



# Ahead of THE Curve

2017 marked a historic milestone as Changi Airport opened doors to a brand new terminal, T4, with new breakthroughs to redefine travel experience and grow Changi's appeal as a leading air hub. Boundaries were pushed, with innovation being the cornerstone to elevate the Changi Experience, and provide our passengers with opportunities to discover new adventures. Designed to be a fun, vibrant and positively surprising terminal, T4 presents a theatre of experience that invokes emotional connection, surprising and delighting passengers every step of the way.

The year also saw Changi's one billionth passenger passing through since its opening on 1 July 1981. In 2017, Changi Airport also welcomed a record of 63 million passengers in a financial year. This is a remarkable achievement for the 50,000-strong ONE Changi airport community, made possible by years of hard work and dedication to grow the Changi air hub together to what it is today. With over 100 airlines linking a network of 400 cities worldwide, Changi Airport is the world's sixth busiest airport for international traffic, handling 7,200 weekly flights or one every 80 seconds.

As Changi Airport Group (CAG) celebrates the airport's many milestones, it continues to reinforce its commitment to service by putting passengers at the heart of everything it does. Delivering the

Changi Experience will continue to be the goal for the airport community driving the airport's service-focused culture and philosophy.

Changi's transformation journey is now well underway. Following the opening of T4, a new passenger terminal at Seletar Airport and Jewel Changi Airport will be unveiled to the world soon, while the development of Changi East, including T5, picks up pace. In planning ahead to build sufficient capacity to meet future demand in air travel, Changi will ride on the momentum of growth, and prepare itself for the future with these exciting new developments to stay ahead of the curve.

**CELEBRATING SIGNIFICANT MILESTONES**

# Air Hub

Changi Airport welcomed a record of 63 million passengers in FY2017/18, achieving a 6.1% growth compared to the year before. It also reached a new milestone with airfreight throughput crossing two million tonnes for the very first time.

With the opening of T4, Changi as an air hub continues to grow from strength to strength, with an additional capacity of 16 million passengers per annum (mppa). The added capacity enables the airport to provide room for airlines to grow alongside Changi.









Changi's new T4 presents a new experience for passengers with its fully automated departure process based on a Fast and Seamless Travel (FAST) system. The terminal is the first to integrate facial recognition technology with end-to-end self-service options, making it safer, easier and faster for passengers to catch their flight.

The Changi Experience is enhanced through two large immersive digital screens in the transit areas of the terminal where passengers can soak in the sights and sounds of multimedia projections featuring cultural and travel stories, as they pass through the centralised security screening area and wait for boarding.

# Changi Experience

REINVENTING TRAVEL EXPERIENCES



POSITIVELY SURPRISING PASSENGERS

# Commercial

Innovative retail concepts introduced at the new T4 are a delight to Changi's passengers as they can now enjoy a seamless duty-free shopping experience. Browsing of the Wines & Spirits, as well as Cosmetics & Perfumes sections, is enhanced with well-integrated walkthrough spaces, and services that provide for purchases to be made in a single transaction. Beyond the traditional duty-free categories, popular local branded products displayed in heritage shophouses also add a nostalgic touch to the retail experience.

With more than 400 retail and service stores, and 140 food and beverage options offered across the airport's terminals, Changi's concession sales continue to outperform with a record of S\$2.5 billion achieved in FY2017/18, representing a 10% year-on-year growth.







**OPENING DOORS TO A NEW ERA**

# Development Projects

For Changi Airport to stay ahead of the competition, continuous innovation is needed to maintain its leading edge. The upcoming Jewel Changi Airport, targeted for opening in the first half of 2019, will be a game changer for Changi Airport with its wide range of lifestyle offerings. Along with the development of Jewel as a multi-dimensional, world-class lifestyle destination, T1 will be expanded. The expansion will see Changi Airport's capacity increase to 85 million passengers per annum.

Looking ahead, the Changi East development – which includes T5, the three-runway system, network of tunnels and systems, as well as the Changi East Industrial Zone, will further provide for future capacity. This will allow Changi Airport to ride on the region's growth in air travel, to secure Singapore's air hub status in the future.



BUILDING CHANGI'S HEARTWARE

# People of Changi

A big part of what makes Changi Airport today, is its 'Heartware'. As the conductor of Changi Airport's 50,000-strong airport community, CAG continues to develop and nurture its people and the airport community to deliver the Changi Service DNA – personalised, stress-free and positively surprising. By putting passengers at the heart of what we do, Changi Airport strives to heighten the Changi spirit of excellence and celebrate many more milestones ahead.



**50,000**

A STRONG ONE CHANGI COMMUNITY



# MISSION, VISION, Values

## MISSION

**To be the world's leading airport company, growing a safe, secure and vibrant air hub in Singapore and enhancing the communities we serve worldwide.**

## VISION

**Exceptional People,  
Connecting Lives**

We aspire to build a company where ordinary people achieve exceptional results. Working together as a team, we bring great ideas to life and achieve exceptional results beyond our individual capabilities.

Customers are our inspiration. From the youngest child to the largest corporation, we understand that what we provide connects people in ways that will enhance their lives.

## VALUES



### INTEGRITY

is at the heart  
of everything  
we do



We value  
our  
**PEOPLE**



We are  
the best  
in our  
**BUSINESS**



We are  
committed  
to our  
**CUSTOMERS**



We succeed  
with our  
**PARTNERS**

# CORPORATE Profile

**C**hangi Airport Group (Singapore) Pte Ltd (CAG) was formed on 16 June 2009 and the corporatisation of Changi Airport followed on 1 July 2009. As the airport company managing Changi Airport, CAG undertakes key functions focusing on airport operations and management, air hub development, commercial activities and airport emergency services.

Over the past three decades, CAG – previously part of the Civil Aviation Authority of Singapore – has successfully established Changi Airport as the world's most awarded airport. With more than 560 accolades under its belt, Changi has come a long way since its humble beginnings in 1981, when T1 first opened.

One of the world's busiest international airports today, Changi Airport is a major air hub in Asia.

It handled 63 million passenger movements in FY2017/18, serving about 100 airlines flying to more than 400 cities worldwide. With 90,000 sqm of commercial space across its four terminals, Changi Airport is also one of Singapore's best places for shopping and dining. Increasingly, the airport has become a favourite haunt for Singapore residents, especially families.

To grow its overseas business, CAG invests in and manages foreign airports through its subsidiary Changi Airports International (CAI). CAI's objective is to build a quality portfolio of airport investments worldwide with strong markets and significant development potential. Its key business activities include investments in airports, as well as

the provision of consultancy and airport management services. Today, CAI's presence covers major economies including Europe, the Middle East, South America, as well as China and India.

At Changi Airport, there is immense pride in providing impeccable service and unrivalled capabilities to deliver the iconic Changi Experience. More than just a model of functionality, the Changi Experience is about connecting passengers and engaging them, in ways that enhance their lives. Every journey through Changi Airport is an opportunity to bring people together and to help them realise their aspirations.



CHAIRMAN & CEO  
**Message**



LIEW Mun Leong  
**Chairman**

LEE Seow Hiang  
**Chief Executive Officer**

**F**inancial year 2017/18 was another strong year for CAG. We saw a record of 63 million passengers pass through Changi Airport and handled over two million tonnes of cargo throughput for the first time in our history. Propelled by strong passenger growth, our concession sales also reached a record high of over S\$2.5 billion.

Amid strong growth in the global aviation sector and increasing demand for capacity, CAG was proud to commence operations at our new terminal, T4, during the year. With T4, we increased Changi Airport's handling capacity by another 16 million passengers per annum (mppa) bringing the total capacity to 82 mppa.

Underpinning these achievements has been our continued focus on the customer. Our efforts to deliver a best-in-class Changi Experience was once again affirmed by travellers around the world who voted Changi as Skytrax's World's Best Airport for the sixth consecutive time.

#### STEPPING INTO THE FUTURE WITH T4

The key highlight of the year was undoubtedly the commencement of operations at T4 on 31 October 2017. T4 embodies the bold spirit of CAG to embrace change and drive innovation for future growth. More significantly, it has opened up new possibilities for the development of our future terminal at Changi East.

The development of T4 saw CAG undertaking design and building experiments, testing new concepts and technologies to bring more fun, vibrancy and positively surprising travel experiences to passengers. These include automated FAST check-in systems and biometric security screening for higher efficiency and safety. Immersive LED displays were introduced to help take passengers' minds off the

stress at airport checkpoints. In the terminal's transit area, innovative retail design concepts and offerings make waiting for one's flight a more delightful experience.

