ASEAN Retail Sector

Region offers compelling growth opportunities despite economic headwinds

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SGX

Projected Growth in ASEAN Retail

Retail sales in Thailand, Singapore, Malaysia, and Indonesia projected to collectively reach US$1 trillion by 2018.[1]

Snapshot of 4 ASEAN Retail Powerhouses

SINGAPORE

- 👍 Highest GDP per capita in the region and projected sustained growth creates a stable consumer base
- 👎 High rental cost and tight labour market

MALAYSIA

- 👍 Government push to drive the country's development as a duty-free shopping hub
- 👎 Low consumer confidence indicates cautious spending

INDONESIA

- 👍 World's 4th most populous nation with highest consumer confidence in the region
- 👎 Spending power hampered by slowest pace of GDP per capita growth among the 4 countries

THAILAND

- 👍 Pick up in consumer confidence and recovery in tourist arrivals likely to continue
- 👎 Low population growth and ageing society could impede retail spending

SGX's Retail Cluster

43 listed retail companies as of Dec 31, 2015

SGD **30** BILLION Total market value

KEY GROWTH TRENDS

Anchored by rising demand and fast growing incomes, the region offers immense retail potential.

I) Rising middle class consumers driving domestic consumption

Domestic consumption expected to increase to 75% of GDP in 2025, from 62% in 2010, mainly driven by middle-class consumers.[2]

Percentage of Middle Class, ASEAN, 2010-2020F

	2010	2015	2020F
ID	21%	26%	30%
MY	40%	42%	45%
TH	45%	47%	49%
SG	98%	99%	100%
ASEAN*	45%	30%	34%

*Note: ASEAN includes Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam

II) Higher spending power propelled by fast-growing incomes

GDP per Capita, Selected ASEAN Countries, 2015-2020F[3]

	2015	CAGR 2020F
Indonesia	US$3k	5%
Malaysia	US$10k	9.8%
Thailand	US$5k	5%
Singapore	US$53k	5.4%

III) Growth in E-commerce sales offers new opportunities for retailers

E-Commerce Market Size, Selected ASEAN Countries, 2014-2017F[4]

	2014	CAGR 2017F
Indonesia	US$1.1 BILLION	38%
Malaysia	US$0.5 BILLION	21%
Thailand	US$1.1 BILLION	19%
Singapore	US$0.9 BILLION	13%

Demand Drivers in Singapore's 6 Key Retail Sectors

1 Lifestyle & Homeware

- High GDP per capita of US$53,000 in Singapore will continue to stimulate spending.
- Retailers adding online retail as additional revenue source to their brick-and-mortar business.

2 Automotive

- Lower cost of automobiles with increase in COE quotas until 2018 as a large fleet of deregistered cars enter the market.[5]
- Greater availability and ease of securing loans.

3 Jewellery & Watches

- Higher demand spurred by Millennials' propensity to spend on luxury products.
- Growing consumer base with greater spending power provided by sustained GDP per capita growth and increasing number of high net worth individuals.

4 Fashion & Apparel

- Higher spending power on comfort goods with GDP per capita in Singapore expected to sustain strong growth of 5.4% until 2020.
- Surge in e-commerce offers a new revenue stream as retailers align online and physical presence to optimise shoppers' experience.

5 Pawnbroking

- Greater social acceptance with modern store formats and transparent, fair practices.
- Rising cost of living encouraging people to seek additional funds through pawnbrokers.

6 Education

- Adoption of Education Technology (EdTech) revolutionalising private education in Singapore.
- S$19 billion government grants for research, educational institutes, and entrepreneurship programmes expected to spur growth in the sector.[6]

FROST & SULLIVAN

Sources:
1. Economist Intelligence Unit
2. ANZ
3. IMF; Frost & Sullivan analysis
4 DBS; Frost & Sullivan analysis
5. Land Transport Authority
6. Research Innovation Enterprise Council 2020

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ASEAN RETAIL: Overview, Trends, and Outlook, with a focus on SGX-listed Companies

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OBJECTIVES

This whitepaper aims to educate investors on the trends and outlook affecting the retail sector in the major ASEAN markets of Singapore, Malaysia, Thailand and Indonesia. The report delves into 6 sub-segments – Lifestyle and Homeware, Automotive, Jewellery and Watches, Fashion and Apparel, Pawnbroking and Education – to discuss the current drivers and restraints in Singapore, overall outlook, and SGX-listed retail companies within them.

The 6 sub-segments in the retail sector have 43 companies listed on the SGX, with a combined market capitalisation of S$29.5 billion as of December 31, 2015.

EXECUTIVE SUMMARY

Retail sector growth in the markets that make up the Association of Southeast Nations (ASEAN) region remains one of remarkable resilience, despite a backdrop of sluggish prospects in many developed economies and a slowing Chinese economy. While challenges to the retail sector continue to loom due to weak spots in consumer confidence, stagnating tourist numbers, and rising operating costs, the region offers compelling growth opportunities anchored by rising domestic demand and fast-growing incomes.

This report focuses on 4 ASEAN nations – Singapore, Indonesia, Malaysia and Thailand – to gain a deeper understanding of the retail market. The combined retail sales in the 4 selected countries are expected to increase from US$650 billion to US$1,000 billion, an annual growth of 15.5% between 2015 and 2018. All 4 countries are forecast to experience positive growth, led by Indonesia and Malaysia.

Much of the expansion is being driven by the strong fundamentals of the ASEAN market including a young, fast-growing population, emerging middle-class consumers, and robust GDP growth. Other parameters stimulating the retail sector include falling unemployment numbers amid a tight labour market and increasing urbanisation. Employment growth clearly adds to a country's consumption ability, while urbanisation prompts demand for the development of organised retail outlets.

The economies in the region are at significantly different stages of development, with all offering unique opportunities for retail investment. Among the major ASEAN economies, Indonesia and Malaysia show strong growth prospects to lead the retail boom. In both countries, rapid urbanisation, improving infrastructure, relatively young populations, rising per capita incomes fuelling strong consumer appetite, and market-friendly government policies are prime factors driving retail growth.

Singapore represents a mature retail market with the presence of a high number of international retailers. Rising per capita income in Singapore continues to preserve the base domestic demand for premium retail segments such as watches and jewellery, private education and lifestyle products. As the regional hub for banking, logistics and R&D to name a few, Singapore also attracts a steady influx of highly-paid professionals with an appreciation for luxury and premium goods and services.

Slowing demand from population ageing, rising business costs, a dip tourist arrivals and falling consumer confidence are crucial challenges for Singapore's retail sector.

Similarly, Thailand is challenged by similar demographic concerns of slow population growth and an ageing society. However, the increasing urbanisation in the country is an important engine of retail consumption growth.

This report takes an in depth look into the retail sector by breaking it down into 6 segments. The 6 retail segments include:

- Lifestyle and Homeware
- Automotive
- Jewellery and Watches
- Fashion and Apparel
- Pawnbroking
- Education

Each retail segment in this report is evaluated based on its intrinsic strengths and weaknesses as well as associated market opportunities and threats in the region.

The report also takes an in depth look at the drivers and restraints of each segment, as well as provide an overview of the SGX-listed companies within the segments.

Lifestyle and homeware, and fashion and apparel segments enjoy a strong base demand in Singapore, owing to a high GDP per capita. Higher GDP per capita stimulates spending on consumer goods. Additionally the segments also are benefiting from the growth of online retail in Singapore.

The automotive segment in Singapore also benefits from a high per capita income, which sustains a base demand for the segment in Singapore. Additionally, the ageing fleet of cars in Singapore, which is likely to lower the Certificate of Entitlement (COE) cost, and larger Loan to Value (LTV) availability, is anticipated to augment the demand in the sector.

Jewellery and watches segment is predicted to benefit from the change in consumption pattern of Millennials. Millennials are consuming premium products recurrently and hence are expected to increase the overall demand for the segment.

Singapore's pawnbroking segment is gaining social acceptance due to improved business practices, in terms of transparency, customer experience and shop design. The higher cost of living also aids the pawnbroking segment as people seek additional funds to finance their consumption.

Education sector is bolstered by the support the Singapore Government provides to the segment, by formulating polices, establishing grants for research and logistically aiding new institutes to establish in the country. Adoption of education related technology is a disruption to the segment, which is assisting the sector enhance in scope and reach.

The report also analyses the key financial metrics of listed retail companies on the SGX. The chosen metrics are the most generic for evaluating an investment in a company. Key financial metrics considered for each company include[1]:

- Price Multiples: Price to Earning (P/E) and Price to Book (P/B)
- Management Effectiveness: Return on Asset (ROA) and Return on Equity (ROE)
- Profitability: Gross Profit Margin and Operating Margin

In addition to these metrics, ratios such as inventory days, debtor days, and net margin can be studied for further analysis.

[1.] Detailed definitions are part of research methodology

1. ECONOMIC OUTLOOK

The fast-growing ASEAN economies offer fertile ground for retail expansion, buoyed by population growth, rising incomes, urbanisation, increasing number of inbound tourists and robust GDP growth. In examining the retail sector in ASEAN, we focus on the 4 major markets in Singapore, Malaysia, Indonesia and Thailand.

The selected 4 countries together constituted approximately 58% of the 629 million ASEAN population in 2015. Singapore, Malaysia, Indonesia, and Thailand also collectively accounted for 76% of the US$2.45 trillion ASEAN economy in 2015. Hence, these countries make up a considerable portion of the ASEAN region in terms of population and economy.

The report studies the demographic characteristics in the selected countries and evaluates the effect of these trends on the retail sector. We examine factors such as population growth, age distribution, expat numbers, and tourist arrivals.

The report also probes the macroeconomic trends in the selected countries. As part of the macroeconomic analysis, the report explores trends in gross domestic product (GDP), GDP per capita, unemployment rates, urbanisation rates, middle-class growth, operating costs and consumer confidence.

1.1 GEOGRAPHICAL COVERAGE

Figure 1-1: Geographical Coverage

1.2 DEMOGRAPHIC TRENDS

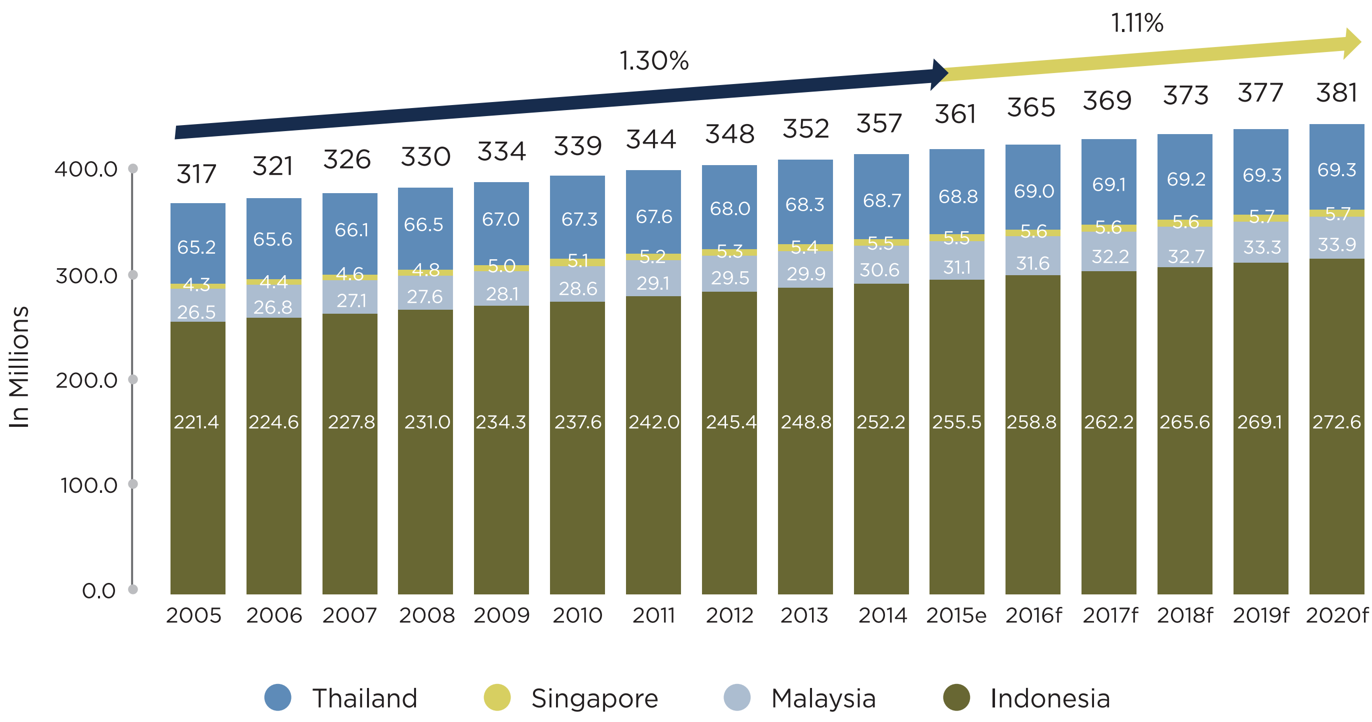
In the past 10 years (2005-2015), the population in the selected ASEAN countries has grown steadily at 1.30% annually, to reach 360 million people. However, this growth is forecast to decelerate marginally to 1.11% annual growth over the next 5 years (2015-2020). The slowdown can be mostly attributed to significant declines in the population growth rates in Singapore and Thailand.

Singapore's population grew at a steady pace of 2.62% annually from 2005 to 2015 to reach 5.5 million. However, the population growth in the country is expected to slow down to 0.64% per annum, for the next 5 years, reaching 5.7 million by 2020, as per estimates from the International Monetary Fund (IMF). The decrease is mainly due to the government's continuing policies to control the influx of foreign labour and regulate the intake of new citizens and permanent residents while maintaining a strong Singaporean core in the population.

In Thailand, the situation is somewhat similar. Owing to its successful family planning programme, launched by the government of Thailand in 1971, the country continues to experience declining population growth. According to the East Asia Forum, the average number of children born to a woman dropped from 6 in the 1970s to 2 in the 1990s. Further data from the IMF reveals that while Thailand's population experienced an annual growth rate of 0.55% in the past decade (2005-2015) to reach 68.8 million, the growth is forecast to slow down to 0.14% per annum for the next 5 years to reach 69.3 million by 2020.

Indonesia and Malaysia are expected to have similar population growth rates over the next 5 years in comparison to the previous decade. Indonesia is forecast to dip slightly from a compounded annual growth rate (CAGR) of 1.44% between 2005 and 2015 to 1.31% from 2015 to 2020 and grow from 255.5 million to 272.6 million. While Malaysia is likely to have a minor uptick from 1.63% to 1.70% annual rates, and increase from 31.1 million in 2015 to 33.9 million in 2020, over the same intervals.

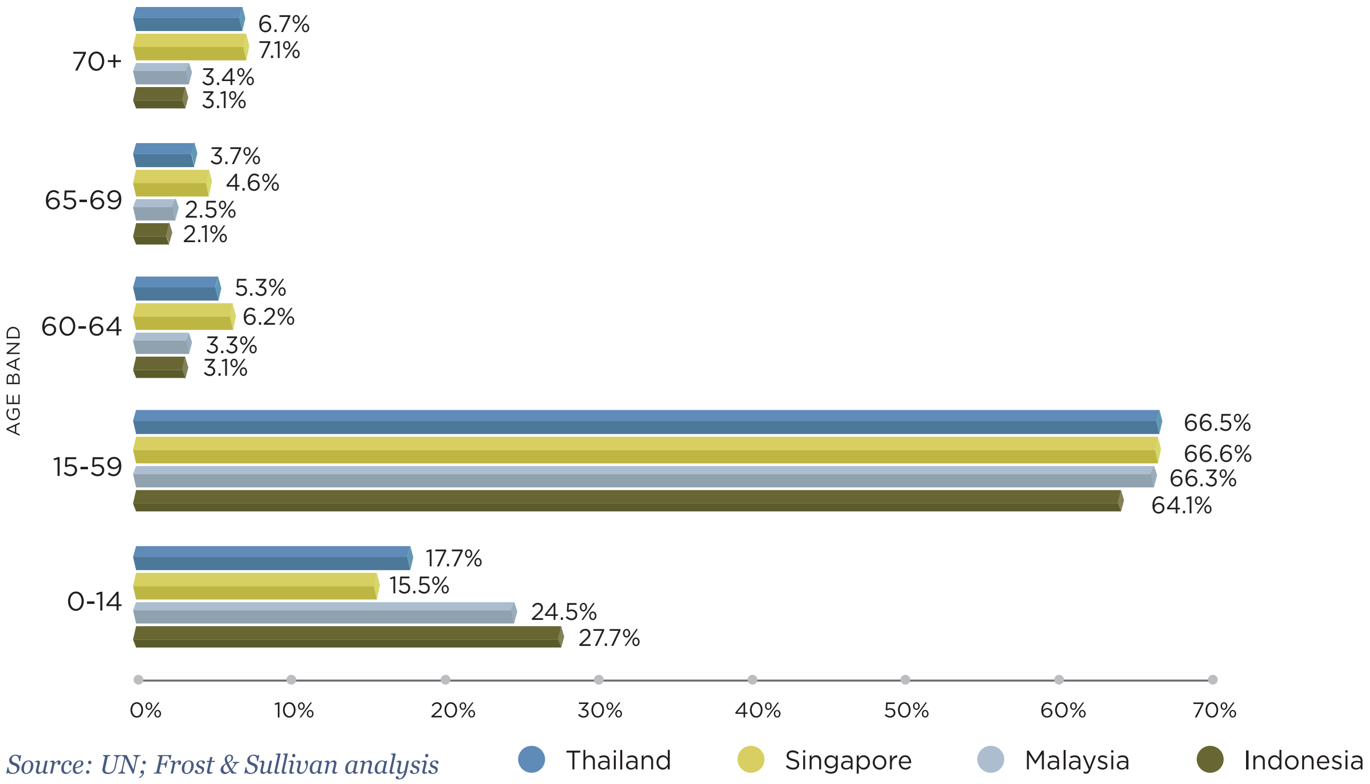
Chart 1-1: Population Trend, Selected Countries in ASEAN, 2005–2020F



Source: IMF; Frost & Sullivan analysis

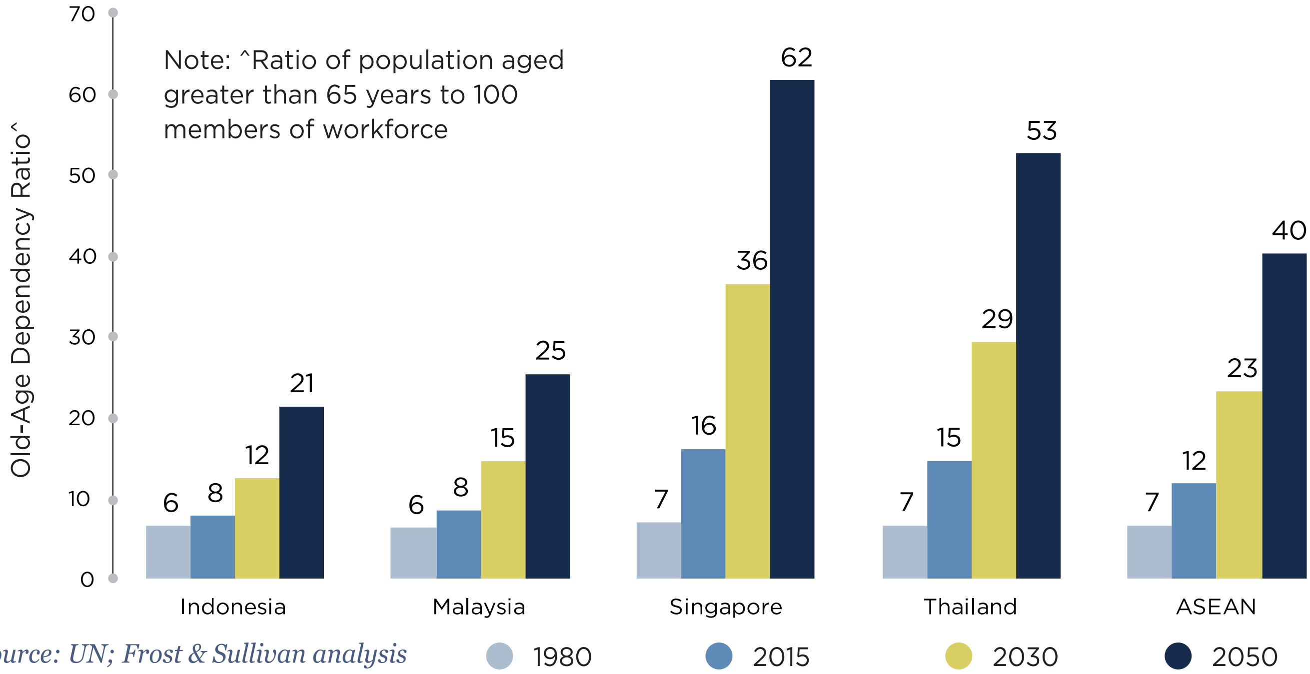
The slowing population growth rates in Singapore and Thailand are anticipated to have significant implications on the respective countries' population age distribution. In 2015, Singapore had approximately 18% of its population above the age of 60, while in Thailand the figure was at 16%. However, in Indonesia and Malaysia, only 8% and 9% of their populations respectively were aged 60 and above.

