *Temasek Review* 2014, p. 18.

41. Constitution of the Republic of Singapore (Amendment) Act 1991, Singapore Statutes Online, https://sso.agc.gov.sg/Acts-Supp/5-1991/Published/19910125?DocDate=19910125

42. *Temasek Review* 2022 Highlights, p. 24.

CHAPTER 2: LAYING THE KEEL

1. Quek Poh Huat was then President of Singapore Aerospace, which later became Singapore Technologies Aerospace.

2. "Singapore Aerospace shares gain in active debut", *Reuters News*, 8 August 1990.

3. Jimmy Phoon worked in Temasek from October 1999 to September 2007, with his last held position as Chief Investment Officer, before leaving to pursue his own interests. He rejoined Temasek on 1 November 2008 as Head of Strategy. He left Temasek in December 2011 to become CEO of SeaTown and is currently CEO of Seviora.

4. Lim Hwee Hua worked in investment banking and management at Swiss Bank Corporation and Jardine Fleming. She joined Temasek in 2000, becoming Managing Director of Strategic Relations. She was also a Singapore Government Minister who held various portfolios in her career, including Minister in the Prime Minister's Office, and Second Minister for Finance and Transport concurrently between 2009 and 2011.

5. Quek Poh Huat, personal interview, November 2014.

6. Quek Poh Huat, Temasek Oral History Interview, September 2008.

7. Lim Ming Pey, personal interview, January 2023.

8. Sim Wen Hong, personal interview, June 2023.

9. Quek Poh Huat, Temasek Oral History Interview, September 2008.

10. Donaldson Lufkin & Jenrette was acquired by Credit Suisse First Boston for US$11.5 billion on 30 August 2000.

11. Quek Poh Huat, Temasek Oral History Interview, September 2008.

12. Barry Porter and Wong Joon San, "Merger creates shipping giant", *South China Morning Post*, 15 April 1997.

13. Ven Sreenivasan, "NOL ups placement to US$500m", *The Business Times*, 23 July 1999.

14. Ong Beng Teck, personal interview, April 2009.

15. Herman Ronald Hochstadt, Temasek Oral History Interview, September 2008.

16. Ho Ching joined Temasek Holdings as a Director in January 2002 and became its Executive Director in May 2002.

17. Cheng Wai Keung was NOL Chairman from 2002 to 2012. He had been a board member from 1992.

18. Juliet Teo is now Temasek's Head, Portfolio Development Group and Head, Singapore Market.

19. Juliet Teo, personal interview, October 2022.

20. Anita Gabriel, "France's CMA sinks teeth into Temasek's NOL for S$3.4b", *The Business Times*, 8 December 2015.

21. Fock Siew Wah was PSA International's Group Chairman from 2005 to 2019. Over the course of his career, he held chairmanships at many organisations including SMRT and LTA.

22. Fock Siew Wah, Temasek Oral History Interview, 2008.

23. S Dhanabalan was second-in-command to Howe Yoon Chong, who was President of DBS from 1970 to 1979.

24. "Temasek Chairman Succession", Temasek, 22 July 2013, https://www.temasek.com.sg/en/news-and-resources/news-room/news/2013/temasek-chairman-succession

25. S Dhanabalan, Temasek Oral History Interview, September 2008.

26. Kwa Chong Seng, Temasek Oral History Interview, September 2008.

27. Kua Hong Pak was non-Executive Board Director of Temasek from 1996 to 2018.

28. S Dhanabalan, Temasek Oral History Interview, September 2008.

29. Wong Heng Tew was Temasek's Managing Director, Investments.

30. Wong Heng Tew, personal interview, July 2009.

31. Mapletree Investments was established in December 2000. It is a leading Asia-focused real estate development, investment and capital management company.

32. Margaret Lui, personal interview, 8 July 2009.

33. Hiew Yoon Khong later became CEO of CapitaLand Commercial and CapitaLand Financial.

34. Hiew Yoon Khong, "How to grow a Mapletree", Mapletree Leadership Series lecture, Singapore Management University, 10 March 2022, https://ink.library.smu.edu.sg/cgi/viewcontent.cgi?article=1640&context=pers

35. "Creating Value", Mapletree, https://www.mapletree.com.sg/Our-Company/Overview.aspx

36. Quek Poh Huat, Temasek Oral History Interview, September 2008.

37. The five others at the time were CapitaMall Trust, Ascendas REIT, Fortune REIT, CapitaCommercial Trust and Suntec REIT.

38. In 2018, Mapletree refurbished St James Power Station, blending its heritage elements with modern building technologies. The building currently houses the global HQ and research centre of Dyson.

39. Tan Boon Leong was previously Managing Director of Investments at Temasek.

40. Tan Boon Leong, personal interview, April 2009.

41. "MapletreeLog's amount distributable for 3Q 2008 rises 33% year-on-year", Mapletree Logistics Trust, 21 October 2008, https://www.mapletreelogisticstrust.com/~/media/MLT/Newsroom/Press%20Releases/2008/Oct/1980259919_Press%20release_3Q08%20results_MLOG.pdf

42. Liew Mun Leong, personal interview, October 2023.

43. Hiew Yoon Khong, personal interview, October 2023.

44. Singapore uses a Gross Floor Area (GFA) system to work out the bulk and intensity of a development.

45. Liew Mun Leong, personal interview, October 2023.

46. Vikram Khanna, "The civil servant turned CEO", *The Business Times*, 5 April 2008.

47. "We felt we needed to do this for Singapore", DBS, 1 August 2018, https://www.dbs.com/media/features/getting-singapores-first-reit-on-the-market-we-felt-we-needed-to-do-this-for-singapore.page

48. Ho Ching, "Speech by Ho Ching, Executive Director, on the Occasion of the Commencement of Trading of the CapitaMall Trust", Temasek, 17 July 2002, https://www.temasek.com.sg/en/news-and-resources/news-room/speeches/2002/speech-by-ho-ching-executive-director-on-the-occasion-of-the-com

49. Ho Ching, "Mapletree Logistics Trust – Closing Dinner Remarks" (Singapore, 28 July 2005).

50. "Singapore – A Global Hub for REIT Listings", KPMG, July 2019, https://assets.kpmg.com/content/dam/kpmg/sg/pdf/2019/07/singapore-a-global-hub-for-reit-listings.pdf

51. Candace Li, "S-Reits, property trusts mark their 20th year", *The Business Times*, 17 July 2022.

52. Quek Poh Huat, Temasek Oral History Interview, September 2008.

53. Jimmy Phoon, personal interview, March 2014.

54. "Temasek successfully completes divestment of Tuas Power", Temasek, 14 March 2008, https://www.temasek.com.sg/en/news-and-resources/news-room/news/2008/temasek-successfully-completes-divestment-of-tuas-power

55. "Temasek sells Senoko Power to Japanese consortium", Temasek, 5 September 2008, https://www.temasek.com.sg/en/news-and-resources/news-room/news/2008/temasek-sells-senoko-power-to-japanese-consortium

56. "Temasek sells PowerSeraya to YTL Power International for an enterprise value of S$3.8 billion", Temasek, 2 December 2008, https://www.temasek.com.sg/en/news-and-resources/news-room/news/2008/temasek-sells-powerseraya-to-ytl-power-international-for-an-ente

57. Wong Kim Yin was Temasek's Managing Director of Investment at the time. He later went on to become CEO of SP Group, and then Group President and CEO of Sembcorp Industries.

