



Chapter 12

TRANSPORT & STORAGE AND INFORMATION & COMMUNICATIONS

TRANSPORT & STORAGE

[Tables 12.1, A12.1 and Charts 12.1–12.2]

Stronger growth in water transport while air transport slowed down...

The transport and storage sector grew by 5.4 per cent in the fourth quarter, slightly higher than the 5.0 per cent in the third quarter of 2007. For the whole of 2007, the sector grew faster at 5.1 per cent compared to the previous year's growth of 4.7 per cent.

Water transport performed well in 2007 with container throughput surging at 13 per cent compared to 6.9 per cent a year earlier. A record of 28 million twenty-foot equivalent units (TEUs) was achieved. Sea cargo also increased from the year before, growing by 7.8 per cent compared to 6.0 per cent in 2006.

TRANSPORT & STORAGE, AND INFORMATION & COMMUNICATIONS SECTORS

[TABLE 12.1]

	2006		2007				2007
	4th Qtr	Annual	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Annual
Percentage Change Over Same Period Of Previous Year							
Transport & Storage							
Value Added at 2000 Prices	4.0	4.7	4.4	5.5	5.0	5.4	5.1
Tonnes of Total Sea Cargo Handled	6.1	6.0	10.1	6.9	4.1	10.3	7.8
General & Bulk cargo	4.1	3.5	7.8	10.7	10.2	12.8	10.4
Oil-in-Bulk	10.2	11.0	14.6	0.0	-7.1	5.4	2.7
Total Container Throughput	10.5	6.9	14.2	14.1	11.2	11.6	12.7
Number of Sea Passengers Handled	11.5	7.9	-6.7	0.5	3.1	7.2	1.2
Vessel Arrivals (Over 75 GRT)							
Number	1.0	-1.1	-1.6	-2.8	1.3	1.9	-0.3
'000 GRT	11.7	14.2	10.5	9.1	12.0	12.2	11.0
Tonnes of Total Air Cargo Handled ¹	0.8	4.2	-3.0	-1.1	0.9	-0.3	-0.9
Number of Air Passengers Handled ¹	9.7	8.6	6.9	5.5	5.5	4.5	5.5
Information & Communications							
Value Added at 2000 Prices	6.0	4.6	5.9	6.5	6.6	6.1	6.3
Mobile Subscribers	8.9	8.9	9.2	18.2	19.6	21.2	21.2
International Telephone Call Minutes	14.2	6.2	19.1	23.8	27.3	26.2	24.2

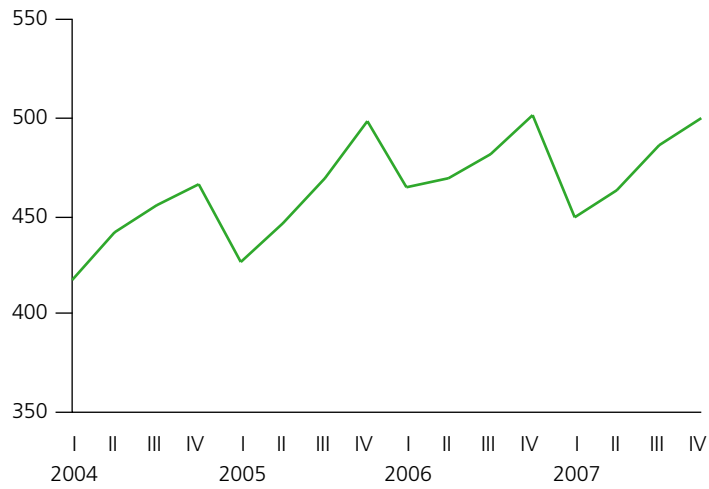
¹ Refer to both Changi Airport and Seletar Airport

Source: Singapore Department of Statistics
Maritime and Port Authority of Singapore
Singapore Cruise Centre Pte Ltd
Civil Aviation Authority of Singapore
Infocomm Development Authority of Singapore

AIR CARGO HANDLED

[Chart 12.1]