Chart 1-2: Population Distribution, Selected Countries in ASEAN, 2015



Source: UN; Frost & Sullivan analysis

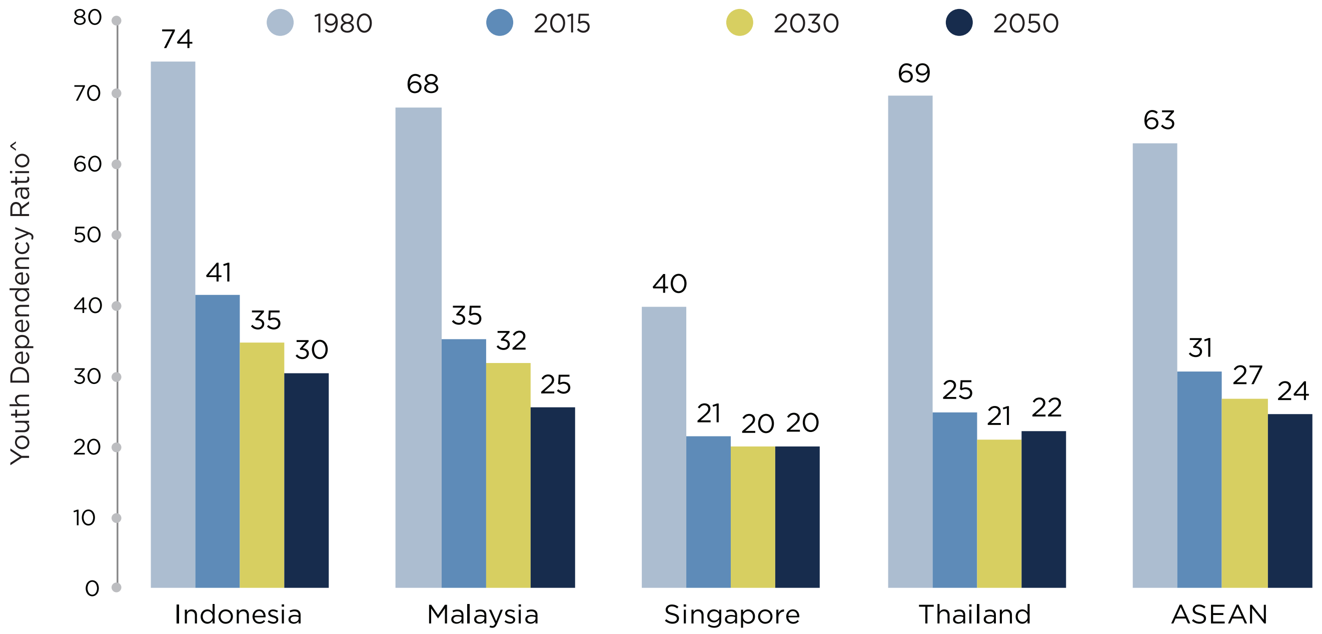
Chart 1-3: Old-Age Dependency Ratio, ASEAN, 1980–2050F



Source: UN; Frost & Sullivan analysis

The old-age dependency ratio is anticipated to increase significantly in Singapore and Thailand at more than 50% by 2050. The higher old-age dependency ratios in both countries are in line with lower population growth rates, signifying increasingly ageing societies.

Chart 1-4: Youth Dependency Ratio, ASEAN, 1980–2050F



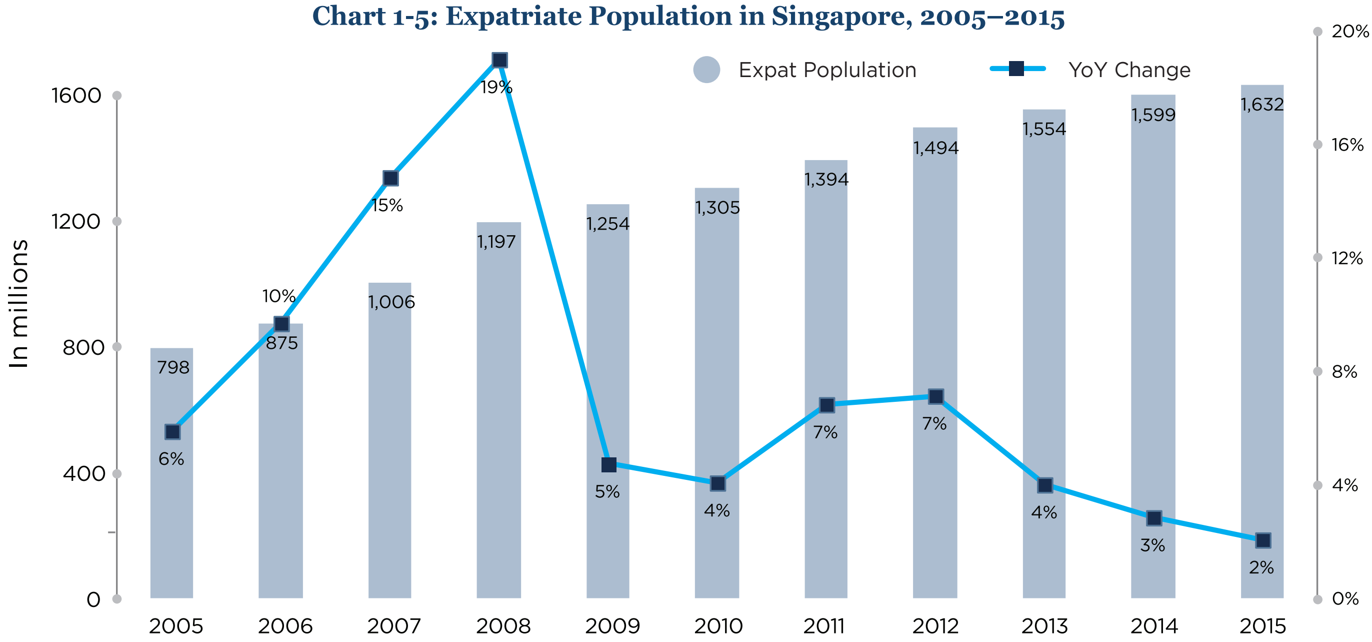
Source: UN; Frost & Sullivan analysis

Note:^ Ratio of population aged less than 15 years to 100 members of workforce

Indonesia and Malaysia, on the other hand, are forecast to continue having a higher proportion of younger populations due to the higher fertility rates[2], at 2.37 and 1.98 respectively (measured in 2012), compared to 1.29 for Singapore and 1.41 for Thailand (measured in 2012).

Population ageing is anticipated to adversely influence retail demand as older people are less likely to frequently replace their homeware, apparel, and lifestyle goods. On the other hand, a younger population augments demand in retail segments such as education, fashion, and lifestyle products.

Chart 1-5: Expatriate Population in Singapore, 2005–2015



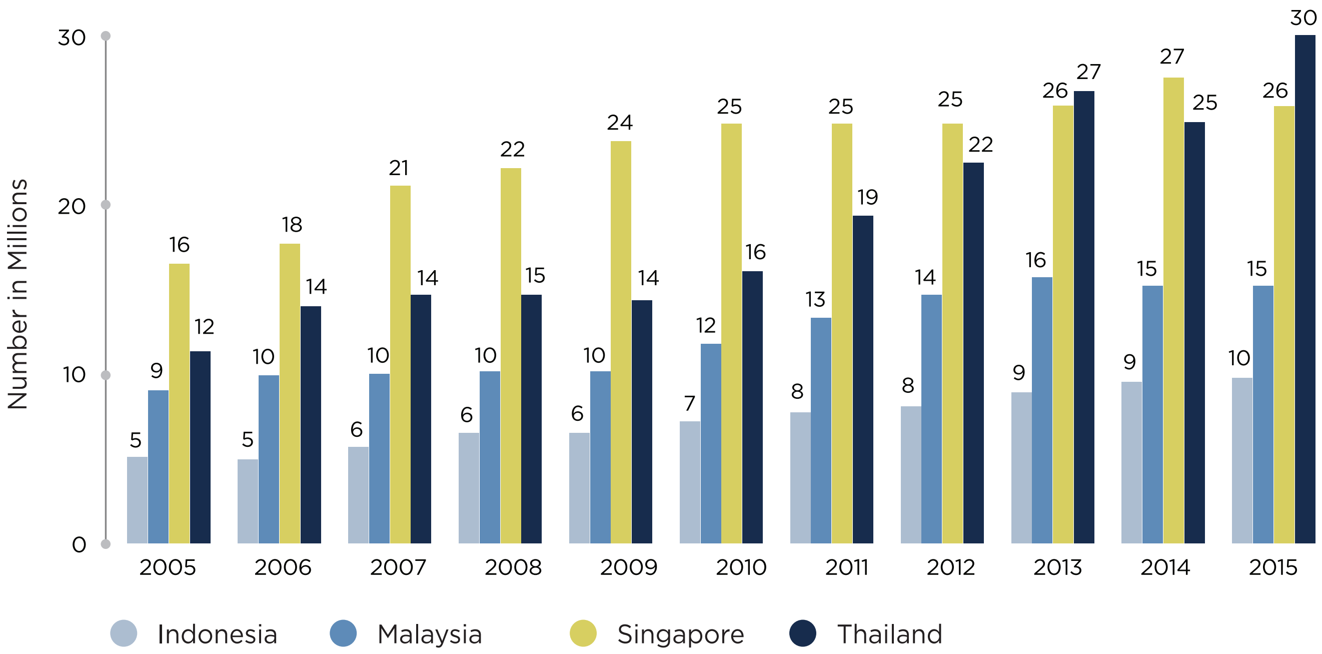
Source: Singstat; Frost & Sullivan analysis

[2] World Bank

The substantial expatriate population in Singapore is another critical factor to consider in consumption demand. Singapore has a large proportion of foreigners, about 28% in 2015 (i.e., not citizens or permanent residents). While the overall number of expatriates in Singapore continues to rise, there has been a recent decline in the rate of increase as a result of the Singapore Government's initiatives to restrict foreign labour.

Expatriate populations typically have higher disposable incomes, driving demand for the luxury and premium segment of the retail market.

Chart 1-6: Tourist Arrivals, Selected Countries in ASEAN, 2005–2015



Source: Ministry of Tourism and Culture of Malaysia; Singapore Tourism Board; Department of Tourism Thailand; Ministry of Culture and Tourism of Indonesia; Frost & Sullivan analysis

Tourists create significant demand for fashion, apparel, electronics, and watches. Malaysia, Thailand and Singapore are known to be popular shopping havens in the region, with visitors to these countries contributing substantially to the retail spend in the respective markets. According to the Singapore Tourism Board, tourists to the country spent approximately S$4 billion on retail shopping in 2015.

In recent years, Malaysia has seen plateauing growth in the number of visitors. There was also a dip in tourist arrivals to Thailand and Singapore in 2009 and 2014 respectively, due to the global economic slowdown, primarily China. In 2015, Thailand saw a notable increase in tourist arrivals, almost 20% over 2014 numbers.

KEY FINDINGS

Robust population growth is the single most powerful impetus for greater consumer consumption, providing a strong impulse for retail spending. It has a cascading effect across all sectors including the retail (B2C) sector. In fact, higher population growth rate translates to lucrative opportunities for the retail sector. Essential retail segments such as homeware, automotive and education derive their base demand from the size and growth of a population.

Age distribution is another key demographic element that influences retail spending. The age groups of 0 to

14 years and 15 to 59 years typically have higher retail spend compared to the population aged 60 years and above. The old-age dependency ratio, the number of people aged 65 years and above to the working-age population (aged 15–64), is an important parameter to assess the population less actively contributing to consumer spending. Populations with a higher old-age dependency ratio may allocate a larger percentage of disposable income on healthcare rather than retail. Youth dependency ratio is an indicator of young people in the population, and an influencing factor on consumer spending, primarily in the education sector.

Lower population growth rates and the anticipated high old-age dependency ratio in Singapore and Thailand are likely to have an adverse impact on retail spending, specifically in segments such as fashion and apparel as well as homeware. The declining proportion of youth in the population could also hamper the growth of the education sector.

Conversely, lower old-age dependency ratios in Malaysia and Indonesia, with their higher population growth rates, are likely to signal strong consumer demand in these countries. A higher ratio of youth in these countries is likely to increase the growth potential of the education sector.

Additionally, Singapore's large expatriate population, about 28% of the total population with higher per capita disposable incomes is a key driver for the sale of luxury goods in the country. However, this is likely to decrease with the government's tightening of hiring rules for high-skilled foreign labour.

Singapore is also a popular tourist destination, spurring growth in the retail sector, primarily in the sale of luxury products. However, the slowdown in China and a higher degree of attraction from neighbouring countries, mainly Thailand and Malaysia, are stagnating the growth of tourist arrivals to Singapore, and adversely impacting consumer demand for luxury goods.

1.3 MACROECONOMIC TRENDS

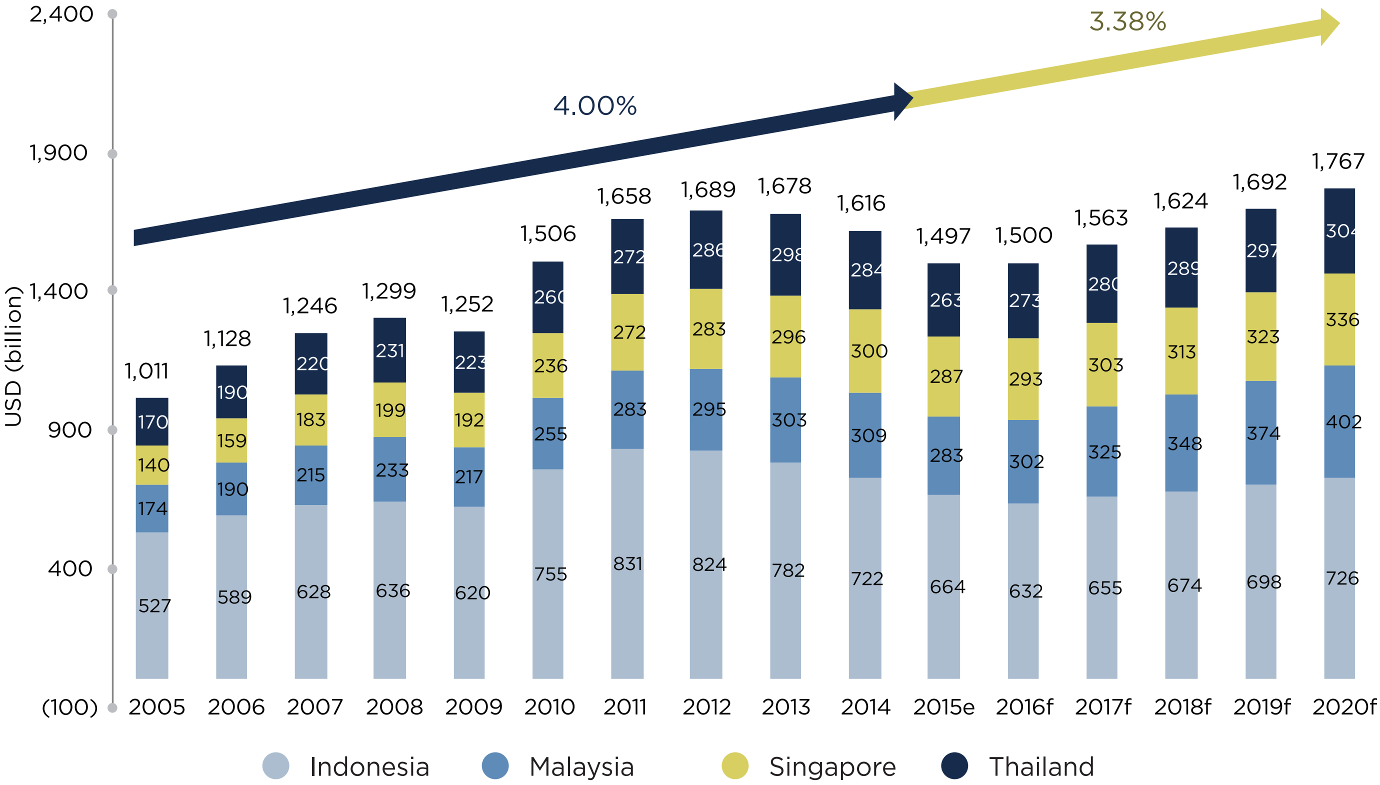
1.3.1 GROSS DOMESTIC PRODUCT (GDP) TRENDS

Growth of GDP in the region stimulates overall retail consumption, primarily for essential commodities. Over the past decade (2005-2015), the selected countries in the ASEAN region have grown from a GDP of US$1 trillion to approximately US$1.5 trillion, growing at CAGR of 4%.

While Indonesia is the largest economy, Singapore continues to outpace the other countries, growing at a CAGR of 7.5% in the past decade. Malaysia, Thailand, and Indonesia have grown at a CAGR of 5%, 4.5%, and 2.3% respectively in the past 10 years. The rapid GDP growth of the Singapore economy has also aided Singapore to develop into a retail hub.

The overall ASEAN economy is anticipated to continue to expand, albeit at a slower pace, over the next 5 years. As per IMF estimates, Malaysia is expected to take the lead in the region, growing at a steady 7.3% annually for the next 5 years. The GDP in Malaysia is projected to fuel the Malaysian retail sector from US$ 107 billion to US$ 151 billion, from 2015 to 2018.