#### STRENGTHENING OUR POSITION AS A LEADING AIR HUB

To strengthen our air hub for sustainable long-term growth, we expanded Changi's connectivity by riding on robust demand for air travel in Asia and expanding our links to Europe and the US. During the year, CAG added 11 new city links and welcomed three new airlines to the Changi family.

In Asia, our key markets of India and China registered year-on-year growth of 16.2% and 9.8% respectively. India was the fastest growing among Changi's top 10 country markets, while passenger traffic to and from China crossed six million for the first time. Today, Changi is connected to 35 Chinese cities, offering more than 350 weekly services and 80,000 weekly one-way seats.

In Europe, we closed the year with Lufthansa resuming its Singapore-Munich service, and also welcomed the return of Qantas' daily Sydney-London A380 service via Changi. Singapore is now Qantas' largest hub outside of Australia.

Advancements in aviation technology have also created new opportunities in the long-haul, low cost segment. New connections aided by this development include the launch of Scoot's services to Athens and Honolulu (via Osaka).

In the air cargo sector, we worked closely with our partners comprising airlines, ground handlers and freight forwarders to become the first airport community in Asia Pacific to attain the IATA Centre of Excellence

for Independent Validators Certification for Pharmaceutical Handling (CEIV Pharma). During the year, CAG and its nine other CEIV-certified partners in Singapore launched the Pharma@ Changi initiative to pursue best standards in pharmaceuticals handling and promote Changi Airport as a trusted and reliable pharmaceutical cargo hub.

#### GROWING OUR NON-AERONAUTICAL BUSINESS

Despite strong headwinds in the retail market due to stiff competition from e-commerce, Changi Airport's concession sales delivered a healthy growth of 10%. Throughout the year, we kept our focus on designing relevant and exceptional shopping and dining experiences for our passengers and visitors.

To introduce a diverse retail mix and pioneer shopping concepts, CAG brought in 14 new brands at the airside, and some 30 new brands at the landside. Among them, was the world's first *Louis Vuitton* duplex airport store. Our retail spaces were also enhanced to uplift the terminal experience and passengers now enjoy new feature gardens like the Crystal Garden at T3. To reward loyal shoppers and diners of Changi Airport, we continued to offer our Changi Rewards members with exclusive deals and treats. The Changi Rewards membership base now exceeds half a million.

In keeping with evolving digital trends and consumer spending habits, we enhanced iShopChangi to provide passengers with a more seamless shopping experience and greater convenience. Today, the online store offers a mind-boggling assortment of items from over 600 brands, with value-added services such as complimentary delivery service to Singapore residents and more payment options.

## ENHANCING OPERATIONAL EFFICIENCY, SAFETY AND SECURITY

The Changi Experience is underscored by our continued assurance to passengers that they can enjoy peace of mind while travelling through Changi because we remain committed to delivering operational efficiencies, and that their safety and security is always of paramount importance to us.

To improve operational systems and processes at Changi's terminals, we expanded the FAST check-in system at T1. We also enhanced the efficiency of our transport system by relocating the T1 taxi stands as part of the terminal's expansion plans, and took the opportunity to introduce intelligent systems for more effective taxi dispatch and carpark management.

To inculcate a stronger safety culture among the airport community, CAG launched the new SWETmini application to encourage proactive reporting of potential hazards. We also mandated the use of three-point aircraft grounding for enhanced lightning protection for workers at the airside. Our efforts to ensure a safe and secure airport environment earned us another year of deficiency-free rating from the International Federation of Air Line Pilots' Association.

## BUILDING RESILIENCE AND EMERGENCY PREPAREDNESS

During the year, we continued to strengthen our emergency preparedness at Changi and Seletar Airport through two full-scale exercise drills involving simulated aircraft incidents at sea and on land.

In May, the airport experienced a fire at T2 that required full evacuation. While the response to the fire was well managed, it also presented an opportunity for us to review and refine our emergency

plans for incidents within the terminal.

In October 2017, we participated in Exercise Northstar – a multi-agency anti-terror exercise organised by the Singapore Police Force. The first such exercise to be conducted at Changi, it served to raise the level of awareness and preparedness among our airport community.

## ENHANCING INFRASTRUCTURE

To keep pace with passenger growth, systems and facilities at Changi Airport must continue to be kept in tip-top condition. During the year, infrastructure enhancements were carried out both inside Changi's terminals, as well as in the aerodrome.

In T1, redevelopment works on the baggage handling system continued. The terminal's Departure Hall was refurbished with more automated check-in kiosks and bag drop machines. Baggage belts and screening capabilities were also enhanced.

At the airside, conventional floodlights are being progressively replaced with LED floodlights to provide a brighter environment for workers.

Outside the airport, construction of a central median drain was carried out along Airport Boulevard to mitigate heavy and flash floods on Changi Airport grounds. Over at Seletar Airport, a new passenger terminal building and three new aircraft stands were constructed to enhance the airport's capabilities to support private and business aviation.

## EXPANDING INTERNATIONALLY

Beyond our shores, Changi Airports International (CAI) continued to maintain a steady portfolio overseas, with the airports in its portfolio focused on attracting new airlines, increasing flight frequencies

and enhancing passenger experience to deliver good performance.

In Brazil, passenger traffic at Tom Jobim International Airport remained steady despite Brazil's weak economic situation, post the Rio Olympics. Non-aeronautical revenue grew 13% over the previous year as passengers enjoyed new facilities like airline lounges and a wider selection of dining and retail outlets. The airport won several awards in 2017, including the Best Airport for Operational Efficiency in Latin America. During the year, CAI increased its effective stake in Tom Jobim, from 20.4% to 51%, and recognised a step-up acquisition gain of S\$98 million.

CAI's four airports in Russia's Krasnodar region - Anapa, Gelendzhik, Krasnodar and Sochi – reported strong passenger numbers. Passenger traffic in FY2017/18 increased by almost 10% compared to FY2016/17, crossing the 11-million milestone for the first time. Krasnodar International Airport and Sochi International Airport, in particular, saw significant growth in the international segment, driven by key markets such as Istanbul, Tbilisi, Tel-Aviv and Vienna.

## DRIVING INNOVATION TO BETTER SERVE PASSENGERS

In delivering the Changi Experience, CAG leverages technological innovation and digitalisation to better serve passengers who are increasingly tech-savvy.

To know our customers better, we built on our centralised customer repository by integrating data sources from various touchpoints to gain deeper insights into the preferences and needs of different passenger profiles. Through our Customer Discovery Insights programme, we obtain actionable insights that enable us to better serve our passengers.

In 2017, CAG launched the 'Changi Airport Living Lab' in partnership with the Economic Development Board of Singapore. The S\$50 million programme seeks to drive innovation over the next five years, collaborating with innovation-driven companies and start-ups, to develop and demonstrate new technology solutions in a live airport environment. This includes leveraging automation and robotics, data analytics and the Internet of Things to optimise scarce manpower resources and empower our airport workforce to operate at higher efficiency and productivity levels.

#### **STAYING AHEAD OF THE CURVE**

As demand for air travel continues to grow, it is imperative for CAG to increase Changi Airport's handling capacity and secure its attractiveness as a transfer hub, through new infrastructure developments and the upgrading of existing terminals.

Jewel Changi Airport is making good construction progress and is set to raise its curtains in the first half of 2019. The integration of T1's expansion with Jewel will see Changi Airport increase its capacity by another three mppa and the introduction of new airport facilities and services to serve an expanded passenger segment.

The Changi East and T5 development plans are also on track. Extension works at Runway 3 were successfully completed, with the runway strengthened and resurfaced to enable it to handle the increased weight of civilian aircraft. More than half of the design work for tunnels on the Changi East site have been completed in preparation for the commencement of construction. Having completed several concept of operations studies, the T5 team has identified the functional and spatial

requirements for the appointment of Changi East's Master and Civil Consultants. The year also saw the Changi East team move to their new project office on-site in September 2017.

#### **SUSTAINING FINANCIAL GROWTH**

As Changi Airport moves into its next phase of expansion, maintaining a strong financial position is critical to deliver sustainable growth.

For FY2017/18, the Group's total revenue rose 12.9% to S\$2.6 billion, due to Changi Airport's strong performance. Total operating expenses increased by 17.7%, largely a result of the consolidation of the operating results of the Brazilian airport and higher cost from the opening of T4. Overall, the Group achieved earnings before interest, taxes, depreciation and amortisation (EBITDA) of S\$1.3 billion, an 8.4% increase from the previous year. Total net profit attributable to the shareholder stood at S\$849 million, a year-on-year growth of 28.3%.