58. Wong Kim Yin, personal interview, August 2009.

59. Lee Hsien Loong became Singapore's third Prime Minister on 12 August 2004. He stepped down on 15 May 2024, and Lawrence Wong became Singapore's fourth Prime Minister.

60. "A Champion for Workers Takes His Rest", NTUC This Week, 22 June 2007, https://alep-p-001.sitecorecontenthub.cloud//api/public/content/a25f53dc0fbe46069c56b89e009ea0ea?v=fc41b239

61. Lee Hsien Loong, "Speech by PM Lee Hsien Loong at the Union of Power and Gas Employees (UPAGE) 20th Anniversary Dinner on 20 July 2015", Prime Minister's Office Singapore, https://www.pmo.gov.sg/Newsroom/transcript-speech-prime-minister-lee-hsien-loong-union-power-and-gas-employees-upage

62. Wong Kim Yin, personal interview, August 2009.

63. "A Champion for Workers Takes His Rest", NTUC This Week, 22 June 2007, https://alep-p-001.sitecorecontenthub.cloud//api/public/content/a25f53dc0fbe46069c56b89e009ea0ea?v=fc41b239

64. Ho Ching, speech at GIC Managing Directors' Forum, 22 September 2016.

65. Cheo Hock Kuan joined Temasek in 2002. She held various senior positions in the company, including Head of Sustainability & Stewardship and Head, Organisation & Leadership. She is now board director of ABC Impact and board member of Temasek Trust.

66. Cheo Hock Kuan, personal interview, January 2023.

67. Lee Kuan Yew, "Speech by Senior Minister Lee Kuan Yew at the Tanjong Pagar GRC Lunar New Year Celebration Dinner on 30 January 2004 at the Queenstown Community Centre", National Archives of Singapore. https://www.nas.gov.sg/archivesonline/data/pdfdoc/2004013004.htm

68. Ho Ching, personal interview, February 2023.

CHAPTER 3: SETTING SAIL

1. S Dhanabalan, Temasek Oral History Interview, September 2008.

2. Peter Ong is a board member of the Monetary Authority of Singapore. He was Chairman of Enterprise Singapore until March 2024. He was Head of Civil Service and Permanent Secretary in the Prime Minister's Office before retiring in September 2017.

3. Peter Ong, Temasek Oral History Interview, December 2008.

4. Catherine Ong, "Richard Li pulls off Asia's biggest takeover", *The Business Times*, 1 March 2000.

5. The ST Group came under Temasek Holdings in 1994, and its restructuring was completed on 31 December 2004.

6. Lee Hsien Loong went on to become Deputy Prime Minister in 1990 and Prime Minister in 2004. He stepped down on 15 May 2024.

7. New Charter of Government-linked Companies, Official Reports – Parliamentary Debates (Hansard), Column 1046, 28 August 2002.

8. Gerry de Silva, "Companies in Sheng-Li group to go public", *The Straits Times*, 12 May 1990.

9. Chew Kheng Chuan et al., *Towards Tomorrow: The Singapore Technologies Story* (Singapore: Singapore Technologies, 1997), p. 80.

10. Under the Singapore Constitution, the concurrence of the elected President of Singapore is required over certain governance matters concerning Fifth Schedule entities. These include the appointment and removal of board members and CEO, and the drawdown of past reserves built by the entity before the term of the current Government. Other Fifth Schedule entities include the Central Provident Fund Board, Housing and Development Board, Government of Singapore Investment Corporation Pte Ltd, the Monetary Authority of Singapore, and Jurong Town Corporation.

11. Entities under the Fifth Schedule are required to present their annual budgets to the President for his approval before the start of each financial year. If a budget is likely to draw on past reserves, he may refuse to approve it. In addition, the Minister for Finance, Accountant-General and Auditor-General have to inform the President of any proposed transaction that is likely to draw on past reserves. If the President objects, he may exercise his veto.

12. Audrey Tan, "Temasek to dissolve subsidiary ST", *The Straits Times*, 14 October 2004.

13. S Dhanabalan, Temasek Oral History Interview, September 2008.

14. Ho Ching, "Speech by Ho Ching, Executive Director, on the Occasion of the Commencement of Trading of the CapitaMall Trust, 17 July 2002", Temasek, https://www.temasek.com.sg/en/news-and-resources/news-room/speeches/2002/speech-by-ho-ching-executive-director-on-the-occasion-of-the-com

15. Ho Ching, "Speech by Ho Ching, Executive Director, on the Occasion of the Commencement of Trading of the CapitaMall Trust, 17 July 2002", Temasek, https://www.temasek.com.sg/en/news-and-resources/news-room/speeches/2002/speech-by-ho-ching-executive-director-on-the-occasion-of-the-com

16. Liew Mun Leong, personal interview, October 2023.

17. Ong May Anne, *Five* (Singapore: Editions Didier Millet, 2005), pp. 12–13.

18. Marissa Chew, "DBS Land minorities okay merger with Pidemco Land", *The Business Times*, 19 October 2000.

19. Liew Mun Leong, personal interview, February 2015.

20. March 2006.

21. December 2006.

22. Margaret Lui, personal interview, 8 July 2009.

23. Ho Ching, personal interview, February 2023.

24. Ho Ching, personal interview, February 2023.

25. "The Tan Sri Khoo Teck Puat Estate agrees to sell shares in Standard Chartered to Temasek", Temasek, 28 March 2006, https://www.temasek.com.sg/en/news-and-resources/news-room/news/2006/the-tan-sri-khoo-teck-puat-estate-agrees-to-sell-shares-in-stand

26. Jimmy Phoon, personal interview, July 2009.

27. "Consortium wins Indonesia bank stake", *The Wall Street Journal*, 6 May 2003.

28. Bank Danamon Investor Newsletter, August 2003, p. 14.

29. Jimmy Phoon, personal interview, July 2009.

30. Emmanuel Daniel and Peter Hoflich, "Danamon gears up for microfinance push", *The Asian Banker*, 30 April 2009.

31. Goda Thangada, "Key Indonesia microfinance player Bank Danamon raises USD 362m in capital", MicroCapital, 4 May 2009, https://www.microcapital.org/microcapital-story-key-indonesia-microfinance-player-bank-danaman-raises-usd-362m-in-capital/

32. Francis Rozario, personal interview, July 2009.

33. Ahmad Pathoni and Ian Timberlake, "Indonesia links Jakarta and Bali bombs, JI suspicion grows", *Agence France Presse*, 6 August 2003.

34. Francis Rozario, personal interview, July 2009.

35. Francis Rozario, personal interview, July 2009.

36. Bank Danamon Annual Report 2005, p. 36.

37. Bank Danamon Annual Report 2013, p. 14.

38. "Temasek Holdings to sell 73.8% stake in Indonesia's Bank Danamon to Japan's MUFG", *Today*, 27 December 2017, https://www.todayonline.com/singapore/temasek-holdings-sell-738-stake-indonesias-bank-danamon-japans-mufg

39. Gerard Lee, personal interview, April 2009.

40. Gerard Lee, personal interview, April 2009.

41. Gerard Lee, personal interview, April 2009.

42. Gerard Lee, personal interview, April 2009.

43. Conrad Tan, "Fullerton ties up with major China fund player", *The Business Times*, 23 September 2008.

44. Vertex Venture Holdings, https://www.vertexholdings.com/

45. Grace Chng, "$100m fund to help start-ups survive 'valley of death' gap", *The Straits Times*, 11 January 2014.

46. Andrew Toh, "Taxi! Temasek firm backs Southeast Asia cab booking app", *Reuters News*, 8 April 2014.

47. "William A. Franke – Chairman of the Board", Frontier, https://ir.flyfrontier.com/board-member/william-franke

48. These included Malaysia's Air Asia, which pioneered the budget carrier model in the region and was already an established force; Lion Air and Air Paradise from Indonesia; and another Singaporean carrier, Valuair, which had been set up by a former Singapore Airlines CEO. Other entrepreneurs were also exploring the Asian market. Richard Branson, the founder of Virgin Atlantic in the UK, was looking at setting up a budget carrier in Thailand, in partnership with Thai Airways. Air Asia was also moving into Thailand. And in India, a carrier called Air Deccan was already in operation.