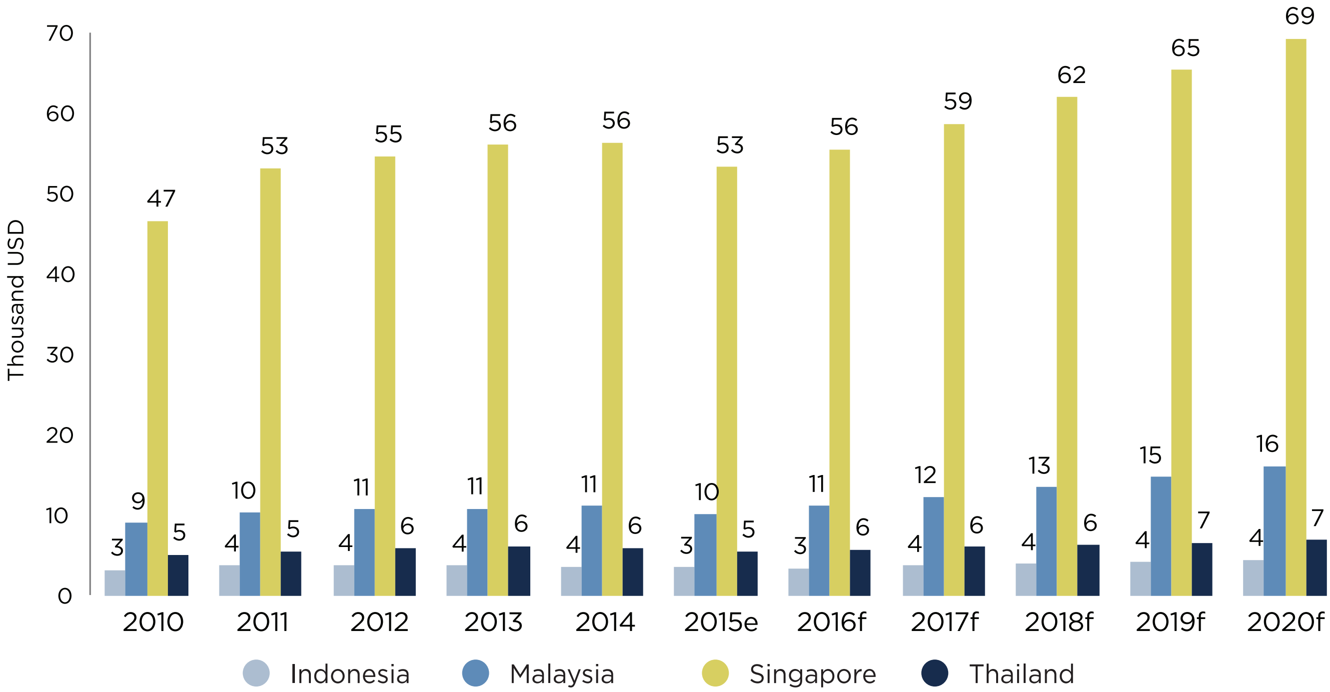
Chart 1-7: Gross Domestic Product, Selected Countries in ASEAN, 2005–2020F



Note: GDP at constant prices

Source: IMF; Frost & Sullivan analysis

Chart 1-8: Gross Domestic Product per Capita, Selected Countries in ASEAN, 2010–2020F



Note: GDP at purchasing power parity (PPP), at Current Prices

Source: IMF; Frost & Sullivan analysis

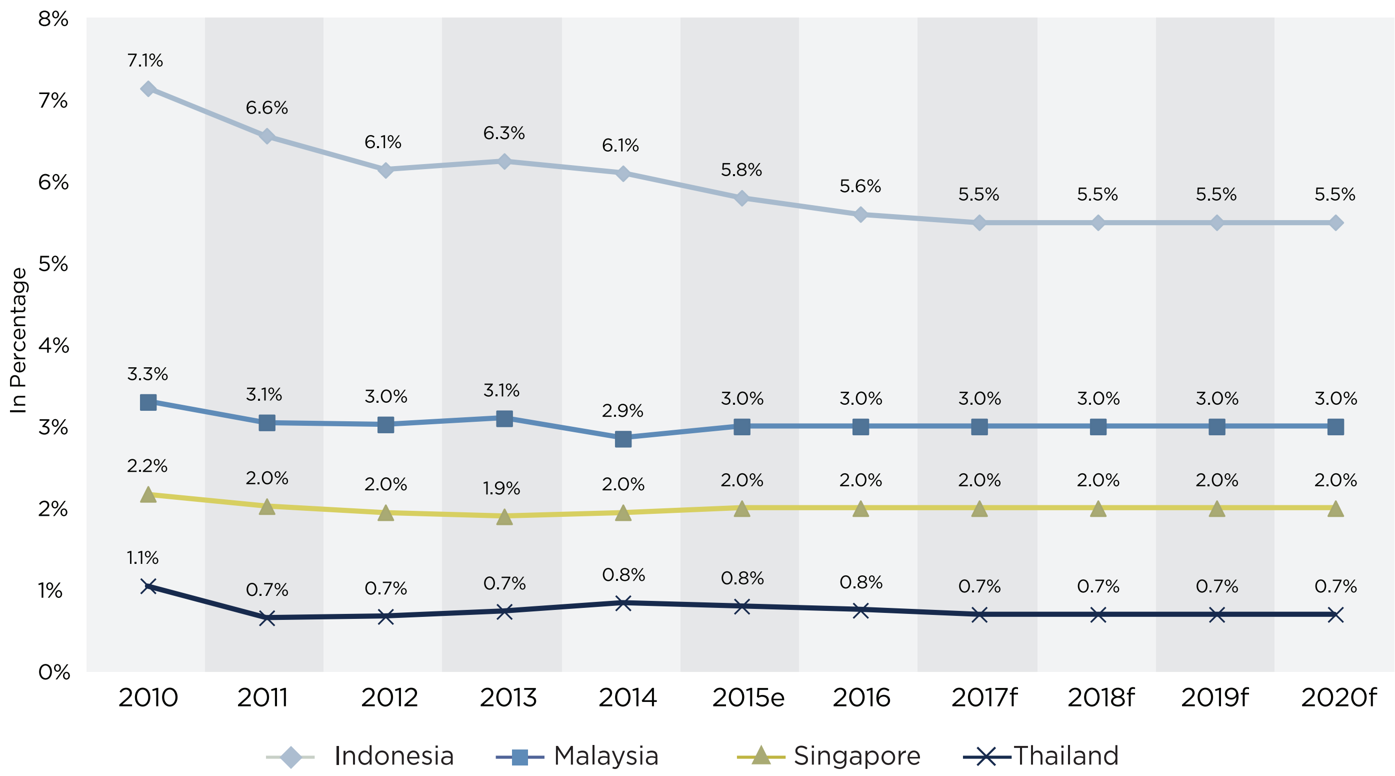
In terms of GDP per capita, Singapore is ahead of its peers, followed by Malaysia. Both countries have increased their GDP per capita at the fastest rate in the past 5 years, with the growth momentum expected to continue until 2020.

According to IMF estimates, Malaysia's GDP per capita is expected to increase by 9.8% per annum in the next 5 years, making its growth the fastest in the region. This is followed by Singapore, which is expected to grow by 5.4% per annum, while Indonesia and Thailand are projected to rise by approximately 5% each per annum.

A higher GDP per capita signals robust demand for luxury goods, such as watches, jewellery, and premium lifestyle products. Singapore, which has significantly higher per capita income, has a large luxury goods market in comparison to the other countries in the ASEAN region. However, the luxury retail segment is likely to catch up in other ASEAN countries, especially Malaysia, primarily driven by higher GDP per capita growth.

1.3.2 UNEMPLOYMENT RATES

Chart 1-9: Unemployment Rates, Selected Countries in ASEAN, 2010-2020F

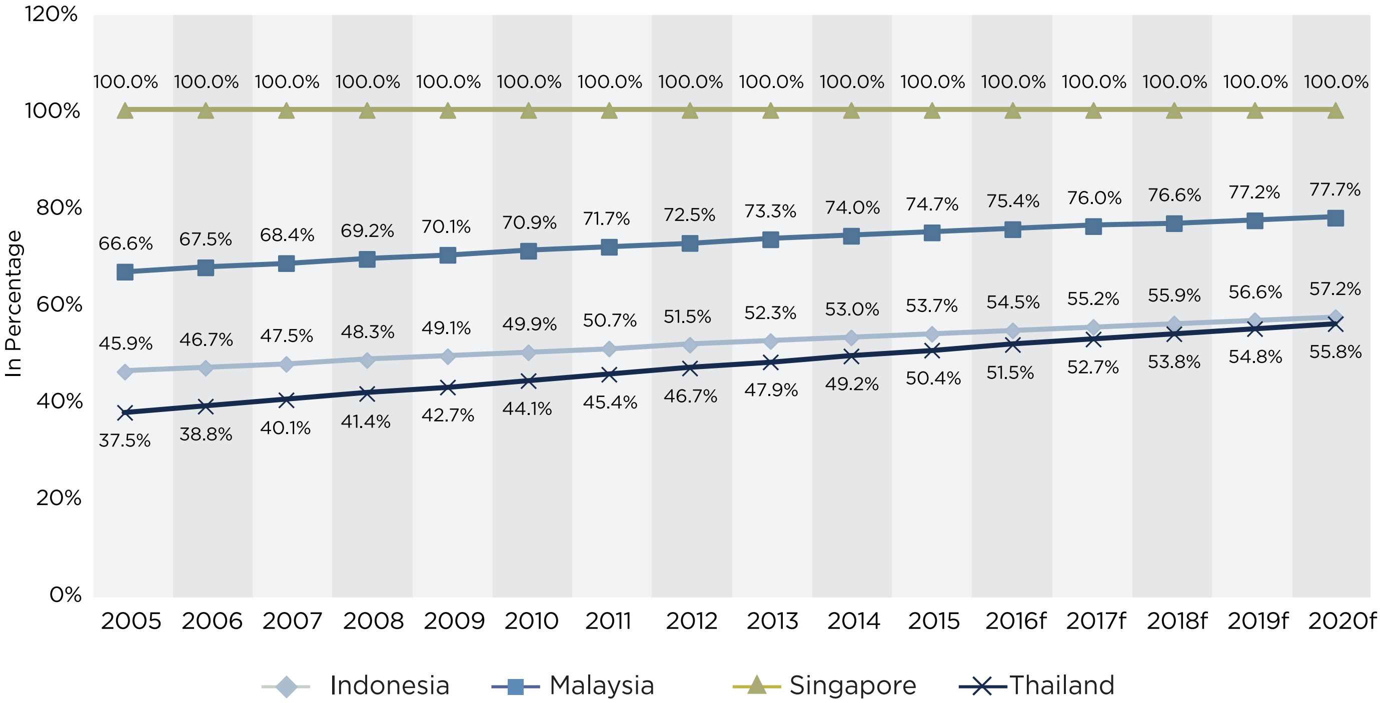


Source: IMF; Frost & Sullivan analysis

Unemployment rates in the selected ASEAN countries are falling at a steady pace and expected to continue on a downward trend, before plateauing at levels intrinsic to each country. The decrease in unemployment enhances consumption in the economy, strengthening the retail sector. The projected lower rate of unemployment in Indonesia signals positive growth for the retail sector. However, a low unemployment rate does not necessarily have proportionate implications on the retail sector. For instance, while Thailand has the lowest unemployment rate among the 4 ASEAN countries studied, it does not translate into higher average income or GDP per capita, as a significant share of its population is employed in lower-paying agriculture and industrial sectors.

1.3.3 URBANISATION

Chart 1-10: Urban Population, Selected Countries in ASEAN, 2005-2020F



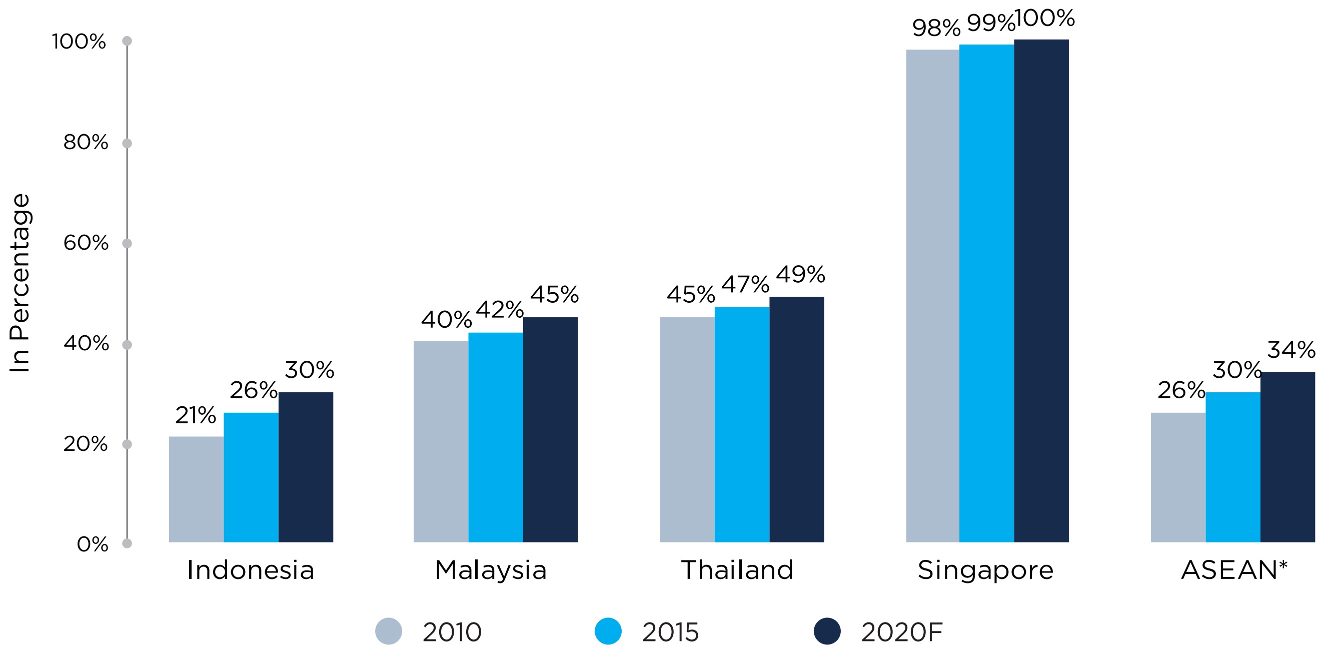
Source: UN; Frost & Sullivan analysis

Urbanisation drives organised retail sector demand. While rural populations contribute to consumption, it is unlikely to contribute to organised retail growth. Urban population distribution is a better indicator of the demand base in city malls.

While Singapore is a fully urbanised economy, the other 3 selected ASEAN countries continue to experience rapid urbanisation.

1.3.4 MIDDLE CLASS

Chart 1-11: Percentage of Middle Class, ASEAN, 2010-2020F



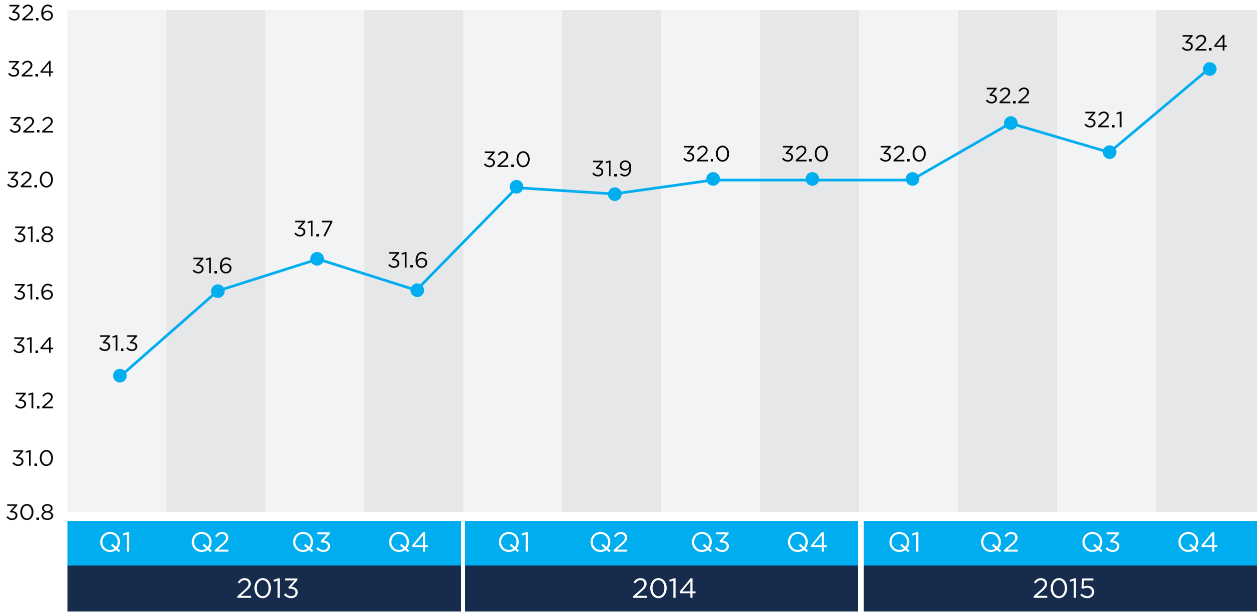
Note: ASEAN includes Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam

Source: OECD; ANZ Bank; Frost & Sullivan analysis

According to ANZ Bank estimates, by 2025 ASEAN will make up approximately 4% of the world GDP, forming the third engine of growth for Asia, behind China and India. The emergence of ASEAN as an engine of growth is expected to stimulate retail consumption as well. The Center for American Progress reports that the retail sector's sustainability is contingent on the expansion of the middle class. Retail consumption in ASEAN will be led by growth in the urban middle class. ANZ Bank estimates that consumption will increase from 62% of the GDP in 2010 to 75% of the GDP by 2025.

1.3.5 COMMERCIAL RENTAL

Chart 1-11: Average Gross Rent for Prime Spaces, Singapore, 2013-2015



Note: Prime Spaces refer to units between 350sq ft and 1,500sq ft with the best frontage, connectivity, footfall and accessibility in a mall.

Source: Knight Frank; Frost & Sullivan analysis

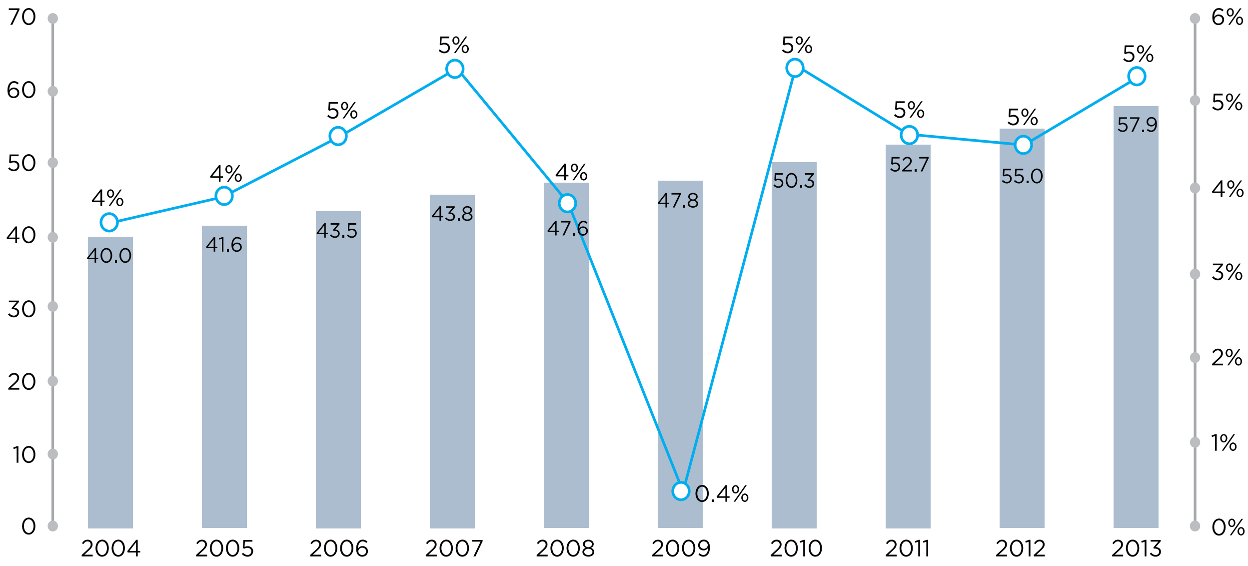
Retailers continue to grapple with rising business costs, be it higher rentals or labour costs. Real estate costs are one of the key expenses incurred by retailers. Rental prices for prime retail space in Singapore have continued to grow at a CAGR of approximately 1.2% in the past 2 years.

To cope with the escalating rentals, retailers are under increasing pressure to explore new cost-efficient avenues to reach customers. Measures include right-sizing, refurbishing retail space to enhance value to the shopper, setting up pop-up stores as a test-bed for new products, and venturing online.

Competition from neighbouring markets in Malaysia and Thailand as cost-effective destinations to establish retail base is intensifying as well with improvements in infrastructure and greater urbanisation.

