

Investor  
Institution  
Steward





*Investor  
Institution  
Steward*

**B**orn scarcely a decade into Singapore's independence, we had no blueprint except for the Singapore DNA of integrity and courage.

We grew with a transforming Singapore, ventured abroad in an ascendant Asia, and tapped into emerging global trends.

We constantly reinvent ourselves to remain relevant. Agility, Alignment and Accountability are our watchwords in the new world of disruptive technologies, uncertain geopolitics, and shifting economic powers.

We treasure the solid foundation laid by pioneers before us, in and outside of Temasek. Our culture of ownership shapes our institution. Our people are the bedrock of our Temasek values. Our purpose and passion give us courage to embrace the future and its endless possibilities.

Doing the right things today with tomorrow in mind, we strive for an ABC World –  
an *Active* Economy for jobs and opportunities;  
a *Beautiful* Society of peace and inclusion;  
and a *Clean* Earth as our common home.

Forty-three years on, we remain true to our DNA, our roots, our core –  
as an active Investor,  
a forward looking Institution,  
and a trusted Steward.

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[temasekreview.com.sg](http://temasekreview.com.sg)  
 or scan the QR code



## Temasek is an active investor and shareholder.

### We deliver sustainable value over the long term.

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- Temasek is an investment company. We own and manage our assets based on commercial principles.
- As an active investor, we shape our portfolio by increasing, holding or decreasing our investment holdings. These actions are driven by a set of commercial principles to create and maximise risk-adjusted returns over the long term.
- As an engaged shareholder, we promote sound corporate governance in our portfolio companies. This includes the formation of high calibre, experienced and diverse boards.
- Our portfolio companies are guided and managed by their respective boards and management; we do not direct their business decisions or operations.
- Similarly, our investment, divestment and other business decisions are directed by our Board and management. Neither the President of Singapore nor our shareholder, the Singapore Government, is involved in our business decisions.

## Temasek is a forward looking institution.

### We act with integrity and are committed to the pursuit of excellence.

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- As an institution and as individuals, we act with integrity and are guided by our Temasek values.
- We foster an ownership culture which puts institution above individual, emphasises long term over short term, and aligns employee and shareholder interests.
- We pursue excellence as an institution by developing our people, capabilities and processes.
- We challenge and reinvent ourselves to stay relevant in a rapidly changing world. We do things today with tomorrow in mind.

## Temasek is a trusted steward.

### We strive for the advancement of our communities across generations.

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- Temasek is a responsible corporate citizen. We engage our communities based on the principles of sustainability and good governance.
- We support community programmes that focus on building people, building communities, building capabilities and rebuilding lives in Singapore and beyond.
- We engage stakeholders in the development of sound governance practices.
- Under the Singapore Constitution, Temasek has a responsibility to safeguard its past reserves.



*The Temasek  
Charter*

Jasmine Ann Teo, Associate Director, Community Stewardship,  
Sustainability & Stewardship Group, with her son, Kester Lim.

# Ten-year Performance Overview

Our net portfolio value of S\$275 billion was a record high.

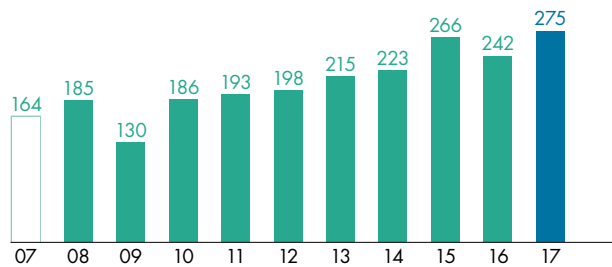
(as at 31 March)

## S\$275b

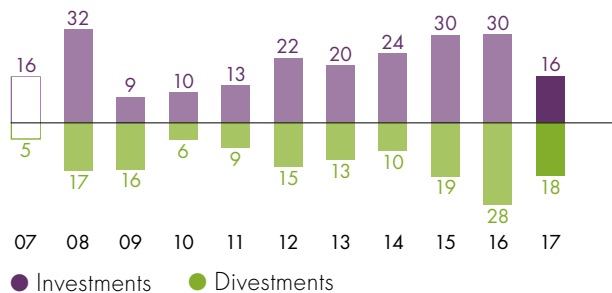
Net portfolio value

Up S\$33 billion  
from last year

Net Portfolio Value (S\$b)



Investments & Divestments (S\$b)



## S\$16b

Invested during the year

Invested S\$206 billion  
over the decade

Portfolio by Geography<sup>1</sup> (%)

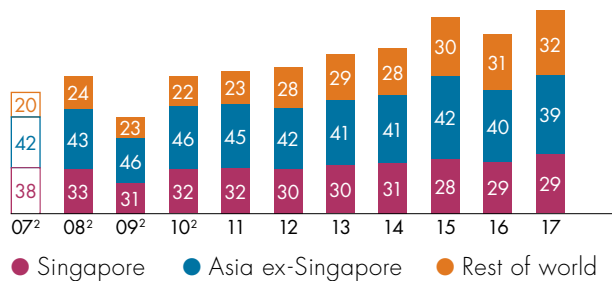
Net portfolio value (S\$b)

164 185 130 186 193 198 215 223 266 242 275

## 68%

Exposure to Asia

Singapore exposure up  
S\$18 billion over 10 years



<sup>1</sup> Distribution based on underlying assets.

<sup>2</sup> Restated on a comparative basis.



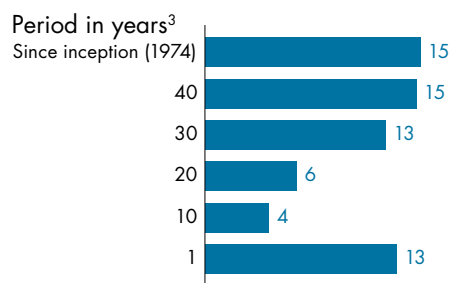
(as at 31 March)

13.37%

One-year return to shareholder

Total shareholder return of 15% since inception

S\$ Total Shareholder Return (%)

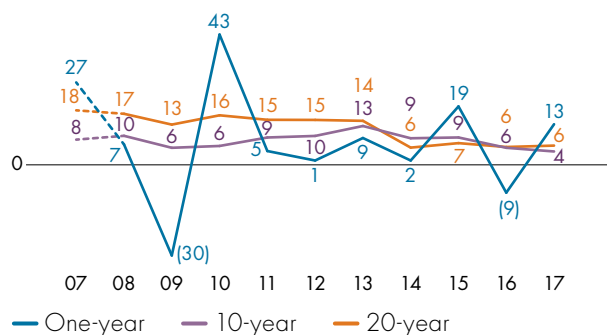


4%

Ten-year return to shareholder

One-year returns of -30% to +43% during decade

Rolling S\$ Total Shareholder Return (%)

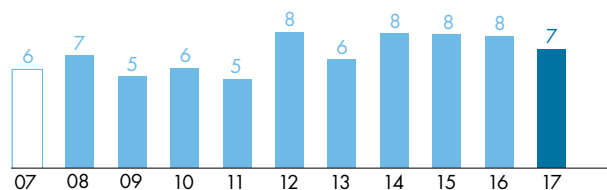


Dividend Income (S\$b)

S\$7b

Dividend income

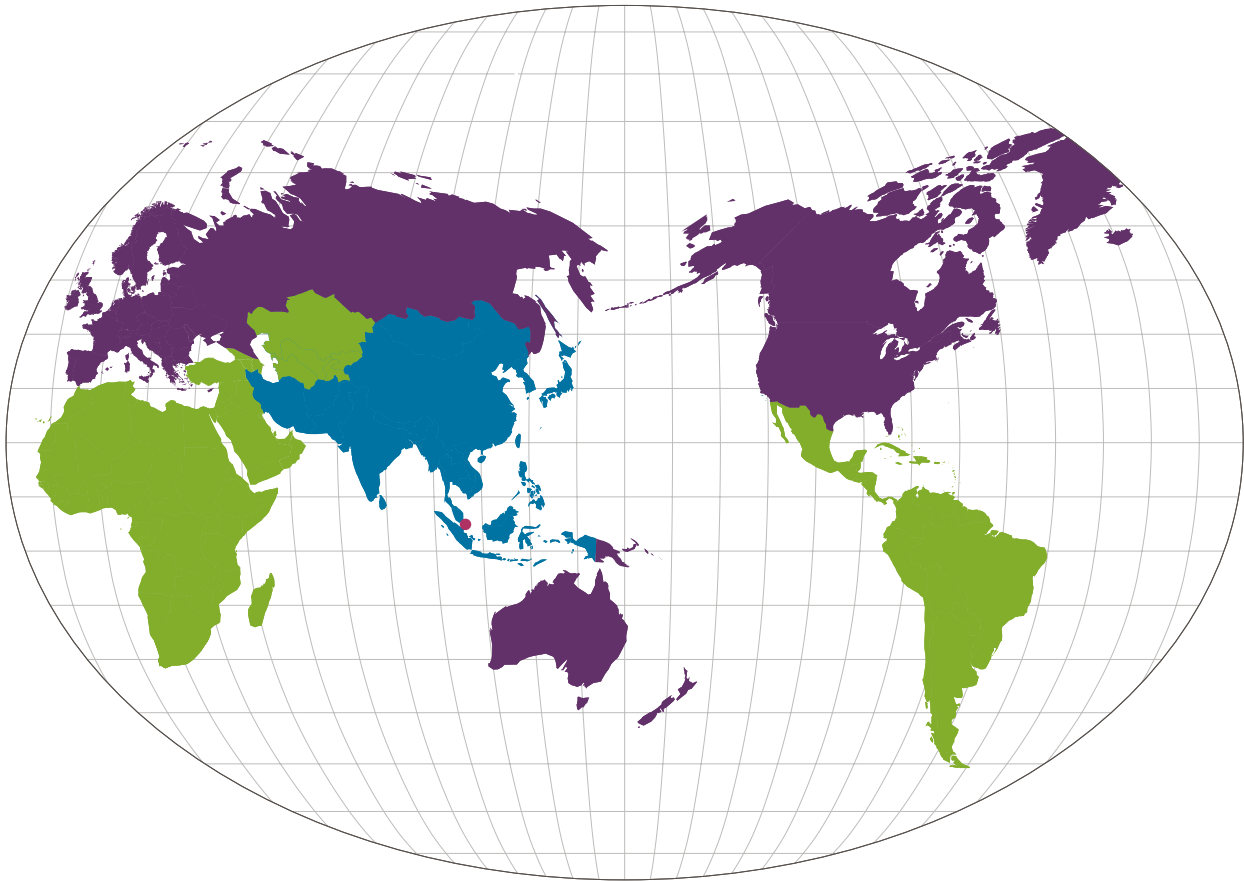
Average annual dividend income of S\$7 billion over the decade



<sup>3</sup> As at 31 March 2017.

# Portfolio Highlights

We have a 60:40 underlying exposure to mature economies<sup>1</sup> and growth regions<sup>2</sup> in our S\$275 billion net portfolio.



(as at 31 March 2017)

## Global Exposure<sup>3</sup>

39%

Asia ex-Singapore

29%

Singapore

28%

North America,  
Europe, Australia  
& New Zealand

4%

Latin America,  
Africa, Central Asia  
& the Middle East

<sup>1</sup> Singapore, Japan & Korea, North America, Europe, Australia & New Zealand.

<sup>2</sup> Asia (excluding Singapore, Japan & Korea), Latin America, Africa, Central Asia & the Middle East.

<sup>3</sup> Distribution based on underlying assets.

(as at 31 March)

Geography<sup>3</sup> (%)

	2017	2016	2015
● Singapore	29	29	28
● China	25	25	27
● Rest of Asia	14	15	15
● North America	12	10	9
● Australia & New Zealand	8	9	9
● Europe	8	8	8
● Africa, Central Asia & the Middle East	2	2	2
● Latin America	2	2	2

Sector<sup>3</sup> (%)

	2017	2016	2015
● Financial Services	25	23	28
● Telecommunications, Media & Technology	23	25	24
● Transportation & Industrials	17	18	17
● Consumer & Real Estate	17	17	15
● Life Sciences & Agribusiness	4	4	3
● Energy & Resources	3	3	5
● Multi-sector Funds	8	7	5
● Others (including Credit)	3	3	3

## Liquidity (%)



	2017	2016	2015
● Liquid & sub-20% listed assets <sup>5</sup>	33	31	34
● Listed large blocs (≥ 20% and < 50% share)	9	10	12
● Listed large blocs (≥ 50% share)	18	20	21
● Unlisted assets	40	39	33

Currency<sup>6</sup> (%)

	2017	2016	2015
● Singapore dollars	60	58	58
● US dollars	19	19	14
● Hong Kong dollars	12	13	15
● Indian rupees	2	2	2
● British pounds sterling	2	1	3
● Others	5	7	8

<sup>4</sup> Exchange rates as at 31 March 2017.

<sup>5</sup> Mainly cash and cash equivalents, and sub-20% listed assets.

<sup>6</sup> Distribution based on currency of denomination.

# From Our Chairman

## The global economy has stabilised somewhat, after a challenging 2015 and a difficult start to 2016.

Economic data from most major markets have improved since the second half of 2016, while medium term inflation expectations have edged up. The global economy held steady through dramatic political transitions, and through the US Federal Reserve's current tightening cycle. This adds cautious confidence to the economic recovery.

### Portfolio Performance

As at 31 March 2017, our net portfolio value rose to a record S\$275 billion<sup>1</sup>, up S\$33 billion from last year, on the back of the global economic recovery and strong performance in equity markets.

One-year Total Shareholder Return (TSR) was 13.37% in Singapore dollar terms. Longer term 10-year and 20-year TSRs were 4% and 6% respectively. TSR since inception in 1974 was 15%.

Our Wealth Added for the year was S\$14.6 billion.

Dividend income from our portfolio was S\$7 billion for the year ended 31 March 2017. This is about 19 times our interest expense for the year.

We ended the year in a net cash position. In liquidity terms, our cash and bank balances, together with our short term investments, were five times our S\$7.7 billion debt that is due over the next decade.

### Agility, Alignment, Accountability

We divested S\$18 billion and invested S\$16 billion during the year. The net divestment of S\$2 billion reflected our measured and disciplined pace of investment and divestment, driven by our cautious global outlook, and tempered by geopolitical risks across the world and rich equity market valuations in key markets.

We continue to shape our portfolio as an active investor, increasing, maintaining or decreasing our holdings based on our views on intrinsic values, as and when opportunities or challenges arise. While the global recovery is gaining momentum, there are still uncertainties. Agility, Alignment and Accountability are our watchwords as an owner and investor, against this backdrop of global risks.

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S\$2b

Net divestment  
for the year

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Over S\$14b

Wealth Added  
for the year

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<sup>1</sup> US\$197 billion as at 31 March 2017.

To ensure our investment stance remains nimble to capitalise on opportunities and withstand shocks, we continued to rebalance our holdings towards longer term as well as emerging new trends. Examples include the digital economy, the needs and demands of growing middle income populations, and the healthcare requirements of ageing societies.

We challenge ourselves to stay relevant in a fast changing world. Our senior bench and wider team remain focused on this objective, so as to deliver sustainable value over the long term. Our culture of ownership and accountability, which places the institution above the individual, has served us well over the years.

We have a constructive outlook on the global economy, but are conscious of political risks and stretched public market valuations, especially over the medium term.

Going forward, we expect the more synchronised global growth to continue, as seen over the past year, driven by key markets in both mature and growth economies. Against this backdrop, we remain hopeful that China, over the medium term, can transition to a more sustainable growth path, though credit risks need to be managed.

In the US, growth remains steady, and the Federal Reserve will likely continue its tightening policy. However, the unwinding of its balance sheet poses some risks to the financial markets.

Over in Europe, economic recovery remains firm. With deflation risks receding and employment data improving, the European Central Bank is expected to normalise monetary policy in a measured manner. We continue to closely monitor European political risks and their effects on the Eurozone.

In Singapore, our economy stands to benefit from the cyclical pickup in global growth, and the Government's ongoing restructuring efforts as it reshapes its future economy.

There are clear risks to this relatively sanguine outlook around the world, such as a potential credit crunch in China, rising geopolitical uncertainties, and increasing global trade protectionism arising from populist politics.

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# S\$275b

Net portfolio value  
as at 31 March 2017

### People, Purpose, Passion

Our people are the bedrock of our institution and our values. In our pursuit of excellence, we are anchored by our Temasek values, integrity foremost among them. As an institution, we develop our people and harness their passion, to do things today with tomorrow in mind and make a difference in all that we do. We remain firmly committed to these principles.

We expanded our coverage in North America by opening our San Francisco office. This provides us a gateway to deepen our relationships in the Bay Area, and develop investment opportunities in emerging sectors of technology, healthcare, life sciences and agribusiness, as well as early stage companies.

The Temasek Americas Advisory Panel met for the second time in February 2017, while the Temasek European Advisory Panel held its fifth meeting in London in May 2017. The panellists' views complement those we receive from our Temasek International Panel members. We thank them all for their invaluable time and perspectives; we benefit immeasurably from their wisdom and experience. I would like to also express our appreciation to David Bonderman, Dr Han Seung-soo, Minoru Makihara, Lucio Noto, Lee Raymond, Sir Richard Sykes, Ratan Tata and Yorihiro Kojima, for their advice over the years. During the year, these distinguished global leaders retired from our Temasek International Panel.

### An ABC World

As an intergenerational steward, we believe that collective action is required to achieve the United Nations Sustainable Development Goals (SDGs) by 2030.

As a generational investor, we know that delivering sustainable returns over the long term is predicated on there being a thriving economy, just society and healthy environment.

As an institution, we advocate for an Active, Beautiful and Clean World – the ABC World of an Active and robust Economy, a Beautiful and inclusive Society, and a Clean and cool Earth – in unequivocal support of the SDGs.

Our fourth *Ecosperity* conference in June 2017, themed "Tomorrow Starts Today!", was well attended by about 400 stakeholders. We believe there is more we can do to tackle the longer term challenges faced by societies. These include ageing populations, climate change, resource scarcity, income inequality and poverty.

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**S\$7b**

Dividend income  
for the year

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**19x**

Dividend income  
over interest expense

In September 2016, we reorganised our endowments and philanthropic organisations under six Temasek Foundations. Their management staff are pooled into the Temasek Foundation Management Services unit. This streamlining brings focus for more effective future contributions and reinforces our commitment to the community.

My predecessor, S Dhanabalan, continues to chair Temasek Trust, which has financial oversight of our endowment gifts. Joining him in Temasek's philanthropic efforts are his fellow Trustees, Euleen Goh and Ng Kee Choe, as well as the eminent chairmen of the six Foundations: Goh Geok Khim, Richard Magnus, Benny Lim, Liew Mun Leong, Professor Leo Tan and Teo Ming Kian. I would like to thank them all, and the Foundations' boards and staff, for helping us build people, build communities, build capabilities and rebuild lives.

### In Appreciation

I would like to thank my former Board colleague Lucien Wong, who stepped down last December and has since taken up the appointment of Attorney-General of Singapore. Lucien had served on the Board since 2013, and I've always found him to be astute, perceptive, and far-sighted. On behalf of the Temasek Board, I would like to express appreciation for Lucien's invaluable contributions and wish him every success in his new appointment.

In addition, it is my great pleasure to welcome Stephen Lee, who joined the Board this month. He brings to our institution a wealth of experience in business, community and the tripartite movement, representing the partnership between the Government, employers and unions.

I thank my Board colleagues for their continued guidance, and the Temasek management and staff for their steadfast dedication to the company. Finally, I would like to express our heartfelt thanks to our shareholder, bondholders, portfolio companies, co-investors, regulators, philanthropic organisations, and the general public, for their support and encouragement all these years.

I am happy that Temasek continues on its generational investing journey, as an Investor, Institution and Steward, working hand in hand with our many stakeholders to make a difference in all that we do.



LIM BOON HENG

Chairman

July 2017

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Agility, Alignment and Accountability are our watchwords as an owner and investor.

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We advocate for an Active, Beautiful and Clean World – the ABC World.

# The DNA of Temasek

We peered into an uncertain future, defended the discipline of the market, debated our rightful role regularly, and charted our own path.

This neatly sums up the early years of Temasek, but girding that journey is the steel of the Singapore DNA. That is the precious and strong foundation laid by our pioneers, in and outside of Temasek.

## A Humble Beginning

1959 saw the first year of self-government in Singapore. The newly elected neophytes were dismayed to inherit a budget deficit of S\$14 million from their colonial predecessors. These young leaders went to work with steely determination; and by year end, the Government delivered a S\$1 million surplus, through sheer will and collective sacrifice.

This early financial discipline set the tone for Singapore ever since. There was a determination to not burden future generations with debt. This shaped the Singapore DNA of integrity, courage, commitment to a sustainable future, and an eye on reality.

## Fighting for Survival

In 1965, a newly independent Singapore found itself bereft of a large hinterland overnight. Barely two years later, Britain announced the withdrawal of military forces, to be completed by 1971. Singapore's largest employment source, an industry accounting for 20% of GDP, would soon vanish.

Even amidst a desperate drive to create jobs, Singapore heeded the lessons from pollution-choked cities in the developed world. In 1970, an Air Pollution Unit, reporting directly to the Prime Minister, was established. The Government steadied its resolve to ensure development was sustainable; it was prepared to lose investments which did not meet strict environmental standards. To champion a garden in a city, an Annual Tree Planting Day was also formalised in 1971.





## An Unplanned Experiment

Nine years into independence, the Government found itself owning a smorgasbord of businesses; many born out of the desire to create jobs. Some were large – a bank, a shipping company and an airline. Others included a zoo, a hotel, a detergent maker and a chicken essence producer.

The Government took the view that it was not its business to manage shareholder minutiae for commercial companies. And so in 1974, Temasek was formed: an experiment out of necessity, to take over this mixed bag of 35 companies<sup>1</sup>. This ensured a clear separation between the Government's role as policymaker and regulator, and that of Temasek as the commercial owner and shareholder of companies.

It is a distinction that prevails today, 43 years later.

## Our Roots, Our Core

Temasek's DNA is rooted in our nation's early years. Our ethos was thus shaped – to be financially disciplined and to live within our means; to drive commercial growth alongside a healthily green environment with clean waters; to do the right things today with tomorrow in mind.

From the start, the Government took a hands-off approach. Our portfolio companies, even then, were subject to market discipline. The board and management team of the then young start-up, Singapore Airlines, knew that the company had to be profitable or face winding up. Indeed, a handful of ailing companies were shuttered.

The message was clear: companies needed to stand on their own, be agile, and embrace a culture of accountability and responsibility. This ethos of market discipline is alive and well today.

## The Heartbeat of Temasek

Our Temasek DNA guides our people. Meritocracy and Integrity are our watchwords. We want to build an institution of dedicated professionals with good hearts and clear heads, who think and act as owners and stewards, beyond their own tenure. We care that our people can grow with Temasek and with our wider community.

This is our ownership mindset. Our remuneration philosophy also reflects our purpose and passion for what we do. A substantial part of our incentives are deferred for as long as 12 years. If our returns are not sustained, our people share the pain – their deferred bonuses are clawed back.

## Our ABC World and Home

Just as no person is an island, we are part of a larger community. We were born out of Singapore's early challenges. We grew alongside its development, which, in turn, benefited from global trade and trends.