49. Many names were suggested but the name "Tiger" came from the Ryan family.

50. "Singapore Airlines to launch new low cost carrier – Tiger Airways", *Travel News Asia*, 9 December 2003, https://www.asiatraveltips.com/travelnews03/912TigerAirways.shtml

51. The major shareholders of Indigo Partners were Texas financier and Ryanair Chairman, David Bonderman, and former head of the US-based low-cost regional carrier America West, William Franke.

52. Margaret Lui, personal interview, 22 July 2009.

53. Margaret Lui, personal interview, March 2014.

54. *Temasek Review* 2014, p. 12.

55. In July 2017, Tiger Airways was merged with Scoot, the low-cost carrier subsidiary of Singapore Airlines.

56. Ho Ching, personal interview, May 2009.

57. *Temasek Review* 2004, pp. 5–7, 11.

58. Ho Ching, "Building a Sustainable Institution" (speech, Singapore, 29 July 2009), The Institute of Policy Studies.

59. *Temasek Review* 2004, p. 14.

60. Azhar Khalid, "Temasek gets top scores from S&P, Moody's", *The Straits Times*, 13 October 2004.

61. Ho Ching, personal interview, May 2009.

62. *Temasek Review* 2022: Presentation Slides, p. 11.

PART II: CROSSING THE RIVER

1. Ho Ching, speech at Temasek Advance 2012, Bali.

2. Besides Bank Danamon, Temasek had also acquired Bank Internasional Indonesia (BII).

3. *Temasek Review* 2004, p. 27.

4. *Temasek Review* 2005, p. 8.

5. Ho Ching, personal interview, May 2009.

6. Zhu Rongji was the fifth Premier of the People's Republic of China, from March 1998 to March 2003.

7. *Temasek Review* 2005, p. 10.

8. Manish Kejriwal, personal interview, February 2010.

9. Asia Financial Holdings (AFH) was renamed Fullerton Financial Holdings in 2007.

10. Abheek Barua, Rajat Kathuria and Neha Malik, "The Status of Financial Inclusion, Regulation, and Education in India", Asian Development Bank Institute, Working Paper Series No. 568, p. 8, April 2016.

11. Willie Chan was Managing Director of Special Projects when he left Temasek in 2012.

12. Willie Chan, personal interview, April 2009.

13. Fullerton India Credit Company (FICC) was sold to Sumitomo Mitsui Financial Group in 2021 and later renamed SMFG India Credit.

14. SMFG India Credit, https://www.smfgindiacredit.com/about-us/overview.aspx

15. *Temasek Review* 2024, https://temasekreview.com.sg

16. Ravi Lambah, personal interview, March 2023.

17. International Monetary Fund, https://www.imf.org/external/datamapper/PPPSH@WEO/EU/USA/CHN

18. The World Bank, https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=CN

19. Cheo Hock Kuan joined Temasek in 2002. She held various senior positions in the company, including Head of Sustainability & Stewardship and Head, Organisation & Leadership. She is now a board director of ABC Impact and a board member of Temasek Trust.

20. Cheo Hock Kuan, personal interview, July 2009.

21. *Temasek Review* 2004, p. 27.

22. *Temasek Review* 2005, p. 25.

23. Cheo Hock Kuan, personal interview, July 2009.

24. Lee Hsien Loong became Singapore's third Prime Minister on 12 August 2004. He stepped down on 15 May 2024, and Lawrence Wong became Singapore's fourth Prime Minister.

25. Cheo Hock Kuan, personal interview, July 2009.

26. Cheo Hock Kuan, personal interview, July 2009.

27. Wong Kim Yin, personal interview, August 2009.

28. Central Huijin Investment was formed in 2003. In 2007, it became a subsidiary of China Investment Corporation.

29. The People's Bank of China (PBOC) is the central bank of the People's Republic of China, responsible for overseeing and implementing the country's monetary policy and financial stability.

30. China joined the WTO on 11 December 2001.

31. Koh Beng Seng, personal interview, July 2023.

32. Cheo Hock Kuan, personal interview, July 2009.

33. Koh Beng Seng, personal interview, July 2023.

34. Francis Rozario, personal interview, July 2009.

35. Francis Rozario, personal interview, July 2009.

36. Frank Tang, personal interview, February 2010.

37. *Temasek Review* 2005, pp. 23, 28.

38. Chia Song Hwee, personal interview, April 2014.

39. *Temasek Review* 2024, https://temasekreview.com.sg

40. Wu Yibing, personal interview, February 2023.

41. Ho Ching, personal interview, May 2009.

42. "Shinawatra name changes win approval", *Bangkok Post*, 9 March 1999.

43. Thaksin Shinawatra was the Prime Minister of Thailand from 2001 to 2006.

44. S Dhanabalan, Temasek Oral History Interview, September 2008.

45. The sale gave Telenor, which already held existing shares in Ucom and DTAC, effective control of both companies.

46. Alisa Tang, "Thai prime minister's family sells shares in Shin Corp. to Singapore's Temasek", *Associated Press Newswires*, 23 January 2006.

47. Jimmy Phoon, personal interview, July 2009.

48. Tharman Shanmugaratnam went on to serve as Finance Minister and subsequently Deputy Prime Minister, then as Senior Minister and Coordinating Minister for Economic and Social Policies. On 14 September 2023, he was sworn in as Singapore's ninth President.

49. Temasek Holdings (Acquisition of Shin Corp of Thailand), Official Reports – Parliamentary Debates (Hansard), 14 November 2006.

50. Jimmy Phoon, personal interview, July 2009.

51. Juliet Teo, personal interview, October 2023.

52. Juliet Teo, personal interview, October 2022.

53. Lim Siong Guan, Temasek Oral History Interview, October 2008.

CHAPTER 4: CHARTING THE COURSE

1. Ho Ching, email to staff, 23 July 2020.

2. Ho Ching, email to staff, 23 July 2020.

3. Ho Ching, personal interview, September 2022.

4. The first was the five-year T2023-S$ Temasek Bond which closed at a fixed interest rate of 2.7% per annum; the second, the T2026-S$ Temasek Bond, comprised 1.8% fixed-rate guaranteed notes to mature in 2026.

5. Ho Ching, email to staff, 23 July 2020.

6. *Temasek Review* 2007, p. 42.

7. *Temasek Review* 2007, p. 42.

8. Yankee Bonds are foreign bonds denominated in US dollars and issued in the US by foreign banks and corporations. They are usually registered with the SEC. Source: Nasdaq.