1.3.6 LABOUR COSTS

Chart 1-12: Annual Labour Cost per Employee-Retail Sector, Singapore, 2004-2013



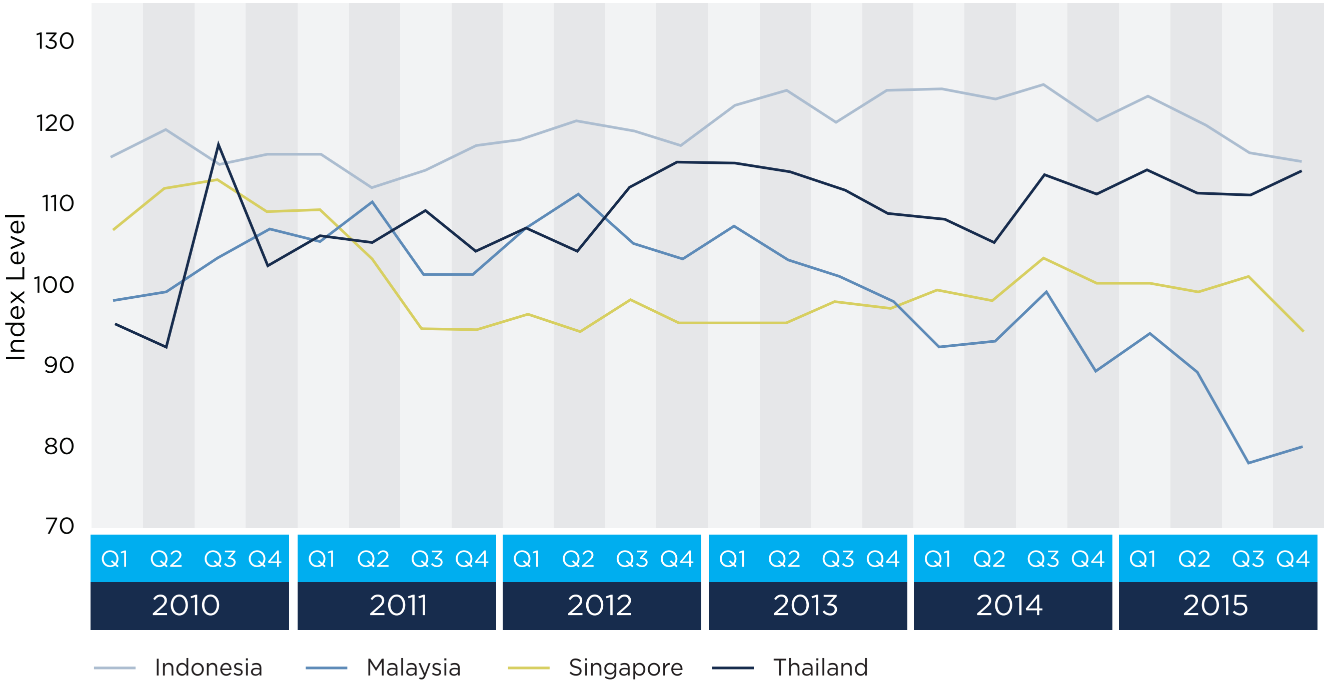
Source: Ministry of Manpower of Singapore; Frost & Sullivan analysis

Conventional retail is a labour intensive business with any changes in labour cost trends having implications for retailers. As the cost of living in Singapore has risen, so has the cost of labour. From 2004 to 2013, the labour cost in the retail sector increased by more than 45%. According to the Ministry of Trade and Industry (MTI) in Singapore, with intensifying competition from regional peers, Singapore is unable to compete on price due to its high labour costs. MTI's research findings indicate that retailers are struggling to remain productive and competitive with the current workforce. MTI suggests that Singapore needs to upgrade the skills of its retail workforce to increase service levels and productivity.

In addition to the cost, the availability of labour could also be a challenge for retailers. The Ministry of Manpower's (MOM) consistent policies to strengthen the Singaporean core and support restructuring towards a manpower-lean economy driven by productivity, are likely to keep the labour market tight.

1.3.7 CONSUMER CONFIDENCE

Chart 1-13: Consumer Confidence Index, Selected Countries in ASEAN, 2010–2015



Source: http://viz.nielsen.com/consumerconfidence/tool.php; Frost & Sullivan analysis

The consumer confidence index measures the degree of optimism or confidence consumers have on the state of the economy as expressed through their activities of savings and spending.

A month-on-month decreasing trend indicates that consumers have a negative outlook on their ability to secure and retain well-paying jobs. As a result, retailers may expect consumers to curb major retail purchases, particularly big-ticket items that require financing. Manufacturers and retailers may likewise pare down inventories to reduce overheads and/or delay investments in new projects and facilities.

On the other hand, rising consumer confidence suggests improvements in consumer buying patterns. Manufacturers are able to increase production and hiring, while retailers may increase inventory, in anticipation of greater demand.

With the highest consumer confidence in the region, Indonesia remains the most confident country in the region. However, the slowdown in the regional economy is likely to have implications for Indonesia's growth outlook.

Amid the increasing global uncertainty, consumer confidence in Singapore appears to be on a downward trend as well, albeit after a brief surge at the end of 2014.

Since the end of 2013, the consumer confidence index has slipped below the 100-point benchmark in Malaysia indicating caution among Malaysians due to political and economic issues.

Thailand's political crisis and the lead-up to the turmoil in 2013 was a major contributor to the contraction of the retail sector in 2013 and 2014. However, the rebound in consumer confidence and tourism are leading to growth in trade and consumption.

KEY FINDINGS

The GDP growth in the region supports the overall retail sector, specifically essential commodities. Moreover, GDP per capita is a leading indicator of disposable incomes, signifying demand for luxury items, such as jewellery, watches, high-end lifestyle goods and premium electronics.

Singapore has a significantly higher GDP per capita in comparison to other countries in ASEAN, making it a prime market for luxury retail. However, as disposable incomes rise in the neighbouring countries, domestic demand for luxury items is projected to increase. Competition is also expected to intensify from Malaysia as part of its Economic Transformation Programme that intends to position the country as a duty-free shopping destination, and Thailand, which is anticipated to receive more tourists than Singapore. The future direction of inbound tourism into these countries is likely to boost demand for luxury goods in these markets.

The unemployment rate in a country plays a crucial role in the consumption levels of essential goods. A projected lower unemployment rate in Indonesia spells positive growth for the retail sector. However, a low unemployment rate does not have proportionate implications on the retail sector. Another aspect that potentially influences organised retail spend is the rate of urbanisation. A large rural population is unlikely to spend proportionally more in city malls. As a result, increasingly urbanised populations are more likely to have a positive impact on organised retail demand.

The expansion of the middle class in the ASEAN region is a positive trend for the sector and expected to drive consumption in the region.

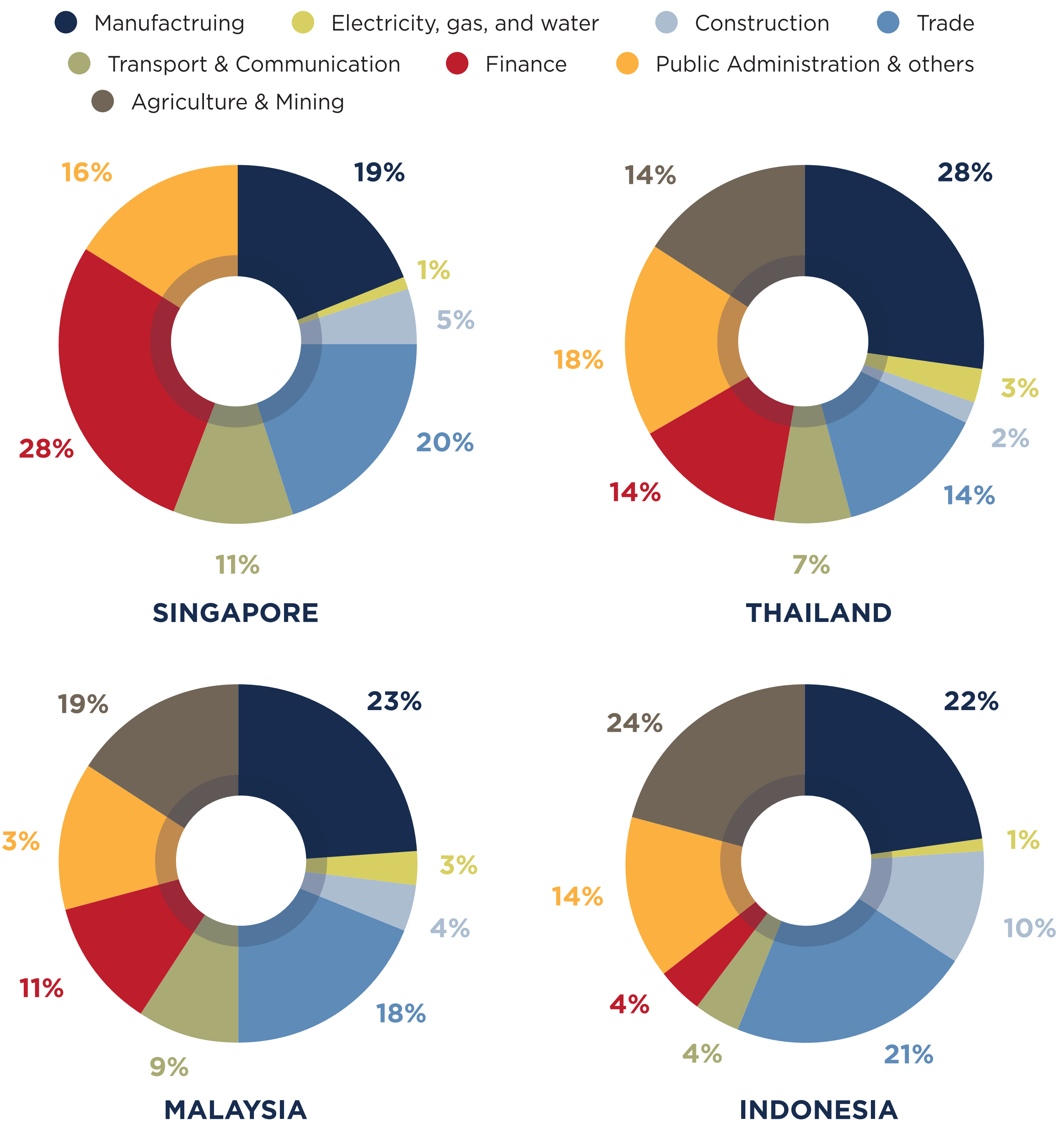
Escalating operating costs continue to place pressure on the retail sector in Singapore. Retailers in Singapore are continually challenged by the high rental and labour costs. Retailers are rationalising and closing down non-profitable outlets to deal with high rental fees. While labour supply is likely to remain tight in Singapore, retailers are looking to increase the productivity of the existing workforce.

The Consumer Confidence Index (CCI) is another factor that has a direct implication on the retail sector. CCI indicates the prospect of consumers procrastinating or expediting their consumption. Currently, the region does not show a high level of optimism, reflecting a cautious outlook for the retail sector in the region.

2. RETAIL SECTOR IN SELECTED ASEAN COUNTRIES

2.1 SIZE OF THE RETAIL SECTOR IN THE ECONOMY

Chart 2-1: GDP Split by Industry, Selected Countries in ASEAN, 2014



Source: Asian Development Bank; Frost & Sullivan analysis

According to the Asian Development Bank, trade encompassing wholesale and retail segments in addition to export and import activities make up a major component of GDP across all ASEAN nations. In Singapore, trade is the second-biggest sector of the economy, accounting for 20% of GDP.

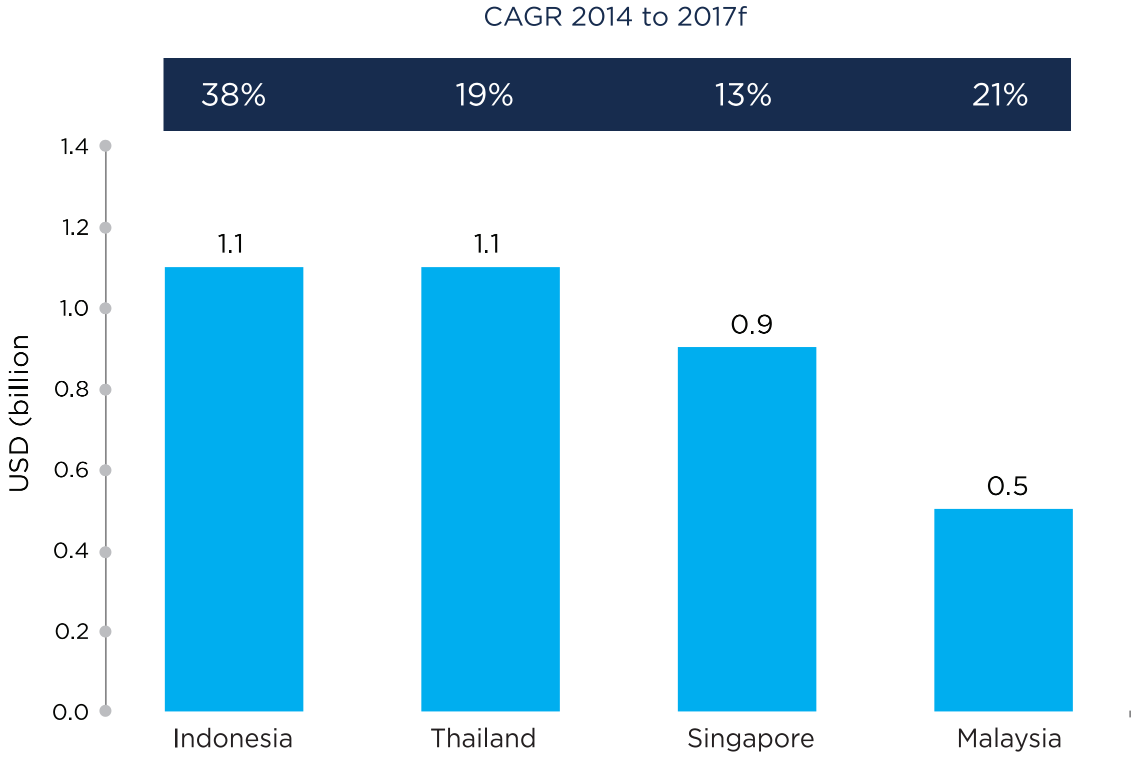
2.2 TRENDS IN E-COMMERCE

Electronic commerce (e-commerce) continues to change the dynamics of the retail sector globally, with many "new economy" companies emerging in this region. New retail models are arising out of innovations in technology, and threatening the position of well-established retailers than ever before. While e-commerce is highly evolved in the US, Europe, and Japan, it is beginning to alter the consumption landscape rapidly in the ASEAN region.

With a relatively young population, growing Internet and smartphone penetration, and a wide array of payment options, the ASEAN region offers lucrative opportunities for e-commerce growth. In 2014, the region had 199 million Internet users (39% penetration) and is forecast to rise to 294 million users (48% penetration) by 2017.

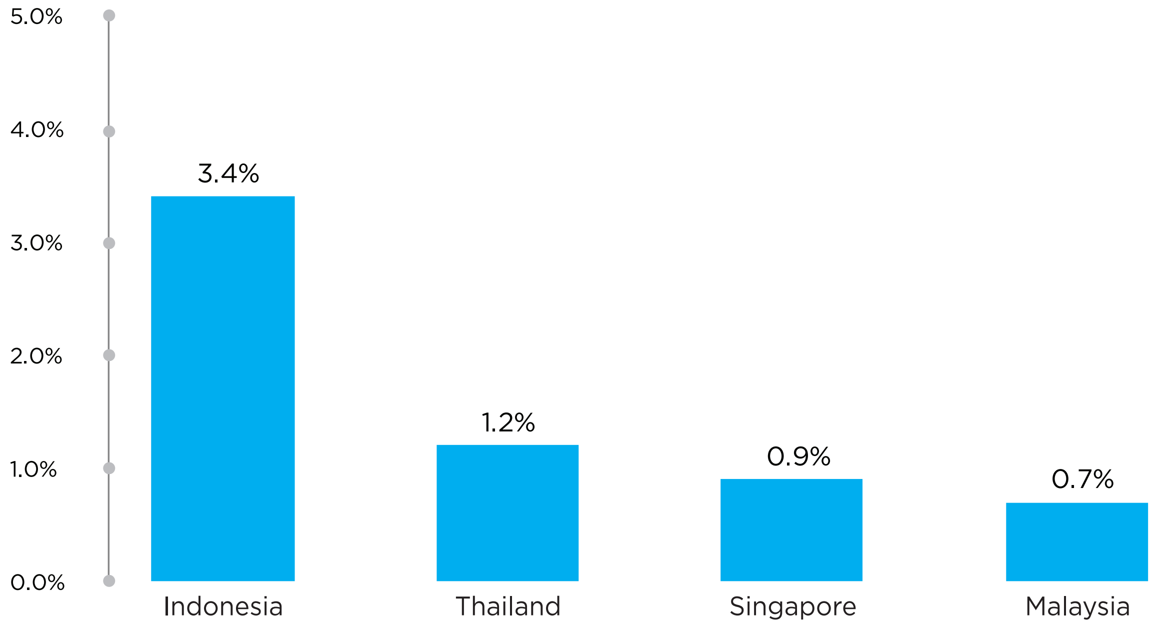
Indonesia is the largest e-commerce market in ASEAN, driven by its huge population (fourth largest in the world) and increasing Internet connectivity. The country is anticipated to grow the fastest in comparison to Thailand, Singapore, and Malaysia.

Chart 2-2: E-commerce Market Size, Selected Countries in ASEAN, 2014



Source: DBS; Frost & Sullivan analysis

Chart 2-3: Internet Retail as Percentage of Retail Sales, Selected Countries in ASEAN, 2014

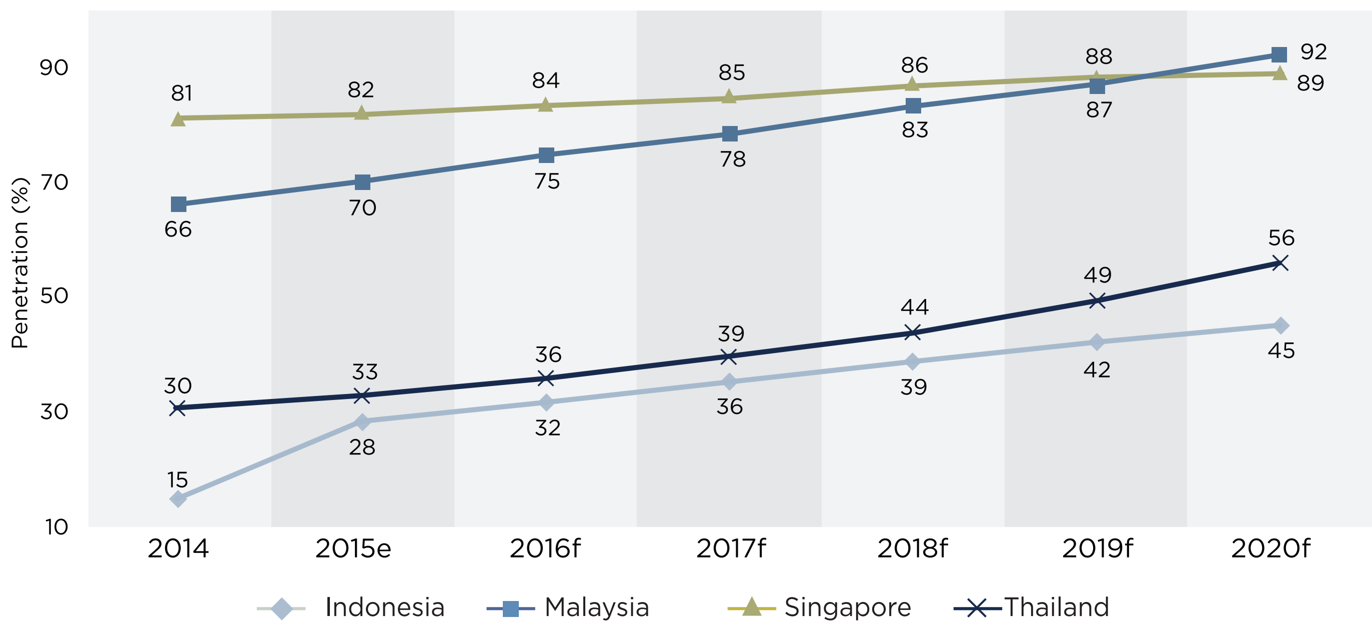


Source: DBS; Frost & Sullivan analysis

The growth of e-commerce is contingent on the growth of the Internet and smartphone penetration, development of payment mechanisms, and infrastructure development of logistics for delivery.