During the year, CAG continued to provide financial incentives to its airline partners through the Changi Airport Growth Initiative to incentivise airlines to pursue traffic growth and to enhance connectivity to Changi Airport.

#### **BUILDING THE PEOPLE OF CHANGI**

Going forward, Changi Airport's growth will depend on building a strong 'ONE Changi Community', as delivering the best service to our passengers will require the dedicated effort of all organisations within Changi Airport.

To help build a sense of common purpose and deliver a ONE Changi experience, CAG launched the ONE Changi mobile app to enable airport workers to connect, discuss learnings and get the latest news updates on the airport while on-the-go.

Within CAG, we stayed true to our values and beliefs in growing and empowering our people to create actively engaged employees. Following the physical transformation of our workspace, we have also begun to enable our people with new technologies and services to provide our staff greater convenience and enhance productivity. We also continued to foster a greater sense of community through our internal communications initiatives that encourage staff interaction.

The passion and commitment of our staff at CAG cannot be better exemplified than by the late Foo Sek Min, a well-respected colleague who demonstrated what it means to serve with passion and commitment to keep the Changi flag flying high. We are grateful for his dedication and contribution to CAG and Changi Airport.

We would also like to thank our Board Directors for their strong guidance and counsel during the year and extend a special appreciation to outgoing Director Mr Dilhan Pillay for his contributions. We take this opportunity to welcome our new Director, Mr Ng Chee Khern. Together, the Board looks forward to taking CAG to greater heights in the years ahead.



LIEW Mun Leong  
**Chairman**



LEE Seow Hiang  
**Chief Executive Officer**

BOARD OF  
**Directors**





- |                   |                      |                         |                                    |
|-------------------|----------------------|-------------------------|------------------------------------|
| 1. LIEW MUN LEONG | 4. TAN GEE PAW       | 7. ERIC ANG TEIK LIM    | 10. MICHAEL GEORGE WILLIAM BARCLAY |
| 2. LEE SEOW HIANG | 5. RICHARD R. MAGNUS | 8. MIGUEL KO KAI KWUN   | 11. PROFESSOR TAN KONG YAM         |
| 3. TAN CHING YEE  | 6. NG CHEE KHERN     | 9. DANNY TEOH LEONG KAY | 12. LIM ZHI JIAN                   |

**LIEW Mun Leong****Chairman**

Mr Liew is the Chairman of CAG. He was appointed to the Board on 16 June 2009.

Mr Liew was the founding Group President and CEO of CapitaLand Limited. He is currently the Chairman of Surbana Jurong Private Limited. Mr Liew sits on the boards of Singapore Exchange, Singapore China Foundation and the Chinese Development Assistance Council. He also chairs the Management Advisory Board of NUS Business School and Temasek Foundation Nurtures CLG Ltd. He is a Senior International Business Advisor in Temasek.

Mr Liew is the Provost's Chair Professor (Practice) (pro bono) in NUS Business School, Faculty of Engineering and the Lee Kuan Yew School of Public Policy. He is also the Rector of NUS Ridge View Residential College.

He was elected the President of International Organisation for Standardisation (ISO) for the term 1997 to 1998.

With over 46 years of experience in the construction and real estate industries both locally and overseas, Mr Liew has been involved in several of Singapore's public sector projects, including the development of Changi Airport from the beginning in 1975. For his exceptional contributions, Mr Liew was awarded the Meritorious Service Medal by the President of Singapore in 2011. In 2016, Mr Liew was conferred France's National Order of the Legion of Honour (*Ordre national de la Légion d'honneur*), with the rank of Knight.

Mr Liew graduated from the University of Singapore with a degree in Civil Engineering and

is a registered professional civil engineer. He has published four books, entitled *Building People: Sunday Emails from a CEO, Volumes 1–3* and *Building People Volume 4: Sunday Emails From a Chairman*.

**LEE Seow Hiang****Chief Executive Officer**

Mr Lee is the CEO of CAG. He was appointed to the Board as Executive Director on 16 June 2009.

Mr Lee is concurrently Deputy Chairman of Changi Airports International Pte Ltd and Chairman of Jewel Changi Airport Trustee Pte Ltd. He holds the appointment of President of Airports Council International (ACI) Asia Pacific Regional Board and is a Member on the ACI World Governing Board. He also sits on the Board of NTUC FairPrice Co-operative Ltd and SMRT Corporation Ltd.

Prior to the corporatisation of CAG, Mr Lee was Deputy Director-General (Operations) of the Civil Aviation Authority of Singapore. From 2005 to 2008, he was the Principal Private Secretary to Minister Mentor Lee Kuan Yew in the Prime Minister's Office. From 1989 to 2005, Mr Lee held various appointments in the Republic of Singapore Air Force (RSAF) and the Ministry of Defence, with his last appointment being Deputy Head of Air Operations in HQ RSAF.

Mr Lee was awarded both the SAF (Overseas) and President's Scholarship in 1989 and the SAF Postgraduate Scholarship (General Development) in 2002. He holds a Bachelor of Arts (Honours) from the University of Cambridge, UK, and a Master of Business Administration from the Massachusetts Institute of Technology, USA.

**TAN Ching Yee**

Mrs Tan is a Non-Executive Director of CAG. She was appointed to the Board on 1 May 2017.

Mrs Tan is the Permanent Secretary of the Ministry of Finance, Singapore. She also holds the appointment of Permanent Secretary (Special Duties), Prime Minister's Office. She assumed these posts on 1 May 2016. She is Chairman of the Inland Revenue Authority of Singapore and the Accounting and Corporate Regulatory Authority, and a Board member of the National Research Foundation.

She was previously Permanent Secretary at the Ministry of Health and the Ministry of Education. Before that, she was the Chief Executive of the Infocomm Development Authority, Singapore, and also Deputy Secretary (Infocomm and Media Development) at the former Ministry of Information, Communications and the Arts. Prior to these roles, she had worked at the Ministry of Education and Ministry of Trade and Industry.

Mrs Tan read Economics at Cambridge University and obtained her Masters of Science in Management from the Graduate School of Business, Stanford University.

**TAN Gee Paw**

Mr Tan is a Non-Executive Director of CAG. He was appointed to the Board on 1 May 2017.

Mr Tan previously served as Chairman of the Public Utilities Board, Singapore's national water agency from 1 April 2001 until his retirement on 31 March 2017. Mr Tan is a member of a number

of government committees. He is Chairman of Nominating Committee, Lee Kuan Yew Water Prize, Singapore International Water Week. He is the Adjunct Professor, Dean's Office, Faculty of Engineering, National University of Singapore. Previous appointments held by Mr Tan were Principal of Ngee Ann Polytechnic, and Permanent Secretary of the then Ministry of the Environment. He is currently a member of CAG's Executive Committee on Airport Development and a Director of Surbana Jurong Private Limited. He is also an Adjunct Professor in the Lee Kuan Yew School of Public Policy, National University of Singapore.

Mr Tan graduated with First Class Honours in Bachelor of Engineering (Civil) from the University of Malaya in 1967, and a Master of Science in Systems Engineering from the University of Singapore in 1971. He was conferred an Honorary Degree of Doctor of Science from the University of Westminster, UK in 1993, and an Honorary Doctorate in Engineering from Sheffield University, UK in 1995. In 2013, he was conferred an Honorary Degree of Doctor of Engineering by the Nanyang Technological University.

Mr Tan received the Public Administration Medal (Silver) in 1978 and a Special Award (Gold Medal) for Clean River Commemoration in 1987. He also received the Medal of Commendation at the NTUC May Day Award in 2005, the President's Award for the Environment in 2007 and the President's Science and Technology Medal in 2015.

Mr Tan was conferred the Meritorious Service Medal in 2001 for his work as Permanent Secretary of the then Ministry of the Environment and the Distinguished

Service Order in 2010 for his work as Chairman of PUB. In 2011, Mr Tan was conferred the Distinguished Engineering Alumni Award by the NUS; and the NUS Society Distinguished and Outstanding Member Award by NUS in 2014. He was elected an Honorary Fellow of the Institution of Engineers, Singapore and awarded the Lifetime Engineering Achievement Award in 2015. Mr Tan was also elected as a Fellow of the Academy of Engineering, Singapore in 2012.

### **Richard R. MAGNUS**

Mr Magnus is a Non-Executive Director of CAG. He was appointed to the Board on 23 July 2010.