9. "Temasek Launches US$1.75 Billion 4.5% 10 Year Guaranteed Notes", Temasek, 15 September 2005, https://www.temasek.com.sg/en/news-and-resources/news-room/news/2005/temasek-launches-us-1-75-billion-4-5-10-year-guaranteed-notes

10. Leong Wai Leng, personal interview, April 2009.

11. Ho Ching, personal interview, May 2009.

12. Ho Ching, email to staff, 23 July 2020.

13. "Temasek Bonds Overview", Temasek, https://www.temasek.com.sg/en/our-financials/temasek-bonds

14. "Temasek launches Astrea II portfolio of private equity funds", Temasek, 9 April 2014, https://www.temasek.com.sg/en/news-and-resources/news-room/news/2014/temasek-launches-astrea-ii-portfolio-of-private-equity-funds

15. The Astrea III Notes were the first listed notes in Singapore backed by cash flows from a US$1.3 billion portfolio of investments in 34 PE funds. Total issue size was US$510 million against a Transaction Portfolio NAV of US$1.1 billion. Astrea III is fully redeemed, with all bond obligations to investors fulfilled.

16. "Temasek launches Astrea II portfolio of private equity funds", Temasek, 9 April 2014, https://www.temasek.com.sg/en/news-and-resources/news-room/news/2014/temasek-launches-astrea-ii-portfolio-of-private-equity-funds

17. *Temasek Review* Overview 2018, p. 7.

18. Ho Ching, personal interview, September 2022.

19. The public offer of Astrea VII PE bonds comprised S$280 million in Class A-1 bonds, which pay a fixed interest rate of 4.125% per annum, above the coupon for Class A-1 bonds in the previous Astrea V and VI issuances. Retail investors could also apply for US$100 million in Class B bonds, which pay a higher fixed interest rate of 6% per annum. However, these bonds come with a higher credit risk profile, as they rank junior to Class A-1 and A-2 bonds and are behind Class A bonds in terms of priority of payment.

20. Lee Su Shyan, "Latest launch of Astrea retail bonds offers US dollar option", *The Straits Times*, 22 May 2022.

21. Chia Song Hwee, personal interview, March 2014.

22. CitySpring's initial portfolio comprised 100% of the City Gas Trust, the sole producer and retailer of town gas and the sole user of the low-pressure piped town gas network in Singapore, and 70% of the SingSpring Trust, the sole supplier of desalinated water to PUB, Singapore's national water agency.

23. Ho Ching, personal interview, May 2009.

24. Ho Ching, personal interview, May 2009.

25. *Temasek Review* 2008, p. 20.

26. Elinor Comlay, "Merrill posts $4.9 bln loss, sells Bloomberg stake", *Reuters News*, 18 July 2008.

27. Christian Plumb and Jonathan Stempel, "Merrill to sell $8.5 bln stock after big write-down", *Reuters News*, 29 July 2008.

28. Liz Moyer, "Merrill Moves to Shore up Books", *Forbes*, 28 July 2008, http://www.forbes.com/2008/07/28/merrill-thain-stocks-biz-wall-cx_lm_0728merrill.html

29. *Temasek Review* 2008, p. 20.

30. Manish Kejriwal, personal interview, December 2009.

31. For a blow-by-blow account of what transpired on the weekend of 13–14 September, see Jenny Anderson and Charles Duhigg, "Death and Near-Death Experiences on Wall St.", *The New York Times*, 20 September 2008.

32. Lynette Khoo, "BoA move offers Temasek ticket to super league", *The Business Times*, 16 September 2008.

33. Manish Kejriwal, personal interview, December 2009.

34. "Merrill loses $15.84 billion in fourth quarter", *Reuters*, 25 February 2009, https://www.reuters.com/article/businesspro-us-bankofamerica-merrill-idUKTRE51N6N220090224

35. Costas Paris, "Temasek counts the cost of Merrill stake", *The Wall Street Journal Online*, 18 May 2009.

36. Lawrence Henry Summers, a prominent American economist, was Secretary of the Treasury from 1999 to 2001 and Director of the US National Economic Council from 2009 to 2010.

37. Temasek Holdings (Sale of Bank of America Shares), Official Reports – Parliamentary Debates (Hansard), 28 May 2009.

38. In that same year, Temasek also sold its 135 million shares of near 2% of Barclays PLC, which it had bought in 2007, at a time when British banks were facing the prospect of a government bailout.

39. S Dhanabalan, personal interview, February 2010.

40. Chua Eu Jin, personal interview, May 2023.

41. International Forum of Sovereign Wealth Funds, https://www.ifswf.org/about-us

42. Prior to joining Temasek, Simon Israel was Chairman, Asia Pacific of the Danone Group. He also held various positions in Sara Lee Corporation before becoming President (Household and Personal Care), Asia Pacific. He was conferred Knight in the Legion of Honour by the French government in 2007 and awarded the Public Service Medal by the Government of Singapore in 2011. In July 2011, he retired from Temasek and is currently Chairman of SingPost.

43. Simon Israel, personal interview, February 2010.

44. Simon Israel, personal interview, February 2010.

45. Cable-Satellite Public Affairs Network.

46. Chua Eu Jin, personal interview, May 2023.

47. Kwa Chong Seng, Temasek Oral History Interview, September 2008.

48. "Temasek Charter 2009 Media Roundtable", Temasek, https://www.temasek.com.sg/content/dam/temasek-corporate/news-and-views/news/files/Key_Questions_and_Answers.pdf

49. "Temasek sells PowerSeraya to YTL Power International for an enterprise value of S$3.8 billion", Temasek, 2 December 2008, https://www.temasek.com.sg/en/news-and-resources/news-room/news/2008/temasek-sells-powerseraya-to-ytl-power-international-for-an-ente

CHAPTER 5: COOL HEADS, WARM HEARTS

1. Ho Ching, personal interview, February 2023.

2. Lim Boon Heng, "Remarks by Mr Lim Boon Heng, Chairman of Temasek, to the Singapore media", 21 March 2014, https://www.temasek.com.sg/en/news-and-resources/news-room/speeches/2014/remarks-by-mr-lim-boon-heng-chairman-of-temasek-to-the-singapore

3. Ho Ching, "Building a Sustainable Institution" (speech, Singapore, 29 July 2009), The Institute of Policy Studies.

4. Benedict Cheong, personal interview, March 2014.

5. *Sharing Journeys: Temasek Foundation 5th Anniversary* (Singapore: Temasek Foundation CLG Limited, 2012), p. 20.

6. Temasek Foundation Report 2021, p. 10.

7. Desmond Kuek, personal interview, October 2023.

8. "Investor Maps: Highlighting Investment Opportunities Across Asia", Temasek Trust, 29 August 2022, https://www.temasektrust.org.sg/what-we-do/impact-hub/article-details/investor-maps--highlighting-investment-opportunities-across-asia

9. Shaun Seow, personal interview, March 2023.

10. "Philanthropy Asia Alliance Crosses S$1 billion in Pledges to Catalyse Asian Solutions for Global Environmental and Social Challenges", Temasek Trust, 15 September 2023, https://www.temasektrust.org.sg/newsroom/philanthropy-asia-alliance-crosses-s-1-billion-in-pledges-to-catalyse-asian-solutions-for-global-environmental-and-social-challenges

11. Cheo Hock Kuan, personal interview, March 2014.

12. "Temasek acquires stake in A.S. Watson", Temasek, 21 March 2014, https://www.temasek.com.sg/en/news-and-resources/news-room/news/2014/temasek-acquires-stake-in-a-s-watson

13. Chia Song Hwee, personal interview, April 2014.

14. Ho Ching, speech at GIC Managing Directors' Forum, 22 September 2016.

15. Ho Ching, email to staff, 10 July 2019.

16. Leong Wai Leng, personal interview, February 2014.

17. *Temasek Review* 2024, https://temasekreview.com.sg

18. Jimmy Phoon rejoined Temasek in 2008 after resigning as the company's Chief Investment Officer in 2007. He is currently CEO of Seviora Holdings.