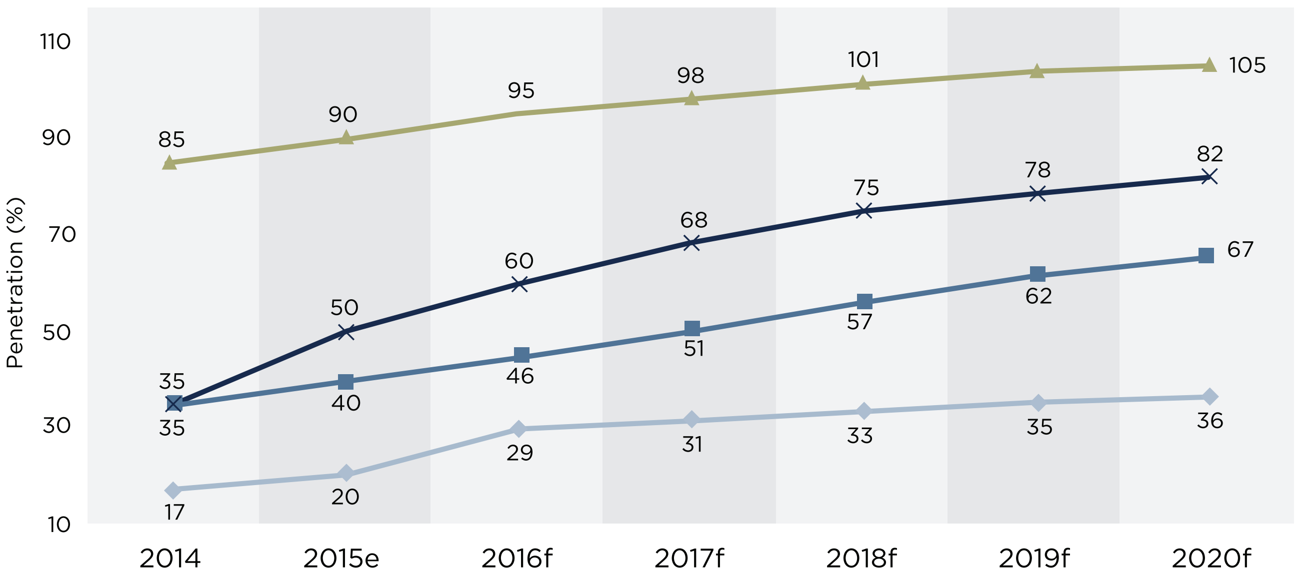
Internet penetration is high in Singapore and Malaysia in comparison to Indonesia and Thailand. However, online retail as a percentage of overall retail sales remains relatively low, highlighting the significant untapped potential of the ASEAN region in the e-commerce industry.

Chart 2-4: Internet User Penetration, Selected Countries in ASEAN, 2014-2020F



Source: Frost & Sullivan analysis

Chart 2-5: Smartphone User Penetration, Selected Countries in ASEAN, 2014-2020F



Source: Frost & Sullivan analysis

Payment mechanisms and logistics management are key enablers of e-commerce growth, opening up new avenues for banks, retailers and start-ups to become industry infrastructure providers. Payment portals are increasingly becoming a commodity with banks, telecom companies, retailers and payment-focused start-ups making their foray into this area. A successful payment product is measured by the extent of off-take among the target audience. To gain consumer confidence and alleviate early apprehensions of online transactions, online retailers offer Cash on Delivery (COD) services as well.

According to aCommerce, a logistics enabler for e-commerce in Thailand, nearly 74% of the transactions in Southeast Asia are on COD basis, primarily due to low credit card penetration in the region. In addition, UBS data shows that in 2014, Indonesia and Thailand had credit card penetrations of mere 6% and 5% respectively.

Logistics companies providing supply chain management services are a key pre-requisite for the e-commerce sector to flourish. This is especially important for countries such as Indonesia, having a vast, fragmented land mass that presents challenges for consumers to access retail points.

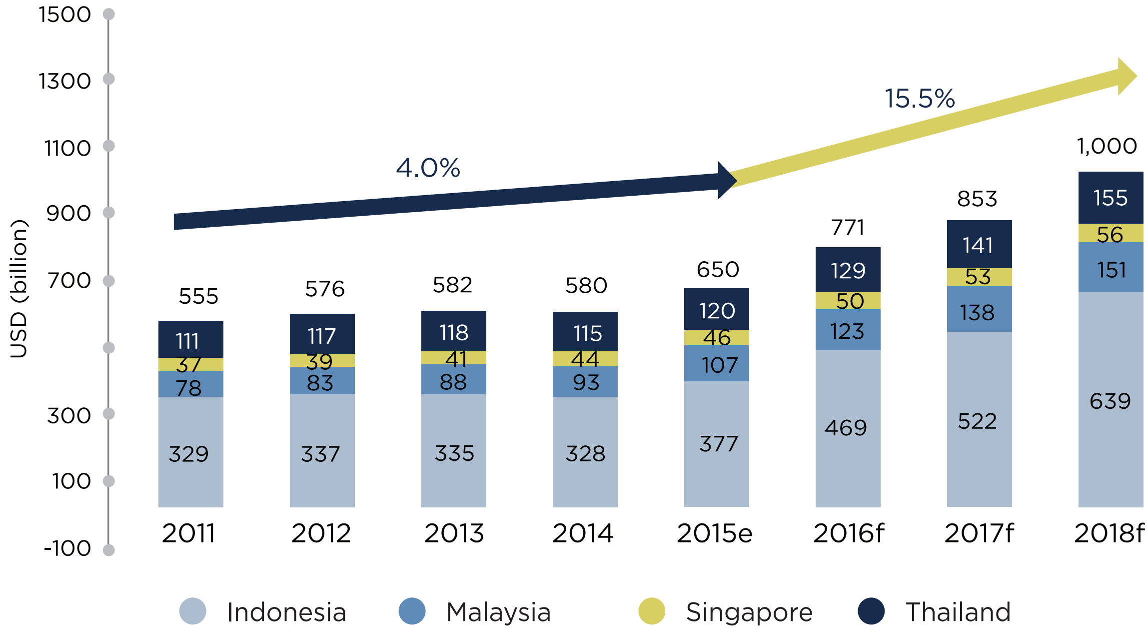
Major e-commerce companies are aggressively building delivery fleets to tackle capacity issues to cope with high transaction volumes. Last-mile delivery is typically a bottleneck and source of high cost for e-commerce companies during the growth phase. However, these costs are gradually reducing as companies provide customised services such as returns management, reverse logistics, pre-calling, multiple delivery attempts, and COD leading to accelerated exponential growth.

In addition to infrastructure support, the e-commerce ecosystem also requires significant capital. We observed massive investments in e-commerce in 2015, pushing many start-ups in the sector towards fast-track expansion. In 2015, Alibaba increased its stake in SingPost, aiming to build a logistics platform for its e-commerce business through more investments in the future. In April 2016, Alibaba bought the controlling stake in Lazada. New entrants have continuously entered the Singapore market – Groupon in 2010, Bellabox and VanityTrove in 2011, Zalora and Carousell in 2012, Taobao and HipVan in 2013, and Rakuten and Lazada in 2014. The availability of an investor pool in Southeast Asia provides a conducive environment for companies to flourish in a sustainable manner. In the near future, consolidation in the B2C e-commerce space is set to rise, mostly led by large companies that are likely to buy out smaller enterprises, accelerating growth in the sector.

While e-commerce currently only makes up a minor portion of the entire retail industry in the ASEAN region, it is expected to offer intense competition to traditional brick-and-mortar retailers. The retailers most likely to survive the rapidly changing retail environment are those that can leverage technology, be able to anticipate consumer needs, and offer a variety of offerings to enhance the retail experience.

2.3 ASEAN RETAIL SECTOR TREND

Chart 2-7: Retail Sales, Selected Countries in ASEAN, 2011–2018F



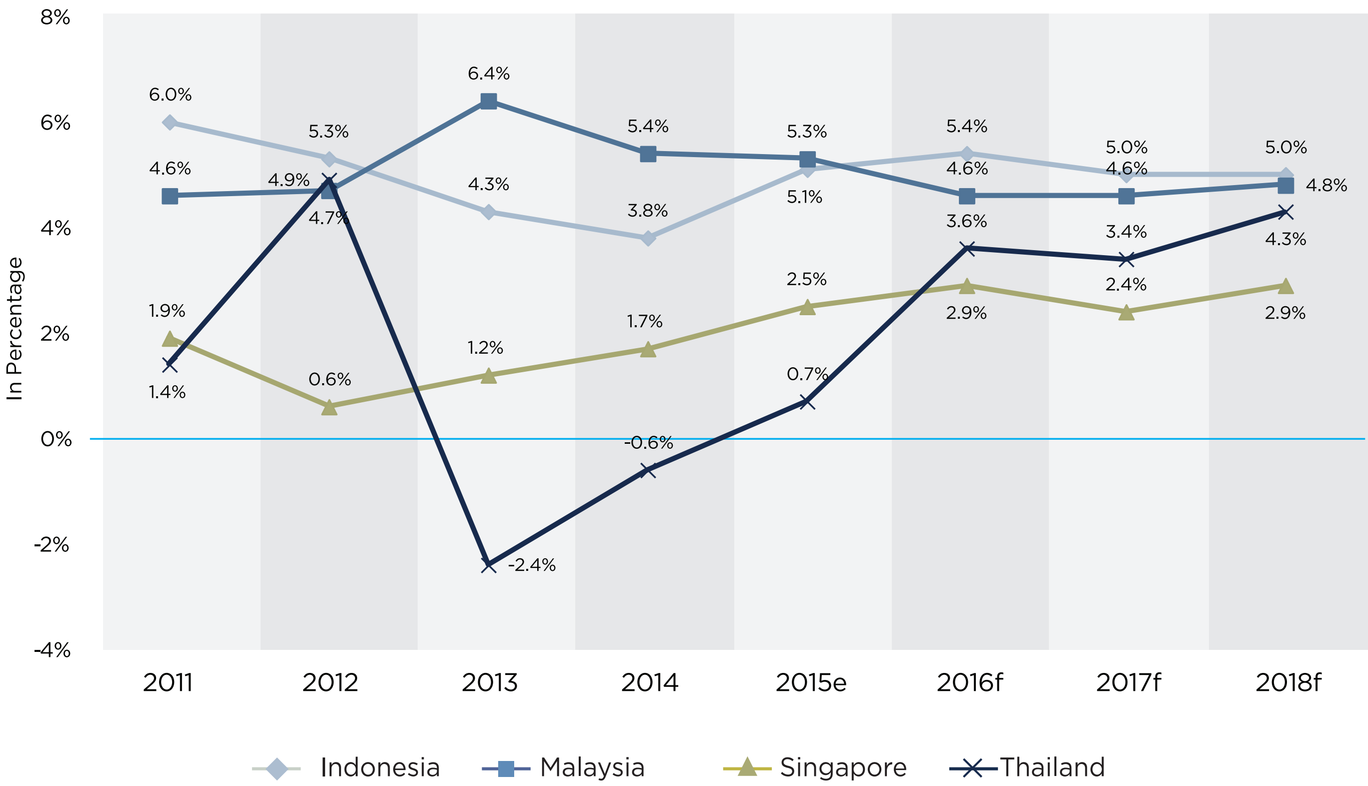
Source: Economist Intelligence Unit; Frost & Sullivan analysis

The Economist Intelligence Unit anticipates retail sales to increase rapidly across the region in the foreseeable future. Combined retail sales for the selected countries are forecast to grow at a CAGR of 15.5%, between 2015 and 2018. The projected rise in retail sales can be attributed to the expected increase in GDP per capita in major ASEAN nations, along with continued urbanisation and the steady decline in unemployment rates.

Indonesia is expected to lead growth in retail sales, which is estimated to increase annually by 19.3%, from US$377 billion in 2015 to US$639 billion in 2018. Malaysia is likely to follow with retail sales growth at a CAGR of 12.1% over the same period. The projected double-digit growth in both Indonesia and Malaysia can be attributed to their growing populations, youth dependency ratio, and the rapid rise of the middle class.

Retail sales in Thailand and Singapore are also predicted to grow, though at a slower annual rate of 8.9% and 6.4% respectively, between 2015 and 2018.

Chart 2-8: Retail Sales, Volume Growth, Selected Countries in ASEAN 2011–2018F



Source: Economist Intelligence Unit; Frost & Sullivan analysis

2.4 COUNTRY RETAIL TRENDS – OVERVIEW IN BRIEF

2.4.1 SINGAPORE

Singapore's retail sector is forecast to grow by 6.4% annually from 2015 to 2018, to reach US$56 billion. Retail sales volume in the country is also anticipated to increase annually by 2.7% over the same period.

Decelerating population growth is expected to lead to an increase in the share of the population aged 65 and above. A greying population is expected to inhibit the retail sector in Singapore. Also, the Singapore Government's tightening of hiring rules for expatriate professionals and stagnant tourist arrivals are factors likely to impede the retail sector growth. Additionally, retailers in Singapore are facing higher operating costs, which are stifling the margins.

However, Singapore continues to enjoy a high GDP per capita, which is projected to increase further. The high GDP per capita will continue to provide a strong base for retail market. Singapore's low unemployment rate and fully urbanised population also provide potency to the retail sector.

Online retail is another key growth area in Singapore. While Singapore has high Internet and smartphone penetration numbers, in 2014 only 3.4% of total retail sales was done online. This may be due to the convenience of well-developed conventional retail stores that are easily accessible via public transport. Though e-retail is likely to expand in Singapore, the growth is anticipated to be the slowest in the region.

2.4.2 MALAYSIA

In Malaysia, The government aims to realise its vision to become the region's retail hub through various strategic thrusts, with the retail sector estimated to increase at a CAGR of 12.1% between 2015 and 2018.

The country's policy on Bumiputera equity ownership is likely to pose a challenge to new entrants or foreign investors seeking to expand their activities in the country. The policy requires a 30% Bumiputera-held equity ownership for multiband hypermarkets. In addition, 30% of the shelf space must be reserved for products manufactured by Bumiputera-owned companies.

On the other hand, the wholesale and retail sector is one of the key areas of growth earmarked under the government's Economic Transformation Programme. The government's ambition to turn Malaysia into the region's retail hub provides a strong stimulus to the sector. There are several initiatives proposed under the programme:

- Increasing the Number of Large-format Stores
- Modernising via the Small Retailer
- Transformation Programme
- Transforming Automotive Workshops
- Developing "Makan" Bazaars
- Developing 1Malaysia Malls
- Setting up a Virtual Mall

Malaysia is forecast to have steady population growth and a low old-age dependency ratio in the future. These demographic parameters provide a stable base for consumer demand. Economic parameters are also favourable for the retail sector in Malaysia. Growth in GDP, and more importantly, GDP per capita, in the country are projected to remain robust, providing a strong impetus for the retail sector. Rapid urbanisation and low unemployment rates are among the other positive factors for the retail sector. As per industry estimates, Malaysia has one of the highest online transactions per capita in Southeast Asia in 2015. Mobility, better Internet and logistics and payment security are the key drivers for e-commerce in Malaysia.

2.4.3 THAILAND

Thailand is projected to become the second largest retail market among the major ASEAN countries, increasing annually at 8.9% between 2015 and 2018, to reach US$155 billion.

Thailand faced a contraction in retail sales volumes, of 2.4% in 2013 and 0.6% in 2014. Slowing population growth, stagnant GDP per capita, and political unrest in Thailand have been key contributors to diminishing retail sales.

The trend for the foreseeable future is expected to change with the gradual increase in GDP per capita and recovery in consumer confidence. According to the Economist Intelligence Unit, the number of households earning annually above US$25,000 is projected to rise by 17% in 2018.

Thailand was marginally behind Indonesia in terms of e-commerce sales, of US$1.1 billion in 2014. Infrastructure for e-commerce, primarily measured by smartphone penetration, payment platforms, and logistics, continues to expand in Thailand, stimulating the growth of e-commerce in the country. The current market is highly fragmented with many small e-retailers catering to local catchment areas, in addition to major brick-and-mortar chains setting up online retail portals.

2.4.4 INDONESIA

Indonesia is the largest retail market in the ASEAN region and forecast to grow at the fastest rate in the region, both in dollar value at 19.3% per annum, and sales volume at 5.1% per annum from 2015 to 2018.

Indonesia has the lowest GDP per capita and is expected to report the slowest pace of GDP growth among the selected ASEAN nations, possibly impeding the retail sector.

That stated, as the 4th most populous country in the world, Indonesia has a favourable demographic disposition for retail sector growth. Rapid population growth, a young population, fast-decreasing unemployment rate, and increasing urbanisation are essential elements set to stimulate retail sales.

According to DBS, Indonesia overtook Singapore and Thailand in 2014 to emerge the largest e-commerce market in ASEAN recording online sales worth US$1.1 billion. E-commerce is anticipated to expand the fastest in Indonesia, driven by the rising middle class in the country. By 2018, Indonesia is projected to be home to more than 100 million mobile users further enabling the growth of e-commerce in the country.

3. LIFESTYLE AND HOMEWARE

3.1 STRATEGIC ANALYSIS

3.1.1 SWOT

The following SWOT analysis examines the strengths, weaknesses, opportunities and threats that influence the lifestyle and homeware industry on a regional basis.

Figure 3-1: SWOT for Lifestyle and Homeware

STRENGTH

- Most retailers in the lifestyle and homeware segment have an established retail network
- A high GDP per income in Singapore provides a strong base demand for the lifestyle and homeware segment
- Retailers in homeware and grocery / supermarket have high resilience to adverse market conditions
  - Customers prioritise consumption of essentials in negative economic situation and hence there is a base demand

WEAKNESS

- High operational expenses on labour and rental
- Highly competitive market, same or similar products available at competing retailers
- Dependence on consumer confidence index which varies rapidly and exposes retailers to high inventory risk
- Ageing population in Singapore and Thailand
  - Lower propensity to purchase the latest homeware and lifestyle products

OPPORTUNITY

- Projected GDP and GDP per capita growth, and decreasing unemployment rate:
  - Higher per capita income supports greater spending on comfort goods such as homeware and electronics
- Increasing urbanisation in the ASEAN region
  - Urban population is expected to spend more on lifestyle goods
  - Urban population also has higher propensity to spend on organised retail

THREAT

- Slowing growth in expatriate population in Singapore.
- Stagnating tourist numbers to Singapore and Malaysia, where visitors typically buy electronics.
- Online retail may be a threat to the conventional retailers who may need to adapt to creating a new e-retail platform to stay competitive:
- Currently, only a small proportion of the total retail is done online for the region.
- However, the online segment is expected to grow and offer competition to traditional lifestyle and homeware retail stores

Source: Frost & Sullivan;

Growth in the sector is highly dependent on increases in population, urbanisation, and per capita income. Major challenges to the sector include high operating expenses such as rental and labour costs.

3.1.2 DRIVERS AND RESTRAINTS

The drivers and restraints are considered in the context of the Singapore lifestyle and homeware segment, and their impact on the relevant companies operating in the country. The drivers are identified as factors which facilitate the segment growth, while restraints are identified as factors which hinder the growth of the segment. For each factor, the impact indicates the strength of the drivers and restraints based on current scenario.