Mr Magnus has several public and private sector responsibilities. Among others: Mr Magnus is currently Chairman of the Public Transport Council, Public Guardian Advisory Committee, Political Films Advisory Committee, Bioethics Advisory Committee, Ministry of Home Affairs' Remote Gambling Act Appeals Advisory Panel and is a Member of the Public Service Commission and the Ministry of Home Affairs' Independent Review Panel. In the private sector, Mr Magnus serves on the boards of Temasek Foundation Cares CLG Limited, CapitaLand Mall Trust Management Ltd, Singapore Consortium Investment Management Limited, and is Chairman of the Management Board of Human Capital (Singapore) Pte Ltd. He was the Founding Chairman of the Casino Regulatory Authority. He is also Singapore's First Representative to the ASEAN Inter-Governmental Commission on Human Rights, Vice-Chairman of UNESCO's International Bioethics Committee. He is also an Adjunct Professor as well as a Justice of the Peace.

Mr Magnus is a retired (now termed Chief) District Judge. He was awarded the Meritorious Service Medal for his exceptional public service and awarded the Outstanding Volunteer award by the Ministry of Social and Family Development, and the Public Service Star by the State in 2015.

Mr Magnus graduated from National University of Singapore with a Masters of Laws. He is also an alumnus of the Harvard Business School and the John F Kennedy School of Government.

### **NG Chee Khern**

Mr Ng is a Non-Executive Director of CAG. He was appointed to the Board on 1 March 2018.

Mr Ng is Permanent Secretary for Smart Nation and Digital Government in the Prime Minister's Office formed in May 2017. He is also the Chairman of the Government Technology Agency of Singapore board, a Director of the boards of CapitaLand Mall Trust Management and a board member of the National Research Foundation.

Mr Ng previously held the following positions: Permanent Secretary (Defence Development) in Singapore's Ministry of Defence, 2nd Permanent Secretary in Singapore's Ministry of Health from August 2014 to February 2016, Director of the Security and Intelligence Division from 2010-2014, and Chief of the Republic of Singapore Air Force from 2006-2009. Mr Ng was also a board member of the Civil Aviation Authority of Singapore.

Mr Ng was a recipient of the President's Scholarship and Singapore Armed Forces Overseas Scholarship. He holds a Bachelor of Arts (Honours) and a Master

of Arts in Philosophy, Politics and Economics from the University of Oxford. He also graduated with a Master of Public Administration from Harvard University.

### **Eric ANG Teik Lim**

Mr Ang is a Non-Executive Director of CAG. He was appointed to the Board on 18 November 2009.

Mr Eric Ang is a career DBS banker with 40 years of banking experience and until 31 May 2014, was responsible for the capital markets business. He is now a Senior Executive Advisor at DBS Bank and is principally responsible for business origination and high level relationship building for the bank.

His current directorships include Sembcorp Marine Ltd, Raffles Medical Group, Surbana Jurong Pte Ltd, DBS Foundation Ltd and NetLink NBN Management Pte Ltd. He is also the Co-Chairman of the SGX Disciplinary Committee. He was previously a director of Hwang Capital Malaysia Bhd.

Mr Ang graduated from the University of Singapore with a Bachelor of Business Administration (Honours) degree.

### **Miguel KO Kai Kwun**

Mr Ko is a Non-Executive Director of CAG. He was appointed to the Board on 7 September 2009.

Mr Ko is currently the Executive Director and Group CEO of Ascendas-Singbridge. Mr Ko is also the Chairman of Ascendas Hospitality Fund Management Pte Ltd/Ascendas Hospitality Trust Management Pte Ltd and Deputy Chairman of Ascendas Funds Management (S) Ltd. Previously,

Mr Ko was Chairman and President of Starwood Hotels & Resorts, Asia Pacific Division. Prior to his appointment, Mr Ko was Deputy Chairman and CEO of CDL Hotels International. Between 1992 and 1999, Mr Ko was the President of Asia-Pacific at Pepsi-Cola International.

Widely recognised for his knowledge and insight of business and culture in the Asia Pacific tourism industry, Mr Ko was voted Regional Hotel Chief of the Year (2007 and 2008) by the readers of the Travel Weekly. He was named Visionary Leader of the Year and a recipient of the Global Awards at the World Travel Mart (2007) in London and honoured the Lifetime Achievement Award 2012 at the China Hotel Investment Conference in Shanghai.

Mr Ko has a Bachelor in Business Administration in Economics from the University of Massachusetts and a Masters in Business Administration from Suffolk University. He is also a non-practicing Certified Public Accountant by the State Board of Accountancy in New Hampshire in the U.S.

### **Danny TEOH Leong Kay**

Mr Teoh is a Non-Executive Director of CAG. He was appointed to the Board on 23 July 2010.

Mr Teoh is currently Chairman of M1 Ltd and a Board Member of the following companies: Ascendas-Singbridge Pte Ltd, DBS Ltd, DBS Bank Holdings, DBS Bank (China) Ltd, DBS Foundation Ltd and Keppel Corporation Ltd.

Mr Teoh was a Managing Partner of KPMG in Singapore until his retirement on 30 September 2010. During this time, he served as a member of KPMG's Asia-Pacific Board and the KPMG International

Council and Board. He also held various other positions at KPMG, including Head of Audit & Risk Advisory Services (Singapore), Head of Risk Advisory Services (Asia-Pacific) and Head of Financial Services (Singapore).

Mr Teoh qualified as a Chartered Accountant in the UK in 1981 and is a member of the Institute of Chartered Accountants of England and Wales. He is currently a fellow of the Institute of Chartered Accountant's Singapore. In his current appointment as an independent Director of various boards, he also serves as the Chairman of the Audit Committee and Board Risk Committee.

### **Michael George William BARCLAY**

Mr Barclay is a Non-Executive Director of CAG. He was appointed to the Board on 16 June 2009.

Mr Barclay is the Group CEO of Mandai Park Holdings (MPH). He oversees both Mandai Park Development, the entity set up to drive the rejuvenation of Mandai into an integrated wildlife and nature precinct, and Wildlife Reserves Singapore, the operator of four award-winning attractions – Jurong Bird Park, Night Safari, River Safari and Singapore Zoo.

Prior to joining Mandai Park Holdings, Mr Barclay was CEO of Sentosa Development Corporation for seven years. This followed on from stints as Regional Vice President Asia for the International Air Transport Association and Chief Executive of SilkAir. Mr Barclay began his career with Singapore Airlines, holding various portfolios in Singapore, Germany, Switzerland, and the UK.

Mr Barclay has a Master of Science degree in Transport Planning &

Engineering from the University of Leeds and has completed the Advanced Management Program at Harvard Business School.

### **Professor TAN Kong Yam**

Professor Tan is a Non-Executive Director of CAG. He was appointed to the Board on 30 January 2015.

Professor Tan is presently Professor of Economics at the Nanyang Technological University and Co-Director of the Asia Competitiveness Institute at the Lee Kuan Yew School of Public Policy at the National University of Singapore. He is also Deputy Chairman of APS Asset Management (China) and sits on the boards of Surbana-Jurong, Ascendas-Singbridge and CapitaRetail China Trust Management.

From 1984 to 1988, Professor Tan was the assistant director on exchange rate policy at the Monetary Authority of Singapore and assistant to the late Dr Goh Keng Swee, the former Deputy Prime Minister of Singapore, who had been invited by Mr Deng Xiaoping to advise China on economic development strategy. From June 2002 to June 2005, he was a senior economist at the World Bank office in Beijing. In 2004, he was a member of the World Bank expert group on the 11th five-year plan (2006 to 2010) for the State Council in China. The expert group provided analysis and policy recommendations to the Chinese government. Prior to that, he was the chief economist of the Singapore government at the Ministry of Trade and Industry (1999 to 2002) and head of the Department of Strategy and Policy at the NUS business school. He has also worked at the Hoover

Institution at Stanford University and World Bank in Washington.

Professor Tan is a graduate of Princeton University with a Bachelor of Art (Honours) and has a PhD in Economics from Stanford University.

### **LIM Zhi Jian**

Mr Lim is the Alternate Director to Mrs Tan Ching Yee. He was appointed to the Board on 1 May 2017.

He is Director (Reserves and Investment) at the Ministry of Finance. Prior to joining the Ministry of Finance in June 2016, he held appointments in the Ministry of Manpower and the Monetary Authority of Singapore. In the Ministry of Manpower, he was the Deputy Director of the Foreign Workforce Policy Department. In the Monetary Authority of Singapore, he held the positions of Deputy Director of the Strategic Planning Office and Senior Policy Analyst of the Prudential Policy Department.