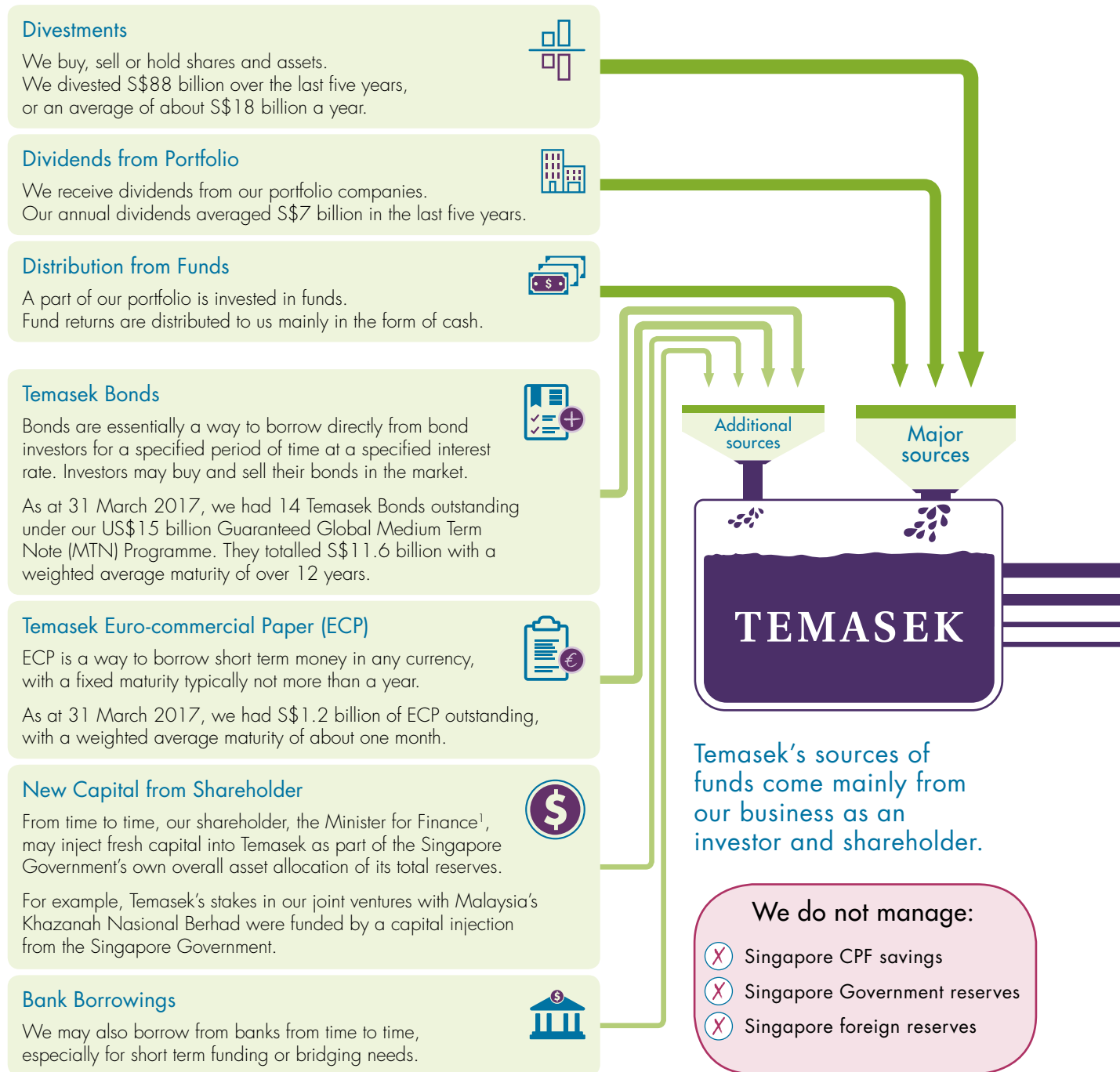
Our communities have allowed us to share in their growth. It is our rightful responsibility to share our successes with them. Since 2004, we have been setting aside part of our excess returns for community contributions. Today, we have six Foundations overseeing 17 philanthropic endowments, to build people, build communities, build capabilities, and rebuild lives.

Together, we strive for an Active, Beautiful and Clean (ABC) World – an Active, robust Economy supporting jobs and opportunities; a Beautiful, inclusive Society for peace and harmony; and a Clean, cool Earth as our common home, and for our future generations.

<sup>1</sup> See the list of companies in the initial portfolio on page 100.

# Ins & Outs of Temasek

A visual guide to Temasek's sources of funds and how their use may benefit you, businesses or the community at large.



<sup>1</sup> Under the Singapore Minister for Finance (Incorporation) Act (Chapter 183), the Minister for Finance is a body corporate.

<sup>2</sup> Associated costs include operating and financing expenses; transaction costs such as due diligence, legal, audit, advisory and other fees; fund management fees for funds; and other business costs.

Explore the *Ins & Outs of Temasek* at [temasekreview.com.sg/insandouts](http://temasekreview.com.sg/insandouts) or scan the QR code



### Investments and Associated Costs<sup>2</sup>

We invest in companies with outstanding management, good employees and sound governance, along with competitive products and services.

By investing in such companies, Temasek supports them to grow and sometimes expand into new markets, develop new products, provide services that help make lives better or fulfil the needs of customers.



### Dividends to Shareholder

We pay dividends to our shareholder as part of our financial discipline. Up till 2015, 50% of these dividends, also known as NII<sup>3</sup>, could be used by the Singapore Government for budget spending, including for long term commitments like the Pioneer Generation Package of 2014.

Together, such NII/NIR Contributions totalled about S\$7 billion to S\$9 billion annually from 2009 to 2015. They supplemented other sources of operating revenue and enabled the Government to prepare for long term needs, such as the enhanced support for the silver generation.

### NII/NIR Contributions to Singapore Government Budget

From 2009 to 2015, apart from Temasek's NII Contributions, other Singapore entities such as GIC also contributed to the budget through the NIR<sup>4</sup> spending rule based on their respective expected long term real returns.

From 2016 onwards, Temasek has been included in the NIR framework. This has increased the spending capacity of the Government, with NII/NIR Contributions projected to be the largest component of Government revenue at about 17% of the 2017 Government Budget.

Temasek will continue to pay dividends as part of our financial discipline, based on our dividend policy. The NIR framework does not require Temasek to pay more dividends, or sell any assets.



### Taxes

Temasek pays taxes<sup>5</sup> on the profits it earns in various countries. Such taxes contribute to government revenues in these countries.

Taxes paid to the Singapore Government help to fund spending for public services ranging from defence and education, to healthcare and social services in Singapore.



### Supporting Communities

Whenever Temasek achieves a return above its risk-adjusted cost of capital, we set aside a portion of the excess returns to share with the community.

These are gifted into endowments, each with specific mandates for research and social initiatives, and for community and capacity building programmes, mostly across Asia and in Singapore.

To date, our non-profit initiatives have touched the lives of over 500,000 people, in Singapore and Asia.

### Staff-initiated Programmes

Our staff-driven *T-Touch* volunteer initiative is another avenue for our staff to make a difference in the community, in their own way.

They volunteer ideas, time and money regularly to support their chosen charities, benefiting the elderly, children with special needs, the needy and the disadvantaged.

Causes that they personally support and pursue include the integration of the blind in sports and fundraising for the less fortunate through running.

<sup>3</sup> NII is Net Investment Income comprising actual dividends and interest income.

<sup>4</sup> NIR is Net Investment Returns based on expected long term real rates of returns from investments.

<sup>5</sup> Temasek pays taxes, unlike other sovereign owned companies which may claim sovereign exemption from taxes.



Agility

Alignment



# Investor

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Left to right:  
Sarvesh Agarwal, Senior Associate, Investment;  
Charlene Teh, Associate Director, Value Management;  
Team Tan, Senior Associate, Enterprise Development Group.

# Value since Inception

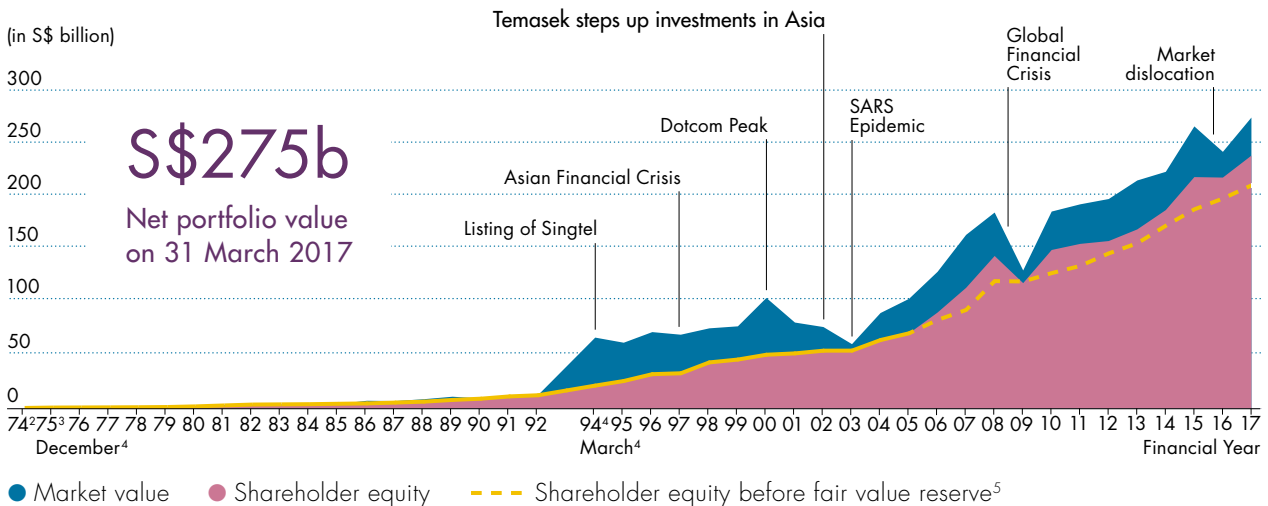
In our earlier years, we grew with our portfolio companies as Singapore transformed. Since 2002, we have actively invested in the transformation of Asia and beyond.

We began in 1974 with a portfolio<sup>1</sup> that reflected an industrialising Singapore. Some of these companies, and others added since, have grown into iconic Singapore brands such as Singapore Airlines and the Singapore Zoo. Companies like DBS, Singtel and Keppel have transformed into international businesses, alongside the country's rapid development.

We continue to seed and grow the next generation of companies, even as we invest into new emerging sectors such as cyber security and sustainable technologies.

As at 31 March 2017, our net portfolio value was S\$275 billion.

## Temasek Net Portfolio Value since Inception



<sup>1</sup> See the list of companies in the initial portfolio on page 100.

<sup>2</sup> Incorporation of Temasek on 25 June 1974.

<sup>3</sup> Financial year 75 began on 25 June 1974 and ended 31 December 1975.

<sup>4</sup> Financial year-end was changed from 31 December before 1993 to 31 March from 1994 onwards.

<sup>5</sup> FRS39 *Financial Instruments: Recognition and Measurement*, introduced during the financial year ended 31 March 2006, requires available-for-sale financial assets to be measured at fair value.

# Total Shareholder Return

## We track our total returns to our shareholder over various periods.

Total Shareholder Return (TSR) is a compounded and annualised measure, which includes dividends paid to our shareholder and excludes capital injections from our shareholder. Our TSR over short, medium, and long time periods are a snapshot of our performance.

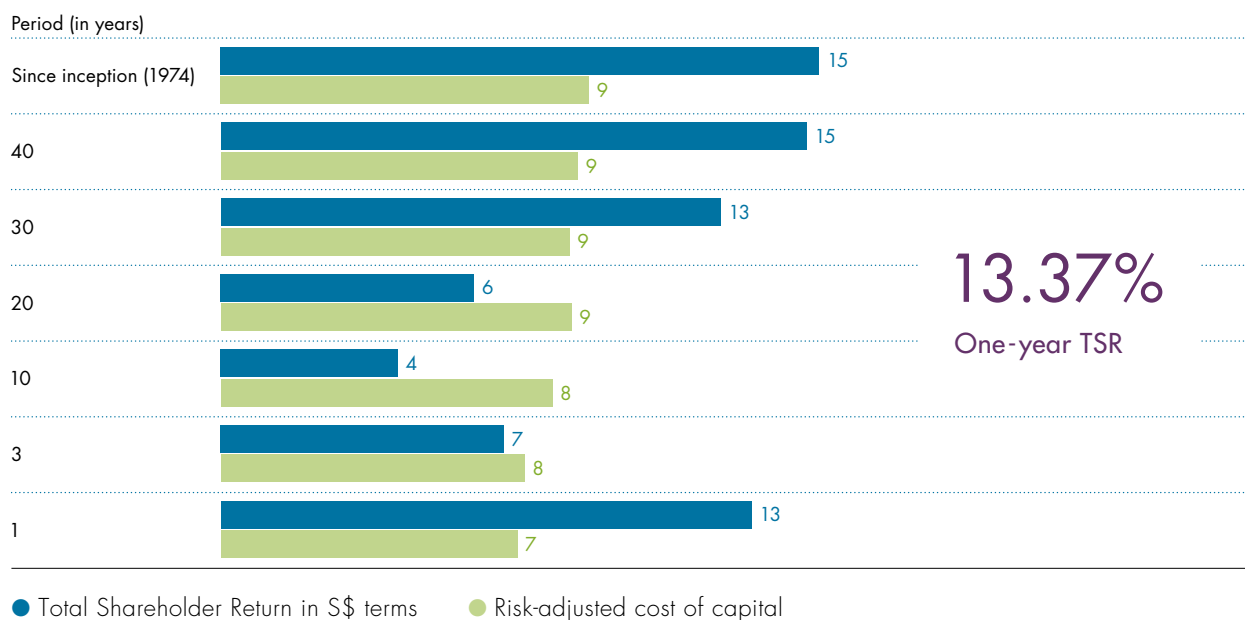
As at 31 March 2017, our Singapore dollar<sup>6</sup> one-year TSR was 13.37%. Our three-year TSR was 7.13% and our 10-year TSR was 4%.

Our 20-year TSR was 6%, versus the Singapore 20-year annualised core inflation<sup>7</sup> of under 2%. Longer term 40-year TSR was 15%.

Our TSR is measured against our risk-adjusted cost of capital, which is derived using a capital asset pricing model. The risk-adjusted cost of capital is built bottom-up, and aggregated over all our investments.

(as at 31 March 2017)

### S\$ Total Shareholder Return and Risk-Adjusted Cost of Capital (%)



<sup>6</sup> TSR in US\$ terms was 9%, 3%, 5%, 7%, 14%, 16% and 17% for 1, 3, 10, 20, 30, 40 and 43-year periods respectively.

<sup>7</sup> As of the year ended March 2017, annualised core inflation in Singapore was 1.1%, 1.9% and 1.5% for 1, 10 and 20-year periods respectively (Source: Monetary Authority of Singapore).

# An Active Investor

**We are a generational investor, investing for generations to come. We aim to deliver sustainable value over the long term to our stakeholders.**

Our investment philosophy has remained largely unchanged over the last 15 years. We are committed to our roles as an investor and owner of our portfolio, seeking to deliver sustainable returns over the long term, and make a difference in what we do.

We have evolved over time since our inception – from investing mostly in Singapore, to investing elsewhere as well; in Asia, Europe and the Americas. Our portfolio companies have also grown their regional and global footprint through the years.

Our investment activities continue to be guided by four investment themes and the long term trends they represent:

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

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

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

As an owner, we maintain full flexibility to actively reshape and rebalance our portfolio, whenever opportunities or challenges arise. We retain the option to take concentrated positions or remain in cash. We do not set limits or targets for asset classes, countries or sectors. We invest or divest in line with our outlook and value tests. Our balance sheet resilience and liquidity management help us weather volatile periods. From time to time, we may put on additional protection to weather specific events.

As a shareholder, we identify value creation opportunities across our portfolio and share our perspectives, at appropriate junctures, with the boards and management of our portfolio companies, for their consideration. We promote good governance and look to boards to drive strategy, and to management to run their respective companies.

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**In aggregate since 2002, our investments in unlisted securities have delivered better returns than our investments in listed securities.**



We invest in unlisted assets to benefit from the listings or sales of such investments at a premium. In aggregate since 2002, our investments in unlisted securities have delivered better returns than our investments in listed securities.

Our unlisted assets comprise companies and funds. Our unlisted blue chip companies, such as PSA and Mapletree, and our portfolio of high quality funds, pay steady dividends and distributions. Our investments in funds have been instrumental in helping us gain deeper insights into new markets and have provided co-investment opportunities. We also share some of the investment opportunities with like-minded co-investors.

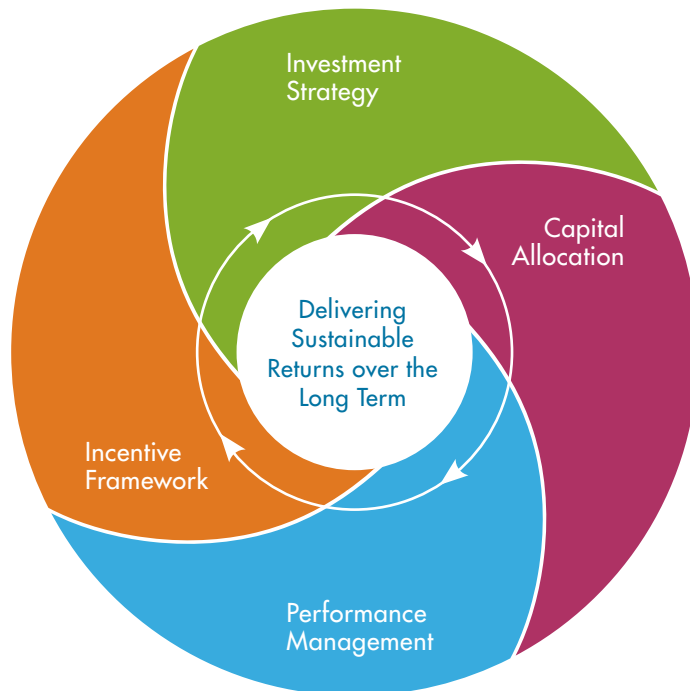
From time to time, we may express our interest to invest or divest selected positions or manage our portfolio through options and warrants. We may also use derivatives to hedge currency and potential losses of our underlying investments, where gains and losses of the derivatives are matched against corresponding losses and gains in the underlying investments.

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**Our investments and divestments are based on intrinsic value tests.**

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### Delivering Sustainable Returns over the Long Term



# Investing for Generations

**We continued to rebalance our portfolio with a measured and disciplined investment pace, and a focus on private, negotiated opportunities.**

During the financial year ended 31 March 2017, we divested S\$18 billion and invested S\$16 billion.

We maintained our divestment pace as we continued to rebalance our portfolio based on our global outlook. Given geopolitical risks across the world and rich equity market valuations in key markets, we adopted a measured and disciplined investment pace, with a focus on private, negotiated opportunities. This resulted in a net divestment of S\$2 billion, the first time since the financial year ended 31 March 2009 that we ended the year with a net divestment.

Since 2011, there has been steady growth, as a proportion of our portfolio, of identified new focus areas – technology, life sciences, agribusiness, non-bank financial services, consumer, and energy & resources. As at 31 March 2017, these areas constituted 24% of our portfolio, up from 8% in 31 March 2011. Our aggregate returns since 2011 from new investments in these areas have outperformed the overall portfolio.

Temasek plays an enabler role by investing across all stages of enterprise growth, from early stage companies to more mature ones. We seek out companies with disruptive business models and technologies. We also identify and nurture enterprises that are potential leaders in their industry, and have a focus on innovation to drive success and make a difference.

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Identified new focus areas constituted 24% of our portfolio, up from 8% six years ago.

## Investment Highlights

The major sectors in which we invested during the year were telecommunications, media & technology, transportation & industrials, and life sciences & agribusiness.

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Our aggregate returns from new investments in new focus areas have outperformed the overall portfolio.

In telecommunications, media & technology, we continued to invest in companies with distinct competitive advantages. We invested in Ctrip, a Chinese online travel reservations platform; Amazon, a global online retailer and cloud computing company; Koubei, an Alibaba-affiliated local services guide platform for offline merchants in China; and Wish, a global, mobile-first e-commerce marketplace. We also invested an additional S\$1.6 billion via new shares in Singtel, a telecommunications provider in Asia; this transaction involved the sale of part of our stake in Intouch Holdings, and our remaining shareholding in Bharti Airtel, to Singtel.

In transportation & industrials, we acquired all the minority shares, via a scheme of arrangement, in SMRT Corporation, a multi-modal land transport operator in Singapore – for a consideration of S\$1.2 billion. Following completion of the acquisition, SMRT was delisted from the Singapore Exchange. We also invested in PPG Industries, a US-based manufacturer of paints and coatings.

Within life sciences & agribusiness, we committed US\$800 million to Verily Life Sciences, a life sciences research and engineering organisation spun off from Google. We also continued to invest in a number of companies developing innovative and sustainable solutions. These include SuperBAC, a Brazilian microbial fertiliser company; VoloAgri Group, a US-based vegetable seeds producer; and Impossible Foods, a company developing plant-based meat and dairy products.

The US again accounted for the largest share of our new investments during the year. Within the US, we also invested in Antero Resources, an independent energy exploration and production company; and Modern Meadow, a developer of lab-grown bio-fabricated leather.

In addition, we continued to make investments in Asia. Singapore accounted for the largest share of these investments, driven by our increased stakes in Singtel and SMRT. In India, we invested in SBI Life, a life insurance company; and Crompton Greaves Consumer Electricals, a company manufacturing and marketing consumer electronics. We also increased our stake in HDFC Bank, a private sector bank with exposure to retail and corporate segments. In China, we invested in ZTO Express, a logistics provider addressing e-commerce deliveries. Our exposure to the construction materials sector was increased via Ssangyong Cement, a South Korea-based cement manufacturing company.

As and when opportunities arise, we look to reshape and rebalance our portfolio. In certain instances, we capitalised on rich market valuations to exit some of our holdings. We may re-enter when valuations are corrected.

Our key divestments during the year included our positions in Synchrony Financial, Bharti Airtel, LafargeHolcim and Evonik Industries, as well as part of our stake in Intouch Holdings.

We also exited some holdings via acquisitions by third parties, alongside the uptick in global M&A activity during the year. Examples of this are the divestments of our stakes in Neptune Orient Lines and B/E Aerospace.

While we have divested part of our holdings in Alibaba, Univar and China Construction Bank, we continue to retain significant exposures in these companies.

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## S\$16b

Investments  
for the year

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## S\$18b

Divestments  
for the year

Post March 2017, we invested in WuXi NextCODE, a fully integrated contract genomics organisation with a presence in China, the US and Iceland, that is developing an end-to-end platform for genomic data. We also signed a definitive agreement to acquire a majority stake in US-based Global Healthcare Exchange, which provides an electronic trading exchange and cloud-based supply chain software for healthcare providers and suppliers.

### Seeding New Businesses

We seed new businesses that are expected to yield sustainable returns, including those with long gestation periods. An example is Mandai's rejuvenation into an integrated wildlife and nature heritage precinct. We established Mandai Park Holdings to conceptualise and drive this initiative.