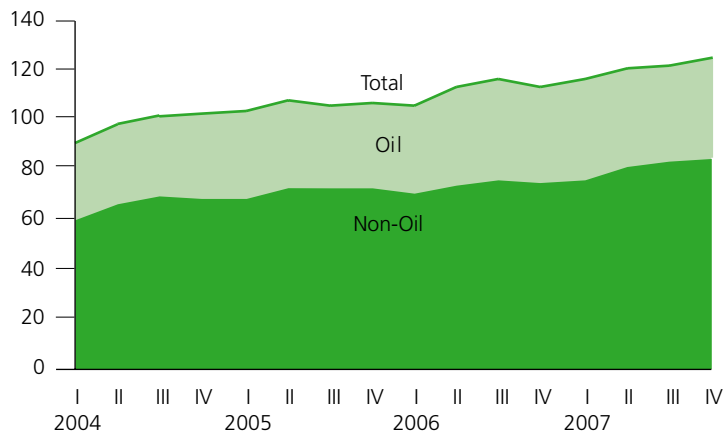
Thousand Tonnes



SEA CARGO HANDLED

[Chart 12.2]

Thousand F.T.



Air transport growth moderated from the year before. The number of air passengers handled grew at 5.5 per cent compared to 8.6 per cent in 2006. Air cargo handled contracted by 0.9 per cent, down from a growth of 4.2 per cent a year ago.

DEVELOPMENTS IN THE SECTOR

Air Transport

Traffic growth maintains momentum in 2007...

In 2007, passenger traffic at Changi Airport reached a record of 36.7 million, a 4.8 per cent increase over 2006. For air cargo, Changi Airport registered 1.9 million tones of cargo, a decline of 0.9 per cent over 2006's figures. Aircraft movements increased by 3.0 per cent over 2006.

Six new airlines commenced services to Changi Airport in 2007. Among these were Jett8 Airlines Cargo, Singapore's first privately-owned cargo carrier; Etihad Airways from the United Arab Emirates; and Mihin Lanka from Sri Lanka. By the end of the year, Changi was connected by 81 airlines to 189 cities in 60 countries.

Singapore concluded a new Air Services Agreement (ASA) and liberalised 15 other ASAs in 2007. These included Open Skies Agreements (OSAs) with five countries, viz. the United Kingdom, Uzbekistan, Czech Republic, Poland and Slovak Republic, which lifted all restrictions on passenger and all-cargo services. With these, Singapore now has more than 20 OSAs.

After 12 years of concept development, detailed planning and construction, the new Terminal 3 at Changi Airport commenced operations on 9 January 2008. The new terminal is designed to handle 22 million passenger movements a year, thereby increasing Changi's overall capacity to about 70 million passenger movements annually and boosting its status as the leading air hub.

Land Transport

New initiatives to improve public transport and traffic flow...

In 2007, the Land Transport Review (LTR) was concluded, laying out new policies and initiatives to guide land transport developments over the medium term.

Making public transport a choice mode...

An important pillar of Singapore's land transport policy is the development of an integrated public transport system that offers high service standards in terms of convenience, comfort, and journey times. The target is to have at least 70 per cent of all morning peak hour trips carried on public transport by 2020.

By 2009, the Land Transport Authority will undertake the role of planning the bus network to better integrate basic bus and rail services. To support an efficient hub-and-spoke public transport system, distance-based through-fares will also be implemented by then, eliminating the current transfer fare penalty. More integrated public transport hubs, where bus interchanges and MRT stations are co-located with commercial and residential developments, will be built to provide commuters with more convenience and inject vibrancy into the transport nodes. More bus priority measures will also be introduced to improve bus speeds and service reliability.

Greater contestability in the bus and rail sectors will be gradually introduced to drive improvements in cost efficiency and service standards. The LTA will consult all relevant stakeholders on the implementation details. Basic bus service operators will be expected to compete for the right to provide a package of basic bus services designed by the LTA, while shorter operating licenses (of between 10 to 15 years) will be issued for new rail lines.

Expansion of MRT network continues...

Existing rail projects in progress include the 33km Circle Line (CCL), the 3.8 km fully-elevated Boon Lay Extension (BLE) to the East-West MRT line, and the 40km Downtown Line (DTL). The BLE is on schedule for completion by 2009. The CCL will be completed in phases, with CCL Stage 3 (from Bartley to Marymount stations) first completing in mid-2009. The remaining stages of the CCL will be completed progressively from 2010. The DTL, which links the north-western and eastern parts of the island to the Central Business District (CBD) and the Marina Bay, is scheduled for completion by 2016.