Mr Lim was awarded the Overseas Scholarship by the Monetary Authority of Singapore and graduated from Carnegie Mellon University with a double major in Computer Engineering and Economics. He also holds a Masters in International Policy from Stanford University and a Master in Public Administration Edward S. Mason Program (Mason Program) from the Harvard Kennedy School.

## EXECUTIVE MANAGEMENT Team



### CHANGI Airport Group

1. **LEE Seow Hiang**  
Chief Executive Officer
2. **TAN Lye Teck**  
Executive Vice President,  
Airport Management
3. **YAM Kum Weng**  
Executive Vice President,  
Airport Development &  
Advisor, Air Hub Development
4. **LIM Peck Hoon**  
Executive Vice President,  
Commercial
5. **NG Lai Leng**  
Chief Financial Officer,  
Executive Vice President, Corporate,  
Executive Vice President,  
Enterprise Performance &  
Development

### CHANGI Airports International

6. **LIM Liang Song**  
Chief Executive Officer

# MANAGEMENT Team

## CHANGI AIRPORT GROUP

### **CHOY Da Wen**

Group Senior Vice President,  
Transformation & Enterprise  
Development

### **CHUNG Choon San**

Project Director,  
Changi East Construction

### **Jayson GOH**

Managing Director,  
Airport Operations Management

### **HUNG Jean**

Chief Executive Officer,  
Jewel Changi Airport Development

### **KOH Miaw Ling**

Senior Vice President,  
T5 Building

### **KOH Ming Sue**

Managing Director,  
Engineering & Development

### **LECK Siew Leng**

Senior Vice President,  
Internal Audit

### **Audrey LEE**

Group Senior Vice President,  
Economic Affairs

### **Steve LEE**

Chief Information Officer/  
Group Senior Vice President,  
Technology

### **LEONG How Yin**

Project Director,  
Changi East Planning,  
Design & Construction

### **LEONG Kok Hoong**

Senior Vice President,  
Development Contracts &  
Cost Control

### **Albert LIM**

Senior Vice President,  
Passenger Experience

### **LIM Ching Kiat**

Managing Director,  
Air Hub Development

### **LIM Wee Ping**

Senior Vice President,  
Business Development

### **LING Ming Koon**

Senior Vice President,  
Airport Operations Planning  
& Strategy

### **Jessie LOONG**

Senior Vice President,  
Legal/Company Secretary

### **Matthew NGAN**

Senior Vice President,  
Mechanical & Electrical

### **ONG Chee Chiau**

Group Senior Vice President,  
Changi East T5 Planning

### **ONG Sim Lian**

Group Senior Vice President,  
Design Management

### **Cletus PACKIAM**

Chief,  
Airport Emergency Services

### **Leslie PAKIANATHAN**

Project Director,  
Tunnel Construction Management

### **Ivan TAN**

Group Senior Vice President,  
Corporate & Marketing  
Communications

### **Justina TAN**

Managing Director,  
People

### **TAN Boon Seng**

Project Director,  
Project Control

### **TAN Kok Siong**

Project Director,  
Changi East Construction

### **TENG Hwee Onn**

Senior Vice President,  
Engineering Management &  
Systems Planning

### **TEO Chew Hoon**

Group Senior Vice President,  
Airside Concessions

### **WEN Dazhi**

Senior Vice President,  
Tunnel Design Management

### **Ivy WONG**

Senior Vice President,  
Strategy & Transformation

### **YEO Kia Thye**

Managing Director,  
Airport Operations Planning  
& Airside

## CHANGI AIRPORTS INTERNATIONAL

### **CHAN Mew Yoong**

Director and Head,  
Human Resources

### **Eugene GAN**

Managing Director,  
Asset Management

### **Peter LEE**

Managing Director,  
Changi Airport Planners  
and Engineers

### **LOW Beng Lan**

Chief Financial Officer

### **NG Kuan Luen**

Director and Head,  
Risk Management

### **SEE Ngee Muoy**

Managing Director,  
Legal and Compliance

### **James THONG**

Managing Director,  
Consultancy

# Awards

ACCOLADES RECEIVED BY CHANGI AIRPORT (FY2017/18)

2018

MONTH	CATEGORY & AWARDS	NO. OF TIMES	PUBLICATION/ORGANISATION
Mar	World's Best Airport 2018	9	Skytrax
	Airport of the Year Above 20 Million Passengers	3	Air Transport News
	Best Airport (Overseas)	1	TTG China
Feb	Best Airport in the World	13	DestinAsian
	Top Worldwide Airport	16	Wanderlust
Jan	Deficiency-Free 2017	37	International Federation of Air Line Pilots' Associations (IFALPA)

2017

MONTH	CATEGORY & AWARDS	NO. OF TIMES	PUBLICATION/ORGANISATION
Dec	Best Overall Airport in the World	3	Global Traveler, US
	World's Leading Airport	12	World Travel Awards
	Best Overseas Airport	13	Selling Travel
Nov	Best Airport in the World	24	Business Traveler, US
	Favourite Airport	7	Condé Nast Traveller, India
Oct	Best Airport in the World	13	Business Traveller, China
	Best Airport in the World	6	Travel + Leisure, India and South Asia
Sep	Top Airport in the World	9	Condé Nast Traveler, US
	Best Airport in the World	30	Business Traveller, UK
Aug	Travel Hall of Fame – Best Airport of the Year	15	TTG Asia
	Best Airport in the World	25	Business Traveller, Asia Pacific
Jul	Best Airport in the World	11	Condé Nast Traveller, UK
	Best Airports Worldwide	9	Smart Travel Asia
Jun	Best International Airport in the World	5	Travel + Leisure, US
	Best Airport Worldwide	24	Business Traveller, Germany
May	World's Best Airport	1	AirHelp
	Asia's Leading Airport	14	World Travel Awards
Apr	Best Airport in the World	11	Ultratravel
	Favourite Airport	1	International Traveller
Mar	Best Airport in the World	14	Business Traveller, Middle East
	Airport Authority with the Most Supportive Approach to Travel Retail	9	Duty Free News International & Travel Retailer International
	Airport Authority in Asia/Pacific with the Most Supportive Approach to Travel Retail	17	Duty Free News International & Travel Retailer International



# FINANCIAL Review

## FINANCIAL HIGHLIGHTS

FY2013/14    FY2014/15    FY2015/16    FY2016/17    **FY2017/18**

### PROFIT & LOSS (S\$'MIL)

	FY2013/14	FY2014/15	FY2015/16	FY2016/17	<b>FY2017/18</b>
Total revenue	2,106	2,150	2,164	2,305	<b>2,602</b>
Total expenses	1,185	1,255	1,284	1,401	<b>1,649</b>
EBITDA	1,187	1,171	1,167	1,208	<b>1,310</b>
Profit after tax	896	782	784	657	<b>835</b>
Profit attributable to equity holder of the Company	896	784	786	662	<b>849</b>

### FINANCIAL POSITION (S\$'MIL)

	FY2013/14	FY2014/15	FY2015/16	FY2016/17	<b>FY2017/18</b>
Assets	6,684	7,564	8,460	9,260	<b>14,894</b>
Liabilities	937	1,441	1,874	2,223	<b>6,457</b>
Equity	5,747	6,123	6,586	7,037	<b>8,437</b>

### FINANCIAL RATIOS

EBITDA margin	56.3%	54.5%	53.9%	52.4%	<b>50.3%</b>
NPAT margin	42.5%	36.4%	36.2%	28.5%	<b>32.1%</b>
Return on equity	16.5%	13.2%	12.3%	9.6%	<b>11.6%</b>

## THE YEAR IN REVIEW

Changi Airport recorded strong growth in passenger movements of 6.1% in FY2017/18 to reach 63 million passenger movements, fortifying Changi's position as the sixth busiest airport in the world in terms of international passenger traffic. Indonesia continued to rank as Changi Airport's largest country market, followed by Malaysia, China, Thailand and Australia. Notably, India and China registered highest double-digit year-on-year (y-o-y) growth of 16.2% and 9.8% respectively, spurred by the addition of new city links and increase in flight frequencies to both countries.

During the year, Changi welcomed three new passenger airlines and established eleven new city links. In addition, Changi welcomed the return of Ethiopian Airlines linking Changi to Addis Ababa, a key gateway to and from Africa.