In late 2016, Mandai Park Holdings obtained the appropriate approvals to proceed with the rejuvenation. A ground-seeding ceremony was held in January 2017 to mark the start of construction. The Singapore Zoo, River Safari and Night Safari will be augmented with a new Bird Park, a Rainforest Park, indoor edutainment attractions and eco-lodges. The development will be completed in phases, with the Bird Park scheduled to open in 2020.

Temasek established Pavilion Energy in 2013 to address the region's growing demand for clean and reliable energy, with a focus on the liquefied natural gas (LNG) supply chain. In October 2016, Pavilion Energy's subsidiary Pavilion Gas was awarded one of two LNG import licences by the Singapore Government to supply one million tonnes of LNG a year, for up to three years.

### Enabling Growth Capital

During the year, Heliconia Capital invested in five Singapore-based small & medium enterprises. It invested in the consumer, urbanisation, and technology sectors. Investments included One Championship, a live sports entertainment events company; HRnetGroup, a recruitment and human resource solutions provider in Asia; Sanli M&E Engineering, a specialist water engineering company; and Ascent Solutions, an Internet-of-Things solutions provider focused on cargo and supply chain tracking.

In February 2017, the Singapore Ministry of Finance announced a new S\$600 million International Partnership Fund, to be managed by Heliconia Capital. The fund will co-invest with Singapore-based firms to help them scale up and internationalise, with a focus on Asian markets.

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We seed new businesses that are expected to yield sustainable returns, including those with long gestation periods.

## Transforming Existing Businesses

In June 2015, the merger of entities owned by Temasek and JTC Corporation formed an integrated platform for sustainable urban solutions.

Ascendas-Singbridge was created via this merger. In December 2016, Ascendas-Singbridge partnered NUS Enterprise to set up The Hangar, Singapore Science Park, which is Singapore's first deep technology hub.

Ascendas-Singbridge also expanded its business space solutions offerings to include flexible work spaces. In March 2017, Ascendas-Singbridge partnered Spacemob, the Vertex Ventures-backed coworking space operator, to launch 14,000 square feet of coworking space in Singapore Science Park 1.

Surbana Jurong was the other entity created through the June 2015 merger. Enhancing its range of technological urban solutions, Surbana Jurong launched its "Smart City in a Box" platform in July 2016. The platform will help officials better track, monitor and manage cities, through a dashboard of integrated smart applications.

## Fostering Innovation

We established Red Dot Capital Partners, a US\$150 million fund providing growth capital to Israel-based technology companies which plan to expand to Asia.

In addition, together with EDBI, we established Lightstone Singapore, a US\$50 million fund seeking to commercialise the biomedical sciences intellectual property of Singapore research institutes.

## Developing Co-Investment Platforms

In June 2016, our wholly owned subsidiary Azalea Asset Management launched Astrea III, Singapore's first listed bonds backed by cash flows from a diversified portfolio of private equity funds.

Astrea III is part of our continuing efforts to develop co-investment platforms where diversified portfolios of assets are made available to a broader base of investors, including retail investors.

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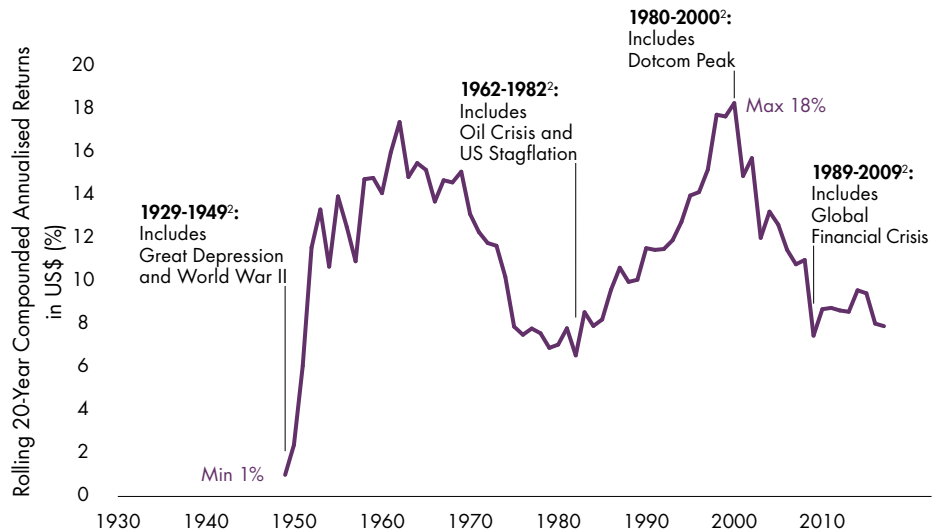
Temasek plays an enabler role by investing across all stages of enterprise growth.

# T-GEM Simulations

Our T-GEM, or Temasek Geometric Expected Return Model, enables us to methodically simulate the range of possible returns for our portfolio over 20 years. These simulations are not predictive of actual outcomes.

As the Temasek portfolio consists predominantly of equities, the T-GEM modelling approach seeks to reflect the volatile nature of equities. The chart below shows that historically, equity returns were volatile, even over long periods.

## US Equity<sup>1</sup> Rolling 20-Year Returns over Time (Compounded Annualised)



## Economic Scenario-Based Approach

As equity returns are volatile over time, and influenced by macroeconomic or geopolitical events, T-GEM uses a scenario-based approach to simulate our 20-year long term expected returns. This approach takes into account our views of long term macroeconomic fundamentals over the next 20 years, adjusted for current market valuations.



Find out more about  
T-GEM Simulations at  
[temasekreview.com.sg/tgem](http://temasekreview.com.sg/tgem)  
or scan the QR code

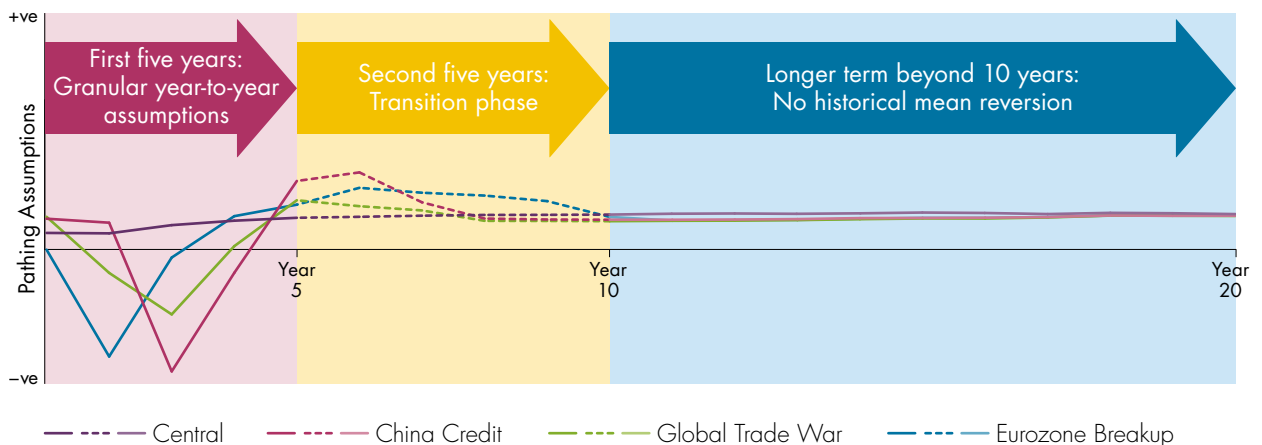
<sup>1</sup> The Standard & Poor's 500 Index.

<sup>2</sup> Rolling 20-year returns include events of the preceding 20 years.

## Projection Based on Economic Fundamentals

In projecting economic fundamentals, we make more granular year-to-year assumptions for the first five years, and transit to more general assumptions based on longer term fundamentals as we go beyond 10 years. This “pathing” approach incorporates assumptions about changes in economic conditions over time. We do not assume an equilibrium return that remains unchanged over the 20-year period, nor do we assume a reversion to the historical mean.

### Economic Scenario Pathing (Illustrative)



### Potential Scenarios for 2017 and Beyond

Potential Scenarios	Description
Central	Our baseline expectations of growth, reflecting our views of the most likely economic pathway.
China Credit	A sharper than anticipated slowdown in growth, as reforms prove too slow to rebalance the economy and address corporate debt-related vulnerabilities. This is a less likely alternate scenario.
Global Trade War	Significant increase in trade conflicts amongst major economies, with substantial escalation in barriers to global trade such as tariffs and retaliatory measures. This is a less likely alternate scenario.
Eurozone Breakup	Member state(s) vote to leave the European Union, triggering the breakup of the Eurozone. This is a less likely alternate scenario.

### T-GEM 20-Year Simulations for Different Portfolio Mix

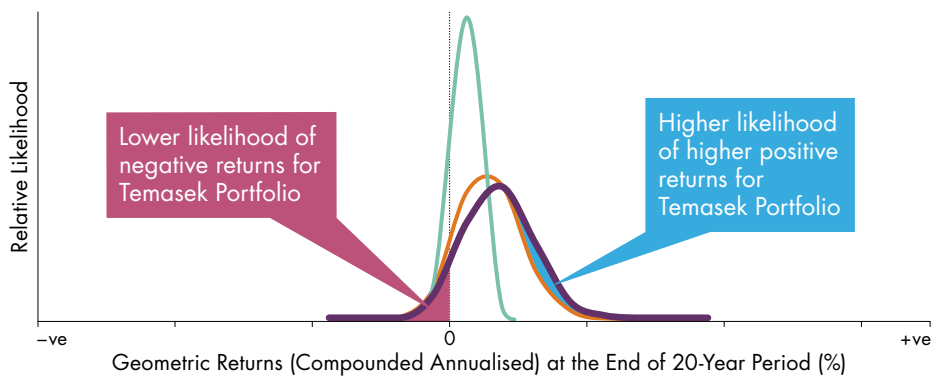
The charts below show the simulated returns for a Global Bond Portfolio<sup>1</sup>, a Global Equity Portfolio<sup>2</sup> and the Temasek Portfolio. The simulations are based on our Central Scenario.

The Global Bond Portfolio has the lowest upside potential, as compared to the Global Equity and Temasek Portfolios. It also has the least volatility, as shown by its narrower year-to-year annual returns distribution curve.

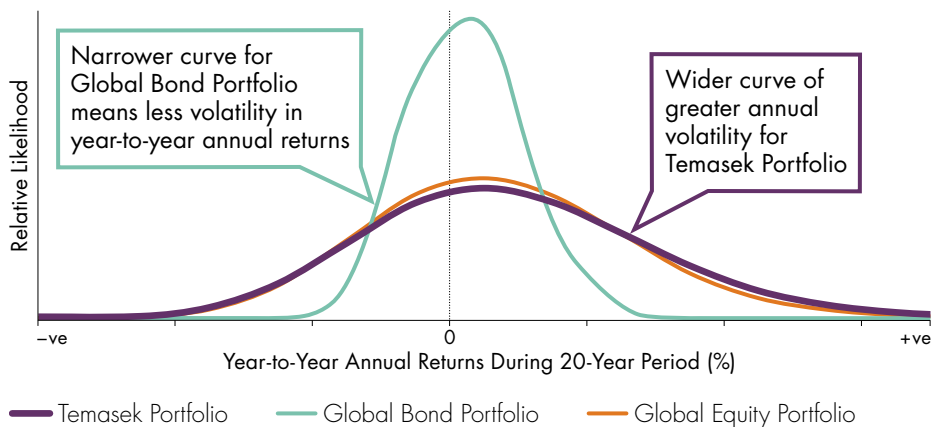
The Temasek Portfolio has the highest upside potential (see blue shaded) at the end of the 20-year period, but also the highest volatility.

(as at 31 March 2017)

#### Likelihood of Geometric Returns (Compounded Annualised) by Portfolio Mix, at the End of 20-Year Period



#### Likelihood of Year-to-Year Annual Returns by Portfolio Mix, During 20-Year Period





### Temasek’s 20-Year Expected Returns for Various Potential Scenarios

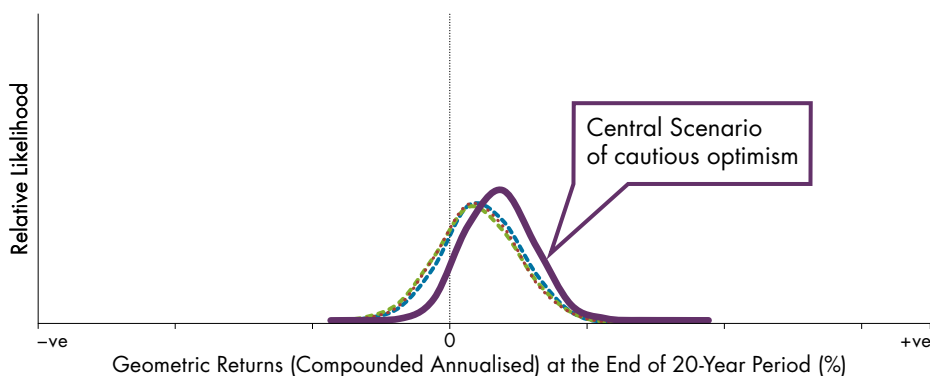
The T-GEM 20-year returns curves for the Temasek Portfolio are shown below for the Central, China Credit, Global Trade War, and Eurozone Breakup Scenarios.

Compared to our Central Scenario, our expected returns over 20 years would be lower in the three alternate scenarios of China Credit, Global Trade War, and Eurozone Breakup.

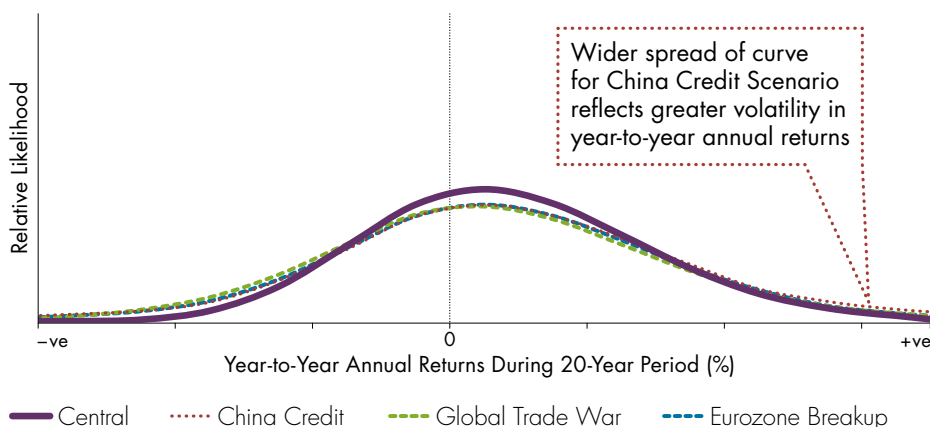
We expect slightly greater volatility in year-to-year returns for a China Credit Scenario, than for our Central Scenario.

(as at 31 March 2017)

#### Likelihood of Geometric Returns (Compounded Annualised) by Potential Scenario, at the End of 20-Year Period



#### Likelihood of Year-to-Year Annual Returns by Potential Scenario, During 20-Year Period



<sup>1</sup> The Global Bond Portfolio uses government bonds within the Bloomberg Barclays Global Aggregate as a proxy.

<sup>2</sup> The Global Equity Portfolio uses the MSCI All Country World Index as a proxy.

# Managing Risk

There are inherent risks whenever we invest, divest, or hold our assets, and wherever we operate.

As an owner, we maintain full flexibility to deploy capital across listed and unlisted assets. We do not have predefined concentration limits or targets for investing, whether by asset class, country, sector, theme or single name. We have the flexibility to take concentrated positions and adopt a long investment horizon. We manage our leverage and liquidity conservatively for resilience and flexibility, even in times of extreme stress.

Our portfolio of mostly equities means higher year-to-year volatility of annual returns, including a higher risk of negative returns in any one year. The higher risk of negative returns in some years comes with an expectation of higher positive returns over the long term. Our long term investment horizon allows us to ride out market volatility and focus on generating sustainable returns.

We promote a culture of risk awareness and balanced risk taking. Our risk sharing compensation philosophy aligns the interests of employees with those of the shareholder, puts the institution above the individual, and emphasises long term over short term. Balanced risk taking applies to both our investments and institutional capabilities.

Our risk management framework covers strategic, performance and operational risks. We track and manage risks proactively and throughout cycles. There are designated risk owners for specific risks at Company or unit levels.

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We have the flexibility to take concentrated positions and adopt a long investment horizon.

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## Risk Categories

Strategic Risks	Performance Risks	Operational Risks
<ul style="list-style-type: none"><li>• Reputation</li><li>• Aggregate risk profile</li><li>• Funding and liquidity</li><li>• Political</li><li>• Structural foreign exchange</li><li>• Environmental, social and governance</li></ul>	<ul style="list-style-type: none"><li>• Macroeconomic</li><li>• Geography</li><li>• Industry</li><li>• Markets</li><li>• Tax</li></ul>	<ul style="list-style-type: none"><li>• People</li><li>• Legal and regulatory</li><li>• Systems and processes</li><li>• Counterparty</li><li>• Business disruption</li></ul>

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To minimise operational risks, we embed risk management in our systems and processes. These include our approval authority delegation, company policies, standard operating procedures and risk reporting to our Board.

We have disciplined processes to consider various perspectives. Investment proposals are submitted under a two-key system, for instance by both market and sector teams, to our investment committee. Depending on the size or risk significance, these proposals may be escalated to our Executive Committee or Board for final decision. Functional teams provide additional specialist perspectives and independent reviews. Risk considerations for individual investments include reputation; business; legal and regulatory; tax; funding; environmental, social and governance; and key management risks.

Country and sector risks are factored into our risk-adjusted cost of capital for each investment. We safeguard our investments by adopting valuation discipline.

### Legal & Regulatory

We comply with all obligations under Singapore laws and regulations, including those arising from international treaties. We also comply with the laws and regulations of jurisdictions where we have investments or operations.

Our global footprint, coupled with increasing regulatory oversight, underscore the importance of robust compliance programmes. Our Legal & Regulatory department (LR) ensures that policies, processes and systems are appropriately designed, consistent with applicable laws, and aligned with Board directives. For instance, our policy on derivative transactions permits only personnel authorised by a board resolution to enter into such transactions within tightly defined scopes and limits on behalf of specific designated entities. LR also provides regular education and training on key policies and processes.

LR monitors regulatory reporting compliance through robust securities tracking systems. Regulatory requirements and monitoring systems are continually reviewed and updated to track changes in laws and regulations.

Our Temasek Code of Ethics and Conduct (T-Code) and its related policies guide our Board directors and staff in their daily dealings and conduct. With integrity as a key overarching principle, T-Code policies cover areas such as anti-bribery, whistle-blowing, management of confidential information, and prohibition against insider trading. Our annual staff bonus plans include T-Code compliance requirements.

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Our policy permits only personnel authorised by a board resolution to enter into derivatives transactions within tightly defined scopes and limits.

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Our annual staff bonus plans include T-Code compliance requirements.

### Business Continuity and Incident Management

Our contingency management framework helps ensure business continuity and manage potential risk incidents arising from safety, security and other threats. We are committed to continually improve the way we manage business continuity risks.

We test our readiness through regular data centre recovery exercises. We have a hot site where staff can continue to operate in the event of emergencies. We exercise our response plans frequently to ensure that they remain effective and adequate.

We care for the safety, security and well-being of our staff and their families during emergencies. As we expand globally, we provide necessary assistance to our staff wherever they operate.

### Concentration Profile

Temasek has the flexibility to take large stakes in investments in anticipation of superior returns. Our concentration profile is the result of such investments in aggregate. For the year ended 31 March 2017, our top 10 holdings represent 44% of the total net portfolio value.

Our largest geographic concentration by underlying assets<sup>1</sup> remains in Asia, with 29% and 25% in Singapore and China respectively as at 31 March 2017. The US is third largest at 11%.

Our largest sector concentration as at 31 March 2017 was in the financial services sector, at 25% of the total portfolio, up from 23% a year ago.

Singtel remains our largest single name concentration at 12% of our portfolio in March 2017, down from 18% in March 2007, a decade ago.

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Our long term investment horizon allows us to ride out market volatility and focus on generating sustainable returns.

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<sup>1</sup> We allocate our holdings in companies according to the assets they have in different countries.

Notes to charts on page 35:

<sup>2</sup> Distribution based on underlying assets.

<sup>3</sup> Exchange rates as at 31 March 2017.

<sup>4</sup> Mainly cash and cash equivalents, and sub-20% listed assets.

\* Australia was the third largest country at 9% of 2015 portfolio value.

## Concentration Profile of S\$275b Portfolio

(as at 31 March)

Country<sup>2</sup> (%)

	2017	2016	2015
● Singapore	<b>29</b>	29	28
● China	<b>25</b>	25	27
● USA	<b>11</b>	10	*
● Rest of portfolio	<b>35</b>	36	45

Sector<sup>2</sup> (%)

	2017	2016	2015
● Financial Services	<b>25</b>	23	28
● Telecommunications, Media & Technology	<b>23</b>	25	24
● Transportation & Industrials	<b>17</b>	18	17
● Rest of portfolio	<b>35</b>	34	31

## Single Name (%)



	2017	2016	2015
● Singapore Telecommunications Limited	<b>12</b>	13	13
● DBS Group Holdings Ltd	<b>5</b>	5	6
● China Construction Bank Corporation	<b>4</b>	4	6
● Rest of portfolio	<b>79</b>	78	75

## Liquidity (%)



	2017	2016	2015
● Liquid & sub-20% listed assets <sup>4</sup>	<b>33</b>	31	34
● Listed large blocs (≥ 20% and < 50% share)	<b>9</b>	10	12
● Listed large blocs (≥ 50% share)	<b>18</b>	20	21
● Unlisted assets	<b>40</b>	39	33

### Risk to Short Term Reported Returns

Our mark to market policy aims to reduce the behavioural risk of holding on to poor investments for fear of reporting realised losses. As a result of valuing our listed investments on a mark to market basis, there will be greater volatility in our reported annual results.

In any given year, our net portfolio value may see a once-in-20-years swing of as much as 30-40%. We saw this during the Global Financial Crisis, when our net portfolio value fell 30% in one year, only to rebound 43% the next year.

We use a range of formal market risk metrics to track the forward looking market risks and volatility of our portfolio. These include portfolio Value-at-Risk (VaR), the 12-month forward looking Monte Carlo simulation of the portfolio, and general market risk indicators such as the CBOE<sup>1</sup> Volatility Index (VIX).

Although risk indicators have trended lower since late 2016, a number of key risks remain on the horizon, including concerns over a credit crunch in China, uncertainties around rising trade protectionism, and political risks in Europe. Depending on the outcomes of these events, a quick escalation in risk and a consequent downturn in equity markets is a possible scenario. In addition, long term risks may continue to be masked by central banks' accommodative policies since the Global Financial Crisis. We remain vigilant and take a proactive approach managing these risks.

Looking to the immediate future, we use Monte Carlo simulation based on past market data to gain a sense of the likelihood of a range of returns at the end of the next 12 months.

Applied to the current Temasek portfolio mix, our Monte Carlo simulation shows a five-in-six chance that our one-year portfolio returns can range from -11% to +14%. This is within the average simulated portfolio returns over the last 10 years of -18% to +31%.

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Our mark to market policy aims to reduce the behavioural risk of holding on to poor investments for fear of reporting realised losses.