19. Jimmy Phoon, personal interview, March 2014.

20. Dilhan Pillay Sandrasegara, personal interview, February 2014.

21. Dilhan Pillay Sandrasegara, personal interview, February 2014.

22. Dilhan Pillay Sandrasegara, personal interview, February 2014.

23. Ang Hwee Min and Try Sutrisno Foo, "Behind the scenes: How Singapore's bird park is moving 3,500 animals to their new home", *Channel NewsAsia*, 4 April 2023, https://www.channelnewsasia.com/singapore/jurong-bird-park-move-mandai-paradise-behind-scenes-3393716

24. Neo Gim Huay joined the World Economic Forum in 2021 to become their Managing Director, Centre for Nature and Climate.

25. Neo Gim Huay, personal interview, March 2014.

26. Syarafana Shafeeq, "Two wildlife parks in Mandai could be further delayed due to Covid-19; River Safari to get new name", *The Straits Times*, 13 October 2021.

27. Dilhan Pillay Sandrasegara, personal interview, February 2014.

CHAPTER 6: NEW HORIZONS

1. P.R. Venkat and Paul Beckett, "Singapore's Temasek Seeks Deals in U.S. and Europe", *The Wall Street Journal Online*, 27 June 2013.

2. Boon Sim, personal interview, January 2023.

3. Boon Sim, personal interview, January 2023.

4. Carolyn Y. Johnson, "The wildly hyped $9 billion blood test company that no one really understands", *The Washington Post*, 15 October 2015.

5. George Shultz, the former US Secretary of State, was a champion of Elizabeth Holmes and Theranos. He served on Theranos' board and helped canvass investors for Holmes.

6. A data room is a physical or digital space which stores company information relevant to due diligence. Some VCs feel it slows down the investment process. Others feel it is necessary.

7. Boon Sim, personal interview, January 2023.

8. *Temasek Review* 2024, https://temasekreview.com.sg

9. Cheo Hock Kuan, personal interview, March 2014.

10. Gan Chee Yen was CEO of Fullerton Financial Holdings from 2011 to 2019. Prior to that, he held several senior roles at Temasek, including Chief Financial Officer, Head of China and Co-Chief Investment Officer.

11. Dilhan Pillay Sandrasegara, personal interview, November 2022.

12. Lee Theng Kiat, personal interview, April 2014.

13. *Temasek Review* 2022 Highlights, p. 20.

14. Ho Ching, speech at the Asian Business Leaders Award Dinner, Whitehall, London, 27 October 2014.

15. Ho Ching, speech at the Asian Business Leaders Award Dinner, Whitehall, London, 27 October 2014.

16. Ho Ching, personal interview, February 2023.

17. Chan Wai Ching is Temasek's Chief Corporate Officer and Head of Organisation & People.

18. Dilhan Pillay Sandrasegara, personal interview, November 2022.

19. Dilhan Pillay Sandrasegara, personal interview, September 2023.

20. Dilhan Pillay Sandrasegara, personal interview, November 2022.

21. Professor Tommy Koh is a senior statesman, diplomat and lawyer who was Singapore's Permanent Representative to the United Nations between 1968 and 1971, and again from 1974 to 1984.

22. Chan Sek Keong was in the inaugural batch of students admitted to the Faculty of Law of the then University of Malaya, now National University of Singapore, in 1957. He was Singapore's third Chief Justice, between 2006 and 2012.

23. Dilhan Pillay Sandrasegara, personal interview, September 2023.

24. Dilhan Pillay Sandrasegara, personal interview, November 2022.

25. Leong Wai Leng, personal interview, February 2014.

26. Chan Wai Ching, personal interview, March 2014.

27. Robert Chong left Temasek in 2014. He is Chief Corporate & Human Resource Officer at Sembcorp Industries.

28. Robert Chong, personal interview, April 2009.

29. *Temasek Review* 2024, https://temasekreview.com.sg

30. Sinnathamby Rajaratnam was the first Foreign Affairs Minister in post-independence Singapore. He was also the Second Deputy Prime Minister in 1980 until he stepped down in 1985 and became a Senior Minister in the Prime Minister's Office.

31. Ho Ching, personal interview, May 2009.

32. S Dhanabalan, Temasek Oral History Interview, September 2008.

33. As a Fifth Schedule Company under the Singapore Constitution, the appointment of Temasek's CEO and Board members is subject to the concurrence of the elected President of Singapore. Simon Israel was Temasek's first non-Singaporean Board member.

34. Ho Ching, personal interview, February 2023.

35. Costas Paris and P.R. Venkat, "Temasek CEO Ho Ching to leave; ex-BHP CEO to take over", *Dow Jones Newswires*, 6 February 2009.

36. Ho Ching, "Building a Sustainable Institution" (speech, Singapore, 29 July 2009), The Institute of Policy Studies.

37. Dilhan Pillay Sandrasegara became CEO of Temasek International in 2019 and CEO of Temasek Holdings in 2021.

38. Ho Ching, personal interview, February 2023.

39. Ho Ching, personal interview, May 2009.

40. Leong Wai Leng, personal interview, February 2014.

41. Margaret Lui, personal interview, March 2014.

42. Ho Ching, "Building a Sustainable Institution" (speech, Singapore, 29 July 2009), The Institute of Policy Studies.

43. Dilhan Pillay Sandrasegara, personal interview, November 2022.

44. Chan Wai Ching, personal interview, March 2014.

45. Margaret Lui, personal interview, March 2014.

46. Chan Wai Ching, personal interview, March 2014.

47. Ho Ching, personal interview, February 2023.

48. Amelia Teng, "Budget 2023: Paid paternity leave doubled to 4 weeks, unpaid infant care leave from 6 to 12 days", *The Straits Times*, 20 February 2023.

49. Chan Wai Ching, personal interview, March 2014.

50. Ho Ching, "Building a Sustainable Institution" (speech, Singapore, 29 July 2009), The Institute of Policy Studies.

51. Dilhan Pillay Sandrasegara, email to staff, 1 October 2021.

PART III: SURFING THE WAVES

1. Ho Ching, "Round-Up Speech by Ho Ching, CEO Temasek", Bali, Indonesia, Temasek Advance 2012.

2. Dilhan Pillay Sandrasegara, personal interview, November 2022.

3. The 17 United Nations Sustainable Development Goals represent the collective interest of 193 countries to bring about a better world by 2030. These goals were launched in 2015. http://www.un.org/sustainabledevelopment/sustainable-development-goals/

4. "Sustainable business can unlock at least US$12 trillion in new market value, and repair economic system", *M2 Presswire*, 16 January 2017.

5. The Asia Report by the Business and Sustainable Development Commission cites more than US$5 trillion in investment opportunities in Asia arising from the 17 UN Sustainable Development Goals. US$2.3 trillion of that will be in China, and another US$1.1 trillion in India. US$1.1 trillion will be available in ASEAN and emerging Southeast Asian nations, while the balance of US$0.7 trillion will be available in the mature economies, such as Japan and Korea, Australia, New Zealand, and other nations. https://www.ecosperity.sg/content/dam/ecosperity-aem/en/articles/BSDC_Better_Business_Better_World_Sustainable_Business_Opportunities_In_Asia_EN.pdf

6. Dilhan Pillay Sandrasegara, email to staff, 1 October 2021.

7. Ho Ching, "Remarks by Ho Ching at the Women In Business Breakfast (in conjunction with ASEAN-Australia Business Summit)" (Sydney, Australia, 16 March 2018), Temasek, https://www.temasek.com.sg/en/news-and-resources/news-room/speeches/2018/remarks-by-ho-ching-at-the-women-in-business-breakfast

8. Cheo Hock Kuan, email to staff, 26 April 2016.

9. Dilhan Pillay Sandrasegara, email to staff, 1 October 2021.

10. Cheo Hock Kuan, personal interview, January 2023.

11. Robin Hu, personal interview, January 2023.

12. *Temasek Review* 2022 Highlights, p. 1.