Driven by the increase in passenger traffic, both aeronautical revenue and non-aeronautical revenue registered growth and helped Changi Airport Group and its subsidiaries (the Group) deliver a strong financial performance. The Group's operating revenue increased by 12.9% to reach S\$2.6 billion. In December 2017, Changi Airports International (CAI), a wholly-owned subsidiary of Changi Airport Group, assumed majority control of Tom Jobim International Airport in Rio de Janeiro, Brazil, increasing its initial stake in the concessionaire from 20.4% to 51% shareholding. The acquisition of Tom Jobim also contributed to an increase in operating revenue to the Group in FY2017/18.

On the cost front, operating expenses grew 17.7% to S\$1.6 billion, largely due to the

consolidation of the Brazilian airport and higher costs with the opening of T4. With T4, Changi Airport will be able to handle up to 16 million passengers a year, increasing its total annual capacity to 82 million passengers.

Overall, the Group achieved earnings before interest, taxes, depreciation and amortisation (EBITDA) of S\$1.3 billion in FY2017/18, representing an improvement of 8.4% from the previous year. The improvement was largely due to the 6.1% growth in passenger movements at Changi Airport, and in part due to the consolidation of the Brazilian airport which contributed S\$41 million or 3.1% to the Group's EBITDA. The Group also achieved net profit attributable to the shareholder (Net Profit) of S\$849 million, representing a y-o-y growth of 28.3% (or S\$187 million). There was a valuation gain of S\$98 million arising from the step-up acquisition of the Brazilian airport (as opposed to an impairment loss in overseas airport investments last year).

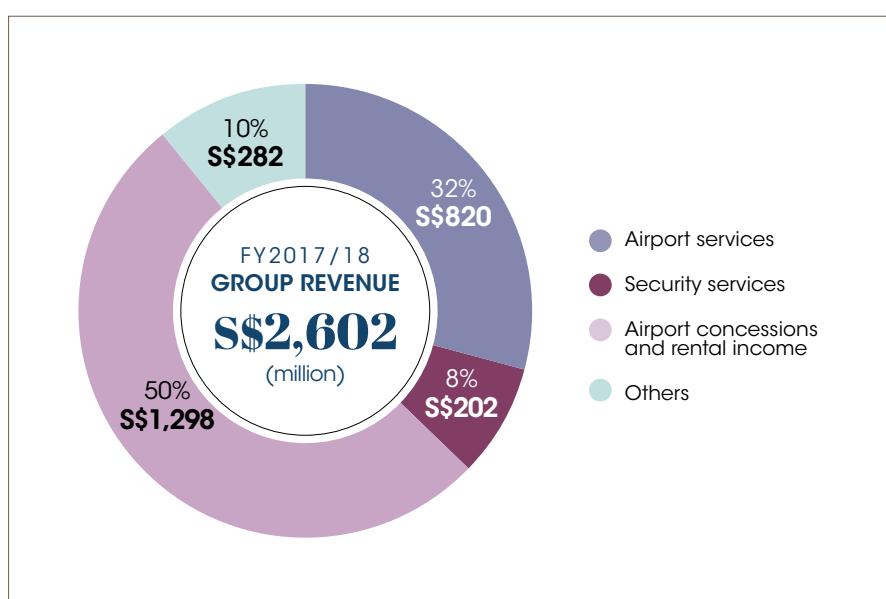
## OPERATING REVENUE

The Group's operating revenue grew 12.9% to S\$2.6 billion, of which 94.1% comprised revenue from Changi Airport.

### Changi Airport Operations

The increase in passenger traffic of 6.1% from 59.4 million to 63 million boosted Changi Airport's revenue growth. In particular, revenue from airport services (which comprised largely landing, parking and aerobridge charges, as well as passenger service charges) increased by 12.1% from S\$700 million to S\$785 million. CAG continued to support its airline partners through multiple incentive and collaborative programmes under the Changi Airport Growth Initiative (CAGI) to incentivise airlines to pursue growth, drive traffic and enhance connectivity to Changi Airport. Revenue from security services increased 6.2%, in tandem with passenger traffic growth.

Airport concession and rental income increased by 6.6% to reach S\$1.26 billion. It continues to



contribute approximately half of the Group's total operating revenue. Despite the challenging conditions in downtown retail, concession sales registered a healthy growth of 10% y-o-y to a record of more than S\$2.5 billion. This was delivered through the continual refreshment and revamp of our retail offerings, as well as deeper engagement with our shoppers. New brands and concepts were injected during the year, offering passengers more shopping and dining options. During the year, Changi introduced the world's first airport duplex for luxury fashion brand, *Louis Vuitton*, in T3's Central Piazza, elevating shopping experience for our passengers. Changi also opened its first integrated duty-free shopping zone in T4, allowing passengers to pay for all their purchases from both *The Shilla Duty Free* and *DFS* outlets in a single transaction.

To drive concession sales at the airport, concerted marketing and promotion efforts were undertaken, including a revamp of *iShopChangi.com* with new and improved features. Through *iShopChangi*, tenants are able to reach passengers beyond the terminals, offering time-pressed passengers the convenience and comfort of shopping before they step into Changi. To further enhance passengers' retail experience, secure payment modes were added as well as a home delivery service for Singapore residents. Loyal shoppers can also accumulate Changi Rewards points for instant dollar redemptions on their next purchases. During the year, the Changi Rewards membership base exceeded half a million. CAG's anchor retail campaigns, 'Be a Changi Millionaire' and the annual year-end festive promotions were also well received and helped

to drive concession sales. The strong performance from the non-aeronautical segment enables CAG to subsidise and keep aeronautical charges at Changi Airport competitive.

#### OPERATING EXPENSES

The Group's operating expenses increased by 17.7% to S\$1.6 billion in FY2017/18. The increase was largely due to higher operating expenses with the opening of T4, and the additional operating expenses of the Brazilian airport which was consolidated in the last quarter of the financial year.

#### Changi Airport Operations

Changi's operating expenses increased by 7.4% in FY2017/18, largely attributed to the opening of T4 which commenced operations on 31 October 2017, following 12 months of rigorous Operational Readiness and Airport Transfer trials.

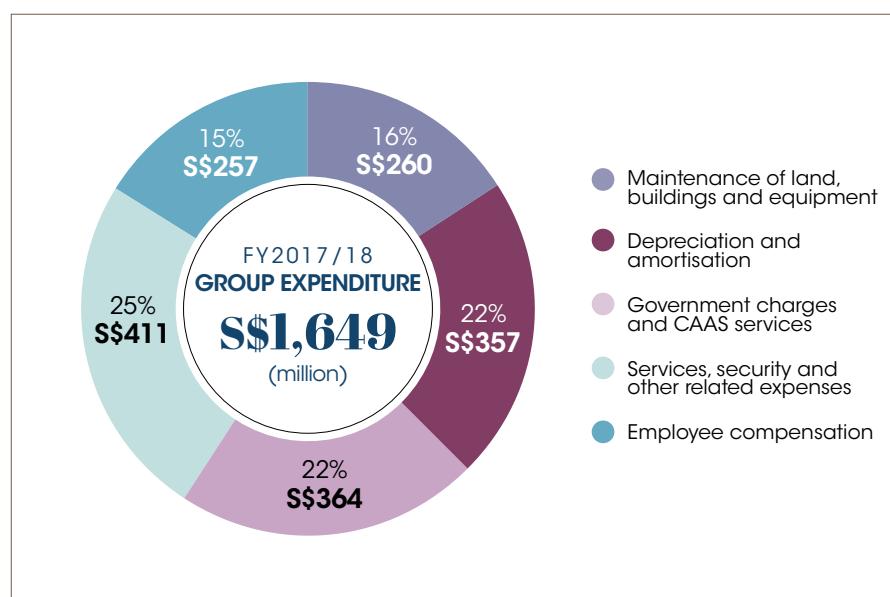
Higher expenses were also incurred for the payment of CAAS services, as well as for the provision of passenger services and security related operations. CAG continued