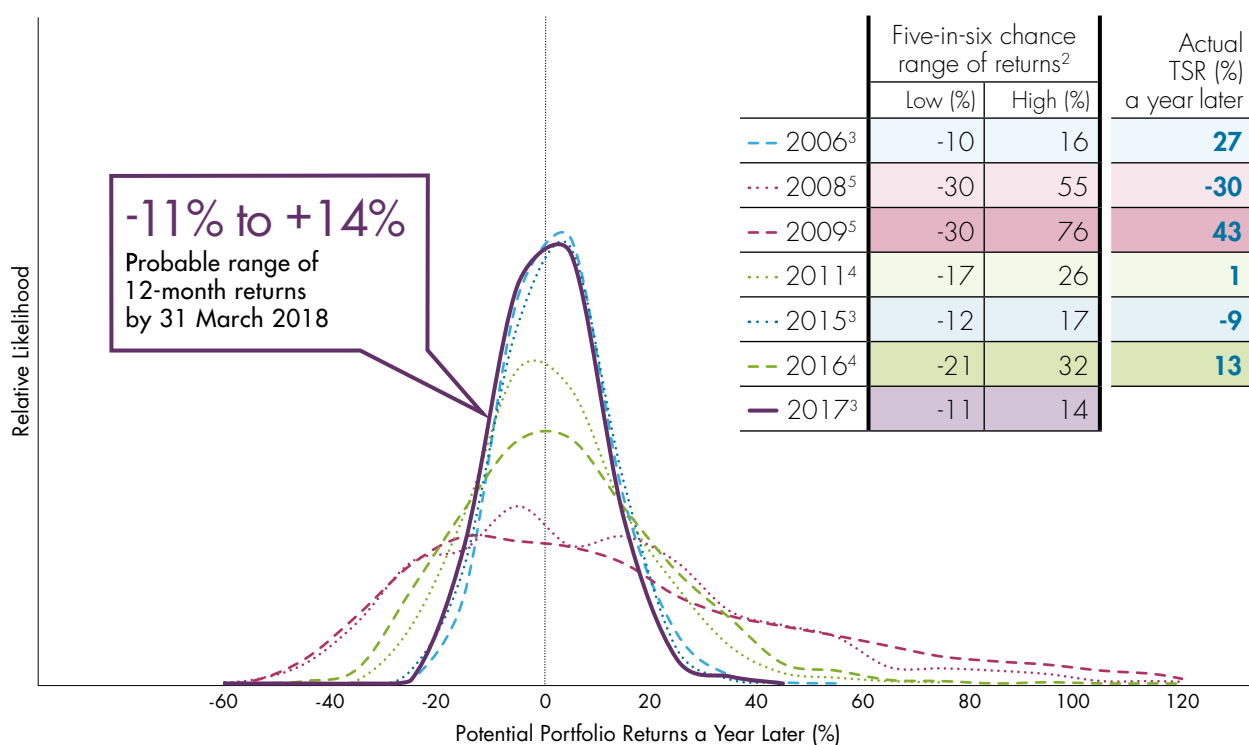
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<sup>1</sup> Chicago Board Options Exchange.

In the chart below, the Monte Carlo simulation curves represent the likelihood of one-year returns for some of the recent financial years. Narrower curves mean less volatility compared to the flatter curves of the 2008/09 Global Financial Crisis years.

(as at 31 March)

### Simulation of 12-month Forward Portfolio Returns



Read more on Temasek's formal market risk metrics at [temasekreview.com.sg/risk](http://temasekreview.com.sg/risk) or scan the QR code



<sup>2</sup> Based on Monte Carlo simulation for 12-month forward portfolio returns distribution, assuming no change in market conditions or portfolio mix.

<sup>3</sup> Periods of low market volatility.

<sup>4</sup> Periods of medium market volatility.

<sup>5</sup> Periods of high market volatility.



People

Purpose





# Institution

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Left to right:  
Jody Tan, Associate Director, Organisation & People;  
Zahedah Abdul Rashid, Director, Legal & Regulatory;  
Cayce Denton, Director, Investment (USA).

Our character and culture as an institution are rooted in our MERITT values. They shape our thoughts, actions and habits as individuals and as one team.



# A Forward Looking Institution

## We are an investor, institution and steward, guided by the principles of good governance and sustainability.

At Temasek, as we do things today, we seek to make a difference, not just for today but for tomorrow; not just for our present generation but also for generations to come.

Our MERITT values underpin our actions – **how** we do things is as important as **what** we do and **why**. We believe in meritocracy. We strive for excellence, respect others, and act with integrity. Teamwork and trust complete our values set. Even as we build our institution, we also develop and build our people in terms of professional competencies and personal growth for their future.

As a responsible investor, we are committed to delivering sustainable value over the long term. The generation of sustainable returns over the long term depends on stable, well-functioning and well-governed social, environmental and economic systems. We consider environmental, social and governance factors when we make decisions as an investor, asset owner and shareholder. We work to understand the impact of our portfolio companies. We encourage companies to adopt responsible and sustainable practices in their businesses, operations and supply chains.

As a disciplined investor, we believe that dialogue and robust exchanges of information, best practices and ideas between stakeholders from the public and private sectors are critical enablers of sustainable growth.

We seek sustainable solutions, and regularly discuss sustainability issues with our stakeholders and partners, to keep abreast of the latest developments. Our annual *Ecosperity* platform gathers global leaders from the private and public sectors, academia, and non-profit organisations to exchange views and share best practices on sustainable development.

We continue to advocate good governance. We uphold the Santiago Principles for sovereign investments, which we helped shape in 2008 in support of the International Monetary Fund and other international stakeholders.

We look across generations as a steward, investing with tomorrow in mind. Our investments in people in our wider community – through various endowments – focus on building people, building communities, building capabilities and rebuilding lives.

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We encourage companies to adopt responsible and sustainable practices in their businesses, operations and supply chains.

# Financial Discipline

## We are governed by a set of stringent financial policies and disciplines.

We manage our leverage and liquidity prudently to ensure balance sheet resilience and flexibility, even in times of extreme stress. We ensure that our primary sources of cash flows can cover our non-discretionary expenses, such as operating expenses, interest to bondholders, and debt repayments.

Our Board sets our overall debt limit, taking into account our shareholder funds, cash flow and credit profile.

### Capital and Liquidity Management

Our primary sources of funds include divestment proceeds, as well as dividends and distributions received from our portfolio. These are supplemented by our Temasek Bonds and Euro-commercial Paper.

We plan proactively for a long dated and well distributed debt maturity profile, and avoid a large debt tower in any one year.

### Liability Management

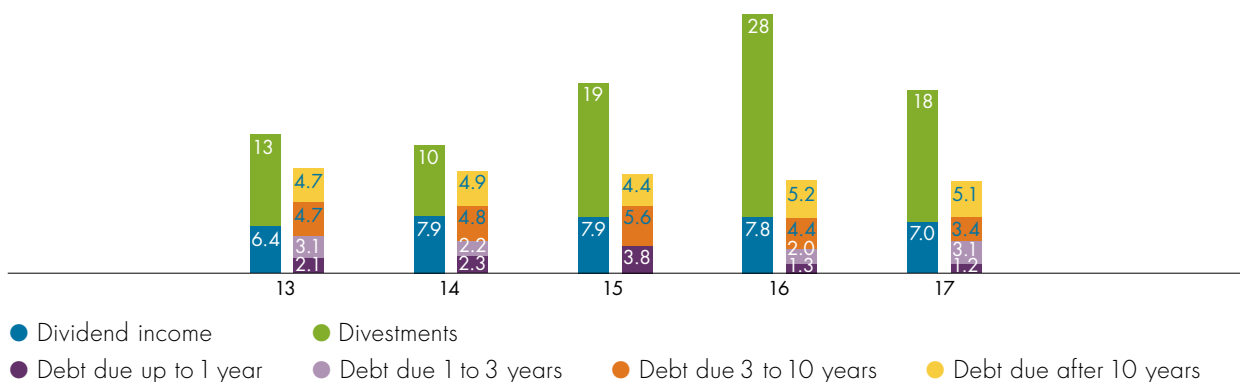
As a policy, Temasek does not issue any financial guarantees for our portfolio companies' obligations.

### Foreign Exchange Management

Our projected risk-adjusted return for each investment proposal needs to also cover foreign exchange (FX) risk. Where appropriate, we close up our FX exposure using the relevant FX instruments.

(for year ended 31 March)

## Key Recurring Income vs Debt Maturity Profile (\$b)



## Public Markers

### Our *Temasek Review*, Credit Profile and Temasek Bonds serve as public markers to anchor our commitment as a robust and disciplined institution through generations.

The *Temasek Review* presents our annual scoreboard to our stakeholders.

As a Singapore exempt private company<sup>1</sup>, Temasek is exempted from disclosing financial information publicly. However, we have published our *Temasek Review* annually since 2004.

Our Credit Profile provides a snapshot of Temasek's key credit parameters<sup>2</sup> across three dimensions – interest coverage, debt service coverage and leverage. Our Credit Profile reflects the fundamental strength of our financial position as an investment company. It facilitates a quantitative assessment of Temasek's credit quality.

We issue Temasek Bonds and Euro-commercial Paper as part of our financial discipline. Their credit spreads in the market act like canaries in coal mines, to publicly signal changes in Temasek's credit.

We have been rated AAA/Aaa by S&P Global Ratings and Moody's Investors Service respectively since our inaugural ratings in 2004. From time to time, rating agencies may modify their rating criteria. Such criteria changes may lead to a revision in the rating assigned to an entity, sometimes even when the entity's financial position has not changed.

Temasek needs to be neither credit rated nor borrow in order to invest.

Our public markers instil financial discipline, broaden our stakeholder base, and facilitate our communications with the wider community.

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Temasek needs to be neither credit rated nor borrow in order to invest.

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Our primary sources of funds include divestment proceeds as well as dividends.

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<sup>1</sup> 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.

<sup>2</sup> Based on the financial information of Temasek as an investment company, namely Temasek Holdings (Private) Limited (THPL) and its Investment Holding Companies (IHCs). IHCs are defined as THPL's direct and indirect wholly owned subsidiaries, whose boards of directors or equivalent governing bodies comprise employees or nominees of THPL, wholly owned Temasek Pte. Ltd. (TPL), and/or TPL's wholly owned subsidiaries. The principal activities of THPL and its IHCs are that of investment holding, financing, and/or the provision of investment advisory and consultancy services.

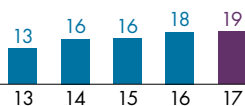
# Credit Profile

Our Credit Profile provides a quantitative snapshot of our credit quality and the strength of Temasek's financial position<sup>1</sup>.

(for year ended 31 March)

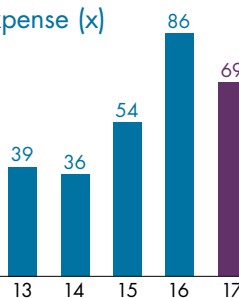
Dividend Income  
over Interest Expense (x)

19x



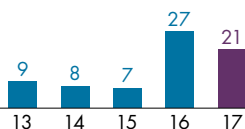
Recurring Income<sup>2</sup>  
over Interest Expense (x)

69x



Recurring Income<sup>2</sup>  
over Total Debt due in One Year (x)

21x



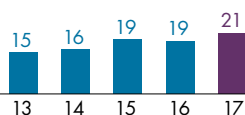
Liquidity Balance<sup>3</sup>  
over Total Debt due in next 10 Years (x)

5x



Net Portfolio Value  
over Total Debt (x)

21x



Liquid Assets<sup>4</sup>  
over Total Debt (x)

7x



<sup>1</sup> Based on the financial information of Temasek as an investment company, namely Temasek Holdings (Private) Limited (THPL) and its Investment Holding Companies (IHCs). IHCs are defined as THPL's direct and indirect wholly owned subsidiaries, whose boards of directors or equivalent governing bodies comprise employees or nominees of THPL, wholly owned Temasek Pte. Ltd. (TPL), and/or TPL's wholly owned subsidiaries. The principal activities of THPL and its IHCs are that of investment holding, financing, and/or the provision of investment advisory and consultancy services.

<sup>2</sup> Divestments, dividend income, income from investments and interest income.

<sup>3</sup> Cash and cash equivalents, and short term investments.

<sup>4</sup> Mainly cash and cash equivalents, and sub-20% listed assets.

As an investment company, our dividend income and divestment proceeds are used to pay our business expenses, interest to bond investors, dividends to our shareholder; repay bonds which are due; and make investments.

Last year, Temasek earned S\$7 billion in dividend income and divested S\$18 billion. These amounts formed the bulk of our cash inflows.

Unlike pension funds or oil funds, we do not have inflows from pension savings or oil revenues.

Our dividend income for the year ended 31 March 2017 was about 19 times our interest expense.

Temasek had S\$12.8 billion of debt outstanding as at 31 March 2017, with S\$7.7 billion due within the next 10 years.

Temasek's cash and cash equivalents, plus short term investments, as at 31 March 2017, were five times our S\$7.7 billion debt due within the next 10 years.

### Key Credit Parameters (in S\$ billion)

For year ended 31 March	2013	2014	2015	2016	2017
Divestments	13	10	19	28	<b>18</b>
Dividend income	6.4	7.9	7.9	7.8	<b>7.0</b>
Income from investments	0.1	0.1	0.1	0.2	<b>0.2</b>
Interest income	0.1	0.1	0.1	0.2	<b>0.2</b>
Interest expense	0.5	0.5	0.5	0.4	<b>0.4</b>
Net portfolio value	215	223	266	242	<b>275</b>
Liquid assets <sup>4</sup>	76.5	80.3	90.6	74.3	<b>91.1</b>
Liquidity balance <sup>3</sup>	33.3	29.9	26.7	27.1	<b>37.6</b>
Total debt <sup>5</sup>	14.6	14.2	13.8	12.9	<b>12.8</b>

<sup>5</sup> As at 31 March 2017, comprised Temasek Bonds totalling S\$11.6 (US\$8.3) billion, with a weighted average maturity of over 12 years, issued under our US\$15 billion Guaranteed Global Medium Term Note (MTN) Programme, and Temasek Euro-commercial Paper (ECP) totalling S\$1.2 (US\$0.9) billion, with a weighted average maturity of about one month, issued under our US\$5 billion ECP Programme. All Temasek Bonds are rated AAA/Aaa by S&P Global Ratings (S&P) and Moody's Investors Service (Moody's) respectively. Our ECP Programme has short term ratings of A-1+/P-1 by S&P and Moody's respectively.

# Temasek Bonds

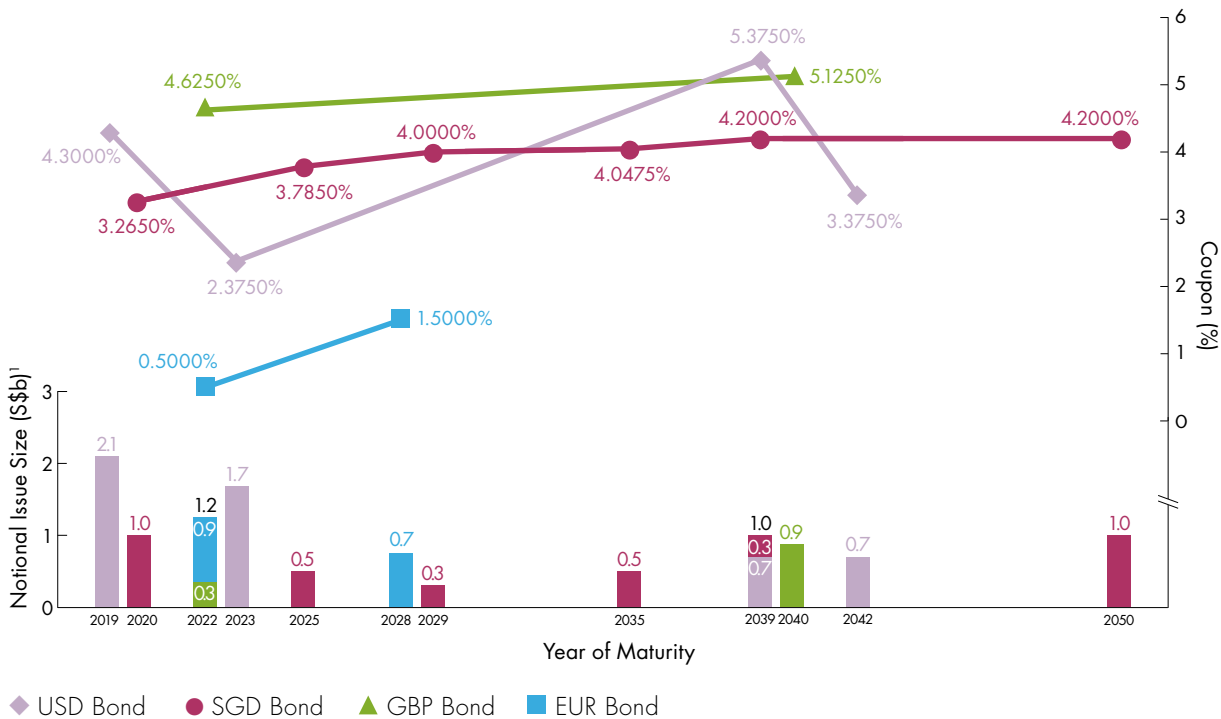
Our Temasek Bonds and short dated Euro-commercial Paper (ECP) provide a flexible balance between long and short term funding.

As at 31 March 2017, we had S\$11.6 billion of Temasek Bonds and S\$1.2 billion of ECP outstanding.

All Temasek Bonds have been rated AAA/Aaa by S&P Global Ratings (S&P) and Moody's Investors Service (Moody's) respectively. Our ECP Programme has been assigned short term ratings of A-1+/P-1 by S&P and Moody's respectively.

The information in our Credit Profile on pages 44 and 45 is based on Temasek's financial position as an investment company. It is a quantitative snapshot of our credit quality. It is not a recommendation to buy or sell our Temasek Bonds or ECP.

## Temasek Bonds – Maturity Profile and Coupon



<sup>1</sup> Exchange rates as at 31 March 2017.



# Investing in Bonds

From time to time, a company may issue bonds – borrowing money directly from investors via the bond markets. In return, the company pays its bondholders a ‘coupon’ – an interest rate on the money they have invested in the company’s bonds.

When the bond matures following the end of the tenor or borrowing period, bond investors expect to be repaid the principal sum that they had invested upfront.

In general, the stronger the credit quality of the issuer, the lower the coupon of the bond issued. Bond investors should assess the credit quality of the bond issuer based on its credit profile.

All investments carry risks. Investors need to understand the risks and balance them against their desire to earn higher returns. The key risks for bond investors include credit risk, interest rate risk, liquidity risk and inflation risk.

## Credit risk



A bond issuer may be unable to pay interest due or repay the principal sum.

For example, an issuer may have cash flow problems, or in the worst case, may be facing bankruptcy.

## Interest rate risk



Interest rates may change and affect the value of a bond.

For example, if interest rates rise, bond prices will likely fall. Investors could make a loss if they need to sell their bonds before maturity.

## Liquidity risk



Sometimes, an investor may not be able to find a buyer for his or her bonds.

For example, some bonds may be traded infrequently. An urgent seller may have to sell at unattractive low prices, at a lower profit or at a loss.

## Inflation risk



The coupon payments plus principal sum repayment of a bond may not keep pace with inflation.

For example, when inflation increases, the fixed coupon payment would be worth less.

# Wealth Added

In 2003, we adopted the discipline of measuring our returns against our risk-adjusted cost of capital, to account for the capital deployed and the associated risks taken.

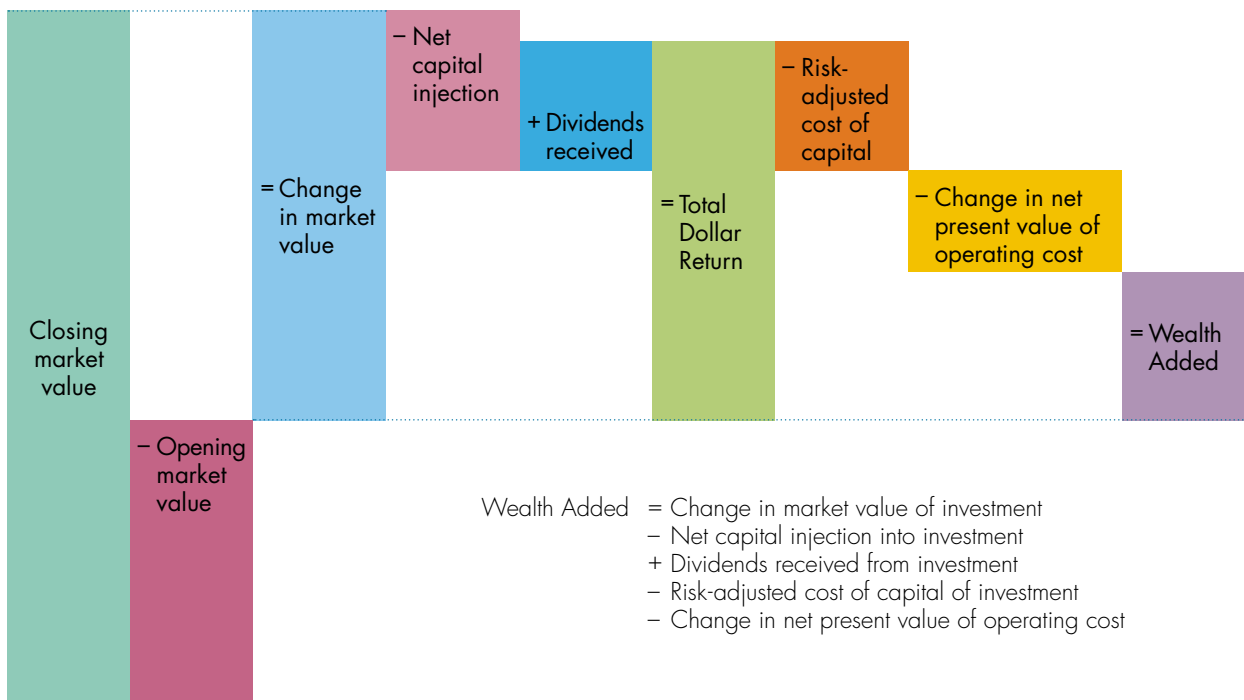
Wealth Added (WA) is our dollar returns above our risk-adjusted cost of capital. Investments in riskier sectors or markets have higher costs of capital.

The use of WA instills the discipline of ensuring that we continue to judge returns performance against the capital deployed and the financial risks taken.

Total WA is the sum of all our individual investment WA, adjusted for changes in the net present value of our operating costs.

Our WA for the year was S\$14.6 billion.

## Illustration of Wealth Added



# Remuneration Philosophy

**Our ownership ethos puts the institution above the individual, emphasises long term over short term, and aligns employee and shareholder interests over economic cycles.**

Our compensation framework aims to foster a high performing and responsible culture where our employees think and act as owners, sharing gains and pains alongside our shareholder. It balances short term performance and long term value creation.

Our base salaries are benchmarked against relevant markets where we compete for talent. Short term bonuses are driven by annual targets. Returns above our risk-adjusted cost of capital determine our Wealth Added (WA) incentive pool, while negative returns determine our clawback pool. Longer term incentives can be deferred up to 12 years and subject to market risks and clawbacks, to account for sustainability of returns over market cycles.

Deferred incentives and clawbacks are integral to our remuneration. In the last decade, we had six clawback pools when Wealth Added (WA) for prior years was negative. Out of these six, there were four instances we had to carry forward clawback balances, because the deferred WA incentives were insufficient to clear the clawback pools.