13. Portfolio emissions reported include Scope 1 and Scope 2 emissions of the underlying companies based on the latest available data sets and encompass Temasek's direct investments in listed and unlisted equities. Scope 1 emissions are direct emissions from owned or controlled sources. Scope 2 emissions are indirect emissions from the generation of purchased energy. Investment positions in private equity funds, credit and other assets are excluded. Temasek uses a combination of company reported emissions data and modelling approaches to establish portfolio emissions based on its proportionate shares (i.e. ownership interests) in the assets.

14. The Task Force on Climate-Related Financial Disclosures (TCFD) was created in 2015 by the Financial Stability Board (FSB) to develop consistent climate-related financial risk disclosures for use by companies, banks and investors in providing information to stakeholders. The Financial Stability Board is an international body that monitors and makes recommendations about the global financial system. It was established after the G20 London summit in April 2009. Greenhouse Gas Protocol provides standards, guidance, tools and training for businesses and governments to measure and manage climate-warming emissions.

15. "Temasek and BlackRock Launch Decarbonization Investment Partnership", Temasek, 13 April 2021, https://www.temasek.com.sg/en/news-and-resources/news-room/news/2021/temasek-blackrock-launch-decarbonization-partnership

16. Carbon pricing is a mechanism under which a firm calculates the projected cost of greenhouse gas emissions that could arise from its investments.

17. The original carbon price was US$42. It was changed to US$50 in 2022.

18. ABC Impact now sits under Temasek Trust Asset Management, a pillar of Temasek Trust.

19. "ABC Impact Launches Impact Report for 2022", ABC Impact, 28 March 2023, https://abcimpact.com.sg/media-release/abc-impact-launches-impact-report-for-2022/

20. Frederick Teo, personal interview, November 2022.

21. Russell Tham, Temasek Conversations Interview, "Picking the Winners of Tomorrow", Temasek, 2021.

22. "Coming Together to Build a Net Zero Future", Temasek, 2 December 2021, https://www.temasek.com.sg/en/news-and-resources/stories/sustainability/coming-together-to-build-a-net-zero-future

23. Franziska Zimmermann, personal interview, November 2022.

24. Robin Hu, personal interview, January 2023.

25. Ho Ching, "*Ecosperity* 2021 Closing Address by Ho Ching – A Sustainable Tomorrow Starts Today" (Singapore, 30 September 2021), Temasek, https://www.temasek.com.sg/en/news-and-resources/news-room/speeches/2021/closing-address-ho-ching-sustainable-tomorrow-starts-today

26. "Singapore makes first renewable energy import", Keppel, https://www.keppel.com/en/media/newsletters/feature-stories/singapore-makes-first-renewable-energy-import/

27. Yong Jun Yuan, "Sembcorp explores importing offshore wind energy from Vietnam", *The Business Times*, 28 August 2023.

28. "Keppel first to receive Energy Market Authority's conditional approval for large-scale renewable and low-carbon energy import to Singapore", Keppel, 16 March 2023, https://www.keppel.com/en/media/media-releases-sgx-filings/-keppel-first-to-receive-energy-market-authoritys-conditional-approval-for-large-scale-renewable-and-low-carbon-energy-import-to-singapore/

29. Lars Paulsson and Liz Ng, "What it would take to make steelmaking greener", *Bloomberg*, 20 June 2023, https://www.bloomberg.com/news/articles/2023-06-20/why-steel-s-carbon-emissions-are-so-high-and-what-s-needed-to-lower-them

30. Energy system, International Energy Agency, https://www.iea.org/energy-system/industry/steel

31. Richard Milne, "Al Gore-backed Swedish green steel start-up examining overseas moves after fundraising", *Financial Times,* 7 September 2023, https://www.ft.com/content/95369ff2-52f1-492f-8a61-ce3e6a5f8062

32. Steve Howard was Temasek's Chief Sustainability Officer from 2021 to 2023 before transitioning to this role.

33. Steve Howard, personal interview, January 2023.

34. "Sembcorp Industries Announces Sale of Sembcorp Energy India Limited (SEIL)", Sembcorp, 5 September 2022, https://www.sembcorp.com/in/news-and-insights/news/2022/sembcorp-industries-announces-sale-of-sembcorp-energy-india-limited-seil/

35. Nagi Hamiyeh, personal interview, May 2023.

36. Han Bao Zhen, "Temasek's three pathways towards a sustainable future", *Lianhe Zaobao*, 30 April 2023.

37. "Brookfield and EIG Consortium Sign Binding Agreement to Acquire Origin Energy", Brookfield, 27 March 2023, https://bep.brookfield.com/press-releases/bepc/brookfield-and-eig-consortium-sign-binding-agreement-acquire-origin-energy

38. Scott Murdoch and Lewis Jackson, "Origin investors reject $10.6 billion Brookfield bid, company open to other funding", *Reuters,* 4 December 2023, https://www.reuters.com/markets/deals/origin-investors-reject-brookfields-106-bln-bid-proxy-votes-2023-12-04/

39. Nagi Hamiyeh, personal interview, May 2023.

40. Steve Howard, personal interview, January 2023.

41. Chan Wai Ching, personal interview, January 2023.

42. Ong Boon Hwee, personal interview, April 2009.

43. Lim Boon Heng, "Opening Remarks – 12th Meeting of the Temasek International Panel", 21 September 2015.

44. Lim Boon Heng, “Opening Speech by Mr Lim Boon Heng”, Joint TAAP TEAP Meeting, Shenzhen, China, 14 May 2019.

45. Lee Theng Kiat, “Opening Remarks by Mr Lee Theng Kiat”, Joint TAAP TEAP Meeting, Shenzhen, China, 14 May 2019.

46. “Temasek launches Southeast Asia Advisory Panel”, Temasek, 1 August 2023, https://www.temasek.com.sg/en/news-and-resources/news-room/news/2023/temasek-launches-southeast-asia-advisory-panel

47. Dale Hardcastle, Are Kaspersen, Nunchanok Mekmasin, Frederick Teo, Genevieve Ding, Krishnan Narayanan, and Fock Wai Hoong, “Southeast Asia’s Green Economy 2023 Report”, Bain & Company, 6 June 2023, https://www.bain.com/insights/southeast-asias-green-economy-2023/

48. Lee Theng Kiat, personal interview, August 2023.

49. Robin Hu, personal interview, January 2023.

50. Kyunghee Park, Joyce Koh and Nikita Mathur, “Temasek Offers S$1.2 Billion to Buy Out SMRT 16 Years After IPO”, *Bloomberg*, 21 July 2016, https://sg.finance.yahoo.com/news/temasek-offers-1-68-share-101501997.html

51. The reasons for this include high construction, operating and maintenance costs and inadequate fare revenues, which necessitate direct and/or indirect public subsidies such as land development rights. For further details, see Sock-Yong Phang, Associate Professor of Economics at Singapore Management University, “Urban Rail Transit PPPs: Risk Assessment of Recent Strategies” (Paper presented to the First International Conference on Funding Transportation Infrastructure, University of Alberta, 2–3 August 2006).