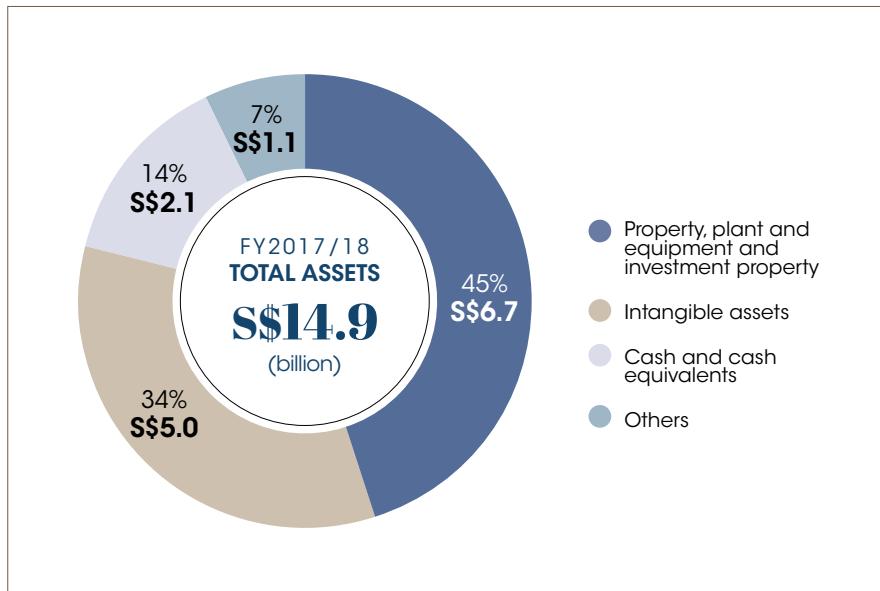
to invest in and drive innovation, embarking on numerous pilot projects to improve security, safety and efficiency of airport operations, as well as to develop strategy in response to the opportunities and threats of e-commerce and changing consumer behaviour. Aside from investing in innovation, CAG continued to work closely with partners in the airport community to drive a stronger service culture and guide the service teams in their interactions with customers at all touchpoints.

#### FINANCIAL POSITION

Shareholder's equity increased by 20% or S\$1.4 billion to reach S\$8.4 billion, with a strong asset base of S\$14.9 billion. The growth in the Group's total equity was attributed to the Net Profit of S\$849 million achieved during the year, as well as the accounting of non-controlling interest in the Brazilian airport.

The Group's strong financial position strengthens its ability to invest in capital expenditure to upkeep and enhance the





has acquired for the Brazilian airport for a period of 25 years, starting in 2014.

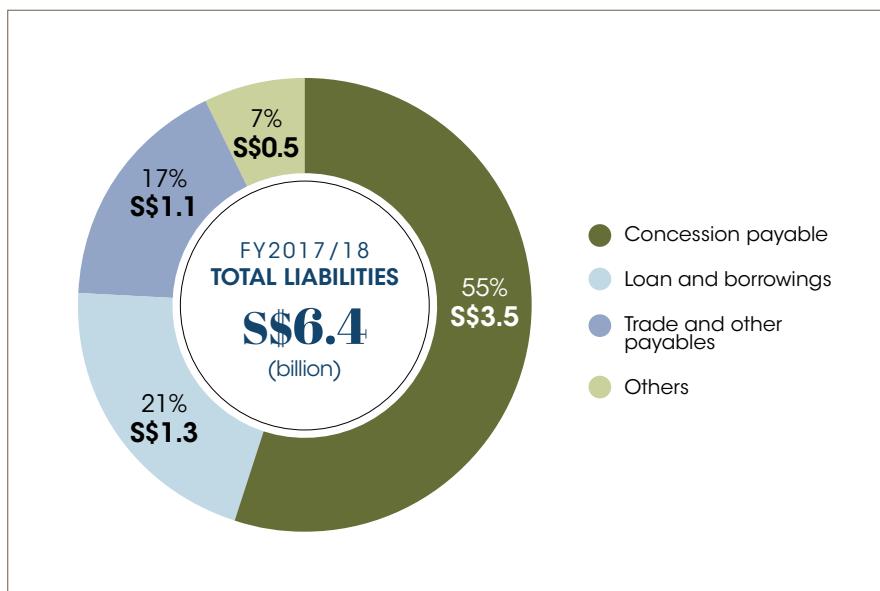
An interim sinking fund reserve apportioned out from the Group's retained earnings, has been created to fund the Changi East development project. The contribution to this sinking fund in FY2017/18 was S\$234 million, bringing the cumulative amount in this fund to S\$410 million.

Concession payable accounted for 55% of total liabilities. This represents the obligations that the Brazilian airport has to the Brazilian National Agency of Civil Aviation, for the right to operate the airport.

The Group's total loan and borrowings of S\$1.3 billion comprised loans used to support the construction of Jewel, which is scheduled to open in the first half of 2019, and loans undertaken by the Brazilian airport.

airport facilities, as well as to fund significant development projects. During the year, the Group invested close to S\$1.2 billion for the enhancement and development of infrastructure, including T1 expansion, Jewel Changi Airport (Jewel), T4, three-runway system and Changi East Development.

Cash and cash equivalents amounted to S\$2.1 billion. The surplus cash has been earmarked for the funding of on-going development projects. Intangible assets of S\$5 billion arose from the acquisition and consolidation of the Brazilian airport and comprised largely the unamortised cost of the concession right that the Group



# CORPORATE Governance

The Board and Management of CAG are deeply committed to our Company's central core value – integrity – which is at the heart of all we do. We strive to meet and maintain the highest standards of corporate governance, professionalism and integrity to build a company which stakeholders can be proud of. To thrive and to operate a sustainable business over the long term, and to uphold and protect the Company's brand and reputation, CAG strongly believes that it has to be accountable to its immediate business and regulatory environment, as well as to the global community.

CAG's Code of Conduct sets out the principles, policies and standards of conduct that it expects of all employees in their day-to-day activities and in the decisions they make. The Company has implemented a whistle-blowing framework to detect and deter unethical or illegal conduct, while protecting whistle-blowers from retaliation.

## THE BOARD OF DIRECTORS

1. CAG's Board of Directors is our highest decision-making body, which oversees the Company's long-term strategies and provides management guidance for continuing and steady growth, while protecting the interests of stakeholders.

### Composition and Balance

2. The Board, headed by Non-Executive Chairman, Mr Liew Mun Leong, comprises 12 Directors, of whom only the CEO, Mr Lee Seow Hiang, is an Executive Director. The majority of our Board members are independent. Our Directors are individuals with broad and diverse expertise and experience.

3. The Board Directors of the Company are:

Mr Liew Mun Leong - Chairman  
 Mr Lee Seow Hiang - CEO  
 Mrs Tan Ching Yee - Shareholder Representative  
 Mr Tan Gee Paw  
 Mr Richard R. Magnus  
 Mr Ng Chee Khern  
 Mr Eric Ang Teik Lim  
 Mr Miguel Ko Kai Kwun  
 Mr Danny Teoh Leong Kay  
 Mr Michael George William Barclay  
 Professor Tan Yong Kam  
 Mr Lim Zhi Jian  
 (Alternate Director to Mrs Tan Ching Yee)

The profiles of the Directors can be found on pages 20 to 23 in this annual report. Changi Airports International (CAI), a wholly-owned subsidiary, has a separate Board of Directors.

4. The roles of the Chairman and the CEO are separate and distinct. The Chairman leads the Board and facilitates effective and comprehensive Board discussions and decision-making on strategic issues, while the CEO has full executive responsibility for the management of CAG's businesses and implementation of the Group's strategies and policies.
5. Six committees have been formed to assist the Board in the detailed consideration of various matters. These are the Executive Committee (EXCO), Executive Resource and Compensation Committee (ERCC), Audit Committee (AC), Tenders Committee (TC), Executive Committee on Airport Development (ECAD) and Operational Risk and Safety Committee (ORSC). Each committee is governed by its own terms of reference, which sets out the scope of the committee's duties and responsibilities. Ad-hoc committees are also formed to review specific issues from time to time.
6. The Board meets at least four times a year.

### Access to Information

7. Prior to each Board meeting and when necessary, the Board is provided with pertinent information – including updates on the Company's operating and financial key performance indicators, legislative, industry and other significant developments relating to the Group – which enables the Board to make informed and sound decisions. The Board has full access to the Senior Management team and the Company Secretary. Should the Directors require independent professional advice on matters relating to the businesses or issues affecting their duties, the Company will, at its expense, arrange for the appointment of relevant professional advisors.

## CAPITAL & INVESTMENTS

1. The members of the EXCO are:

Mr Liew Mun Leong - Chairman  
 Mrs Tan Ching Yee  
 Mr Eric Ang Teik Lim

Mr Richard R. Magnus  
Mr Lee Seow Hiang

2. The EXCO reviews and recommends to the Board financing and investment strategies of the Company and approves significant investments by the Company and CAI. The EXCO also approves treasury matters such as banking and credit facilities, granting of corporate guarantees, debt capital market issuance, opening of bank accounts as well as hedging policies. EXCO also sets the financial limits for operations, procurement and treasury of the Company.