Figure 3-2: Driver and Restraints for the Lifestyle and Homeware Sector

	DRIVERS	IMPACT
1	GDP PER CAPITA	HIGH
2	URBANISATION RATE	LOW
3	ONLINE RETAIL	HIGH
4	INFLOW OF TOURISTS	LOW
5	INFLOW OF EXPATRIATES	LOW
6	CUSTOMER CONFIDENCE	LOW

Frost & Sullivan analysis

#	RESTRAINTS	IMPACT
1	OPERATING COSTS	HIGH
2	OLD-AGE DEPENDENCY RATIO	HIGH
3	CHANGE OF CONSUMER PREFERENCES	HIGH

Source: Frost & Sullivan analysis

DRIVERS

- **GDP per Capita:** Lifestyle and homeware products are classified as comfort purchases. Higher per capita income stimulates spending on these goods; typically, the value of purchases increases with a rise in disposable income. Singapore's GDP per capita is the highest in the region, US$53,000 in 2015, and forecast to grow at a steady 5.4% per annum in the next 5 years, potentially increasing spending in lifestyle and homeware purchases.

- **Urbanisation:** A higher rate of urbanisation and increasing prosperity are strong drivers for electronics items, homeware, and other lifestyle products. Since Singapore has 100% of its population classified as urban, the demand for organised retail is only likely to be marginally impacted by this macroeconomic indicator.

- **Online Retail:** While e-commerce is a nascent segment accounting for 3.4% of the total retail market, it is forecast to grow at 13% per annum between 2014 and 2017. Many traditional retailers are adding online retail as an additional revenue source to their brick-and-mortar business.

- **Inflow of Tourists:** The city-state has seen marginal stagnation in its visitor arrivals. This stagnation in tourist numbers will result in minimal growth in tourists spending on this segment.

- **Inflow of Expatriates:** High-income expatriate professionals tend to spend on luxury lifestyle and homeware goods. Hence, their numbers have an impact on the demand for these products. As the rate of increase in expatriate numbers dwindles, this is likely to affect the sector moderately.

- **Consumer Confidence:** In periods of high consumer confidence, consumers are more likely to spend on comfort purchases. However, consumer confidence in Singapore is expected to trend downwards, hence low impact as a growth driver.

RESTRAINTS

- **Operating Costs:** Labour costs and rentals in Singapore are expected to remain a challenge to the retail sector especially in the homeware and lifestyle segment that have outlets spread across a large floor space. Most retailers in the segment face margin erosions due to high operating costs, serving as a considerable restraint for existing operators and potential new players.

- **Old-Age Dependency Ratio:** An increasing proportion of the population above 65 years in Singapore is anticipated to influence demand adversely in this segment.

- **Change in Consumer Preferences:** Changes in technology or new launches may significantly affect demand from consumers. As a result, retailers are constantly at risk of holding inventory that is likely to be obsolete following the latest launch. The impact of consumer preferences is significant as not just a product line, but some product categories become redundant and obsolete over time. With widespread awareness about the latest technologies, gadgets, and home makeover products in Singapore, this is a significant downside for retailers striving to keep pace with such fast-evolving trends.

3.2 SGX-LISTED COMPANIES IN LIFESTYLE AND HOMEWARE SEGMENT

3.2.1 CHALLENGER TECHNOLOGIES LIMITED

Challenger Technologies, a Singapore-based group, retails IT products and services. The group, through its subsidiaries, offers integrated marketing solutions and electronic signage services. Challenger has over 40 outlets comprising 1 megastore, 23 superstores, and 24 small format stores. The group has operations in Singapore, Hong Kong, and China.

3.2.2 CHOO CHIANG HOLDINGS LIMITED

Choo Chiang Holdings is a Singapore-based holding company involved in the distribution business and property investment. Its distribution business involves the retail, distribution, and supply of electrical products and accessories through 10 retail branches. It offers third-party electrical goods and accessories, and its own range of CCM and CRM brands of electrical products and accessories. The company has 8 product categories: electrical cables and cable accessories; light switches, circuit breakers and accessories; lighting accessories; trunking and pipes; air-conditioner accessories; light fixtures and accessories; ventilating, wall-mounted and ceiling fans; and power drills and handheld tools.

3.2.3 COURTS ASIA LIMITED

Headquartered in Singapore, Courts Asia is a retailer of electrical, IT, and furniture goods in Southeast Asia. The company operates more than 80 retail stores spanning over 1.6 million square feet of retail space. Courts Asia operates in Singapore, Indonesia, and Malaysia.

3.2.4 DAIRY FARM INTERNATIONAL HOLDINGS LTD

Dairy Farm is an operator of supermarkets and hypermarkets catering to all consumer segments across the Asian region. Its retail divisions include supermarkets/hypermarkets, convenience stores, health and beauty, home furnishings and restaurants, spanning 11 Asian countries and territories. With a network of 7-Eleven outlets in Hong Kong, Singapore, Macau, and Southern China, the company offers ready-to-eat meals, snacks and beverages, grocery essentials, and services. The health and beauty division spans 10 countries and territories through well-established brands such as Mannings, and Guardian. The home furnishings division offers home furnishing products through IKEA, and is well-established in Hong Kong, Taiwan, and Indonesia. The company's restaurant associate, Maxim, offers a mix of Chinese, Japanese, European and Asian restaurants in addition to fast food, cake shops, and coffee outlets. Maxim operates in Hong Kong, Mainland China, Vietnam, and Cambodia.

3.2.5 DUTY FREE INTERNATIONAL LIMITED

Headquartered in Singapore, Duty Free International (DFI) is engaged in the trading of duty-free merchandise and the provision of hospitality services. The company offers liquor, chocolates, fragrances, and tobacco products at its 36 outlets, comprising 34 duty-free stores, and 2 duty-paid perfumery and cosmetics stores located throughout Peninsular Malaysia. The company trades duty-free merchandise under the Zon brand and operates in Singapore and Malaysia.

3.2.6 EPICENTRE HOLDINGS LIMITED

Epicentre Holdings (Epicentre) is engaged in retailing Apple and Apple-related products, as well as pre- and post-sales services in a lifestyle digital hub. The company's segments include Apple products, as well as third-party and proprietary complementary products. It also retails accessories for the young and trendy under the iWorld brand at its EpiLife concept stores. The company operates 7 EpiCentre and 3 EpiLife stores in Singapore, and 6 EpiCentre stores in Malaysia (Kuala Lumpur). In addition, its EpiCentre e-stores sell a range of accessories including cases, headphones, and styluses from brands such as Monster, JAYS, Belkin, Gosh, Klipsch and B&O. The company through its subsidiary also provides IT solutions to educational institutions in Singapore.

3.2.7 GRAND BANKS YACHTS LIMITED

Headquartered in Singapore, Grand Banks Yachts is engaged in the manufacture and sale of motor yachts. The company manufactures and trades yachts to dealers in the wholesale market. It offers yachts under the Heritage, Eastbay, and Aleutian series. Grand Banks Yachts operates in Australia, Singapore, Malaysia, and the US.

3.2.8 ISETAN SINGAPORE LIMITED

Isetan Singapore is a Singapore-based department store operator. Its principal activities include operating department stores and a supermarket as well as trading in general merchandise. The company operates 2 segments: retail and others segment. The retail segment involves retailing and operating department stores. The others segment is engaged in the leasing of property owned by the company. The company's store, Isetan Scotts is located at Shaw House featuring international clothing lines, cosmetics and merchandise for the family targeting local and tourist markets. Its other stores include Isetan Orchard at Wisma Atria, Isetan Tampines, Isetan Katong, Isetan Serangoon Central, and Isetan Jurong East.

3.2.9 KITCHEN CULTURE HOLDINGS LIMITED

Kitchen Culture Holdings is a Singapore-based investment holding company. The company is a distributor of kitchen systems, kitchen appliances, wardrobe systems, household furniture and accessories from Europe and the US. The company operates 3 segments: residential projects, distribution and retail, and others. Its residential projects segment is involved in designing, assembling, installing, testing and inspection of furniture and fittings, kitchen equipment and related products. Its distribution and retail segment sells and distributes products through authorised dealers and retailers. The others segment includes investment holdings.

3.2.10 METRO HOLDINGS

Metro Holdings was founded in 1957 and operates 2 core business segments: property development and investment, and retail. Its key markets include the People's Republic of China, Indonesia, Singapore, and the UK. The property arm is involved in the leasing of shopping and office spaces owned by the group and property-related investments. The retail segment is involved in the business of retailing and operating departmental stores. Its subsidiaries include Metro (Private) Limited, Orchard Square Development

Singapore Corporation Pte Ltd, Metrobilt Pte Ltd, Metro China Holdings Pte Ltd, Metro Australia Holdings Pte Ltd, Sun Capital Assets Pte Ltd, Metro Holdings (Japan) Pte Ltd, Metro Development Holdings (S) Pte Ltd, and Meren Pte Ltd.

3.2.11 NOBEL DESIGN HOLDINGS LIMITED

Headquartered in Singapore, Nobel Design Holdings (Nobel), through its subsidiaries, offers interior design and renovation services for homes. Nobel also supplies and installs furniture and fittings, and provides turnkey project and project management services. It offers furniture retailing products under the Lifestorey, Marquis, Marquis Studio, Minotti and Om brands; interior design products under the Whiteboard and Marquis Homestyling labels; and contracts division products under Marquis HQO. Nobel operates in Singapore, US, Brunei, and Malaysia.

3.2.12 NOEL GIFTS INTERNATIONAL LIMITED

Headquartered in Singapore, Noel Gifts International is a hampers, flowers, and gifts company that offers floral arrangements and gifting ideas. It is also engaged in the investment and development of properties. The company also operates a franchise programme that provides franchisees with the right to use the company name; creative gift designs; and marketing, sales, operations, and purchasing strategies and systems. The company operates in Singapore, China, and Malaysia.

3.2.13 OSIM INTERNATIONAL LIMITED

OSIM International (OSIM) designs, develops and markets well-being and healthy lifestyle products. The company offers massage chairs, foot massagers, neck and shoulder massagers, head massagers, fitness equipment and diagnostic equipment under the OSIM brand. It also features vitamins, supplements, and luxury tea. OSIM operates in Singapore, China, Taiwan, Malaysia, and South Korea. The company headquarters is located in Singapore, employing around 3,927 people.

3.2.14 PARKSON RETAIL ASIA LIMITED

Parkson Retail Asia, a subsidiary of East Crest International, operates a chain of department stores and supermarkets. Headquartered in Singapore, the group is engaged in the retail and operations of modern shopping centres. It is also involved in providing management and consulting services on real estate, business, and marketing of department stores. In addition, Parkson Retail Asia operates a network of 66 stores (including one supermarket) spanning approximately 642,000 square metres of retail space across cities in Malaysia, Vietnam, Indonesia, and Myanmar. The company operates in Singapore, Malaysia, China, Vietnam, Indonesia, Myanmar, and Sri Lanka.

3.2.15 POLARIS LIMITED

Polaris Limited is a Singapore-based holding company engaged in the distribution and retail of smart mobile devices and lifestyle electronics in Asia. The Group has 4 segments: distribution, retail telecommunication, retail consumer electronics, and corporate segment. The distribution segment engages in the distribution of mobile communication devices and accessories for leading brands like Apple, Samsung, Blackberry and Xiaomi. The retail telecommunications segment engages in the retail sale of mobile communication devices and accessories and provision of broadband and other related telecommunications services in Singapore. Polaris is authorised to operate SingTel Group stores and expand its retail network. The company's consumer electronics segment engages in the retail sale of IT and related products in Singapore. The corporate segment is involved in group-level corporate services, treasury functions, investment in associates and marketable securities, strategic investment and joint venture opportunities in emerging Southeast Asia markets.

3.2.16 SHENG SIONG GROUP LIMITED

Sheng Siong Group is a Singapore-based investment holding company. Through its subsidiaries, the company operates 40 supermarkets/grocery stores located across the island. Its chain of stores offer live, fresh and chilled produce, such as seafood, meat and vegetables, packaged, processed, frozen and/or preserved food products, as well as general merchandise, including, toiletries and essential household products. It is also engaged in the trading of general and wholesale imports and exports.

3.2.17 SITRA HOLDINGS INTERNATIONAL

Sitra Holdings International (Sitra) is an investment holding company engaged in the import and export business of wood-based, lifestyle furniture and related products. It offers decking, flooring, fencing, door and window components, moulded products and outdoor furniture under Comcia, decKING, and Pacific brands. Headquartered in Singapore, the company operates primarily in Australia, New Zealand, Europe, Asia, Middle East, Africa, and North America.

3.2.18 SMJ INTERNATIONAL HOLDINGS LIMITED

SMJ International Holdings, an investment holding company, is a carpet specialist serving the commercial and institutional segments in Asia. The company specialises in the sale and distribution of carpets marketed under the SMJ label via its global distribution network of carpet dealers, carpet importers and carpet installation companies in Singapore and Asia. It is also an authorised supplier for the Shaw Contract Group and Mohawk Group range of carpets. The company operates 2 business streams: distribution sales and contract sales. Distribution sales refer to the wholesale of carpets to dealers, carpet importers and carpet installation companies. Contract sales involve the supply, delivery of carpets, including project management work, by handling the installation of carpets on site for customers. Its wholly-owned subsidiary, SMJ Furnishings (S) Pte Ltd, is engaged in the wholesale trading of carpets and furnishings.

3.2.19 THAKRAL CORPORATION LIMITED

Thakral Corporation operates lifestyle and investment divisions. The Lifestyle Division, formerly known as Distribution, has repositioned itself in lifestyle products, including beauty and health and Enviro-Care products. The division comprises distribution of lifestyle products and accessories in India, Japan, the People's Republic of China (including Hong Kong), Singapore, and other export markets. Under its extensive brand portfolio are global names such as Apple, Beko, Bose, Canon, Carol Joy of London, Cuchen, Cuvilady, Daewoo, Harmon Kardon, Lenovo, Misfit, MTG (Refa), Orion, Ortech, Panasonic, Pomone, Robam, Samsung, Sharp, Skullcandy, Winia and Yamaha. The Investment Division invests in real estate and property in Australia, the People's Republic of China (including Hong Kong), and Japan.

3.2.20 TT INTERNATIONAL LIMITED

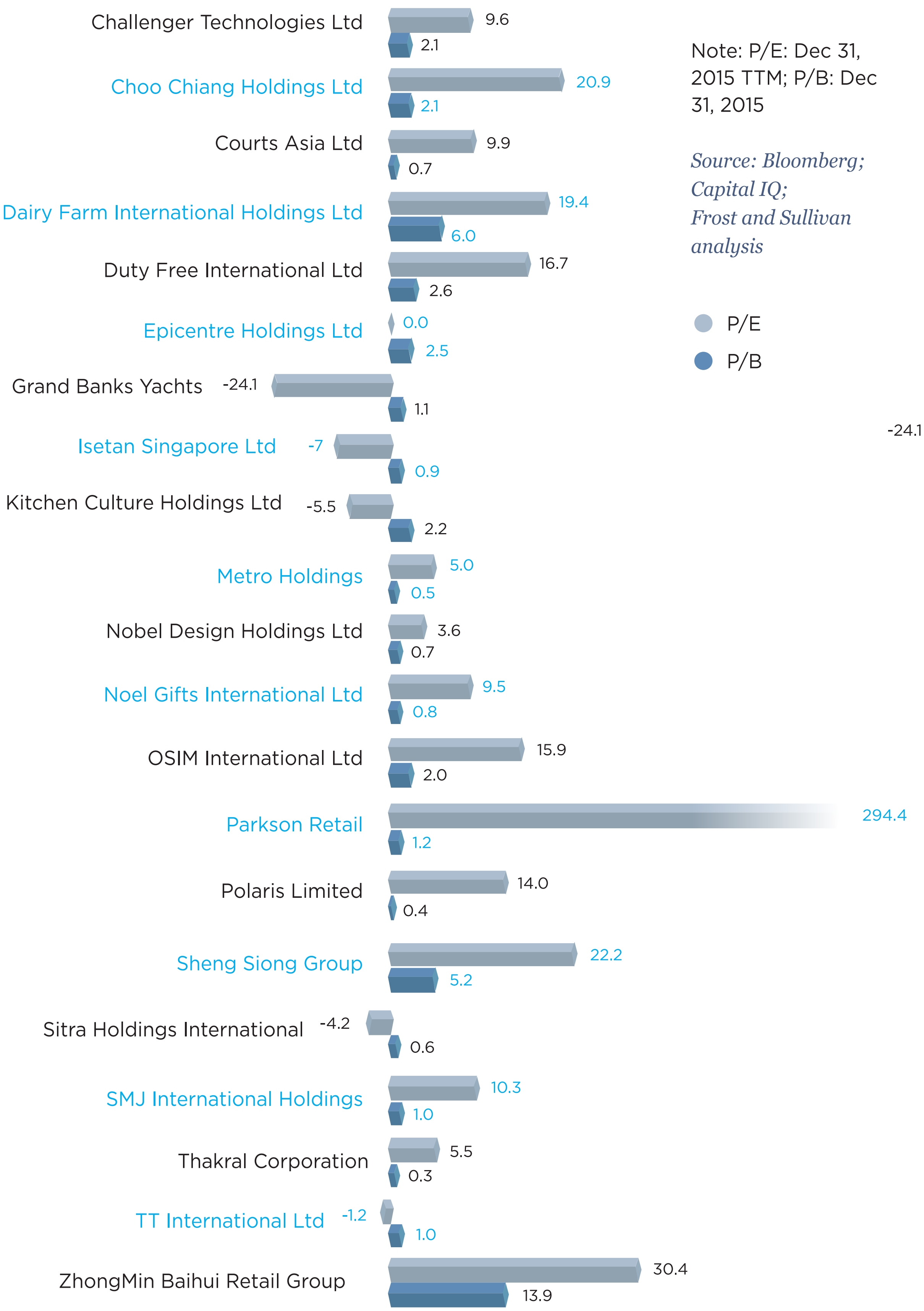
TT International participates in the trading and distribution of electrical and electronics products, and investment holdings. The company operates retail, distribution and trading of consumer electronics and/or furniture and furnishing products to the public, distributors and dealers. It also provides warehousing and logistics services. TT International subsidiaries include Akira Corporation Pte Ltd, Big Box Pte Ltd, Castilla Design Pte Ltd, Furniture & Furnishings Pte Ltd, and Novena Furnishing Centre Pte Ltd, among others.

3.2.21 ZHONGMIN BAIHUI RETAIL GROUP LIMITED

Zhongmin Baihui Retail Group is an investment holding company. The company is principally engaged in the ownership, operation and management of department stores in the People's Republic of China. It operates 8 self-owned stores and 4 managed stores in Fujian and Jiangsu provinces. It has 2 self-owned stores in Xiamen City, Fujian province, including Xiamen Wucun Store and Xiamen Jiahe Store. It also has 3 self-owned stores in Quanzhou, including the Quanzhou Tumen Store and Quanzhou Quanxiu Store. It also has a self-owned Nanjing Nanzhan Store in Nanjing, Jiangsu province. In addition, it manages 4 department stores Quanzhou and Zhangzhou cities in Fujian province. Its subsidiaries include Xiamen Shi Zhongmin Baihui Commercial Co Ltd, Zhongmin Baihui (Nanjing) Commercial Co Ltd and Zhongmin Baihui (Quanzhou) Commercial Management Co Ltd.