52. Kyunghee Park, Joyce Koh and Nikita Mathur, “Temasek Offers S$1.2 Billion to Buy Out SMRT 16 Years After IPO”, *Bloomberg*, 21 July 2016, https://sg.finance.yahoo.com/news/temasek-offers-1-68-share-101501997.html

53. Public Sector Divestment Committee, *Report of the Public Sector Divestment Committee* (Singapore: Singapore National Printers, 1987), p. 68.

54. Public Transport Council, https://www.ptc.gov.sg/about/overview

55. “Briefing to Analysts & Media on the New Rail Financing Framework for SMRT”, SMRT Corporation, 15 July 2016, https://smrt.com.sg/Portals/0/pdf/NRFF/Analyst%20Briefing%20Speech.pdf

56. Under the New Rail Financing Framework (NRFF), LTA owns the rail operating assets. Besides the transfer of ownership of the assets to LTA, changes were also made to licence periods, profit and risk sharing arrangement and regulatory regime. https://www.lta.gov.sg/content/ltagov/en/who_we_are/our_work/public_transport_system/rail/new_rail_financing_framework.html

57. Earnings Before Interest and Taxes.

58. The NRFF was announced on 15 July 2016. SMRT’s delisting was announced on 20 July 2016.

59. “Temasek and SMRT Jointly Undertake to Privatise SMRT”, Temasek, 20 July 2016, https://www.temasek.com.sg/en/news-and-resources/news-room/news/2016/temasek-and-smrt-jointly-undertake-to-privatise-smrt

CHAPTER 7: TAKING THE PLUNGE

1. Dilhan Pillay Sandrasegara, personal interview, March 2023.

2. Ho Ching, personal interview, November 2023.

3. "Focus on Strategic Priorities and Building New Capabilities at core of changes to Temasek's organisational structure", Temasek, 8 November 2019, https://www.temasek.com.sg/en/news-and-resources/news-room/news/2019/focus-on-strategic-priorities-and-building-new-capabilities

4. Nagi Hamiyeh, personal interview, November 2022.

5. "CapitaLand and Ascendas-Singbridge complete transaction to form one of Asia's largest diversified real estate groups", CapitaLand, 30 June 2019, https://www.capitaland.com/en/about-capitaland/newsroom/news-releases/international/2019/jun/capitaland-asb-complete-transaction-to-form-unified-group.html

6. Ann Williams and Ovais Subhani, "Sembcorp Marine in plan to raise $2.1 billion with support from Temasek, demerge from parent", *The Straits Times*, 9 June 2020.

7. "Olam Group targets IPO of Olam Agri as early as H1 2023, with primary listing in Singapore and potential concurrent listing in Saudi Arabia", Olam, 10 January 2023, https://www.olamgroup.com/news/all-news/press-release/olam-group-targets-ipo-of-olam-agri-as-early-as-h1-2023.html

8. Ven Sreenivasan, "Over 95% of Sembmarine shareholders approve Keppel O&M merger", *The Straits Times*, 16 February 2023.

9. Nagi Hamiyeh, personal interview, November 2022.

10. Chan Wai Ching, personal interview, January 2023.

11. Chia Song Hwee, personal interview, November 2022.

12. Dilhan Pillay Sandrasegara, personal interview, November 2022.

13. Dilhan Pillay Sandrasegara, "Fireside chat by Dilhan Pillay, Executive Director & Chief Executive Officer, Temasek Holdings, and Rodi Guidero, Executive Director, Breakthrough Energy Ventures", Seattle, Washington, 19 October 2022.

14. In 2023, Temasek invested in French quantum computing start-up, Pasqal. In 2021, it invested in PsiQuantum, an American quantum computing firm.

15. Dilhan Pillay Sandrasegara, "2023 Chinese New Year TPC Luncheon, Closing Remarks by Mr Dilhan Pillay", Singapore, 26 January 2023.

16. Nagi Hamiyeh, personal interview, November 2022.

17. Rohit Sipahimalani, personal interview, November 2022.

18. Temasek established Istari in 2020. It is a London-based cybersecurity company that helps global clients manage digital risk and build cyber resilience through advisory, investment and education platforms.

19. Rohit Sipahimalani, personal interview, November 2022.

20. Dilhan Pillay Sandrasegara, "Fireside chat by Dilhan Pillay, Executive Director & Chief Executive Officer, Temasek Holdings, and Rodi Guidero, Executive Director, Breakthrough Energy Ventures", Seattle, Washington, 19 October 2022.

21. Ravi Lambah, personal interview, March 2023.

22. Sam Bankman-Fried took FTX customer funds for his personal use, to make investments and political contributions, and repay loans owed by Alameda Research, a cryptocurrency trading fund that Bankman-Fried also founded. Source: US Department of Justice, https://www.justice.gov/opa/pr/samuel-bankman-fried-sentenced-25-years-his-orchestration-multiple-fraudulent-schemes

23. "FTX Statement and FAQs", Temasek, updated 26 November 2022, https://www.temasek.com.sg/en/news-and-resources/news-room/statements/2022/statement-FTX

24. "Our Chairman's Statement on FTX Internal Review", Temasek, 29 May 2023, https://www.temasek.com.sg/en/news-and-resources/news-room/statements/2023/our-chairman-statement-on-ftx-internal-review

25. "Temasek cuts employee compensation after failed FTX investment", *The Business Times*, 29 May 2023.

26. "FTX Statement and FAQs", Temasek, updated 26 November 2022, https://www.temasek.com.sg/en/news-and-resources/news-room/statements/2022/statement-FTX#what-is-Temaseks-track-record-for-early-stage-investments

CHAPTER 8: A TEMPEST UNFORESEEN

1. Dilhan Pillay Sandrasegara, speech at the Singapore Management University (SMU) International Advisory Council (IAC) Asia Summit, 11 August 2022.

2. Ho Ching, personal interview, September 2022.

3. Ng Boon Heong, personal interview, June 2022.

4. Cheo Hock Kuan, personal interview, January 2023.

5. "A Resilient Portfolio Amidst the Covid-19 Pandemic", Temasek, 21 July 2020, https://www.temasek.com.sg/en/news-and-resources/news-room/news/2020/a-resilient-portfolio-amidst-the-covid-19-pandemic

6. Ho Ching, personal interview, September 2022.

7. Fidah Alsagoff was previously Temasek's Head of Life Sciences.

8. Thermo Fisher Scientific Inc. is an American supplier of scientific instrumentation, reagents and consumables, and software services.

9. Fidah Alsagoff, personal interview, June 2022.

10. Woon Saet Nyoon was Chief Executive of Temasek Foundation Cares during the COVID-19 period.

11. Woon Saet Nyoon, personal interview, June 2022.

12. "National Awards (COVID-19) – Recipients", Prime Minister's Office Singapore, https://www.pmo.gov.sg/National-Awards/Recipients?page=1&award=&keywords=temasek

13. White Paper on Singapore's Response to COVID-19: Lessons for the Next Pandemic, p. 78, Gov.sg, https://www.gov.sg/article/covid-19-white-paper

14. Fidah Alsagoff, personal interview, June 2022.

15. *Temasek Review* 2023, p. 142.