Compliance with our Temasek Code of Ethics and Conduct (T-Code) is part of the requirements of our incentive framework.

## Annual Cash Bonuses – Our Short Term Incentives

Annual cash bonuses are driven by company-wide, team and individual performances, and capped within budgeted limits. One of our annual performance targets requires our three-year Total Shareholder Return (TSR) to exceed our three-year cost of long term debt.

Apart from financial targets, our “Make-A-Difference” (MAD) Programme rewards employees for achieving non-financial goals targeted at strengthening the institution, contributing to our community, and taking care of our families and ourselves.

## WA Bonus Bank – Our Medium Term Incentives

A portion of our WA incentive pool, whether positive or negative, is distributed into each employee’s notional WA bonus bank account, based on the individual’s performance and contributions over four years.

If WA bonus bank balances are positive, senior management receive payouts of no more than a third of their balances. Payouts are half for mid-level management and two thirds for other employees.

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Deferred incentives and clawbacks are integral to our remuneration.

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Compliance with our T-Code is part of the requirements of our incentive framework.

Part of the retained balances are deferred as co-investment (R-Scope) grants which vest over the following three years. The remaining WA bonus bank balances are subject to clawbacks in the future, in case of negative returns.

### Co-ownership Grants – Our Long Term Incentives

Our employees may be awarded co-investment grants with performance or time-based vesting conditions. These units grow or decline in value with our yearly TSR, reinforcing the ownership culture of our company. Co-investment units lapse after 12 years.

Part of our positive WA incentive pool funds the Temasek co-investment (T-Scope) grants, which have stringent multi-year Temasek portfolio performance conditions to trigger a five-year vesting. Another portion is held for three to seven years, as a company-wide reserve to be released progressively for time-based co-investment grants. Clawbacks are first taken from this company-wide reserve, before being deducted from employees' WA bonus bank accounts.

Our annual operating budget funds limited time-based co-investment (S-Scope) grants, which vest over five years, starting in the third year from the grants' commencement.

### Co-ownership Alignment in Practice

The negative WA of S\$44.7 billion for the year ended 31 March 2016 resulted in a clawback pool, with deductions made from employees' WA bonus bank balances. The clawback balance was carried forward as a company-wide clawback pool (see striped bar for 2017 on page 51).

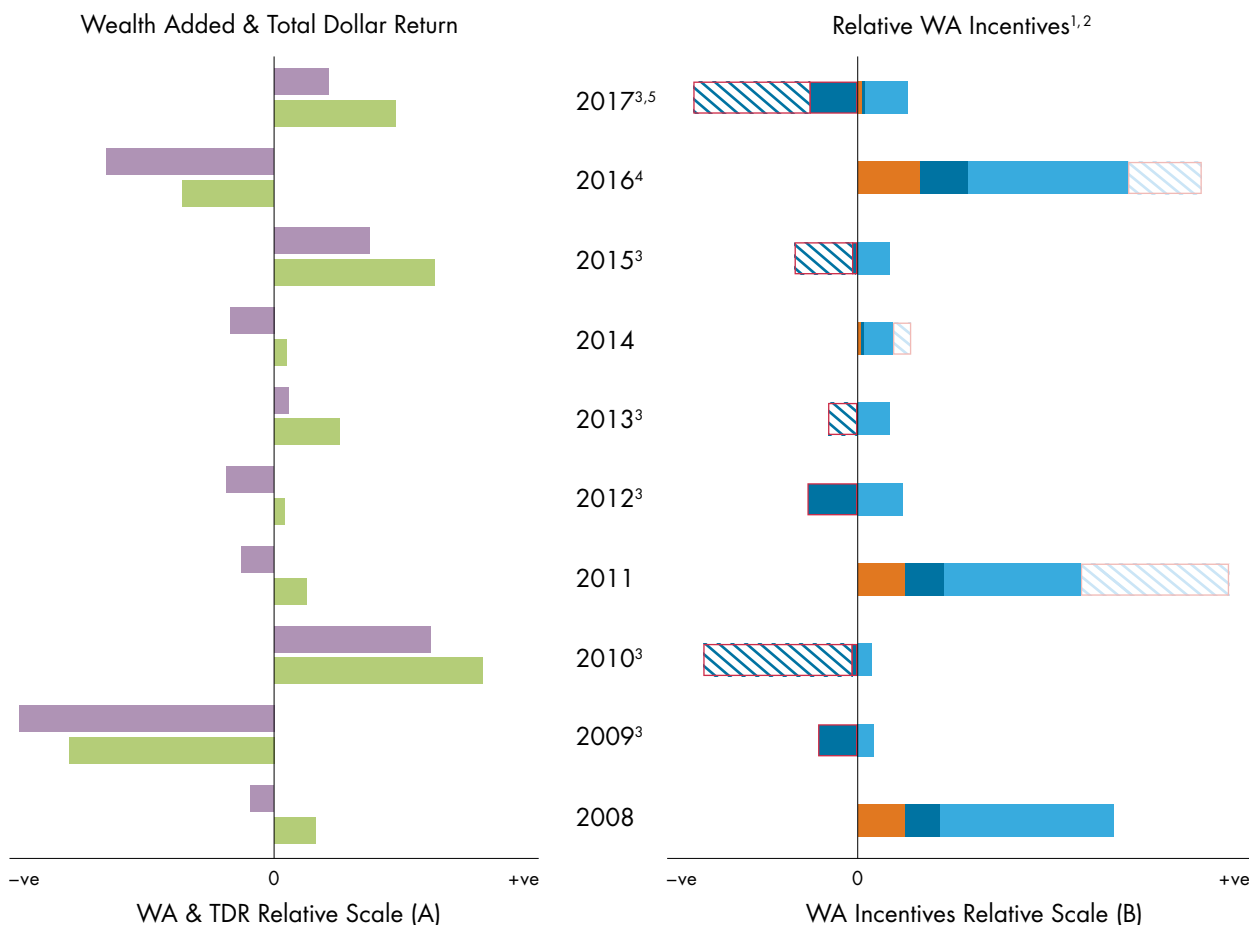
The positive WA of S\$14.6 billion for the year ended 31 March 2017 will provide an incentive pool that allows us to fully make good the balance clawback pool carried over from the previous year, leaving a balance for distribution to employees.

This demanding framework for sharing gains and the associated risks and pains through market cycles has been tested, especially during the Global Financial Crisis and its aftermath, thereby reaffirming our ownership ethos.

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Incentives are deferred up to 12 years and subject to market risks and clawbacks.

## WA Incentives of Key Team



- Wealth Added (WA) in dollars
- Total Shareholder Return in dollars (Total Dollar Return or TDR)
- Paid-out portion of WA Bonus earned for prior year's performance
- Deferred portion of WA Bonus earned for prior year's performance, with future clawback risks
- Co-investment units which grow or shrink with total returns to shareholder, and are subject to performance and time-based conditions
- Clawback of deferred WA Bonus from prior years
- ⊘ Clawback balances carried forward for future bonus offset
- ⊘ Part of earned WA Bonus used to offset the clawback balances brought forward from prior year

<sup>1</sup> WA incentives awarded in the year were for WA performance in the prior year.

<sup>2</sup> Relative WA incentives of key management team which includes CEOs, Presidents, Senior Managing Directors, Managing Directors, as well as management Directors.

<sup>3</sup> No new T-Scope pool was generated due to negative WA in the prior year.

<sup>4</sup> Excludes two tranches of deferred bonus from Alibaba's WA, to be allocated in years ending 31 March 2017 and 2018, subject to sustained performance.

<sup>5</sup> WA Bonus due to deferred bonus from Alibaba's WA allocated for the year ended 31 March 2017, post clawback for negative return on the investment.

## Our Board provides overall guidance and policy directions to management.

Our Board comprises 14 members, the majority of whom are non-executive independent private sector business leaders. Our Board operates on a commercial basis, with the added constitutional responsibility, together with our CEO, of protecting the Company's past reserves, given Temasek's status as a Fifth Schedule entity<sup>1</sup> under the Singapore Constitution.

On 15 December 2016, Mr Lucien Wong stepped down from our Board, including its Audit Committee and Leadership Development & Compensation Committee.

Post March 2017, Mr Stephen Lee, former Chairman of Singapore Airlines Limited, joined the Board on 1 July 2017.

The annual Board schedule includes quarterly two-day meetings, plus additional meetings as needed. Three Board meetings were held in the last financial year.

The Board has reserved the following matters for its decision:

- overall long term strategic objectives
- annual budget
- annual audited statutory accounts
- major investment and divestment proposals
- major funding proposals
- CEO appointment and succession planning
- Board changes

The following Board committees, each chaired by a non-executive Director who is independent of management, have been set up with specific delegated authorities:

- Executive Committee
- Audit Committee
- Leadership Development & Compensation Committee

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The majority of our Board are non-executive independent private sector business leaders.

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Board members with interests that may conflict with specific Temasek interests are recused from the conflicted matter.

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<sup>1</sup> Fifth Schedule entities under the Singapore Constitution include GIC Private Limited, which manages the reserves of the Singapore Government; the Central Provident Fund Board; the Monetary Authority of Singapore; Housing and Development Board; and Jurong Town Corporation. See section on *A Trusted Steward* on page 62 for more information.

The Board has separate and independent access to information to assist it with its deliberations, including the opportunity to request supplementary or explanatory information from management. Management provides information to the Board on an ongoing basis to allow the Board to effectively discharge its responsibilities.

### Executive Committee (ExCo)

The ExCo has been delegated the authority to approve new investment and divestment decisions up to a defined threshold, beyond which, transactions will be considered by the Board. The minutes of ExCo meetings are circulated to the Board. The ExCo met three times during the year.

### Audit Committee (AC)

Comprising only independent directors, the AC supports the Board in its oversight responsibilities by reviewing – among other things – our system of internal controls, and processes used for financial reporting, audit, and monitoring compliance with laws and regulations. The AC also reviews the scope and results of the external audit, and the independence of the external auditors.

The AC is supported by Internal Audit (IA). To ensure its independence, IA reports functionally to the AC and administratively to the office of the CEO. IA has full and unrestricted access to all records, properties and personnel to effectively perform its functions. Aside from periodic planned reviews of key control processes for all offices, IA may also undertake special reviews requested by our Board, AC or senior management. The AC met four times during the year.

### Leadership Development & Compensation Committee (LDCC)

The LDCC is responsible for recommending Board and management leadership plans to the Temasek Board. These include Board and CEO succession, as well as guidelines and policies on performance measurement and compensation plans. The LDCC met four times during the year.

### Board and Committee Processes and Decisions

Decisions at Board and Committee meetings are based on a simple majority of the votes, including those via telephone or video conference. Where a Board resolution is obtained via circulation, the resolution becomes effective upon approval by at least two thirds of the Board.

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**Our Board and CEO have the added constitutional responsibility of protecting Temasek's past reserves.**

Board members with interests that may conflict with specific Temasek interests are recused from the relevant information flow, deliberations and decisions on the conflicted matter.


Quarterly Board meetings include Executive Sessions for non-executive Directors to meet without management presence. The discipline of our annual CEO succession review is a part of these deliberations.

### Board Committee Membership as at 31 March 2017

	Board	ExCo	AC	LDCC
Lim Boon Heng	Chairman	Chairman		Chairman
Cheng Wai Keung	Deputy Chairman	Member		
Kua Hong Pak	Member		Chairman	
Bobby Chin YC	Member		Member	
Goh Yew Lin	Member	Member		
Ho Ching	ED & CEO	Member		Member
Lee Theng Kiat	Member	Member		
Michael Lien JL	Member		Member	
Robert Ng CS	Member	Member		
Teo Ming Kian	Member		Member	Member
Peter R Voser	Member			Member
Marcus Wallenberg	Member			
Robert B Zoellick	Member			

### Additional Board Member after 31 March 2017

	Board	ExCo	AC	LDCC
Stephen Lee CY <sup>1</sup>	Member	Member		Member

 Read the full description of our Board at [temasekreview.com.sg/board](http://temasekreview.com.sg/board) or scan the QR code

<sup>1</sup> Appointed on 1 July 2017.



# Senior Management

## Senior management sets the tone and culture of our team, leading the delivery of Temasek's vision and mission.

Housed under Temasek International (TI) together with the rest of our employees, our management team implements the strategy and policy directions set by our Board. Levels of authority for investment, divestment and other operational matters are defined according to our Board's delegation.

The CEO of TI is responsible for the investor role of Temasek, overseeing our team and portfolio with the support of the following committees:

- Senior Divestment and Investment Committee (SDIC)
- Senior Management Committee (SMC)
- Strategy, Portfolio and Risk Committee (SPRC)

The SDIC manages and shapes our portfolio on an ongoing basis, and decides on investments and divestments up to the authority limits as delegated by our Board.

The SMC reviews and sets overall management and organisational policies. These include internal controls, the implementation of our Derivatives Framework, and the Valuation Policy approved by the Audit Committee. The SMC has developed the Temasek Code of Ethics and Conduct (T-Code) and constituted the Ethics Committee to assist in its implementation. All employees are required to observe and comply with the T-Code.

The SPRC reviews macroeconomic, political, industry, technological and social trends that provide the context in which new opportunities and risks may arise, in both existing and new markets. It reviews the risk tolerance framework to keep it relevant. It also reviews value creation opportunities.

Our senior management oversees Temasek's compliance with the rules and regulations of the jurisdictions where we have investments or operations. An Executive Office comprising key senior executives supports the CEO of TI in the oversight of our portfolio and operations.

The CEO of TI works together with the CEO of Temasek Holdings (TH) to oversee and strengthen Temasek's foundation as a forward looking institution.

The CEO of TH oversees Temasek's stewardship role, including the constitutional responsibility to protect Temasek's past reserves.

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All employees are required to observe and comply with the T-Code.

See the list of  
our senior team at  
[temasekreview.com.sg/team](https://temasekreview.com.sg/team)  
or scan the QR code



# Our Temasek Heartbeat

We are 630 strong, with 33 diverse nationalities working in 10 international offices, connected by our Temasek Heartbeat.

We are guided by our MERITT values, and work together as one team to achieve our goals as an active investor, forward looking institution and trusted steward.

## Enriching Hearts and Minds

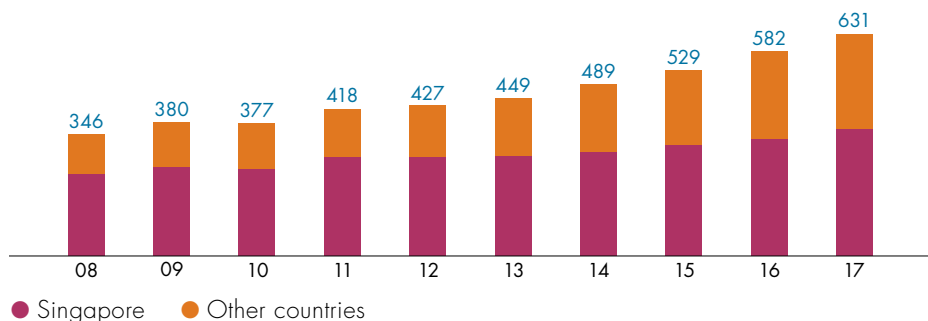
We value our people and support their well-being through family-friendly policies and other practical solutions. Our family-friendly approach includes generous maternity, paternity, and other family care leave, as well as family bonding events such as our regular Kids@Work Day. Cosy and private individual nursing stations in our Singapore office support new mothers to continue breastfeeding.

We embrace a culture of continuous learning. Our “CEO Challenge” encourages our people to enrich their minds and broaden their perspectives – by learning a new skill such as a foreign language, coding, or a musical instrument. We have professional effectiveness workshops to help our people build interpersonal skills. Other programmes support their self-discovery and personal well-being.

Regular “Temasek Heartbeat” surveys help us understand the pulse of the organisation and make improvements. In 2016, we achieved our highest ever organisation-wide employee engagement score, which exceeded the average score in the global financial services industry<sup>1</sup>.

(as at 31 March)

## Our Staff by Nationality



<sup>1</sup> Korn Ferry Hay Group's Global Financial Services Industry Norm.

## Building People and the Institution

We are committed to developing and growing our people. We updated the competencies and skills our people need in a rapidly changing environment. Our talent development framework includes clear goals for our staff to work toward as part of their career development, and courses and training to help them acquire the relevant skills.

We constantly encourage experimentation and innovation, with regular brainstorming for ideas on workplace projects as well as community initiatives. Many company-wide initiatives have grown from ideas generated by our own staff. For instance, an innovation workshop on sustainability helps us explore issues and find ways to translate ideals into solutions.

## Making A Difference

Our “Make-A-Difference” (MAD) Programme promotes a culture of personal ownership and responsibility among all our staff. Individual, team, and company-wide MAD targets are set each year. They go beyond financial and performance targets to cover health, self, institution and the community. We host a variety of personal fitness and recreation events to help our staff maintain fit and healthy lifestyles.

Our people are active volunteers, giving back to the communities in various ways. *T-Touch* is our staff volunteer initiative. Their contributions are supported and supplemented by company-wide programmes to help the less fortunate in our communities.

Our incorporation date, 25 June, is designated our annual Community Day. Staff in our Singapore and international offices adopt and work with different beneficiaries on this day. Beyond leading activities for Community Day, our *T-Touch* volunteers in various offices are active through the year, supporting different beneficiaries and community organisations.

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We encourage our people to learn a new language, coding, or a musical instrument.

# Our Temasek Heartbeat

Our staff are active volunteers who help make a difference, and participate in many outreach programmes with non-profit groups and self-help organisations.



New York, USA

## Providing Essential Items

Caring New York colleagues worked with Hope for New York to sort and pack essential items for families in need across New York City.



Mexico City, Mexico

## Uplifting Moods

Our thoughtful Mexico City team partnered the Dr Sonrisas programme to organise a surprise Disney party for a five-year-old girl with kidney cancer.



São Paulo, Brazil

## Honing Abilities

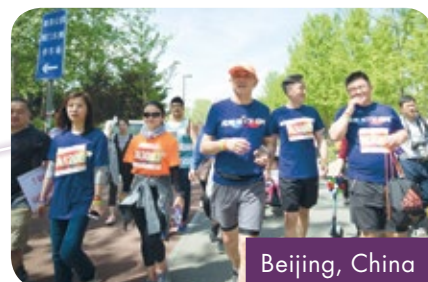
Lively Brazilian colleagues volunteered with Cidadão Pró Mundo, interacting with 1,100 underprivileged students to develop their English speaking abilities outside the classroom.



Mumbai, India

## Bringing Cheer

Our friendly Mumbai teammates organised a fun-filled pottery making session at St. Jude Centre in the Parel area, for children diagnosed with cancer.



Beijing, China

### Helping the Vulnerable

Our active Beijing colleagues participated in the "Run with Love" event together with their families, in support of Share the Care, an NGO which helps vulnerable children improve their education and social welfare.



Singapore

### Promoting Inclusiveness

At our annual Community Day in Singapore, our enthusiastic volunteers organised a full day activity-filled event at the Singapore Sports School for some 300 beneficiaries and caregivers from Singapore Anglican Community Services. There was a variety of telematch games and arts & craft sessions. We even made history by creating the largest post-it picture collage in the Singapore Book of Records, with over 9,000 post-it notes. These activities were designed to encourage our beneficiaries to stay positive and keep faith in their rehabilitation journeys, and to strengthen the bonds between them and their caregivers.



Singapore

### Supporting Social Enterprises

In Singapore, our supportive staff mentored young, aspiring social entrepreneurs supported by the Singapore International Foundation. They shared business, finance and strategic insights with the entrepreneurs, on addressing social issues.



*Active  
Economy*

*Beautiful  
Society*



# Steward

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Dave Kwek, Director, Internal Audit, at Singapore Botanic Gardens with his son, Luke, wife, Chaw Foong Lean, and daughter, Elizabeth.

## Temasek's role and reputation as a trusted steward depends on our people and values, and our conduct and governance.

Our Temasek Charter defines who we are and our roles as a commercial investment company and a member of the wider community.

We manage our assets and portfolio as a long term investor and owner.

We are governed by the Singapore Companies Act and the Singapore Constitution.

Under the Singapore Companies Act, Temasek<sup>1</sup> is an exempt private company<sup>2</sup> with our own Board.

Under the Singapore Constitution, Temasek is a Fifth Schedule entity<sup>3</sup> with a constitutional responsibility to safeguard our Company's past reserves.

Temasek does not manage Central Provident Fund (CPF) savings, Government budget surpluses, the foreign exchange reserves of Singapore, or the reserves of any other Fifth Schedule entity. These are independently managed by the relevant Fifth Schedule entities themselves, such as the CPF Board and the Monetary Authority of Singapore. Each Fifth Schedule entity is separately accountable for the protection of its own past reserves.

Temasek's past reserves are those accumulated by the Company before the current term of Government.

Neither the President of the Republic of Singapore<sup>4</sup> nor the Singapore Government, our shareholder, is involved in our investment, divestment or other business decisions, except in relation to the protection of Temasek's own past reserves.

Our annual statutory financial statements are audited by a major international audit firm.

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Temasek has a constitutional responsibility to safeguard its own past reserves.

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Duties to protect our past reserves include ensuring that every disposal of investment is transacted at fair market value.

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<sup>1</sup> Temasek Holdings (Private) Limited.

<sup>2</sup> 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.

<sup>3</sup> Fifth Schedule entities under the Singapore Constitution include GIC Private Limited, which manages the reserves of the Singapore Government; the Central Provident Fund Board; the Monetary Authority of Singapore; Housing and Development Board; and Jurong Town Corporation.

<sup>4</sup> The Singapore President has an independent custodial role under the Singapore Constitution to safeguard the respective past reserves of the Singapore Government and the Fifth Schedule entities, including those of Temasek.



## Relating to the President of Singapore

The Board and CEO of Temasek have the responsibility under the Singapore Constitution to protect our Company's past reserves.

The Board and CEO of Temasek have a duty to seek the approval of the President before any draw occurs on our Company's past reserves.

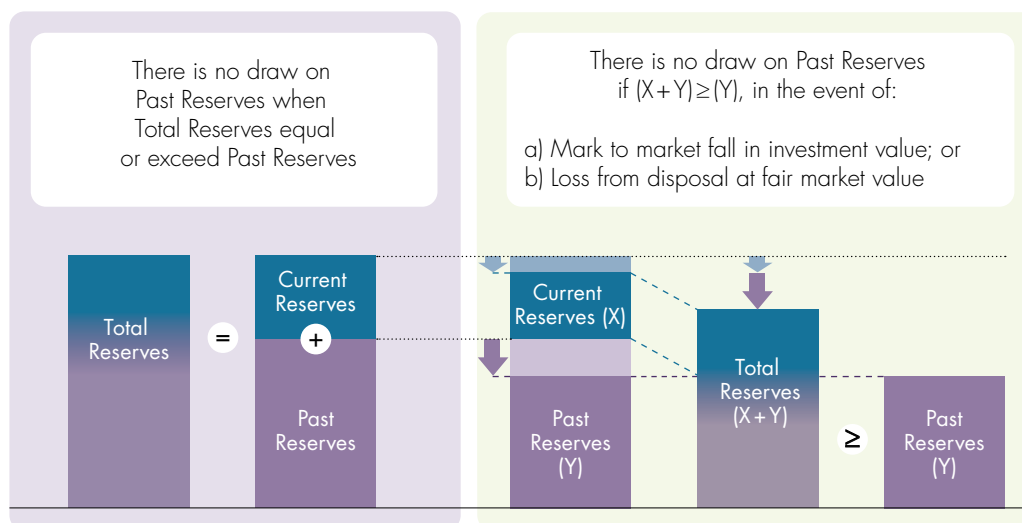
There is no draw on our past reserves if our total reserves equal or exceed our past reserves.