3.3 FINANCIAL ANALYSIS

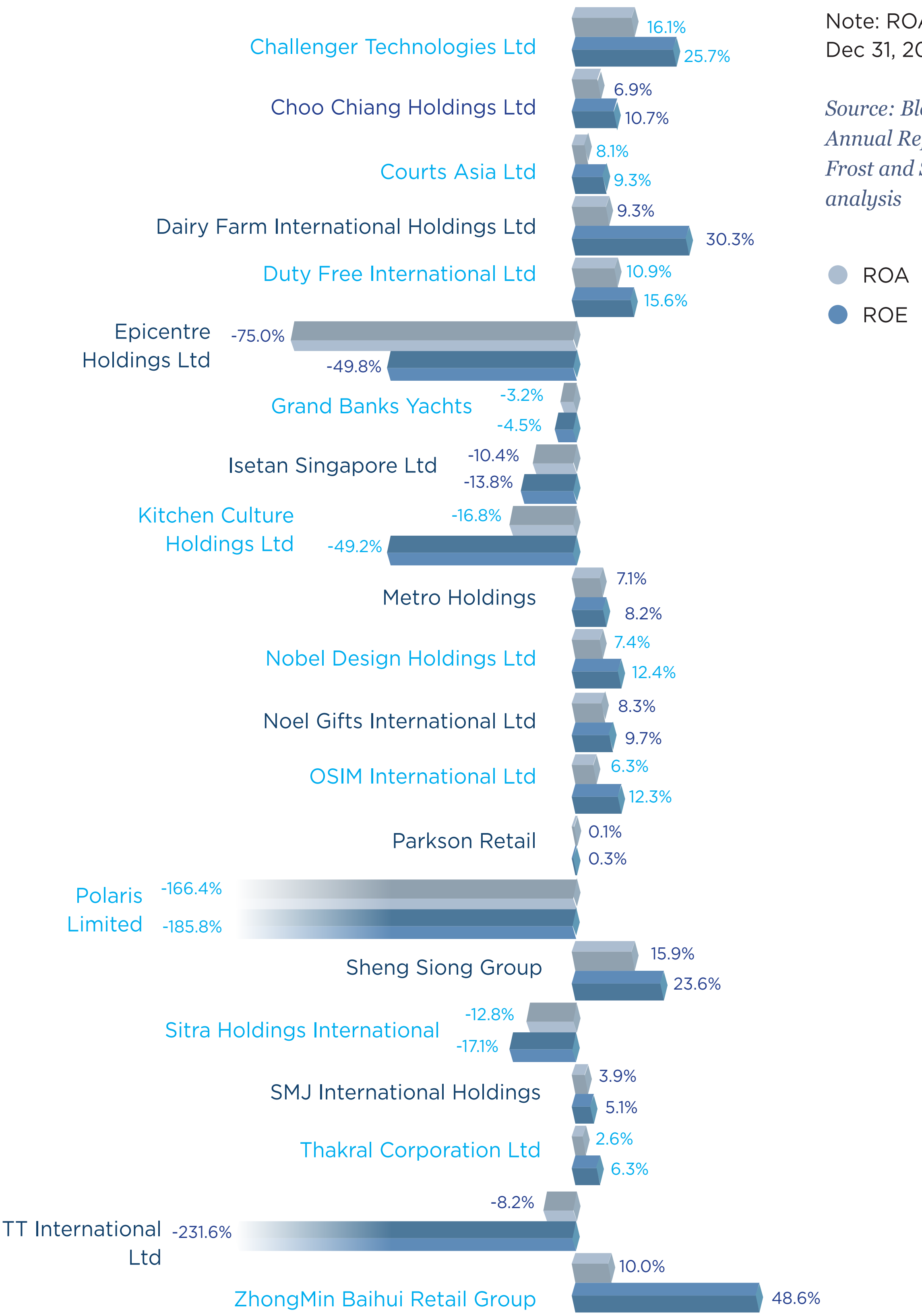
3.3.1 PRICE MULTIPLE COMPARISON



Note: P/E: Dec 31, 2015 TTM; P/B: Dec 31, 2015

Source: Bloomberg; Capital IQ; Frost and Sullivan analysis

3.3.2 MANAGEMENT EFFECTIVENESS

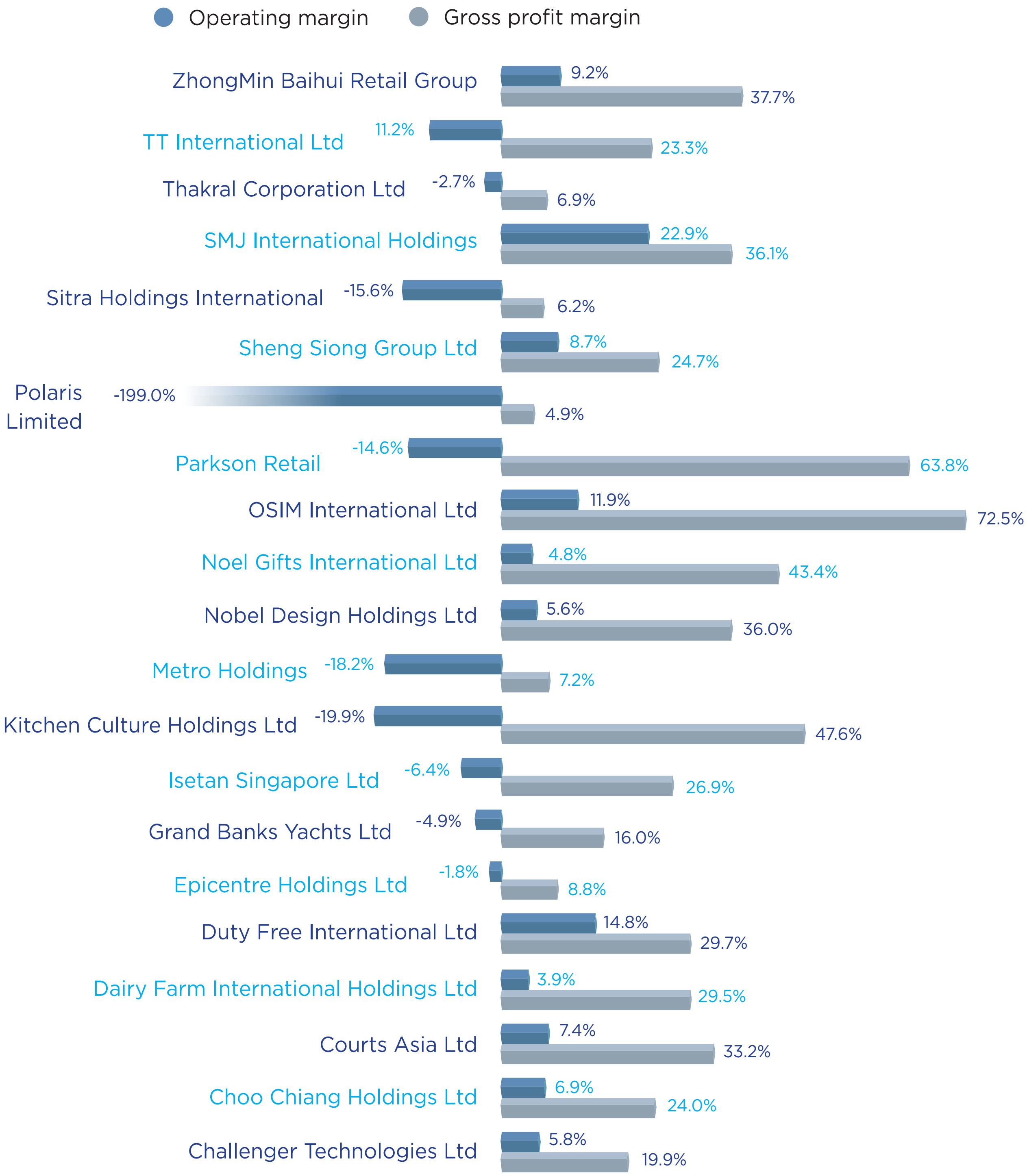


Note: ROA & ROE: Dec 31, 2015 TTM

Source: Bloomberg; Annual Reports; Frost and Sullivan analysis

The majority of companies in this segment are adopting positive measures for various financial metrics, albeit the headwinds in the lifestyle and homeware segment due to increasing competition and rising rental costs.

3.3.3 PROFITABILITY



Note: Gross & Operating Margin: Dec 31, 2015 TTM

Source: Bloomberg; Annual Reports; Frost and Sullivan analysis

4. AUTOMOTIVE

4.1 STRATEGIC ANALYSIS

4.1.1 SWOT

The following SWOT analysis examines the strengths, weaknesses, opportunities and threats that influence the automotive industry on a regional basis.

Figure 4-1: SWOT for Automotive

STRENGTH

- Economic growth forecasted in the region and especially in Singapore, leans to the propensity to purchase automobiles
- Singapore is a regional hub for major OEMs and Tier 1 automotive suppliers:
  - Skilled workforce makes the country an attractive location for procurement, R&D, and supply chain activities
  - Offers among the lowest import and export costs in the region. Globally, this makes a Singapore high value location for international trade

WEAKNESS

- Limited supply of COEs keeps car prices high in Singapore
- In Singapore despite high levels of personal income, only ~11% of the population own cars due to high direct (COEs) and indirect costs (electronic road pricing and parking fees)
- Absence of domestic auto production in Singapore limits the growth of the automotive sector
- Due to limited domestic demand in Singapore, auto parts exporters are dependent on economic situation in other countries

OPPORTUNITY

- Demand for automobiles will rise with the increasing per capita income in the region
- Establishment of the ASEAN Economic Community (AEC) will encourage cross-trading among member nations and significantly support the automotive industry
- Slow development of public transport in the region, beyond Singapore, encourages private car purchase
- In Singapore there is set to be a rise in the number of COEs from now until 2018 as many deregistered cars will come into the market
- Increase in the average age of the car fleet in Singapore indicates that replacements are due

THREAT

- Greater investment in public transportation by the government to dissuade commuters from buying cars
- Worsening traffic and increasing indirect costs may motivate consumers to abandon the idea of car ownership
- Exporters in the region challenged by competition from countries China and India

Source: Frost & Sullivan analysis

Source: Frost & Sullivan analysis

Growth of the automotive sector in Singapore is heavily dependent on government policies, particularly the Certificate of Entitlement (COE) premiums and other indirect costs, potentially dampening the market supply and demand for private cars in Singapore.

4.1.2 DRIVERS AND RESTRAINTS

The drivers and restraints are considered in the context of the Singapore automotive segment, and their impact on the relevant companies operating in the country.

The drivers are identified as factors which facilitate the segment growth, while restraints are identified as factors which hinder the growth of the segment. For each factor, the impact indicates the strength of the drivers and restraints based on current scenario.

Figure 4-2: Drivers and Restraints for the Automotive Sector

	DRIVERS	IMPACT
1	GDP PER CAPITA	HIGH
2	CUSTOMER CONFIDENCE	LOW
3	ASEAN TRADE	HIGH
4	AGE OF CAR FLEET	HIGH
5	AVAILABILITY OF LOAN	HIGH

	RESTRAINTS	IMPACT
1	COE QUOTA (Regulation)	HIGH
2	INDIRECT COSTS	HIGH
3	INVESTMENT IN PUBLIC TRANSPORTATION NETWORK	HIGH
4	MATERIAL COSTS	LOW

Source: Frost & Sullivan analysis

DRIVERS

- **GDP per Capita:** Higher GDP per capita is a good indicator of disposable income levels. Singapore has the highest GDP per capita in the region that is expected to grow at a steady 5.4% per annum until 2020. Due to the costs associated with obtaining a COE and other indirect expenses, a higher disposable income is likely to serve as an impetus for people to consider purchasing a car.

- **Consumer Confidence:** An automobile is a major purchasing decision in terms of the cost and loan tenure. Consumers need to be confident about their ability to bear such an expense over the long-term. Consumer confidence index for Singapore has been stagnant and on average below the 100-point benchmark since the 2nd quarter of 2011 signalling cautionary spending. The trend is likely to continue in the near future.

- **ASEAN Trade:** Enhanced trade flows among ASEAN nations are projected to have a multipronged effect on the automobile sector. Growth in business requires more commercial vehicles plying between various countries in the region, positively impacting the industry. The increase in trading activity is also likely to lead to additional development in transportation infrastructure that would need commercial vehicles to support the construction process, in turn, boosting demand in the sector. The automobile sector has a distributed set-up across the region. For instance, the automotive component could be manufactured in Malaysia, the car assembled in Thailand, and the end product sold in Singapore. The smooth flow of trade in the region facilitates this supply chain, making it more efficient. While enhanced trade flows among ASEAN countries may only have a mildly positive impact in the short run; it is likely to present significant opportunities in the long-term, potentially reducing the cost of automobiles to the consumer.

- **Age of Car Fleet:** In Singapore, cars are allotted based on the COE quotas. As cars become older, they are deregistered, increasing the available quota and impacting the price of COEs. A higher number of older cars on the market could translate into a reduction in COE prices, possibly lowering the cost of buying a car. Since the supply of COEs is not fixed, this is liable to have a more immediate than long-term impact. The Land Transport Authority anticipates a large fleet of cars deregistering in the near future, directly impacting the price of COEs and the cost of automobiles to the consumer. As such, this is a positive driver for automotive retail.

- **Loan Availability:** A car loan is the most common way to finance the purchase of a new or used car. Availability, cost, and ease of securing a loan could significantly affect automobile sales. The Monetary Authority of Singapore (MAS) has recently announced that the maximum loan-to-value (LTV) ratios and loan tenure allowed for motor vehicle loans will be eased. The maximum LTV ratio for vehicles on the open market less than or equal to S$20,000 will be raised from 60 per cent to 70 per cent, and that for vehicles more than S$20,000 will be upped to 60 per cent from 50 per cent. Also, the Department of Statistics Singapore reports that the household loan disbursement has risen by ~11% year on year between 2009 and 2014.

RESTRAINTS

- **COE Quota:** Restrictions on the COE quota is likely to limit the potential expansion of the automobile sector in the short term. In 2015, the Land Transport Authority announced a reduction in the allocation of COEs to Category E. COEs issued are grouped into 5 categories, with the open category (Category E) being COEs that can be used for any vehicle type. Until the announcement, nearly 15% of COEs for deregistered vehicles in each of the other vehicle categories formed the COE quota for the Open Category. The rate was subsequently reduced to 10%, limiting the overall availability of COEs, and hence, increasing the cost of owning a vehicle.

- **Indirect Costs:** In addition to the cost of the car, residents of Singapore also bear additional indirect costs such as COE premiums, parking, electronic road pricing (ERP), registration fees, and road tax. The total cost of owning a car inflates in multiples of the original car cost price and is a deterrent to buyers.

- **Investments in Public Transportation:** The Government is increasingly pursuing more sustainable transport options to help dissuade potential customers from purchasing private cars, by highlighting the efficiency in travel time and comfort of Singapore's public transport system. Nearly 34% enhancement works to the MRT network have been completed between 2011 and December 2015, states the Ministry of Transport (MOT) of Singapore.

- **Materials Costs:** Increasing materials costs impede the automobile sector by either lowering the margins for original equipment manufacturers (OEMs) if they chose to absorb the costs or reducing sales when OEMs pass the cost to the consumers. Currently, the fall in cost of commodities such as steel (71%), rubber (29%), and crude (14%) in 2015, has increased the margins for OEMs in the automobile sector.

4.2 SGX-LISTED COMPANIES IN THE AUTOMOTIVE SEGMENT

4.2.1 EUROSPORTS GLOBAL LIMITED

EuroSports Global distributes and retails imported automobiles. The company retails new ultra-luxury and luxury automobile brands as well as pre-owned cars from Lamborghini, Pagani, Alfa Romeo, and Touring Superlegerra. It also provides maintenance and repair services, as well as breakdown assistance services; and retails and sells automobile parts and accessories. In addition, the company engages in the distribution and retail of luxury timepieces under the deLaCour brand in Singapore, Malaysia, Indonesia, Thailand, and Brunei. EuroSports Global Limited was founded in 1998 and is based in Singapore.

4.2.2 JARDINE CYCLE & CARRIAGE LIMITED

Jardine Cycle & Carriage (JCC) is a Singapore-based investment holding group engaged in the manufacture, assembly, distribution, and retail of motor vehicles and motorcycles. The group is also involved in the provision of financial services, heavy equipment distribution to the mining sector, agribusiness, IT, infrastructure and logistics. The group through its subsidiary Cycle and Carriage, a member of the Jardine Matheson Group, participates in the retail, distribution and after-sales services of Mercedes-Benz, Mitsubishi, Kia and Citroen motor vehicles. Its Tunas Ridean subsidiary operates as an automobile dealer in Indonesia representing Toyota, Daihatsu, BMW, Peugeot, Isuzu motor vehicles and Honda motorcycles. It provides automotive rental services, fleet management services and vehicle financing services through its associate, Mandiri Tunas Finance.

JCC through its associate, Truong Hai Auto Corporation (THACO) that primarily operates in Vietnam, is engaged in the manufacture, assembly, distribution, retail, and after-sales services of commercial and passenger vehicles, representing brands such as Kia, Mazda, Peugeot, Foton, and Hyundai.

4.2.3 STAMFORD TYRES CORPORATION LIMITED

Headquartered in Singapore, Stamford Tyres Corporation is involved in the wholesale and retail activities of tyres and wheels in various regions including Southeast Asia, North Asia and Africa. The company offers tyres for high-performance cars, passenger vehicles, SUVs, light trucks, and truck radials; and radials for sports and passenger cars, light trucks, trucks, and bus radials, as well as military, agriculture, and industrial solid tyres.

The company also provides mining and logging tyres for the mining industry; industrial and construction tyres for use in skid steer, backhoes, and forklifts; and nylon bias tyres for light truck, truck, agriculture, and earthmover applications. The company also participates in the design and contract manufacturing of tyres for proprietary brands, tyre retreading, equipment trading, and servicing of motor vehicles; manufacture and sale of aluminium alloy wheels; and property holding activities. In addition, the company distributes tyre brands including Falken, Dunlop, Continental, Maxam and Toyo as well as proprietary makes, such as Sumo Firenza, Sumo Tire, and SSW wheels. Additionally, it operates a retail network in Singapore and Malaysia with Mega Marts and Tyre Marts that feature a wide range of tyres, wheels, batteries, car audio, and auto accessories, as well as workshop and tyre services. Stamford Tyres Corporation was incorporated in 1989.

4.2.4 TYE SOON LIMITED

Founded in 1933, Tye Soon engages in the import, export, and distribution of automotive parts. The company offers damping and suspension products, steering and suspension parts, rubber-to-metal components, lighting and electronic parts, water pumps and universal joints, ball bearings, clutch release bearings, wheel hub bearings, tensioner and idler bearings, shock absorbers, drum brake and disc brake assemblies, brake pads, brake discs, filters, wiper blades, and parts for braking apparatus, such as friction materials. It also provides automobile and truck engine oils, two-stroke engine oils, rally and racing oils, gearbox oils for automatic transmission systems, oils for mechanical gearboxes and drive shafts, agricultural machinery oils, hydraulic oils, industrial oils, brake fluids, customised products, general and heavy-duty greases, automobile care products, cleaners, winter chemicals, and cooler protection products. Tye Soon distributes products of brands including Mercedes-Benz, Bosch, Bilstein, Lemforder, Hella, Ravenol, 555, GMB, Tokico, and Nisshinbo. Based in Singapore, Tye Soon also operates in Malaysia, Thailand, Indonesia, Hong Kong, China, South Korea, and Australia, and is a subsidiary of OBG & Sons Pte Ltd.