16. Frederick Teo, personal interview, June 2022.

17. Fidah Alsagoff, personal interview, December 2022.

18. Fidah Alsagoff, personal interview, June 2022.

19. Shaun Seow, personal interview, June 2022.

20. Fidah Alsagoff, personal interview, June 2022.

21. Juliet Teo, personal interview, July 2022.

22. Frederick Teo, personal interview, June 2022.

23. Temasek Trust Conversation 2020, "New Pathways of Philanthropy – Reinventing how we do good during bad times", p. 6.

24. The Singapore Circuit Breaker was a stay-at-home order implemented as a preventative measure by the Government in response to the COVID-19 pandemic. It started on 7 April 2020 and continued, in various phases, until mid 2022.

25. Wong Heang Fine, personal interview, September 2022.

26. Joyce Teo, "Top Covid-19 National Awards to be given to 3 who played key roles in fight against pandemic", *The Straits Times*, 30 December 2022.

27. Tan Chong Meng, personal interview, August 2022.

28. "A Ground-Up Nationwide Initiative to Save Lives Through Hand Hygiene", Temasek, 5 June 2020, https://www.temasek.com.sg/en/news-and-resources/stories/community/BYOBclean-Sanitiser

29. Tan Suan Swee, personal interview, July 2022.

30. Ng Boon Heong, personal interview, June 2022.

31. Tan Suan Swee, personal interview, July 2022.

32. All in, Temasek has had seven mask distribution exercises.

33. *Temasek Review* 2022, Chairman's Message.

34. Lim Hock Chuan, personal interview, July 2022.

35. Warburg, https://warburgvending.com.sg/about-us/

36. The Personal Data Protection Act (PDPA) provides a baseline standard of protection for personal data in Singapore. It comprises various requirements governing the collection, use, disclosure and care of personal data in Singapore.

37. GovTech spearheads the digital transformation within Singapore's public sector and is a statutory board of the Government of Singapore, under the Prime Minister's Office. It was restructured from the Infocomm Development Authority of Singapore in 2016, and officially legislated in Parliament on 16 August that year.

38. Lim Hock Chuan, personal interview, July 2022.

39. TraceTogether tokens were physical devices that exchanged Bluetooth signals with other TraceTogether tokens or TraceTogether mobile apps nearby, to aid digital contact tracing efforts.

40. Yip Wai Yee, "Coronavirus: SIA, Temasek Foundation to help transport supplies globally to pandemic front lines", *The Straits Times*, 11 August 2020.

41. In November 2023, Benedict Cheong became Chief Systems Integration Officer at Temasek Trust.

42. Tata SIA Airlines is a joint venture between Tata Sons and Singapore Airlines and operates under the flagship brand name Vistara. In 2023, Tata Sons and Singapore Airlines sought the Competition Commission of India's approval to merge Vistara with Air India, which is fully owned by Tata Sons.

43. Benedict Cheong, personal interview, June 2022.

44. Fidah Alsagoff, personal interview, December 2022.

45. Lena Goh, personal interview, June 2022.

46. A*STAR stands for the Agency for Science, Technology and Research, a statutory board under the Ministry of Trade and Industry of Singapore. It supports R&D that is aligned to areas of competitive advantage and national needs for Singapore.

47. Masks Sewn With Love was a nationwide campaign which started in April 2020. It encouraged members of the public to volunteer to sew masks for vulnerable communities.

48. Stephen Forshaw was Head of Temasek's Public Affairs from 2011 to 2022.

49. Stephen Forshaw, personal interview, June 2022.

50. Lena Goh, personal interview, June 2022.

51. Goh Choon Phong was appointed CEO of SIA in January 2011.

52. Dilhan Pillay Sandrasegara, "2023 Chinese New Year TPC Luncheon, Closing Remarks by Mr Dilhan Pillay", Singapore, 26 January 2023.

53. Stephen Forshaw, personal interview, July 2022.

54. Stephen Forshaw, personal interview, July 2022.

55. Dilhan Pillay Sandrasegara, "Fireside chat with Rodi Guidero, Executive Director, Breakthrough Energy Ventures, at Breakthrough Energy Summit", Seattle, Washington, 19 October 2022.

56. Jonathan Burgos, "Singapore Airlines Bets Big On India", *Forbes*, 31 January 2024.

57. The OneAviation Resilience Package comprised three key components, namely (i) manpower support; (ii) cost relief and support for public health safeguards; and (iii) industry and workforce transformation support. For more details, see https://www.mot.gov.sg/news/Details/500-million-oneaviation-resilience-package-to-boost-aviation-sector-recovery

58. Juliet Teo, personal interview, October 2022.

59. "SIA Group Posts Highest Net Profit In Its 76-year History", Singapore Airlines, 16 May 2023, https://www.singaporeair.com/saar5/pdf/Investor-Relations/Financial-Results/News-Release/nr-q4fy2223.pdf

60. "Singapore Airlines and Tata Sons to Merge Air India and Vistara, Creating India's Leading Airline Group", Singapore Airlines, 29 November 2022, https://www.singaporeair.com/ko_KR/kr/media-centre/press-release/article/?q=en_UK/2022/October-December/ne0922-221129

61. Dilhan Pillay Sandrasegara, "2023 Chinese New Year TPC Luncheon, Closing Remarks by Mr Dilhan Pillay", Singapore, 26 January 2023.

62. "SIA Group Posts Highest Net Profit In Its 76-year History", Singapore Airlines, 16 May 2023, https://www.singaporeair.com/saar5/pdf/Investor-Relations/Financial-Results/News-Release/nr-q4fy2223.pdf

63. Grace Leong, "Temasek unit Heliconia throws $810m lifeline to troubled Pacific International Lines", *The Straits Times*, 12 November 2020.

64. Tan Chong Lee was previously President at Temasek International, heading its EMEA, SEA and Portfolio Management teams. He left the firm in 2022 and is currently CEO of investment firm 65 Equity Partners.

65. Tay Peck Gek, "Pacific International Lines posts US$3 billion earnings for 2022", *The Business Times*, 7 June 2023.

CHAPTER 9: A WHOLE NEW WORLD

1. Lim Ming Pey, personal interview, January 2023.

2. Dilhan Pillay Sandrasegara, email to staff, 18 May 2022.

3. Stephen Forshaw, personal interview, July 2022.

4. Meritocracy, Excellence, Respect, Integrity, Teamwork and Trust.

5. Chia Song Hwee, personal interview, November 2022.

6. Polly Cheung, "Morgan Stanley-backed Tianhe Chemicals Shifts IPO Plan to HK from London", *Greater China Private Equity Review Daily*, 8 July 2013.

7. Chia Song Hwee, personal interview, June 2023.

8. Kevin Xu, "SFC acts on Tianhe revenue claims", *The Standard*, 8 September 2020.

9. Nagi Hamiyeh, personal interview, November 2022.

10. Png Chin Yee, personal interview, February 2023.

11. Dilhan Pillay Sandrasegara, personal interview, March 2023.

12. Ho Ching, personal interview, February 2023.

13. Ho Ching, "Capital for Purpose" (keynote address, Singapore, 19 January 2019), St Gallen Symposium Singapore Forum 2019.

EPILOGUE

1. VUCA stands for Volatility, Uncertainty, Complexity and Ambiguity.

2. Temasek Connection is an annual gathering of Temasek employees from around the world, in one place, to hear about the company's latest plans and to share their experiences.

3. Lee Kuan Yew, "Speech by Minister Mentor Lee Kuan Yew at the S. Rajaratnam Lecture on 9 April 2009", Prime Minister's Office Singapore, https://www.pmo.gov.sg/Newsroom/speech-mr-lee-kuan-yew-minister-mentor-s-rajaratnam-lecture-09-april-2009-530-pm-shangri

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