Mark to market declines on existing investments are not a draw on past reserves.

Duties to protect our past reserves include ensuring that every disposal of investment is transacted at fair market value<sup>5</sup>. A realised loss arising from such disposals at fair market value is not a draw on past reserves.

Temasek does not manage Central Provident Fund savings.

## Protection of Temasek's Past Reserves



<sup>5</sup> Fair market value is the price agreed between a willing buyer and a willing seller on an arm's length basis.

Under the Singapore Constitution, Temasek's past reserves are those Temasek accumulated before the current term of Government. Temasek's current reserves are those that Temasek accumulates during the current term of Government.

On the eve of the first day of each term of Government, Temasek's total reserves – comprising our past reserves and current reserves at the changeover – are locked up as past reserves. This cycle repeats every time there is a change of Government after a General Election.

### Relating to Our Shareholder

Incorporated on 25 June 1974, Temasek Holdings is wholly owned by the Singapore Minister for Finance<sup>1</sup>. As an investment holding company, we are the owner of our assets – we are not a fund manager on behalf of our shareholder.

Our shareholder's right under the Singapore Companies Act to appoint, reappoint or remove our Board members is subject to the President's concurrence<sup>2</sup>. The Board's appointment or removal of the CEO is also subject to the President's concurrence. These constraints are part of the "second key" concept, to safeguard the integrity of our Board and CEO in protecting Temasek's past reserves.

Temasek declares dividends annually, based on the profits we earn, in accordance with our dividend policy. Our Board ensures that our dividend policy balances the sustainable distribution of profits as dividends to our shareholder with the retention of profits for reinvestment to generate future returns. The policy also takes into account our constitutional responsibility to protect Temasek's past reserves. Our Board recommends the dividends for our shareholder's consideration at the annual general meeting.

Under the Net Investment Returns (NIR) framework, the Government is permitted to spend up to 50% of the expected long term real rates of return of GIC, the Monetary Authority of Singapore and Temasek. The NIR framework does not affect, change or impact Temasek's dividend policy, strategies and operations as a long term investor, and our responsibility to protect Temasek's past reserves.

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Temasek declares dividends annually based on the profits we earn.

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The management and business decisions of our portfolio companies are the responsibility of their respective boards and management.

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<sup>1</sup> Under the Singapore Minister for Finance (Incorporation) Act (Chapter 183), the Minister for Finance is a body corporate.

<sup>2</sup> The President's concurrence is exercised independent of the Cabinet.

## Relating to Our Portfolio Companies

We manage our portfolio as an active investor and asset owner. We increase, decrease or hold our investment positions based on our views on intrinsic values, to enhance our risk-adjusted returns for the long term.

The day-to-day management and business decisions of companies in our portfolio are the responsibility of their respective boards and management. Temasek does not direct their business decisions or operations.

We promote sound corporate governance in our portfolio companies, even as we recognise that corporate governance practices and norms may vary in the different markets where our companies operate.

We support the formation of high calibre, experienced and diverse boards to guide and complement management leadership. This includes encouraging the boards of portfolio companies to identify and consider potential directors with relevant backgrounds and experience, and to conduct annual reviews of their succession plans.

Board directors have a fiduciary duty to safeguard the interests of their respective companies.

Accordingly, we advocate that boards be independent of management in order to provide effective oversight and supervision of management. This includes having mostly non-executive board members with the independence and experience to oversee management.

We advocate that the Chairman and CEO roles be held by separate persons, independent of each other.

This is to ensure a healthy balance of power for independent decision-making, and a greater capacity for management supervision by the board.

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We support the formation of high calibre, experienced and diverse boards to guide and complement management leadership.

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We advocate that the Chairman and CEO roles be held by separate persons, independent of each other.

We regularly monitor the strategy and performance of our portfolio companies and keep abreast of industry developments that impact them. This informs how we exchange and share views and perspectives with the boards and management of our portfolio companies, so as to better understand their strategies and operating environments.

We protect our interests by exercising our shareholder rights, including voting at shareholders' meetings.

We comply with our obligations under Singapore laws and regulations, as well as those of the jurisdictions where we have investments or operations.

Likewise, we expect our portfolio companies to comply with all laws and regulations of jurisdictions in which they have investments or operations.

### Relating to Our Communities

As a Singapore exempt private company, Temasek is exempted from disclosing financial information publicly. We have nonetheless published our Group Financial Summary and portfolio performance in our annual *Temasek Review* since 2004.

As a trusted steward, we engage with our communities in Singapore and around the world based on the twin pillars of sustainability and good governance.

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**We advocate that boards be independent of management in order to provide effective oversight and supervision of management.**

We support philanthropic programmes that focus on building people, building communities, building capabilities and rebuilding lives. These programmes enable individuals, families and communities to have sustainable improvements and progress in their lives. In short, we act on the belief of doing good with a hand-up for our fellowmen.

To support our community contributions, we instituted a policy, more than a decade ago, of setting aside a share of our net returns above our risk-adjusted cost of capital. This policy is founded on the concept of sustainable and responsible contributions.

The skills required for the financial management of endowment funds are very different from those for developing and delivering community and social programmes. This was why we established Temasek Trust in 2007 – to oversee the financial management and distribution of endowments and gifts from Temasek, which have been earmarked for the six non-profit philanthropic Temasek Foundations.

This governance model separates the financial management of endowments from the programme design and delivery responsibilities of the Foundations. This enables the Foundations to focus on developing programmes for the community, with the reassurance that their endowment fundings are professionally managed to provide them a sustainable source of support over the years.

Alongside the work of the Foundations, our staff volunteers also play an active role in contributing to their communities. Through our staff-driven volunteer *T-Touch* initiative, our employees commit ideas, time and money to support their chosen charities and community projects, and pursue philanthropic and public good causes.

We follow developments in international investment and trade agreements, and engage with thought leaders and authorities. We also aim to promote a better understanding of how we operate based on commercial principles, independent of government interference.

An example is our active participation in support of the International Monetary Fund, to develop best practices for responsible investing for investors and host countries, under the Santiago Principles for sovereign investments.

Temasek exceeds the applicable standards of disclosure and other guidelines under the Santiago Principles.

From time to time, we may seed institutions to develop capabilities which promote good governance and community stewardship. We collaborate with like-minded partners, such as universities and multilateral agencies, to build these institutions.

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Our engagement with our communities is based on the twin pillars of sustainability and good governance.

# Building an World

Our collective action is required to achieve the United Nations Sustainable Development Goals by 2030.

Adopted by the 193 members of the United Nations (UN) in September 2015, the 17 UN Sustainable Development Goals<sup>1</sup>, or SDGs, cover a wide-ranging set of ambitions to uplift human life, and safeguard our world for future generations. They resonate with Temasek's commitment to sustainability and good governance as a steward, institution and investor.

We aim to do our part for a better world; an ABC World of Active economies, Beautiful societies, and a Clean Earth. We work with like-minded partners to translate the SDGs into reality.



Find out more about our *ABC World* at [temasekreview.com.sg/abcworld](http://temasekreview.com.sg/abcworld) or scan the QR code

<sup>1</sup> Visit [www.un.org/sustainabledevelopment/sustainable-development-goals](http://www.un.org/sustainabledevelopment/sustainable-development-goals) for more information on the SDGs.



## ACTIVE ECONOMY

Productive jobs  
Sustainable cities  
Fulfilling lives



## BEAUTIFUL SOCIETY

Resilient individuals  
Cohesive families  
Inclusive communities



## CLEAN EARTH

Fresh air  
Clean water  
Cool world

An active, robust economy delivers good jobs and creates opportunities.

It is the foundation of stable, secure and sustainable societies. Productive workers have a sense of pride and dignity, provide for their loved ones and themselves, and look to the future with confidence.



A sustainable and beautiful society fosters resilient individuals, cohesive families and inclusive communities.

Shared values that embrace justice and equality, and expand our common spaces, will strengthen our tolerance, mutual respect, and the ties that bind us together.



A clean, cool Earth is our home and common inheritance.

We must act today to preserve our living space for ourselves and future generations. Fresh air, clean water and a cool world are Earth's natural gifts, which we must treasure and protect.





A platter of *Impossible Burgers*, served during a food tasting organised by Impossible Foods.



Researchers validating samples, while working to shorten development cycles of treatments for viruses like Zika.

### Investing for a Sustainable World

As an investor, owner and shareholder committed to doing things today with tomorrow in mind, we consider environmental, social and governance factors, alongside commercial considerations, in our business decisions.

We believe that a clean and green environment must go hand in hand with economic development, to deliver prosperity and well-being for our people and communities. We take a long term view of our investments and seek to safeguard the interests of our communities through innovative solutions as well as sustainable systems, science and technologies.

An example is our investment in Impossible Foods, a company that develops plant-based burger patties with the look, taste and texture of meat. Compared to animal sources, the production of patties from plants requires less land and water, and emits less greenhouse gases.

### Science for Improved Lives and Livelihoods

Through initiatives endowed by Temasek such as the Singapore Millennium Foundation (SMF), the Temasek Life Sciences Laboratory (TLL), and Temasek Foundation (TF) Ecosperity, we contribute to research which can help improve lives.

Established in 2001, SMF funds research in areas such as special needs education, ageing and palliative care, as well as non-medical bio-science. Projects funded last year include the development of bio-sensors to monitor foodborne bacteria.

TLL was set up in 2002 for basic and applied research. Supported by a team of some 200 scientists led by 25 principal investigators, TLL's research ranges from the growth of healthy and resilient rice in tsunami-affected areas, to the biological control of disease-spreading mosquitoes.

Among the projects funded by TF Ecosperity last year is one to shorten the development cycle of new antivirals, and another to develop bio-based pesticides for mosquito vector control, as the world warms and mosquito-borne diseases spread.

<sup>1</sup> The BSCD's *Better Business, Better World* report, released in January 2017, highlighted that businesses can unlock US\$12 trillion of opportunities and create 380 million jobs by 2030, through implementing the SDGs. The Asia report highlights US\$5 trillion of those potential opportunities in Asia.





Unilever's CEO, Paul Polman, sharing his experiences running a business focusing on sustainability, at *Ecosperity 2017*.

### Better Business for a Better World

In June 2017, we held our fourth *Ecosperity* conference, which promotes the twinning of a sustainable environment and growth. It was also a call to action for an ABC World, marked by the launch of the Business and Sustainable Development Commission's (BSDC) Asia report. The report outlined up to US\$12 trillion<sup>1</sup> of global business opportunities arising from the United Nations Sustainable Development Goals (SDGs), such as affordable housing for sustainable cities, and energy storage for affordable and clean energy.

Several of our portfolio companies also play their part to help build an ABC World. Singapore Airlines has "green package" flights, which reduce greenhouse gas emissions through measures like utilising biofuels and fuel-efficient aircraft. Sembcorp expanded its renewable energy business by acquiring an Indian leading renewable energy firm, since renamed Sembcorp Green Infra. Capitaland is one of only two Singapore companies listed in RobecoSAM's Sustainability Yearbook 2017<sup>2</sup>, out of 470 top sustainability-focused companies worldwide.



SATS Aero Laundry workers folding linen, while enjoying the cool breeze from the Airbitat Smart Cooler.

### Innovative Solutions for a Clean, Cool Earth

Climate change and global warming are degrading our living environment and impact us all.

We explore innovative solutions for a better living environment, mitigating the worst of environmental disasters.

Two years ago, we commissioned ST Engineering to develop an outdoor air cooling solution for the tropics. The result is the groundbreaking Airbitat Smart Cooler, an eco-friendly system that can deliver 24°C even in the hot, humid conditions of outdoor Singapore, using 80% less energy than an average air conditioner of the same cooling capacity.

ST Engineering was also the first in the world to develop N95-certified face masks specifically for children, to protect them from severe air pollution and haze. Used with certified micro-fans, these masks also make it more comfortable for extended usage for adults, compared to traditional N95 masks.

<sup>2</sup> RobecoSAM is an investment specialist focused on sustainability investing. Together with S&P Dow Jones Indices, it publishes the Dow Jones Sustainability Indices. Its annual Sustainability Yearbook lists the top 1.5% sustainability-focused companies, out of 60 industries analysed, comprising over 3,400 of the world's largest companies.

# Fostering Stewardship and Governance

Good governance and sound stewardship help foster sustainable long term development and inclusive progress. Temasek has seeded independent public good institutions to build new capabilities and make a difference, and partnered multilateral agencies to promote good governance and share best practices.



## Committing to Communities

**Businesses can deliver sustainable returns over the long term only if there is a thriving and productive economy, a just and inclusive society, and a clean and healthy environment.**

We have 17 non-profit philanthropic endowments, gifted over the years, to focus on different aspects of building people, building communities, building capabilities and rebuilding lives. To date, these endowments have touched over 500,000 lives across Asia and in Singapore.

In September 2016, we regrouped our endowments under six Temasek Foundations, to better plan and deliver community programmes under their respective mandates, amidst a rapidly changing world. Temasek Foundation Management Services was established for economies of scale, pulling together resources to enhance capacity and capabilities, in support of the non-profit Foundations.

Temasek Trust continues to focus on the financial management of the endowment gifts, to ensure their prudent and sustainable distributions to their respective Foundations. It also strives to foster thoughtful governance in the non-profit, philanthropic world.

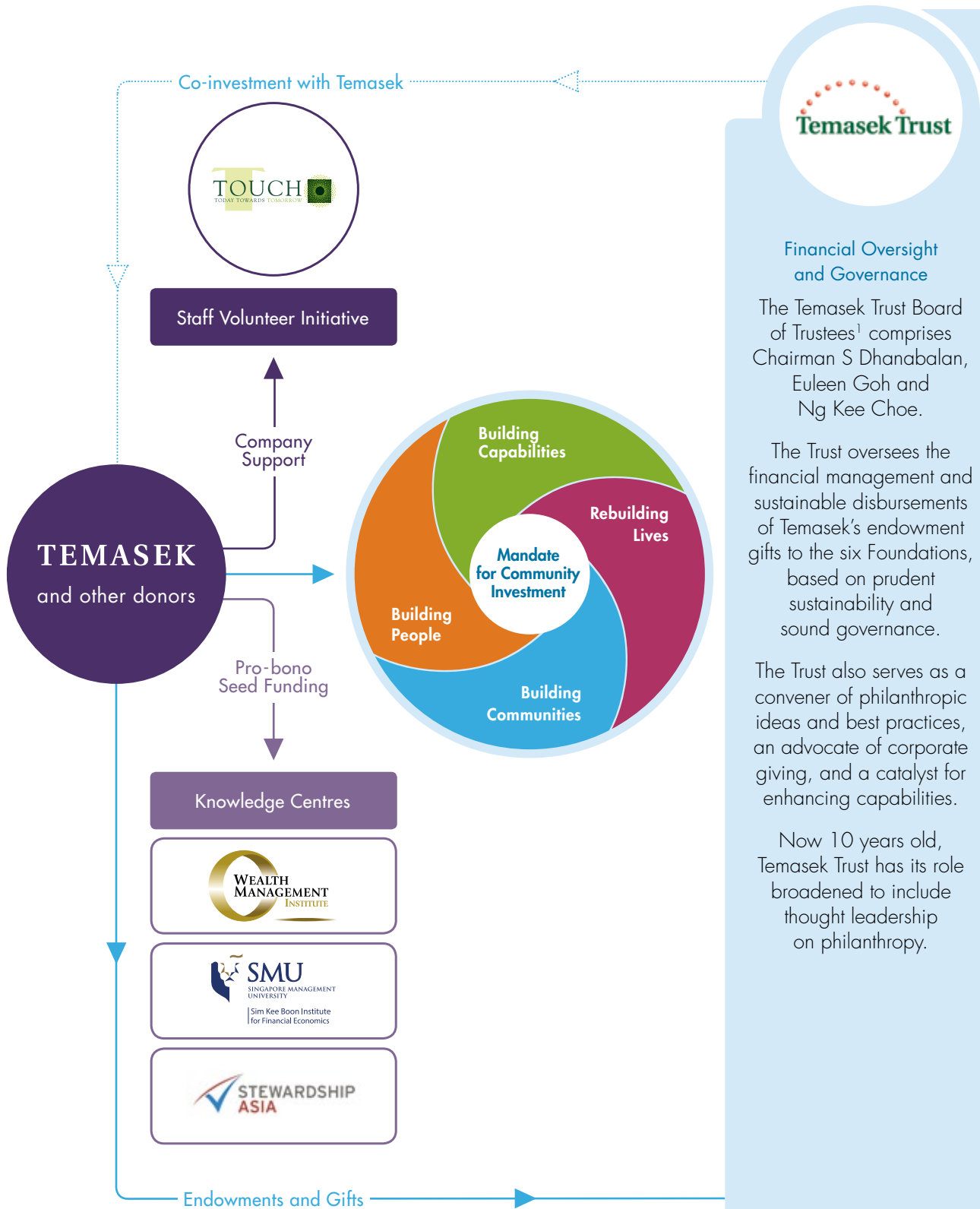
Ageing populations, climate change, resource scarcity, income inequality and poverty are but some examples of the known challenges and opportunities ahead. For instance, the Business and Sustainable Development Commission report, *Better Business, Better World*, released in Davos this year, estimates up to US\$12 trillion worth of economic opportunities and 380 million new jobs, in meeting the 17 United Nations Sustainable Development Goals by 2030.

Our Foundations have championed various public good causes, including sustainability and innovative solutions to improve liveability and mitigate climate threats.

For example, after the 2004 Aceh Tsunami, the Temasek Rice was selectively bred by Temasek Life Sciences Laboratory (TLL), in partnership with farmers and Syiah Kuala University in Aceh, to be stress-tolerant and survive during severe floods. This helps provide small coastal farmers a more secure livelihood, while offering fragrant fluffy brown rice for consumers. This premium rice can now be bought in Singapore.

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Ageing populations, climate change, resource scarcity, and poverty are examples of challenges and opportunities.



**Financial Oversight and Governance**

The Temasek Trust Board of Trustees<sup>1</sup> comprises Chairman S Dhanabalan, Euleen Goh and Ng Kee Choe.

The Trust oversees the financial management and sustainable disbursements of Temasek's endowment gifts to the six Foundations, based on prudent sustainability and sound governance.

The Trust also serves as a convener of philanthropic ideas and best practices, an advocate of corporate giving, and a catalyst for enhancing capabilities.

Now 10 years old, Temasek Trust has its role broadened to include thought leadership on philanthropy.

<sup>1</sup> Ratan Tata stepped down in May 2017, after completing 10 years of service on the board.

## Temasek Foundations



Temasek Foundation International partners Singapore and international organisations to fund and support capability building programmes in Asia. These programmes focus on healthcare, education, public administration, urban management and disaster response. Since May 2007, the Foundation has supported 347 programmes in 21 countries across Asia.



Temasek Foundation Cares focuses on improving the lives of underprivileged individuals, families and communities in Singapore. They include the elderly, those needing palliative care and people with special needs. The Foundation has supported 118 programmes, which have directly benefited more than 38,000 lives since 2009.



Temasek Foundation Connects supports programmes that build bridges and partnerships, and promote dialogue and mutual understanding across international communities. The Foundation manages the Singapore Summit – an international forum that gathers business and thought leaders, to share perspectives on issues that impact growth, prosperity and stability.



Temasek Foundation Nurtures aims to nurture the young. It supports education and professional development, especially for youth – such as the School of the Arts and Singapore Sports School students – to make the leap in music, arts, sports, mathematics and science, engineering and technology.



Temasek Foundation Innovates sponsors solutions-based research and innovation. It manages two endowments – Singapore Millennium Foundation and a science, technology, engineering and mathematics endowment which supports Temasek Life Sciences Laboratory, a biomolecular research institute.



Temasek Foundation Ecosperity supports programmes that champion sustainability and innovative solutions to improve liveability and build our ABC World. It encourages innovation and entrepreneurship, and promotes best practices and standards for sustainable development.

**TEMASEK**  
FOUNDATION  
Management Services

Management Services, Knowledge Sharing

# Making a Difference

Through our Foundations, Temasek aims to uplift the lives of those in our community. Here are two of their stories.

## Songs for the Soul

"Love is endless, love is kind, love is marvellous," Tammy Lim sang cheerily, recounting an experience with a dementia patient. Ms Lim together with her patient composed the simple but endearing three-line tune.

The jingle helped calm the patient, who was increasingly agitated by his worsening memory. During trying moments of disorientation, watching a video where the two performed the song made him teary-eyed. It "touched his heart," Ms Lim explained.

The music invoked a warm memory in her patient, transporting him back in time. "It is not my goal for them to remember to sing the song... we want to create a pleasant moment for them. It is more about what we can do at this moment," said Ms Lim of her patients.

The 31-year-old is a music therapist, working tirelessly to uplift the moods of dementia patients at palliative care provider Assisi



Ms Lim strumming her guitar while singing alongside her patients to *Make A Good Day*.

Hospice. She devotes her days to crooning familiar tunes alongside patients. Her repertoire spans generations and genres, from Teresa Teng's "The Moon Represents My Heart" to "Amazing Grace".

With a tinge of melancholy, Ms Lim described how her patients may suffer "extended" grief, depending on the severity of their illnesses. The toll often extends to loved ones and caregivers. But Ms Lim remains inspired to bring comfort to patients, believing it a beautiful way to serve.

There is "much that music can do in [a] medical setting," said Ms Lim, describing music therapy as a combination of art and science. Believing that she has found her calling, she does research and records sessions with patients, as part of advocating her field's benefits. We can "make a good day," she said, smiling while referencing another self-composition.

Ms Lim's work with the hospice is part of a programme supported by Temasek Foundation Cares. The programme, first of its kind in Singapore, provides individualised, inpatient palliative care to dementia patients and critically ill children.

“ We want to create a pleasant moment for them. ”

Tammy Lim



Watch how our Foundations touch lives at [temasekreview.com.sg/makingadifference](http://temasekreview.com.sg/makingadifference) or scan the QR code

“ Maybe we can really transform, change this community and bring hope, bring life and bring security, assurance. ”

Norman Phua

## Fish for a Lifetime

By supporting research institute Temasek Life Sciences Laboratory (TLL), Temasek Foundation Innovates hopes the lab's solutions can improve livelihoods. In 2016, TLL contacted the fish farm where Mr Kang Boon Yong works.

“It's not an easy life,” the 70-year-old silver-haired Mr Kang said with a wry smile.

Twenty years ago, Mr Kang decided to venture into fish farming. He forked out S\$5,000 for a *kelong*<sup>1</sup> in Batam. Having harboured dreams of riches, Mr Kang good-naturedly admits this did not turn out to be the case. Chuckling, he said, “I think I can make my money... but that was wrong.”

He now oversees his boss' *kelong* around Lorong Halus jetty, in Singapore's north-east. Starting at 6.30 am each day, he manages three workers on the idyllic fish farm, changing nets and feeding the fish thrice a day.