Other new rail lines to be implemented include:

- Thomson Line (TSL) – a 27-km long fully underground line to link areas (such as Ang Mo Kio, Kebun Baru, Sin Ming, Thomson and Kim Seng) along the north-south corridor to the CBD and the Marina Bay;
- Eastern Region Line (ERL) – a 21-km long fully underground line to serve the residential estates of Tanjong Rhu, Marine Parade, Siglap, Bedok South and Upper East Coast, and link them to Changi in the east;
- Tuas Extension – a 14-km long extension to the East-West Line to serve areas in the Jurong Industrial Estate; and
- North South Line Extension – a 1-km long extension to serve upcoming developments in the southern Marina Bay area, such as the new cruise terminal in Marina South.

Ensuring smooth flowing roads...

Another key pillar of Singapore land transport strategy is ensuring a smooth flow of traffic on our roads. Where possible, investments have been made in our road network to improve connectivity and coverage.

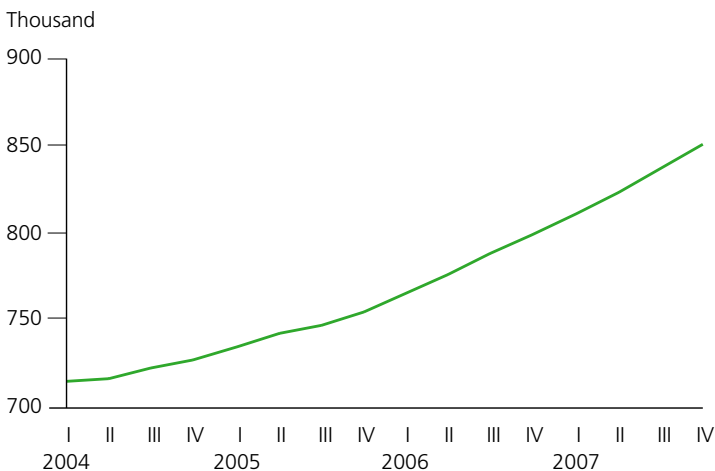
In October 2007, Phase 1 of the 12-km Kallang Paya Lebar Expressway (KPE), the largest road project to-date, was opened to traffic. The remaining Phase 2 of the KPE will be opened in September 2008. Over the next few years, further improvements to the Central Expressway (CTE) will be carried out to improve traffic flow. By 2013, motorists could look forward to the new Marina Coastal Expressway (MCE), which will be a key expressway supporting the development of Marina Bay. In the longer term, a new 21-km North South Expressway is also being planned to cater to the projected growth in traffic between the northern and city area.

As future road expansion is likely to moderate, the annual vehicle population growth will be reduced from the current 3 per cent per annum to 1.5 per cent for the coming three years, i.e. 2009 to 2011. In line with the policy to shift progressively from upfront ownership costs towards regulating usage, the coverage of electronic road pricing (ERP) will be expanded, while the annual road tax and Additional Registration Fee will be reduced. The ERP rate structure and traffic speeds measurement method will also be reviewed to further enhance the effectiveness of the ERP.

As of December 2007, a total of 851,336 vehicles were registered with LTA. These comprised 505,987 cars, 11,054 rental cars, 24,446 taxis, 14,530 buses, 144,340 motorcycles and scooters, and 150,979 goods vehicles and other vehicle types (Chart 12.3).

MOTOR VEHICLES REGISTERED

[Chart 12.3]



SEA TRANSPORT

Singapore as a hub port...

Singapore's port set new records for shipping tonnage, container throughput and bunker sales again in 2007, with all three registering double digit growth over 2006. Vessel arrivals in terms of tonnage totaled 1.5 billion gross tons (GT), an increase of 11 per cent. Container throughput grew by 13 per cent to reach 28 million TEUs, while bunker sales rose 11 per cent, reaching 32 million tonnes.

To cater to future growth, works commenced in 2007 to create additional container terminal capacity at Pasir Panjang. In terms of the security of Singapore's port waters, the Harbour Craft Transponder System (HARTS) was implemented, making Singapore the first port in the world to introduce such a system.

Singapore as a centre for shipping and maritime services...