#### **EXECUTIVE RESOURCE AND COMPENSATION**

1. The ERCC comprises the following non-executive Directors:
 

Mr Liew Mun Leong - Chairman  
Mr Eric Ang Teik Lim  
Mr Miguel Ko Kai Kwun
2. The ERCC supports and advises the Board on remuneration matters, leadership succession and development. The roles of the ERCC include:
  - a. reviewing and approving the policy for determining executive remuneration, including the remuneration packages, service contract terms and benefits programme for key management executives;
  - b. approving the appointment of key management executives, overseeing their development and reviewing succession plans to ensure a strong pipeline of talent to enable the continued success of the Company; and
  - c. recommending the remuneration framework, including fees for non-executive Directors.

#### **ACCOUNTABILITY AND AUDIT**

##### **Accountability**

1. Management provides all members of the Board with reports on operating and financial information and key performance indicators on a quarterly basis and as the Board may require from time to time, to enable the Board to make balanced and informed assessments of the Company's performance, position and prospects.

##### **Audit Matters**

2. The AC comprises the following non-executive Directors:
 

Mr Danny Teoh Leong Kay - Chairman  
Mrs Tan Ching Yee  
Mr Eric Ang Teik Lim
3. The primary role of the AC is to assist the Board to review the adequacy of the Company's internal control systems in ensuring that the financial records have been properly maintained and that its financial statements give a true and fair view of the Company's performance and position. In addition, the AC is also responsible for reviewing the effectiveness of financial, compliance and risk management frameworks, as well as the robustness of the reporting processes. The AC also reviews the adequacy of mechanisms put in place for the Company's employees, partners, suppliers and contractors to raise concerns in confidence; the procedures for independent investigation of the matters reported and ensures appropriate follow-up, investigation and resolution.
4. The AC performs independent review of the financial statements of the Company; reviews the key areas of management judgment applied for adequate disclosure, critical accounting policies and any significant changes that would have a material impact on the financial statements.
5. The AC reviews the adequacy and effectiveness of the internal audit function and its processes, as well as ensures it is adequately resourced and set up in the organisation to carry out its function. The AC reviews Internal Audit Division's plans, its effectiveness, and the audit scope, and also approves its budget. The AC also reviews the audit reports to verify the effectiveness of actions taken by Management on the auditors' recommendations and observations.
6. The AC reviews and approves the external audit plan; the scope and results of the external audit and the independence and objectivity of the external auditors. The AC also reviews the external audit reports to ensure that significant findings and observations regarding control weaknesses are promptly rectified. Prior to making recommendations to the Board on the external auditor's appointment or reappointment, the AC reviews the external auditor's independence,

objectivity and quality of work based on Audit Quality Indicator framework established by the Accounting and Corporate Regulatory Authority. In line with best practice, the external audit partner is rotated every five years. The AC also reviews the non-audit fees awarded to the external auditors to ensure that the non-audit services performed by them would not affect their independence.

7. The AC meets with the internal and/or external auditors three times during the year. At least one of these meetings is conducted without the presence of Management, where the auditors may raise issues encountered in the course of their work directly to the AC.

## **INTERNAL CONTROLS**

1. The Board and Management of the Company are fully committed to maintaining a robust system of internal controls, procedures and risk management to safeguard our shareholder's interests and the Group's assets. The Board delegates its oversight responsibilities for internal controls, and financial and strategic (business) risk management to the AC, which ensures effectiveness and adequacy of the system of internal controls in the Company, while the ORSC assists the Board in reviewing the operational and safety risk management system put in place by Management.
2. The internal controls established by the Company are supported by systems, processes and people. CAG's three lines of defence for risk management are as follows:
  - the first line of defence is the business units who are responsible for identifying and managing risks inherent in their businesses;
  - the second line of defence comprises the oversight and control functions such as Enterprise Risk Management, Legal, Aerodrome Safety, Aviation Security, Information Security, and Enterprise Performance divisions, and
  - Internal Audit (IA), which provides an independent assessment and assurance on the reliability, adequacy and effectiveness of our system of internal controls, risk management procedures, governance framework and processes, forms the third line of defence.

3. The Company's internal and external auditors review the key internal controls of the Company for material non-compliance or failures in internal controls and recommend areas of improvements. The AC also reviews the effectiveness of the action taken by Management on the recommendations made.

4. The AC also reviews the effectiveness of the enterprise risk management framework and the risk management processes put in place to manage financial and strategic (business) risks while meeting business objectives.
5. A separate committee, the Tenders Committee (TC), evaluates and approves the award of tenders for goods and services exceeding S\$50 million, with the exception of those related to new development projects and major redevelopment projects at Changi Airport, which come under the purview of the ECAD. The TC is chaired by a non-executive Director and comprises the following Directors:

Mr Michael George William Barclay - Chairman  
 Mr Richard R. Magnus  
 Mr Lee Seow Hiang

## **Internal Audit**

6. IA assists the AC to ensure that the Company maintains sound risk management and internal control systems. IA is independent of the activities it audits. It conducts regular audits of high risk areas, and undertakes investigations as directed by the AC. It comprises suitably qualified and experienced staff, headed by the Senior Vice President, Internal Audit (SVP, IA). SVP, IA reports functionally to the Chairman of the AC, and administratively to the CEO. To ensure the independence of the IA function, the IA team has unrestricted access to the AC.
7. IA adopts a risk-based approach in its audit work, focusing on key internal controls, including financial, operational and compliance controls. Internal audit practices are also guided by the International Standards for the Professional Practice of Internal Auditing set by the Institute of Internal Auditors.
8. Audits are carried out on all significant business units and processes in the Company. The annual audit plan is developed in consultation

with, but independent of Management and is approved by the AC. IA's report on findings and recommendations are submitted to the AC and a summary of key findings and recommendations discussed at the AC meetings. IA also tracks and reports to the AC on the implementation status of actions agreed by Management, so as to ensure prompt and adequate closure of audit findings.

## AIRPORT DEVELOPMENT

1. The ECAD comprises four Directors, as follows:

Mr Liew Mun Leong - Chairman

Mr Tan Gee Paw

Mr Lim Zhi Jian

Mr Lee Seow Hiang

As and when necessary, external members may be co-opted to provide expertise in relation to the development projects.

2. The ECAD oversees new development and major redevelopment projects at Changi Airport. The roles of the ECAD include:

- a. reviewing and approving collaborations, selection of consultants, architects and other professional advisors, design concepts, aesthetic element proposals and other proposals related to development projects at Changi Airport; and
- b. reviewing and approving tenders for goods and services exceeding S\$50 million related to development projects at Changi Airport.

## ENTERPRISE RISK

# Management

CAG manages a wide range of risks which includes operational and safety, regulatory, financial, and developmental projects risks. With increasing passenger numbers and the completion of T4, CAG's key challenges include maintaining safe, secure and efficient operations at Changi Airport.

There is clarity in risk ownership, roles and responsibilities at the Company's business units. Each key development project such as the Changi East Development has a dedicated risk team, whose role is to identify and aggregate the project's current and emerging risks which impact timelines, costs, quality and safety, and to regularly report the project's top risks and mitigation measures to the Company's Risk Committee (RC), through the Enterprise Risk Management (ERM) division.

### Risk Governance

1. Both the Board and Management are responsible for the management of risks in CAG. The Board, through the ORSC, provides an oversight on operational and safety risks, while the review of the Company's financial and strategic risks are assisted by the AC.
2. The ORSC comprises two Directors, as follows:

Mr Michael George William Barclay - Chairman  
Mr Richard R. Magnus

An external member (not being a Director) may be co-opted as and when necessary to provide expertise in the areas reviewed.

3. Management leads the Company's efforts in developing and strengthening its risk management processes and framework through the RC, supported by the ERM division.
4. Reporting to the AC and ORSC, the RC is chaired by the CEO, and comprises Senior Management members of the Company. It meets regularly to review the Company's key risks and provide directions to strengthen the implementation of ERM in the Company.

### Risk Awareness Culture

5. At CAG, every employee and everyone working in the airport community is a valued manager of risks. Therefore, the RC, through the ERM division, continues with its engagement efforts through inter-divisional risk workshops and meetings with risk owners.
6. The ERM division also conducts regular courses on the fundamentals of risk identification, assessment, mitigation, review and reporting to divisional risk owners to institutionalise ERM and enhance the risk awareness culture.