In 2009, calamity struck the farm, when an algae bloom led to 10,000 lobsters perishing. A similar 2014 incident killed 20,000 fish. Algae blooms lower the water's oxygen levels, suffocating fish and crayfish.



Mr Kang (left) and TLL project manager Mr Phua making their way to the *kelong*.

But the hardened Mr Kang has come to terms with the cycles of his trade. He remarked matter-of-factly, “When you have been farming for so long, it's just one of those things.”

Slightly betraying his carefree demeanour, Mr Kang's eyes lit up when mentioning TLL. Through selective breeding, the lab rears faster-growing and more resilient sea bass. It donates these fish to farms, which also serve as testbeds for how fish grow in open farms.

Whereas Mr Kang rears his other fish for a year, TLL's sea bass reach maturity for sale within seven to eight months. “The fast growing one, I can get it in seven months, about 800 grams!” Mr Kang said.

He also makes a tidy profit with TLL's fish. “I make money; double!” he exclaimed.

By supporting programmes like TLL and Assisi Hospice's efforts, Temasek hopes to make a difference to its communities; in some programmes, one individual at a time, through its six Foundations.

As Mr Norman Phua, TLL's project manager, says, “Maybe we can really transform, change this community and bring hope, bring life and bring security, assurance.”

<sup>1</sup> *Kelong* is a Malay word describing a type of offshore platform built predominantly with wood, to trap and harvest sea fish.

# Touching Lives

The Temasek Foundations aim to make a difference to our communities in Asia. They identify needs and spearhead programmes, to build people, build communities, build capabilities and rebuild lives.



Officials and nursing leaders exchanging views on nursing best practices at a forum showcase.



A young boy enjoying himself during an arts & craft session.



Participants discussing capacity building issues in their respective countries.

## Capability and Capacity Building

*Temasek Foundation International@10 Asia Nurse Leaders Forum 2017*

TF International joined SingHealth and the Singapore Nurses Association to organise a three-day healthcare forum in April 2017 for over 200 nursing leaders, officials, executives and educators, from Singapore and Asia. It covered education, regulations, ethics and quality management.

To date, over 3,200 nursing professionals in Asia have benefited from TF International's various nursing capability programmes, conducted by Singapore public healthcare groups and tertiary education institutes.

## Communities in Singapore

*Temasek Foundation Cares – CareNights@Morning Star*

Through this pilot programme, TF Cares supported Morning Star Community Services to provide parents with evening caregiving assistance for their children. It allows respite from childcare duties, giving parents time to upgrade their skills or handle family emergencies.

This care service supports children aged 7 to 14 years old from vulnerable families.

Modelled after established day care programmes, it includes homework supervision, structured play, and enrichment activities.

## Building Bridges

*S Rajaratnam Endowment – ASEAN Community Forum*

Organised in March 2017 by TF Connects in partnership with the ASEAN Foundation, the Forum was attended by 50 participants representing civil society organisations from all 10 ASEAN countries. The discussions touched on issues like rural development, small businesses and women's economic development.

The participants tabled work plans on collaborations to improve ASEAN residents' well-being. They gained a deeper understanding of the processes, which ASEAN member states adopt with regard to community building.





Student athletes paying close attention to their lecturer during class.

## Education and Professional Development

### *School-Within-A-School*

TF Nurtures supports this highly customised programme by the Singapore Sports School, enabling selected student athletes to train during the day and attend classes in the evening.

The student athletes are mainly from the School's badminton and table tennis academies. They are also sent overseas for training and competitions.

During the year, some 50 student athletes benefited from the programme.



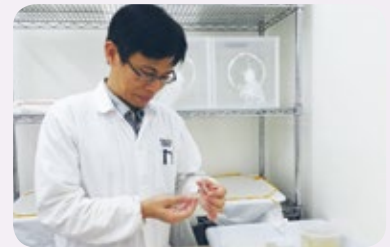
An NUS researcher demonstrating the robotic sock alongside her fellow researchers.

## Research and Innovation

### *Soft Robotics Preventing Deep Vein Thrombosis*

The National University of Singapore (NUS), with funding from the Singapore Millennium Foundation endowment managed by TF Innovates, developed a wearable robotic sock.

The sock enables bedridden patients to perform robot-assisted ankle exercises to improve blood circulation. This reduces the risk of developing deep vein thrombosis – a potentially life-threatening condition where blood clots form along the leg's veins, due to prolonged immobility.



Dr Cai Yu researching bio-based mosquito vector control methods.

## Sustainability

### *Bio-based Platforms for Mosquito Vector Control*

TF Ecosperity supported a project to use plant compounds for developing alternative bio-pesticides such as larvae control sprays, air diffusor oils, and repellents against larvae and adult mosquitoes.

The second phase will involve the building of an arthropod research facility, for studying higher-precision gene-repression methods to exterminate specific mosquito species, without affecting other insects or living organisms.

# Sharing Perspectives

Temasek regularly engages distinguished industry and policy leaders to gain valuable insights on policy, business and financial markets.

## Temasek International Panel

Formed in 2004, the panel consists of prominent global leaders whose knowledge and insights have helped shape Temasek's strategies in a rapidly changing global business landscape.

(as at 30 June 2017)

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### Members

**Dr CHEN Deming**

President

Association for Relations  
Across the Taiwan Straits

Former Minister of Commerce

People's Republic of China

**Dr Jacob A. FRENKEL**

Chairman

JPMorgan Chase International

**Timothy F. GEITHNER**

President

Warburg Pincus LLC

**Hon John HOWARD OM AC**

Former Prime Minister

Australia

**Dame DeAnne JULIUS**

Chair

University College London Council

**Dr Pedro Sampaio MALAN**

Chairman

International Advisory Board,  
Itaú Unibanco Holding S.A.

## Temasek Regional Advisory Panels

As we deepen our reach globally, our regional advisory panels help us stay in touch with eminent business and thought leaders on issues relevant to our investment activities in our key markets. They also facilitate closer collaboration with business stakeholders in the respective regions.

(as at 30 June 2017)

### Temasek Americas Advisory Panel Members

**Timothy F. GEITHNER**  
President  
Warburg Pincus LLC

**Prof Richard C. LEVIN**  
Senior Advisor  
Coursera Inc.

**Alberto WEISSER**  
Former Chairman and CEO  
Bunge Limited

**David M. COTE**  
Executive Chairman  
Honeywell International Inc.

**Indra K. NOOYI**  
Chairman and CEO  
PepsiCo, Inc.

**Ellen J. KULLMAN**  
Former Chairman and CEO  
DuPont

**Dr Ronald D. SUGAR**  
Former Chairman and CEO  
Northrop Grumman Corporation

(as at 30 June 2017)

### Temasek European Advisory Panel Members

**Patrick CESCAU**  
Chairman  
InterContinental Hotels Group PLC

**Michael DIEKMANN**  
Former Chairman of the Board  
of Management and CEO  
Allianz SE

**Gabriele GALATERI DI GENOLA**  
Chairman  
Assicurazioni Generali S.p.A.

**Ian DAVIS**  
Chairman  
Rolls-Royce Holdings plc

**Franz FEHRENBACH**  
Chairman of the Supervisory Board  
Robert Bosch GmbH

**Dr Franz B. HUMER**  
Former Chairman  
Diageo plc



*Resilient  
balance  
sheet*

*Net cash  
position*

# Group Financial Summary

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*Temasek Group Financials are a consolidation of financial information of Temasek and its operating subsidiaries, such as PSA, Singapore Airlines, Singtel and ST Engineering.*

S\$76  
dividend income

Left to right:  
Fran Shen, Associate Director, Beijing Representative Office;  
Hassan Gani, General Support, Administration;  
Purnima Gandhi, Associate Director, Investment;  
Larry Khoo, Officer, Investment.

*Statements on the signboards relate to Temasek.*

# Statement by Auditors

## Report of the Independent Auditors on the Group Financial Summary

We are the auditors of Temasek Holdings (Private) Limited ("Temasek"). We have audited the statutory consolidated financial statements of Temasek and its subsidiaries (the "Group") for the financial years ended 31 March 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016 and 2017 and have issued unmodified audit reports<sup>1</sup>.

Under the Singapore Companies Act, Chapter 50, Temasek is an exempt private company and is not required to publish its audited statutory consolidated financial statements.

Management is responsible for the preparation and presentation of the Group Financial Summary for the financial years ended 31 March 2008 to 2017 set out from pages 86 to 89. The Group Financial Summary consists of the Group Income Statements, Group Balance Sheets and Group Cash Flow Statements as at and for the financial years ended 31 March 2008 to 2017 and Group Statements of Changes in Equity for the financial years ended 31 March 2016 and 2017, which is derived from the audited statutory consolidated financial statements. The Group Financial Summary does not contain all the disclosures required by Financial Reporting Standards in Singapore applied in the preparation of the audited statutory consolidated financial statements of the Group. Reading the Group Financial Summary, therefore, is not a substitute for reading the audited statutory consolidated financial statements of the Group.

Our responsibility is to express an opinion on whether the Group Financial Summary is consistent, in all material respects, with the audited statutory consolidated financial statements based on our procedures, which were conducted in accordance with Singapore Standard on Auditing (SSA) 810 (Revised) – *Engagements to Report on Summary Financial Statements*.

In our opinion, the accompanying Group Financial Summary is summarised and presented consistently, in all material respects, with the audited statutory consolidated financial statements of the Group for the financial years ended 31 March 2008 to 2017.

*KPMG LLP*

**KPMG LLP**

Public Accountants and Chartered  
Accountants  
Singapore

3 July 2017

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<sup>1</sup> Dated 16 July 2008, 15 July 2009, 1 July 2010, 29 June 2011, 27 June 2012, 26 June 2013, 30 June 2014, 29 June 2015, 27 June 2016 and 3 July 2017 respectively.

## Statement by Directors

Our auditors, KPMG LLP, have expressed unqualified opinions on the audited statutory consolidated financial statements of Temasek Holdings (Private) Limited and its subsidiaries (the "Group") for the financial years ended 31 March 2008 to 2017.

On behalf of the directors



**LIM BOON HENG**

Chairman

3 July 2017



**HO CHING**

Executive Director & Chief Executive Officer

3 July 2017

# Group Income Statements

In S\$ billion

For year ended 31 March	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Revenue	83.3	79.6	76.7	83.5	83.5	94.3	92.4	101.6	101.5	<b>97.0</b>
Cost of sales	(53.3)	(57.5)	(50.7)	(53.0)	(56.3)	(64.5)	(63.7)	(70.4)	(73.3)	<b>(68.6)</b>
Gross profit	30.0	22.1	26.0	30.5	27.2	29.8	28.7	31.2	28.2	<b>28.4</b>
Other income	15.8	16.2	4.5	4.9	6.3	5.5	6.0	9.2	11.0	<b>10.0</b>
Expenses:										
Selling & Distribution	(5.2)	(5.0)	(5.3)	(5.8)	(5.6)	(5.2)	(4.7)	(5.0)	(4.4)	<b>(3.7)</b>
Administrative	(8.6)	(8.1)	(8.7)	(7.3)	(8.0)	(8.7)	(8.9)	(9.6)	(8.0)	<b>(8.4)</b>
Finance	(3.2)	(2.7)	(2.4)	(2.6)	(2.6)	(2.6)	(2.3)	(2.1)	(2.7)	<b>(2.8)</b>
Other expenses	(8.7)	(15.3)	(10.0)	(6.2)	(7.1)	(6.7)	(7.5)	(8.1)	(16.0)	<b>(8.9)</b>
Profit before share of results of associates and joint ventures	20.1	7.2	4.1	13.5	10.2	12.1	11.3	15.6	8.1	<b>14.6</b>
Share of results of associates	3.2	1.3	2.4	2.6	3.0	2.5	4.3	3.5	4.4	<b>3.3</b>
Share of results of joint ventures	2.2	1.9	2.0	1.7	1.6	1.9	1.9	2.1	2.2	<b>2.4</b>
Profit before income tax	25.5	10.4	8.5	17.8	14.8	16.5	17.5	21.2	14.7	<b>20.3</b>
Tax expense	(3.0)	(1.3)	(1.7)	(2.0)	(1.4)	(2.0)	(2.3)	(2.5)	(2.1)	<b>(2.6)</b>
Total profit	22.5	9.1	6.8	15.8	13.4	14.5	15.2	18.7	12.6	<b>17.7</b>

Profit attributable to:

<b>Equity holder of the Company</b>	<b>18.2</b>	<b>6.2</b>	<b>4.6</b>	<b>12.7</b>	<b>10.7</b>	<b>10.7</b>	<b>10.9</b>	<b>14.5</b>	<b>8.4</b>	<b>14.2</b>
Non-controlling interests	4.3	2.9	2.2	3.1	2.7	3.8	4.3	4.2	4.2	<b>3.5</b>
Total profit	22.5	9.1	6.8	15.8	13.4	14.5	15.2	18.7	12.6	<b>17.7</b>



# Group Balance Sheets

In S\$ billion

As at 31 March	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Shareholder equity before fair value reserve	120.2	119.9	127.8	134.6	146.4	156.0	172.5	188.0	198.2	210.7
Fair value reserve <sup>1</sup>	23.9	(1.5)	21.9	20.9	11.8	13.2	14.9	30.6	19.9	28.2
<b>Shareholder equity</b>	<b>144.1</b>	<b>118.4</b>	<b>149.7</b>	<b>155.5</b>	<b>158.2</b>	<b>169.2</b>	<b>187.4</b>	<b>218.6</b>	<b>218.1</b>	<b>238.9</b>
Non-controlling interests	25.7	22.6	23.5	24.0	23.5	35.2	34.8	37.8	40.6	43.1
	169.8	141.0	173.2	179.5	181.7	204.4	222.2	256.4	258.7	282.0
Property, plant and equipment	75.3	68.2	68.0	66.8	67.8	73.8	59.5	67.5	69.9	70.8
Intangibles	21.4	19.9	19.1	18.9	17.9	18.2	16.4	20.0	20.5	22.6
Biological assets	–	–	–	–	–	–	–	1.3	1.4	0.5
Investments in associates and joint ventures	39.5	41.1	44.6	42.1	49.5	50.3	56.7	70.2	80.1	83.5
Financial assets	73.9	40.2	64.2	65.3	60.7	70.3	81.4	101.3	88.4	98.3
Investment properties	5.0	5.3	6.5	7.1	7.9	19.4	20.9	23.5	34.4	38.0
Properties under development	0.6	0.8	0.2	0.2	0.4	0.5	1.5	2.0	1.9	2.0
Deferred tax assets	1.8	2.0	1.8	1.7	1.5	1.4	1.4	1.4	1.4	1.4
Other non-current assets	9.4	9.5	10.2	11.3	10.7	12.4	10.9	13.0	13.1	12.8
Net current assets/(liabilities)	(3.1)	11.8	22.0	27.6	32.8	34.0	35.9	31.8	31.5	41.3
Current assets	68.6	60.9	70.2	84.5	86.2	95.2	95.3	105.6	104.7	117.7
Current liabilities	(71.7)	(49.1)	(48.2)	(56.9)	(53.4)	(61.2)	(59.4)	(73.8)	(73.2)	(76.4)
	223.8	198.8	236.6	241.0	249.2	280.3	284.6	332.0	342.6	371.2
Non-current liabilities	(54.0)	(57.8)	(63.4)	(61.5)	(67.5)	(75.9)	(62.4)	(75.6)	(83.9)	(89.2)
	169.8	141.0	173.2	179.5	181.7	204.4	222.2	256.4	258.7	282.0
Net debt <sup>2</sup>	33.8	22.1	17.8	9.5	16.1	19.6	9.0	32.6	44.4	39.3

<sup>1</sup> Prior to the financial year ended 31 March 2006, long term investments were stated at cost less allowance for diminution in value. With the introduction of FRS39 *Financial Instruments: Recognition and Measurement* during the financial year ended 31 March 2006, available-for-sale financial assets (AFS) were required to be measured at fair value. At each reporting date, AFS are remeasured at their fair value. Changes in fair value, other than impairment losses, are recognised in other comprehensive income and presented in the fair value reserve in equity until the AFS are disposed. Impairment losses are recognised in the income statement.

<sup>2</sup> Total debt less cash and cash equivalents.

# Group Cash Flow Statements

In S\$ billion

For year ended 31 March	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Operating cash flow before working capital changes	21.2	14.0	16.4	20.2	16.8	20.1	20.0	20.3	18.4	<b>18.7</b>
Change in working capital	(0.3)	1.5	(4.1)	(2.9)	(1.6)	(4.0)	(1.5)	(3.2)	(5.1)	<b>(2.3)</b>
Cash generated from operations	20.9	15.5	12.3	17.3	15.2	16.1	18.5	17.1	13.3	<b>16.4</b>
Income tax paid	(2.0)	(1.8)	(1.3)	(1.3)	(2.0)	(1.8)	(2.3)	(2.0)	(2.1)	<b>(2.4)</b>
Net cash inflow from operating activities	18.9	13.7	11.0	16.0	13.2	14.3	16.2	15.1	11.2	<b>14.0</b>
Net cash inflow/ (outflow) from investing activities	(30.4)	0.1	(5.3)	(4.9)	(14.8)	(15.3)	(19.2)	(22.6)	(14.7)	<b>(7.2)</b>
Net cash inflow/ (outflow) from financing activities	13.3	(6.4)	(0.2)	(1.7)	(1.4)	4.0	1.0	1.1	2.4	<b>2.7</b>
Net increase/ (decrease) in cash and cash equivalents held	1.8	7.4	5.5	9.4	(3.0)	3.0	(2.0)	(6.4)	(1.1)	<b>9.5</b>

# Group Statements of Changes in Equity

In S\$ billion

	Attributable to Equity Holder of the Company			Non-controlling Interests	Total
	Share Capital and Other Reserves	Revenue Reserve	Currency Translation Reserve		
Balance at 1 April 2015	96.2	127.0	(4.6)	37.8	<b>256.4</b>
Total profit	–	8.4	–	4.2	<b>12.6</b>
Others, net <sup>1</sup>	(8.4)	(0.7)	0.2	(1.4)	<b>(10.3)</b>
Balance at 31 March 2016	87.8	134.7	(4.4)	40.6	<b>258.7</b>
Total profit	–	14.2	–	3.5	<b>17.7</b>
Others, net <sup>1</sup>	10.5	(5.1)	1.2	(1.0)	<b>5.6</b>
<b>Balance at 31 March 2017</b>	<b>98.3</b>	<b>143.8</b>	<b>(3.2)</b>	<b>43.1</b>	<b>282.0</b>

<sup>1</sup> Comprise movements during the financial year including but not limited to:

- Issuance of ordinary shares;
- Change in fair value of financial assets;
- Dividends to shareholder;
- Share of associates and joint ventures' reserves; and
- Currency translation differences.



*S\$2756  
net portfolio  
value*

# Major Investments

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Long term investor










Left to right:  
Ashley Chan, Associate Director, Investment;  
Camilia Chan, Personal Assistant, Investment;  
Pushendra Pratap Singh, Associate Director, Portfolio Strategy.

*Statements on the signboards relate to Temasek.*

# Major Investments

## Sources:

1. Financials for the companies are based on their respective annual filings.
2. EVA figures are provided by the respective companies, except for the following, which are calculated by Temasek based on their respective annual filings: AIA Group, China Construction Bank, China Pacific Insurance (Group), DBS Group, Industrial and Commercial Bank of China, Ping An Insurance (Group), Prudential, PT Bank Danamon Indonesia, Standard Chartered, Alibaba Group, Univar, A.S. Watson, Dufry, Celltrion, Gilead Sciences, Thermo Fisher Scientific, Repsol and Turquoise Hill Resources.
3. Market relevant information is sourced from Bloomberg, Stock Exchanges and public filings by companies.

			Market Capitalisation or Shareholder Equity <sup>1</sup>	
Financial Services	Shareholding <sup>4</sup> (%) as at 31 March 2017	Currency	2017	2016
 THE REAL LIFE COMPANY AIA Group Limited	3	HKD'm	<b>591,049</b>	529,528
 中国建设银行 China Construction Bank Corporation	4	HKD'm	<b>1,566,906</b>	1,245,989
 中国太平洋保险 China Pacific Insurance	<1	HKD'm	<b>272,345</b>	278,677
 DBS	29	SGD'm	<b>49,328</b>	38,529
 ICBC 中国工商银行 Industrial and Commercial Bank of China Limited	2	HKD'm	<b>1,913,258</b>	1,766,847
 中国平安 PING AN Ping An Insurance (Group) Company of China, Ltd.	2	HKD'm	<b>776,324</b>	690,464
 PRUDENTIAL	<1	GBP'm	<b>43,594</b>	33,471
 Danamon	67 <sup>#</sup>	IDR'b	<b>45,048</b>	36,422
 Standard Chartered	16	GBP'm	<b>25,101</b>	15,506

<sup>1</sup> Market Capitalisation or Shareholder Equity: For listed companies, 2017 refers to positions as at 31 March 2017. For unlisted companies, 2017 refers to positions as at 31 March 2017 or 31 December 2016, in accordance with their respective financial year ends. Similarly for 2016.

<sup>2</sup> Key Figures: FY2016 refers to financial year ended March 2017 or December 2016 or November 2016 in accordance with the respective financial year ends of the companies. Similarly for FY2015. Revenue for Financial Services consists of net interest income and other operating revenue.

<sup>3</sup> TSR: For listed companies, source is Bloomberg.  
Period for one-year TSR is from 31 March 2016 to 31 March 2017.  
Period for three-year TSR is from 31 March 2014 to 31 March 2017.  
Period for five-year TSR is from 31 March 2012 to 31 March 2017.

For unlisted companies, shareholder equity is used in the computations. TSR is based on shareholder equity as at their respective financial year ends.

<sup>4</sup> Percentages rounded to the nearest whole number.

## Glossary

Market Capitalisation	= Market value as at 31 March 2017 and 31 March 2016
Shareholder Equity	= Shareholder equity reported by the respective companies based on their annual filings
PATMI	= Profit/(Loss) after tax and non-controlling interests
Dividends Declared	= Dividends declared during the respective financial year of the companies
EVA	= Economic Value Added, attributable to investors
TSR	= Total Shareholder Return
NA	= Not applicable

	Revenue		PATMI		Dividends Declared		Key Figures <sup>2</sup>		TSR <sup>3</sup> (%)		
							EVA		Years		
	FY2016	FY2015	FY2016	FY2015	FY2016	FY2015	FY2016	FY2015	1	3	5
	<b>28,196<sup>5</sup></b>	23,347 <sup>5*</sup>	<b>4,164<sup>5</sup></b>	2,765 <sup>5*</sup>	<b>1,124<sup>5</sup></b>	814 <sup>5</sup>	<b>825<sup>5</sup></b>	(277) <sup>5*</sup>	13.5	11.4	12.8
	<b>559,860<sup>6</sup></b>	586,687 <sup>6</sup>	<b>231,460<sup>6</sup></b>	228,145 <sup>6</sup>	<b>68,503<sup>6</sup></b>	75,253 <sup>6</sup>	<b>29,686<sup>6</sup></b>	34,500 <sup>6**</sup>	34.8	11.3	6.9
	<b>266,081<sup>6</sup></b>	246,963 <sup>6</sup>	<b>12,057<sup>6</sup></b>	17,728 <sup>6</sup>	<b>9,062<sup>6</sup></b>	4,531 <sup>6</sup>	<b>(2,335)<sup>6</sup></b>	3,999 <sup>6</sup>	1.4	3.1	5.4
	<b>11,489</b>	10,937 <sup>*</sup>	<b>4,238</b>	4,454	<b>1,545</b>	1,542	<b>267</b>	725 <sup>**</sup>	31.1	9.9	10.2
	<b>641,681<sup>6</sup></b>	668,733 <sup>6</sup>	<b>278,249<sup>6</sup></b>	277,131 <sup>6</sup>	<b>83,150<sup>6</sup></b>	91,026 <sup>6</sup>	<b>23,322<sup>6</sup></b>	67,061 <sup>6**</sup>	24.9	8.4	6.3
	<b>774,488<sup>6</sup></b>	693,220 <sup>6</sup>	<b>62,394<sup>6</sup></b>	54,203 <sup>6</sup>	<b>10,054<sup>6</sup></b>	7,860 <sup>6</sup>	<b>(43,479)<sup>6</sup></b>	(20,871) <sup>6**</sup>	19.5	12.4	9.5
	<b>71,842</b>	41,305	<b>1,921</b>	2,579	<b>1,267</b>	974	<b>860</b>	1,106 <sup>**</sup>	33.1	13.1	21.1
	<b>18,229</b>	18,042	<b>2,669</b>	2,393	<b>718</b>	781	<b>(2,703)</b>	(2,799) <sup>*</sup>	27.2	5.1	2.7
	<b>14,060<sup>5</sup></b>	15,289 <sup>5</sup>	<b>(247)<sup>5</sup></b>	(2,194) <sup>5</sup>	<b>-</b>	1,778 <sup>5</sup>	<b>(4,649)<sup>5</sup></b>	(5,245) <sup>5**</sup>	61.5	(12.0)	(10.0)

<sup>5</sup> Figures in USD'm.