Singapore continued to thrive as an international centre for shipping groups and maritime service providers. As at the end of 2007, there were more than one hundred companies under the Approved International Shipping Enterprise, Approved Shipping Logistics Enterprise and Maritime Finance Incentive schemes. Together, these companies generate about \$2.9 billion in business spending in Singapore annually.

Singapore remained a major flag state, with 3,553 ships flagged in Singapore. The Singapore Registry of Ships (SRS) grew by 14 per cent in 2007 to reach a total tonnage of 40 million GT. It remains one of the youngest fleets among the world's 10 largest registries.

Singapore's maritime services sector, particularly the shipping financing, marine insurance and shipbroking segments, also registered strong growth. In the area of shipping finance, several boutique shipping investment banks, private equity arrangers and shipping finance advisers set up offices in Singapore. The marine insurance sector saw the entry of new direct commercial insurers, while some of the existing shipbroking firms in Singapore ventured beyond their traditional roles into new service offerings such as freight derivatives broking and shipping finance.

To support the development of manpower for Singapore's maritime sector, MPA's \$80 million Maritime Cluster Fund (MCF) was extended for a second five-year term in 2007. New courses in maritime law were added to the suite of specialist maritime courses available in Singapore while the Maritime Outreach Network or MaritimeONE initiative was launched in April to promote career opportunities in the maritime industry.

Other major initiatives...

In 2007, Singapore hosted new, large-scale maritime events. The inaugural Sea Asia event, launched by President S R Nathan in April, attracted over 7,000 participants from 42 countries. The second Maritime Week, held in September, attracted about 4,600 participants and featured a line-up of 19 events including the inaugural Singapore Maritime Lecture delivered by Minister Mentor Lee Kuan Yew.

INFORMATION & COMMUNICATIONS

[Tables 12.1 and A13.1]

Strong growth in telecommunications...

The information and communications sector grew by 6.1 per cent in the fourth quarter following a 6.6 per cent rise in the third quarter. For the whole of 2007, growth was 6.3 per cent, faster than the 4.6 per cent in the previous year.

Telecommunications performed well in 2007...

DEVELOPMENTS IN THE SECTOR

The telecoms market saw increased competition, with more than 900 services and facilities-based operators offering innovative products and services such as video telephony and mobile blogging. Higher broadband access speed packages, including 100Mbps speed service, were also made available. These drove higher infocomm adoption among businesses and consumers.

Growth in residential and corporate broadband subscribers increased from 20 per cent in the previous year to 29 per cent in 2007. Similarly, the total number of mobile subscribers grew by 21 per cent, faster than the 8.9 per cent in 2006. Mobile penetration in 2007 reached 123 per cent, one of the highest in the world, while household broadband penetration reached 79 per cent. International telephone call duration saw an increase of 24 per cent, considerably higher than the 6.2 per cent rise in the previous year.

Infocomm developments in Singapore continued to be guided by the 10-year masterplan, Intelligent Nation 2015 or iN2015, launched in 2006 by the Infocomm Development Authority of Singapore (IDA) together with the industry. The masterplan aims to develop Singapore as an intelligent nation, global city powered by infocomm by 2015.

Building Next Gen National Infocomm Infrastructure

A key to realising the iN2015 vision is putting in place a robust infocomm infrastructure that will meet the future needs of Singapore's economic and social development. The Next Generation National Infocomm Infrastructure will have both wireless and wired components. By end 2007, approximately 6,500 free Wi-Fi hot spots were set up around Singapore with more than 665,000 subscribers in the Wireless@SG network.

The Next Generation National Broadband Network (Next Gen NBN) is in progress, with plans to set up an ultra-high speed (up to 1Gbps and beyond), island-wide broadband infrastructure by 2015 in place. The Request for Proposal has been issued in December 2007 to design, build and operate the passive network infrastructure. When ready, the infrastructure will carry the traffic for Next Generation Services such as high-definition video conferencing, telemedicine, and Grid Computing-on-Demand.

Nurturing Infocomm Talent

As Singapore's future becomes more and more infocomm-enabled, there is a need to ensure a pipeline of talent to create and capitalise on digital opportunities. To help infocomm professionals ensure that their skills remain relevant, a National Infocomm Competency Framework (NICF) was developed to define the certification and competency requirements for various key infocomm occupations. The aim is to improve the capabilities of these professionals and guide their career development with reference to recognised industry standards. It will also help to guide employers in manpower planning, training and professional development programmes.