<sup>6</sup> Figures in RMB'm.







# Includes significant interests held by Fullerton Financial Holdings Pte. Ltd.

\* Restated by respective companies.









\*\* Restated due to change in adjustment basis.

● For year ended November 2016/2015.

● For year ended December 2016/2015.

			Market Capitalisation or Shareholder Equity <sup>1</sup>		
Telecommunications, Media & Technology		Shareholding <sup>4</sup> (%) as at 31 March 2017	Currency	<b>2017</b>	2016
	IHS Markit Ltd.	5	USD'm	<b>17,068</b>	NA <sup>5</sup>
	Intouch Holdings Public Company Limited	20	THB'm	<b>178,758</b>	204,409
	Singapore Technologies Telemedia Pte Ltd	100	SGD'm	<b>4,873</b>	4,754
	Alibaba Group Holding Limited	1	USD'm	<b>272,810</b>	195,515
	Mediacorp Pte Ltd	100	SGD'm	<b>587</b>	761
	Singapore Telecommunications Limited	52	SGD'm	<b>64,010</b>	60,904

### Transportation & Industrials

	Keppel Corporation Limited	20	SGD'm	<b>12,614</b>	10,583
	PSA International Pte Ltd	100	SGD'm	<b>10,870</b>	10,282
	Sembcorp Industries Ltd	49	SGD'm	<b>5,684</b>	5,398
	Singapore Technologies Engineering Ltd	51	SGD'm	<b>11,623</b>	10,028
	Univar Inc.	10	USD'm	<b>4,299</b>	2,371
	Singapore Airlines Limited	56	SGD'm	<b>11,897</b>	13,290
	Singapore Power Limited	100	SGD'm	<b>9,793</b>	9,088
	SMRT Corporation Ltd	100	SGD'm	<b>929</b>	916 <sup>8</sup>

<sup>1</sup> Market Capitalisation or Shareholder Equity: For listed companies, 2017 refers to positions as at 31 March 2017. For unlisted companies, 2017 refers to positions as at 31 March 2017 or 31 December 2016, in accordance with their respective financial year ends. Similarly for 2016.

<sup>2</sup> Key Figures: FY2016 refers to financial year ended March 2017 or December 2016 or November 2016 in accordance with the respective financial year ends of the companies. Similarly for FY2015. Revenue for Financial Services consists of net interest income and other operating revenue.

<sup>3</sup> TSR: For listed companies, source is Bloomberg.  
 Period for one-year TSR is from 31 March 2016 to 31 March 2017.  
 Period for three-year TSR is from 31 March 2014 to 31 March 2017.  
 Period for five-year TSR is from 31 March 2012 to 31 March 2017.

For unlisted companies, shareholder equity is used in the computations. TSR is based on shareholder equity as at their respective financial year ends.

<sup>4</sup> Percentages rounded to the nearest whole number.



		Key Figures <sup>2</sup>						TSR <sup>3</sup> (%)		
Revenue		PATMI		Dividends Declared		EVA		Years		
FY2016	FY2015	FY2016	FY2015	FY2016	FY2015	FY2016	FY2015	1	3	5
<b>2,735<sup>5</sup></b>	NA <sup>5</sup>	<b>153<sup>5</sup></b>	NA <sup>5</sup>	<b>-<sup>5</sup></b>	NA <sup>5</sup>	<b>NA<sup>5</sup></b>	NA <sup>5</sup>	NA	NA	NA
<b>11,646</b>	12,665	<b>16,398</b>	16,078	<b>14,721</b>	14,833	<b>7,585</b>	11,577	(5.6)	(4.2)	5.2
<b>3,347</b>	3,310	<b>125</b>	805	<b>50</b>	-	<b>(22)</b>	(170)	3.6	16.5	8.4
<b>158,273<sup>6</sup></b>	101,143 <sup>6</sup>	<b>43,675<sup>6</sup></b>	71,460 <sup>6</sup>	<b>NA<sup>7</sup></b>	NA <sup>7</sup>	<b>35,454<sup>6</sup></b>	9,754 <sup>6**</sup>	36.4	5.7	NA
<b>701</b>	739	<b>(175)</b>	36	<b>-</b>	4	<b>(9)</b>	11	(22.8)	(6.4)	(2.0)
<b>16,711</b>	16,961	<b>3,853</b>	3,871	<b>2,816</b>	2,789	<b>1,882</b>	2,027	7.3	7.0	9.2
<b>6,767</b>	10,296	<b>784</b>	1,525	<b>545</b>	872	<b>(140)</b>	648	25.5	(9.6)	(3.9)
<b>3,680</b>	3,573	<b>1,173</b>	1,268	<b>500</b>	1,300	<b>451</b>	609	10.6	11.2	13.6
<b>7,907</b>	9,545	<b>395</b>	549	<b>179</b>	286	<b>8</b>	4*	8.6	(13.5)	(6.5)
<b>6,684</b>	6,335	<b>485</b>	529	<b>466</b>	498	<b>252</b>	355*	21.3	3.8	7.4
<b>8,074</b>	8,982	<b>(68)</b>	17	<b>-</b>	-	<b>(285)</b>	(213)**	78.6	NA	NA
<b>14,869</b>	15,239*	<b>360</b>	804	<b>521</b>	315	<b>(508)</b>	(603)	(7.8)	2.4	1.7
<b>3,722</b>	3,964	<b>949</b>	924	<b>370</b>	316	<b>256</b>	300	11.8	9.8	9.1
<b>1,324</b>	1,297	<b>54</b>	109	<b>38</b>	49	<b>(11)</b>	43	5.6	10.0	9.9

<sup>5</sup> IHS Inc. and Markit Ltd. completed their merger on 12 July 2016 to form IHS Markit Ltd. FY2016 refers to the period from 12 July to 30 November 2016. Information for FY2015 is not available.

<sup>6</sup> Figures in RMB'm.

<sup>7</sup> Information not available.

<sup>8</sup> Restated due to delisting of the company in October 2016.

\* Restated by respective companies.












\*\* Restated due to change in adjustment basis.

● For year ended November 2016/2015.

● For year ended December 2016/2015.

● For year ended March 2017/2016.



## Major Investments *continued*

		Market Capitalisation or Shareholder Equity <sup>1</sup>			
Consumer & Real Estate		Shareholding <sup>4</sup> (%) as at 31 March 2017	Currency	2017	2016
 <b>A.S. Watson Group</b>	A.S. Watson Holdings Limited	25	HKD'm	<b>24,789</b>	24,670
 <b>Capitaland</b>	Capitaland Limited	40	SGD'm	<b>15,417</b>	13,066
 <b>DUFREY</b>	Dufry AG	8	CHF'm	<b>8,221</b>	6,373
 <b>M+S</b>	M+S Pte. Ltd.	40	SGD'm	<b>NM<sup>5</sup></b>	NM <sup>5</sup>
 <b>Olam</b>	Olam International Limited <sup>6</sup>	52	SGD'm	<b>5,239</b>	4,770
 <b>PIV</b>	Pulau Indah Ventures Sdn Bhd	50	MYR'm	<b>NM<sup>5</sup></b>	NM <sup>5</sup>
 <b>Sj SURBANA JURONG</b>	Surbana Jurong Private Limited	100	SGD'm	<b>558</b>	328
 <b>ascendas SINGBRIDGE</b>	Ascendas-Singbridge Pte Ltd	51 <sup>#</sup>	SGD'm	<b>1,481</b>	1,310
 <b>Mandai</b>	Mandai Park Holdings Pte. Ltd.	100	SGD'm	<b>239</b>	197
 <b>mapletree</b>	Mapletree Investments Pte Ltd	100	SGD'm	<b>11,184</b>	9,941
 <b>sats</b>	SATS Ltd.	40	SGD'm	<b>5,439</b>	4,381

## Life Sciences & Agribusiness

 <b>CELLTRION</b>	Celltrion, Inc.	14	KRW'b	<b>10,991</b>	12,740
 <b>GILEAD</b>	Gilead Sciences, Inc.	1	USD'm	<b>88,771</b>	123,827
 <b>ThermoFisher SCIENTIFIC</b>	Thermo Fisher Scientific Inc.	<1	USD'm	<b>60,091</b>	55,717

## Energy & Resources

 <b>REPSOL</b>	Repsol, S.A.	4	EUR'm	<b>21,660</b>	14,302
 <b>TURQUOISE HILL</b>	Turquoise Hill Resources Ltd.	9	CAD'm	<b>8,170</b>	6,681
 <b>PAVILION ENERGY</b>	Pavilion Energy Pte Ltd	100	USD'm	<b>1,622</b>	1,508

<sup>1</sup> Market Capitalisation or Shareholder Equity: For listed companies, 2017 refers to positions as at 31 March 2017. For unlisted companies, 2017 refers to positions as at 31 March 2017 or 31 December 2016, in accordance with their respective financial year ends. Similarly for 2016.

<sup>2</sup> Key Figures: FY2016 refers to financial year ended March 2017 or December 2016 or November 2016 in accordance with the respective financial year ends of the companies. Similarly for FY2015. Revenue for Financial Services consists of net interest income and other operating revenue.

<sup>3</sup> TSR: For listed companies, source is Bloomberg.

Period for one-year TSR is from 31 March 2016 to 31 March 2017.

Period for three-year TSR is from 31 March 2014 to 31 March 2017.

Period for five-year TSR is from 31 March 2012 to 31 March 2017.

For unlisted companies, shareholder equity is used in the computations. TSR is based on shareholder equity as at their respective financial year ends.

<sup>4</sup> Percentages rounded to the nearest whole number.

		Key Figures <sup>2</sup>						TSR <sup>3</sup> (%)		
Revenue		PATMI		Dividends Declared		EVA		Years		
FY2016	FY2015	FY2016	FY2015	FY2016	FY2015	FY2016	FY2015	1	3	5
<b>122,021</b>	124,673	<b>8,734</b>	9,068	<b>6,316</b>	7,740	<b>5,709</b>	6,351**	26.1	42.5	42.5
<b>5,252</b>	4,762	<b>1,190</b>	1,066	<b>383</b>	384	<b>(57)</b>	(150)	22.1	10.9	5.8
<b>7,829</b>	6,139	<b>3</b>	(79)	<b>-</b>	-	<b>(220)</b>	(217)*	28.9	0.8	5.8
<b>NM<sup>5</sup></b>	NM <sup>5</sup>	<b>NM<sup>5</sup></b>	NM <sup>5</sup>	<b>NM<sup>5</sup></b>	NM <sup>5</sup>	<b>NM<sup>5</sup></b>	NM <sup>5</sup>	NM <sup>5</sup>	NM <sup>5</sup>	NM <sup>5</sup>
<b>20,587</b>	28,231	<b>351</b>	54*	<b>184</b>	247	<b>(624)</b>	(579)*	16.4	(1.9)	(1.5)
<b>NM<sup>5</sup></b>	NM <sup>5</sup>	<b>NM<sup>5</sup></b>	NM <sup>5</sup>	<b>NM<sup>5</sup></b>	NM <sup>5</sup>	<b>NM<sup>5</sup></b>	NM <sup>5</sup>	NM <sup>5</sup>	NM <sup>5</sup>	NM <sup>5</sup>
<b>770</b>	269 <sup>7</sup>	<b>(82)</b>	3 <sup>7</sup>	<b>-</b>	- <sup>7</sup>	<b>(21)</b>	NA <sup>7</sup>	(24.3)	NA	NA
<b>723</b>	555 <sup>8</sup>	<b>186</b>	290 <sup>8</sup>	<b>-</b>	- <sup>8</sup>	<b>15</b>	NA <sup>8</sup>	13.0	NA	NA
<b>149</b>	128	<b>(13)</b>	(7)	<b>-</b>	-	<b>(22)</b>	NM <sup>9</sup>	(6.5)	NA	NA
<b>2,329</b>	1,879	<b>1,350</b>	916	<b>165</b>	131	<b>568</b>	190	14.2	11.7	12.0
<b>1,729</b>	1,698	<b>258</b>	221	<b>178</b>	156	<b>92</b>	80	29.0	21.6	20.4
<b>671</b>	603	<b>178</b>	154	<b>3</b>	5	<b>(15)</b>	(33)	(13.8)	32.5	19.7
<b>30,390</b>	32,639	<b>13,501</b>	18,108	<b>2,465</b>	1,890	<b>9,090</b>	13,135*	(24.1)	(0.0)	23.7
<b>18,274</b>	16,965	<b>2,022</b>	1,975	<b>237</b>	240	<b>(681)</b>	(626)*	8.9	9.0	22.9
<b>37,433</b>	41,741	<b>1,736</b>	(1,398)*	<b>912</b>	1,318	<b>(541)</b>	(3,644)*	53.7	(0.4)	2.0
<b>1,203<sup>10</sup></b>	1,635 <sup>10</sup>	<b>211<sup>10</sup></b>	313 <sup>10</sup>	<b>-</b>	-	<b>(1,416)<sup>10</sup></b>	(1,000) <sup>10</sup>	22.4	3.1	(18.3)
<b>276</b>	280	<b>110</b>	(409)	<b>-</b>	-	<b>(52)</b>	(68)	7.5	(8.4)	NA

<sup>5</sup> Information not meaningful. Joint venture with Khazanah Nasional Berhad. Projects under development.

<sup>6</sup> Olam International changed its financial year end from June to December in 2015. FY2015 refers to 18-month period from 1 July 2014 to 31 December 2015.

<sup>7</sup> FY2015 is the first year of consolidation and refers to the period from 1 April 2015 to 31 December 2015.

<sup>8</sup> FY2015 is the first year of consolidation from June 2015.

<sup>9</sup> Information not meaningful.

<sup>10</sup> Figures in USD'm.

<sup>#</sup> Comprises 51% of ordinary shares held through a wholly owned subsidiary, TJ Holdings (III) Pte. Ltd.

\* Restated by respective companies.

\*\* Restated due to change in adjustment basis.

● For year ended December 2016/2015.

● For year ended March 2017/2016.

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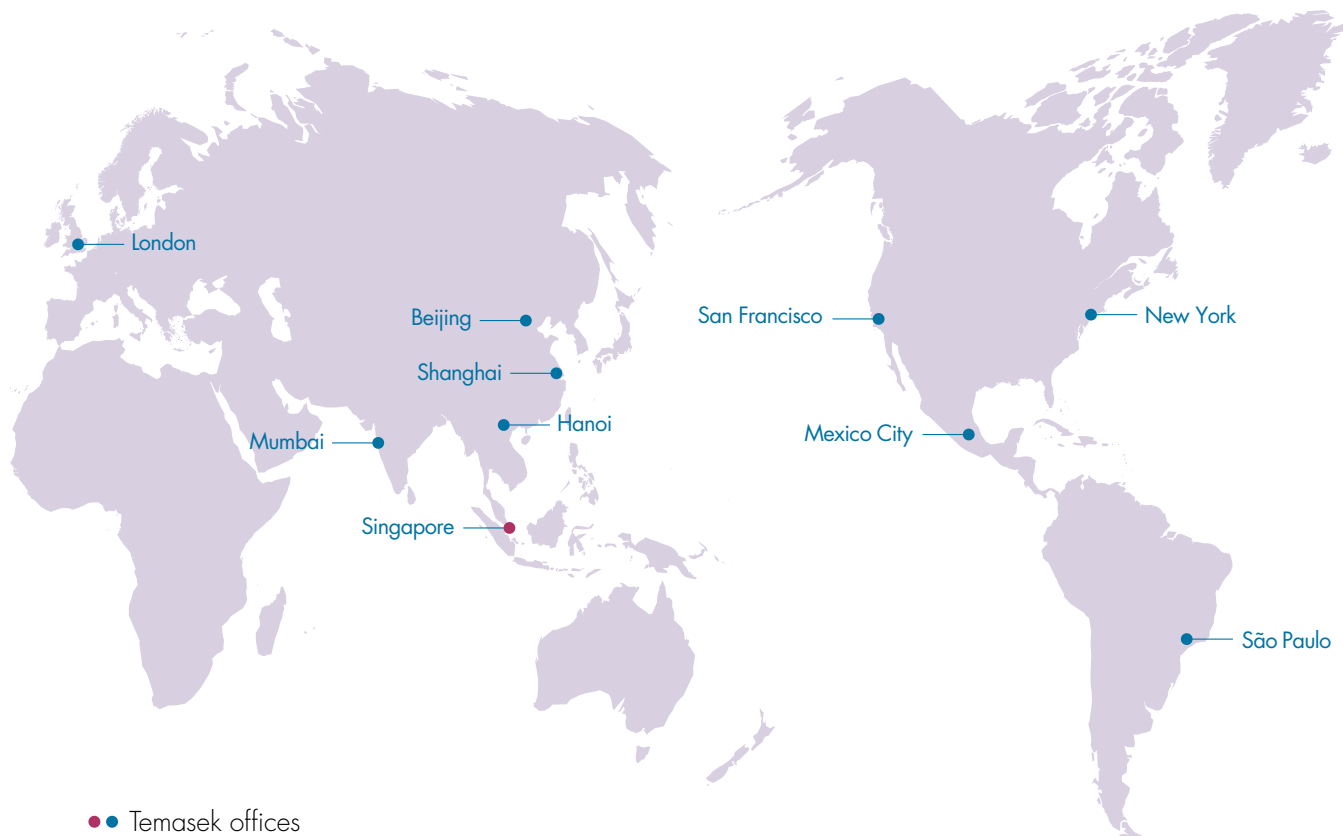
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# Temasek Portfolio at Inception

Temasek was incorporated in 1974 to commercially manage an initial portfolio valued at S\$354 million, acquired from the Singapore Minister for Finance<sup>1</sup>. This move enabled the Singapore Government to focus on its core role of policymaking and regulations.

Companies in bold and in blue are still within the Temasek portfolio, directly or indirectly, while the rest have been divested or liquidated.

1. Acma Electrical Industries Ltd
2. Cerebos Singapore Pte Ltd
3. Chemical Industries (F.E.) Ltd
- 4. *Development Bank of Singapore Ltd***<sup>2</sup>
5. Instant Asia Cultural Shows Pte Ltd
6. Insurance Corporation of Singapore Ltd
7. International Development and Construction Corporation
8. Intraco Ltd
- 9. *Jurong Bird Park Pte Ltd***<sup>3</sup>
- 10. *Jurong Holdings Pte Ltd***<sup>4</sup>
- 11. *Jurong Shipbuilders Pte Ltd***<sup>4</sup>
- 12. *Jurong Shipyard Pte Ltd***<sup>4</sup>
- 13. *Keppel Shipyard Pte Ltd***<sup>5</sup>
14. Metrawood Pte Ltd
15. Ming Court Hotel Ltd
16. Mitsubishi Singapore Heavy Industries Pte Ltd
17. National Engineering Services Pte Ltd
18. National Grain Elevator Ltd
19. National Iron & Steel Mills Ltd<sup>6</sup>
20. Neptune Orient Lines Ltd
- 21. *Primary Industries Enterprises Pte Ltd***<sup>7</sup>
- 22. *Sembawang Holdings Pte Ltd***<sup>4</sup>
- 23. *Singapore Airlines Ltd***
- 24. *Singapore Airport Duty-Free Emporium Pte Ltd***<sup>8</sup>
25. Singapore Cable Car Pte Ltd
26. Singapore General Aviation Service Company Pte Ltd
27. Singapore National Printers Pte Ltd
28. Singapore Offshore Petroleum Services Pte Ltd
29. Singapore Textiles Industries Ltd
30. Singapore Treasury Building Pte Ltd
- 31. *Singapore Zoological Gardens***<sup>3</sup>
32. Singmanex Pte Ltd
33. Sugar Industry of Singapore Ltd
34. United Industrial Corporation Ltd
35. United Vegetable Oil Pte Ltd

<sup>1</sup> Under the Singapore Minister for Finance (Incorporation) Act (Chapter 183), the Minister for Finance is a body corporate.

<sup>2</sup> Now part of DBS Group Holdings Ltd.

<sup>3</sup> Now part of Mandai Park Holdings Pte. Ltd.

<sup>4</sup> Now part of Sembcorp Industries Ltd.

<sup>5</sup> Now part of Keppel Corporation Limited.

<sup>6</sup> Formed to produce iron and steel in Singapore, NatSteel (formerly known as National Iron & Steel Mills Ltd) was first divested in 1986. Temasek reinvested in NatSteel in 1998 in support of their investment in Brazil. Temasek divested NatSteel in 2002 when NatSteel initiated a sale process.

<sup>7</sup> Now part of SATS Ltd., a catering and airport services company.

<sup>8</sup> Now jointly owned by Singapore Airlines Limited and SATS Ltd.

Materials produced as part of Temasek's annual disclosure exercise include the printed *Temasek Review*, *Temasek Overview*, *Temasek Review Highlights* and *Temasek in Brief* publications, advertisements and microsites.



The *Temasek Review*, *Temasek Overview* and *Temasek Review Highlights* publications are printed responsibly as certified by Forest Stewardship Council™ (FSC™), a global, not-for-profit organisation dedicated to the promotion of responsible forest management worldwide.

From the forest, to the paper mill and printer, each step of producing these publications is certified according to FSC™ standards.

The publications use Grandeur Zen White paper, which is environmentally friendly and contains wood pulp from well managed forests.

Twenty percent of the pulp is sourced from pre-consumer waste and is bleached using an elemental chlorine-free process.

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Printing: Colourscan Print Co. (Pte.) Ltd., Singapore.

Design of advertisements: formul8 Pte Ltd, Singapore.

Photography:

Cover and divider pages: Danny Santos II.

We thank those who agreed to the use of their photos in our annual disclosure exercise.

Inside front cover:

Elizabeth, daughter of Dave Kwek, Director, Internal Audit.

# TEMASEK



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