To boost Singapore's infocomm talent pool, National Infocomm Scholarships were given out to 39 students in 2007. The scholarships were offered by IDA and 23 industry partners including MNCs, local companies and organisations. Similarly 150 Infocomm Clubs have been set up in schools to help students to learn more infocomm related skills, with a view to encouraging them to take up infocomm as a career.

Exporting Infocomm Technology (ICT) Expertise

Two programmes were launched, along with the Infocomm Singapore portal, to help local infocomm companies (iLEs) expand overseas. The Infocomm Enterprise Programme aims to develop the capabilities of iLEs in the implementation and delivery of large-scale, sector-wide projects and to create new intellectual property. The second programme, Infocomm Singapore, aims to generate stronger recognition of the quality and uniqueness of Singapore's infocomm products and services by promoting a unified "Made-By-Singapore" brand.

Cooperation between Singapore and the Middle East continued in 2007, with a third Memorandum of Understanding (MOU) signed with ictQatar in October 2007 to boost ICT partnerships between the two states. Another MOU was signed in November to share information on the use of ICT in government and economic sectors such as education, healthcare, finance and tourism.

Singapore also signed a MOU with the Authority for Info-Communications Technology Industry of Brunei Darussalam (AITI) to collaborate on the use of ICT in key economic sectors and cooperate on projects to be implemented by both countries.

Enabling Sectoral Developments

Several initiatives were launched in 2007 to use ICT to enable the development and growth of Singapore's key sectors.

Digital & Media Entertainment (DME) — A digital cinema hub and network operations centre (NOC) is being set up in Singapore by Thomson through its Technicolor Digital Cinema business. This partnership with IDA plans to offer digital cinema service and related management solution capabilities to the motion picture industry in Singapore and the Asia-Pacific region.

Healthcare — The Ministry of Health, IDA and The Enterprise Challenge under the Prime Minister's Office launched a joint Healthcare Call-for-Collaboration (CFC). The collaboration aims to encourage innovations to deliver safer care, enhance quality of care and achieve greater efficiency in healthcare operations technology.

Education — The FutureSchools@Singapore Programme was launched as an infocomm initiative between Ministry of Education and IDA. The programme will focus on innovative teaching approaches that leverage fully on infocomm and novel school infrastructure designs to bring about more engaged learning for students. Under the programme, five selected schools will undertake studies on the impact of ICT tools, such as immersive virtual environments and educational games on students' cognitive, emotional and social development.

Maritime and Port Trade — Together with the Maritime and Port Authority of Singapore, IDA launched the \$12 million Infocomm@Seaport programme to catalyse business transformation and operational excellence in the port community through the use of innovative infocomm technologies. The first project under the programme is Wireless-broadband-access at SEaPORT or WISEPORT, where a WiMAX Network covering Singapore's port waters and surrounding coastal areas will be deployed. IDA also invited the industry to participate in the WISEPORT Content and Applications CFC where solutions providers and the seaport community can come together to develop and launch innovative content and applications on WISEPORT.

In the area of **eGovernment**, Singapore announced plans to develop and implement a **Standard ICT Operating Environment (SOE)** for the Public Sector by 2010. The aim is to standardise the desktop, messaging and network environment for the public sector with the establishment of a robust and common government infocomm infrastructure that will allow agencies to work seamlessly, increasing operational efficiency.

Building up SMEs' Infocomm Capabilities

Under the Infocomm@SME programme, IDA aims to help the 135,000 SMEs to improve operational efficiency and enhance business profitability through the use of ICT. This includes encouraging the SMEs to use broadband and establishing a Web presence. As part of the programme, the SME Infocomm Resource Centre (SIRC) was set up at Singapore Polytechnic to provide advice on infocomm usage as well as technical resources. There are subsidies to help them develop corporate websites and hire consultants for infocomm implementation.

Liberalising the Postal Sector

Singapore's postal sector was fully liberalised in 2007 with the opening up of the Basic Mail Services market. This liberalisation will further strengthen Singapore's position as a regional business hub.

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