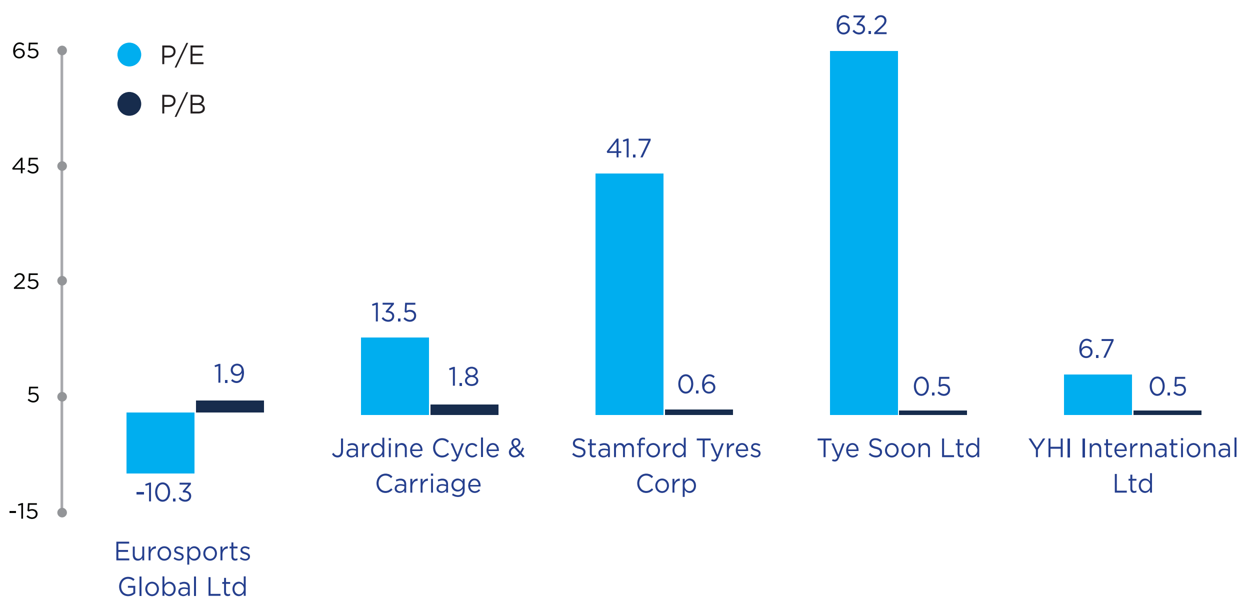
4.2.5 YHI INTERNATIONAL LIMITED

Headquartered in Singapore, YHI International distributes automotive and industrial products worldwide including Malaysia, China, Hong Kong, Taiwan, Australia, and New Zealand, among others. The company distributes automotive products, including tyres and alloy wheels; industrial power products comprising automotive and rechargeable batteries for commercial and industrial use, as well as golf and utility buggies; and other industrial power products, such as solar panels, chargers, and UPS products. It also designs, develops, manufactures, markets, and distributes alloy wheels. YHI International distributes tyre brands under Yokohama, Nitto, Nankang, Nexen, Pirelli, Achilles, and Neuton Tyres; alloy wheels under the Enkei, OZ, Konig, Breyton, and Advanti Racing brands; industrial products under Hitachi, Trojan, CSB, Benning, Crown, Vision, FIAMM, and Jinko Solar brands; and industrial power products under the Neuton Power brand. The company was founded in 1948.

4.3 FINANCIAL ANALYSIS

The following ratios represent several indicators of performance for the automotive retail industry in Singapore.

4.3.1 PRICE MULTIPLE COMPARISON

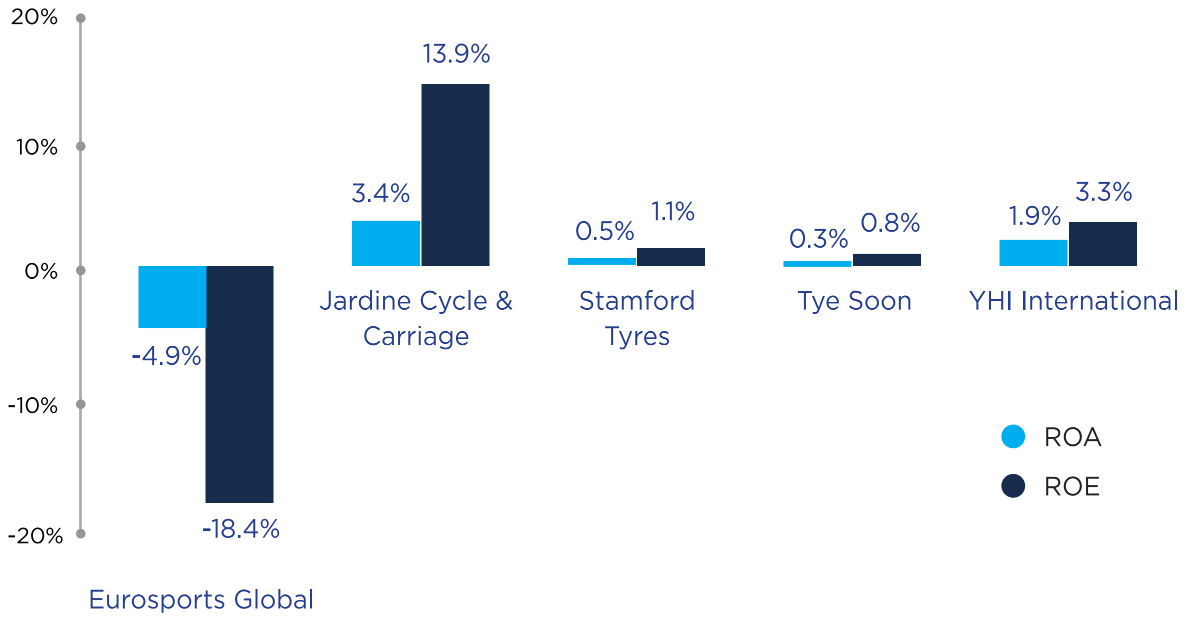


Note: P/E: Dec 31, 2015 TTM; P/B: Dec 31, 2015

Source: Bloomberg; Capital IQ; Frost and Sullivan analysis

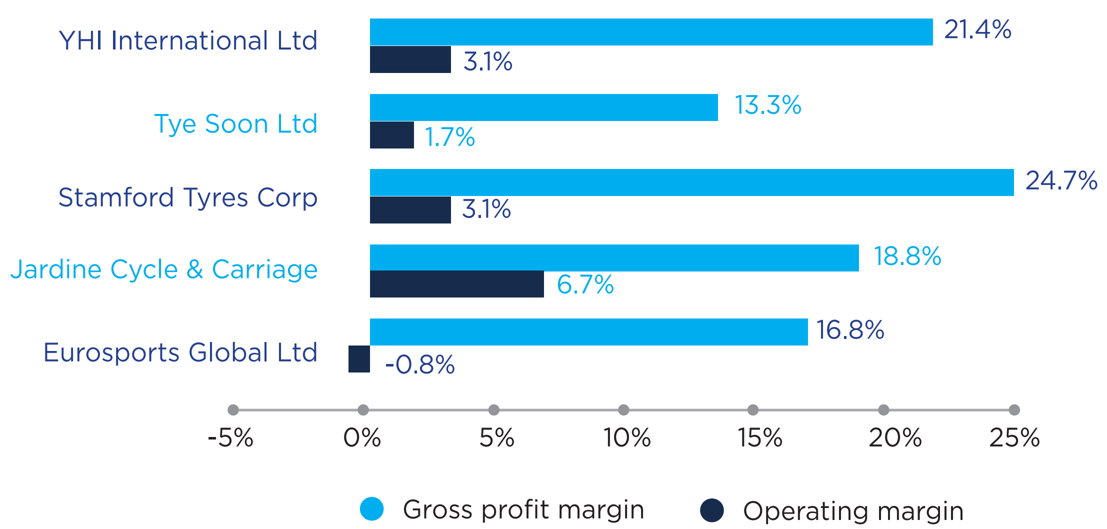
Unlike most of its counterparts that are distributors of automotive parts or components or dealers in mass-market cars, Eurosports Global is a retailer of ultra-luxury sports cars.

4.3.2 MANAGEMENT EFFECTIVENESS



Note: ROA & ROE: Dec 31, 2015 TTM
Source: Bloomberg; Frost and Sullivan analysis

4.3.3 PROFITABILITY



Note: Gross & Operating Margin: Dec 31, 2015 TTM
Source: Bloomberg; Frost and Sullivan analysis

5. JEWELLERY AND WATCHES

5.1 STRATEGIC ANALYSIS

5.1.1 SWOT

The following SWOT analysis examines the strengths, weaknesses, opportunities and threats that influence the jewellery and watch sector on a regional basis.

Figure 5-1: SWOT for Jewellery and Watches

STRENGTH

- There is strong base demand
  - Singapore has a significant population of ultra-high net worth individuals
  - The region is a major retail hub with tourists; Tourists are heavy spenders at duty-free stores
- The major retailers in the segment are well established and have a presence across the major shopping areas / malls of Singapore and have a growing regional presence
- There is significant product differentiation
  - Enables retailers to build loyalty among customers and gain repeat business

WEAKNESS

- Price highly dependent on material input costs such as gold and diamond
  - Manufacturers and retailers can do little to absorb the costs
- Rising operating costs in Singapore

  Involves Forex risk:
- Purchases made in Europe in EUR or CHF: The input costs may become high compared to sales done in SGD
  - For tourists, purchasing in CNY or INR, may find the products expensive

OPPORTUNITY

- Increasing per capita income in the region
  - Malaysia is expected to have a high growth of GDP per capita between 2015-2020
- Higher number of first-time buyers
- Singapore-based retailers can leverage the slowdown in the region to expand and diversify in the region
  - For the Millennial generation these products are regular purchases

THREAT

- The Jewellery and Watches retail market is fragmented
  - The vast majority of fine jewellery sold is unbranded
- Global recession fears and slowdown in China have had a huge impact on consumer confidence
- Jewellery and premium watches have many possible substitutes
  - Bought as gifts or personal indulgences, and can be easily replaced by substitutes which would be the latest whim (like cruise trips, premium electronics etc.)

Source: Frost & Sullivan analysis

With high per capita income and consistent tourist arrivals, estimated at 15 million, Singapore has a substantial base demand for jewellery and watches. As per industry estimates, in 2015, the jewellery and watch market in Singapore, stood at approximately US$1.9 billion, expecting to grow at a CAGR of 4% until 2019 and reaching a total market size of US$ 2.13 billion.

5.1.2 DRIVERS AND RESTRAINTS

The drivers and restraints are considered in the context of the Singapore jewellery and watch segment, and their impact on the relevant companies operating in the country.

The drivers are identified as factors which facilitate the segment growth, while restraints are identified as factors which hinder the growth of the segment. For each factor, the impact indicates the strength of the drivers and restraints based on current scenario.

Figure 5-2: Drivers and Restraints for the Jewellery and Watch Sector

	DRIVERS	IMPACT
1	GDP PER CAPITA	HIGH
2	CHANGES IN CONSUMPTION PATTERN	HIGH
3	URBANISATION RATE	LOW
4	INFLOW OF TOURISTS	LOW
5	CUSTOMER CONFIDENCE	LOW

Source: Frost & Sullivan analysis

RESTRAINTS		IMPACT
1	AVAILABILITY OF SUBSTITUTES	HIGH
2	OPERATING COSTS	HIGH
3	LEVEL OF COMPETITION	HIGH
4	FOREX RISK	HIGH

Source: Frost & Sullivan analysis

DRIVERS

- **GDP per Capita:** Higher GDP per capita is a leading indicator of disposable income levels. Since jewellery and watches tend to be big-ticket purchases, a higher disposable income has a direct and positive impact on the segment. With an expected GDP per capita growth of 5.4% per annum in Singapore from 2015 to 2020, this segment is likely to benefit from higher disposable income.

- **Changes in Consumption Pattern:** Purchase of premium products by Millennials (those born between 1980 and 2000) including jewellery and watches are more recurrent. As per "The Millennial Factor" report by The Association for Packaging and Processing Technologies, Millennials display an increasing appreciation for exclusivity and have a propensity to spend on high-end/luxury brands.

- **Urbanisation Rate:** A higher rate of urbanisation is a strong driver for luxury product demand. With 100% urbanisation rate and increasing awareness of products and services by way of effective promotions campaigns, the jewellery and watches segment is likely to witness nominal if not increased uptake among the general population.

- **Inflow of Tourists:** Singapore is a major tourist and luxury retail hub. Although visitor arrivals have been relatively stagnant at approximately 15 million over the past 3 to 4 years, product quality and authenticity assurances by Singapore's retailers continue to generate a base demand for jewellery and premium watches.

- **Consumer Confidence:** As jewellery and watches are considered discretionary purchases, a high consumer confidence index is imperative to encourage consumers to spend. During times of low confidence, consumers expect their incomes to shrink and are less likely to spend on luxury items. Consumer confidence index for Singapore has been stagnant and on average below the 100-point benchmark since the 2nd quarter of 2011.

RESTRAINTS

- **Availability of Substitutes:** Jewellery and watches are high-end purchases with the spending pattern motivated by either self-indulgence or gift giving. Jewellery and watches are traditionally priority items to gift a loved one. However, the industry now faces growing competition from attractive substitute products such as holiday packages and premium electronic items.

- **Operating Costs:** Higher property prices and labour costs have an impact on margins (i.e., if the retailers are to absorb higher input costs) or purchase prices (i.e., if the higher input costs are passed on to consumers). Most retailers in Singapore are citing higher rental costs and high labour costs as a major factor eroding their margins. Rentals in prime spaces in Singapore have increased by 1.2% annually, and labour costs have on an average moved up by 4.5% annually.

- **Level of Competition:** Higher levels of competition among different retailers increase marketing and advertising costs and limit their margins. The luxury watches and jewellery segment in Singapore continues to attract new participants – both indigenous and global brands – offering consumers greater choices on one hand, but also resulting in margin erosion for existing players.

- **FOREX Risks:** Gold for jewellery are procured mostly from international markets, and priced in USD that is exposed to FOREX fluctuations. Similarly, luxury watches are sourced from European markets, especially Switzerland, making the input costs highly dependent on the foreign exchange rates.

5.2 SGX-LISTED COMPANIES IN THE JEWELLERY AND WATCH SEGMENT

5.2.1 ASPIAL CORPORATION LIMITED

Aspial Corporation is a manufacturer and retailer of jewellery, and residential property developer. A subsidiary of MLHS Holdings, the Singapore-based company operates in 3 segments: manufacture and sale of jewellery, property development, and financial services business. Aspial's jewellery business markets jewellery products under Lee Hwa Jewellery, Aspial, Goldheart Jewellery and CITIGEMS brands. The company's property development business is engaged in the development of apartment residences. Aspial operates its financial services segment through its subsidiary Maxi-Cash Group Pte Ltd. It has approximately 40 pawnshops and retail outlets.

The company's subsidiaries include Aspial International in jewellery wholesaling and exporting; World Class Land in property development services; Aspial-Lee Hwa Jewellery Singapore in jewellery retailing and manufacturing; Maxi-Cash Financial Services Corporation in investment holding services; World Financial Property in real estate activities; Citigems in jewellery retailing; World Class Developments in property development; Headway Construction in building construction and contracts; and Maxi-Cash (North) in pawnbrokerage services.

5.2.2 CORTINA HOLDINGS LIMITED

Cortina Holdings, along with its subsidiaries, is engaged in the luxury watch retail and distribution industry. The company operates in Singapore, Hong Kong, Malaysia, Thailand and Taiwan. The company has 2 segments: wholesale and retail. Cortina is a wholesaler for watches and clocks, while its retail segment conducts retail activities for watches, pens, lighters, and clocks. The company distributes high-end labels including Audemars Piguet, Baume & Mercier, Blancpain, Bvlgari, Cartier, Chopard, Chronoswiss, Corum, Gucci, Omega, Patek Philippe and Piaget. Cortina also exports its products to China, Hong Kong, India, Japan, Korea, the Middle East, Russia, Southeast Asia and Taiwan. Its subsidiaries include Chronoswiss Asia Pte Ltd, Cortina Watch HK Limited, Cortina Watch Pte Ltd, Cortina Watch Sdn Bhd, Pacific Time Pte Ltd, Cortina Watch (Thailand) Co Ltd, Cortina Watch Co Ltd, and Pacific Time Co Ltd.

5.2.3 THE HOUR GLASS LIMITED

The Hour Glass is a Singapore-based company, involved in the retail and distribution of watches and jewellery. Along with its subsidiaries, the company also participates in investment holding activities and property investments. The Hour Glass operates in Singapore, Australia, Hong Kong, Japan, Malaysia and Thailand. The Hour Glass offers a range of luxury watches including Audemars Piguet, Breitling, Bvlgari, Cartier, Ethan K, Longines, MB&F and Montblanc. The company's subsidiaries include Glajz-THG Pte Ltd, Dynasty Watch Pte Ltd, The Hour Glass Sdn Bhd, The Hour Glass (HK) Ltd, The Hour Glass Japan Ltd, The Hour Glass (Australia) Pty Ltd, The Hour Glass (Thailand) Co Ltd and THG Prima Times Co Ltd.

5.2.4 SOO KEE GROUP LIMITED

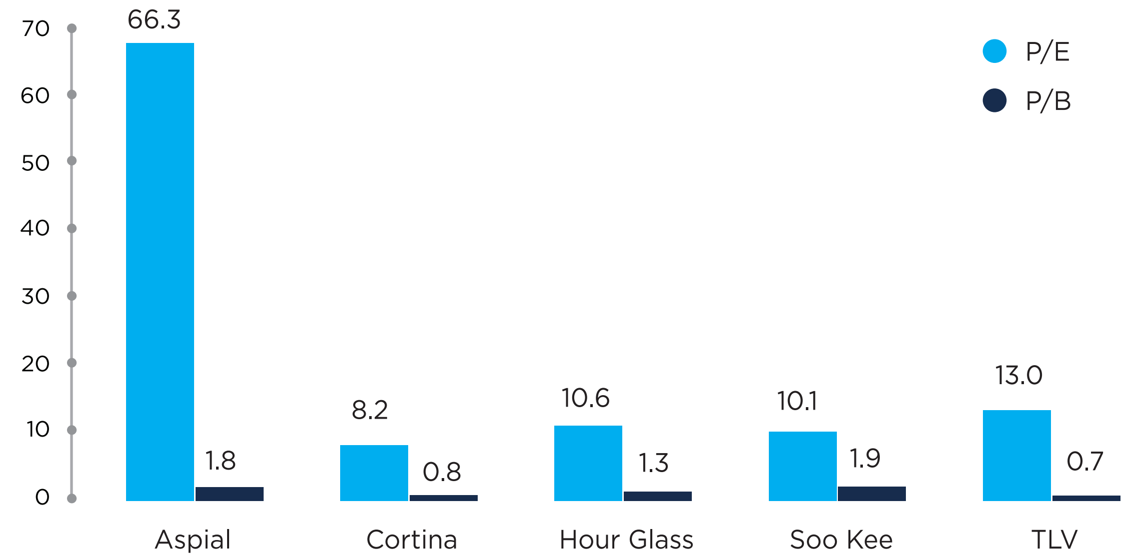
Soo Kee Group has a network of 60 retail stores in Singapore and Malaysia, located in shopping malls. The company offers a range of jewellery products and mementoes made of gold, platinum, other precious metals, and enamel, decorated with diamonds, gems, jade, pearls and/or other precious stones. It offers products under Soo Kee Jewellery, SK Jewellery and Love & Co brands. Soo Kee Jewellery offers luxury jewellery pieces; SK Jewellery offers fashionable jewellery and mementoes, including its SK 999 Pure Gold collection; Love & Co offers bridal jewellery including engagement and wedding bands, rings, earrings, necklaces, pendants, bracelets and bangles.

5.2.5 TLV HOLDINGS LIMITED

TLV Holdings is a Singapore-based company, engaged in the jewellery business. The company is involved in the sale of jewellery in both local and international markets on wholesale and retail basis. It operates 2 segments: retail and pawnbroking, and wholesale and exhibitions. The retail and pawnbroking segment includes the sale of jewellery to customers at its stores, promotional events and headquarters, and includes the pawnshop business, and sale of secondhand jewellery. The company has approximately 20 retail outlets located in Singapore. TLV Holdings' wholesale and exhibitions segment involves the sale of jewellery through its participation in international exhibitions and trade fairs. It sells its jewellery in the US, Europe, the Middle East, East Asia and Southeast Asia. It also provides after-sales services, such as repairing and engraving, among others.

5.3 FINANCIAL ANALYSIS

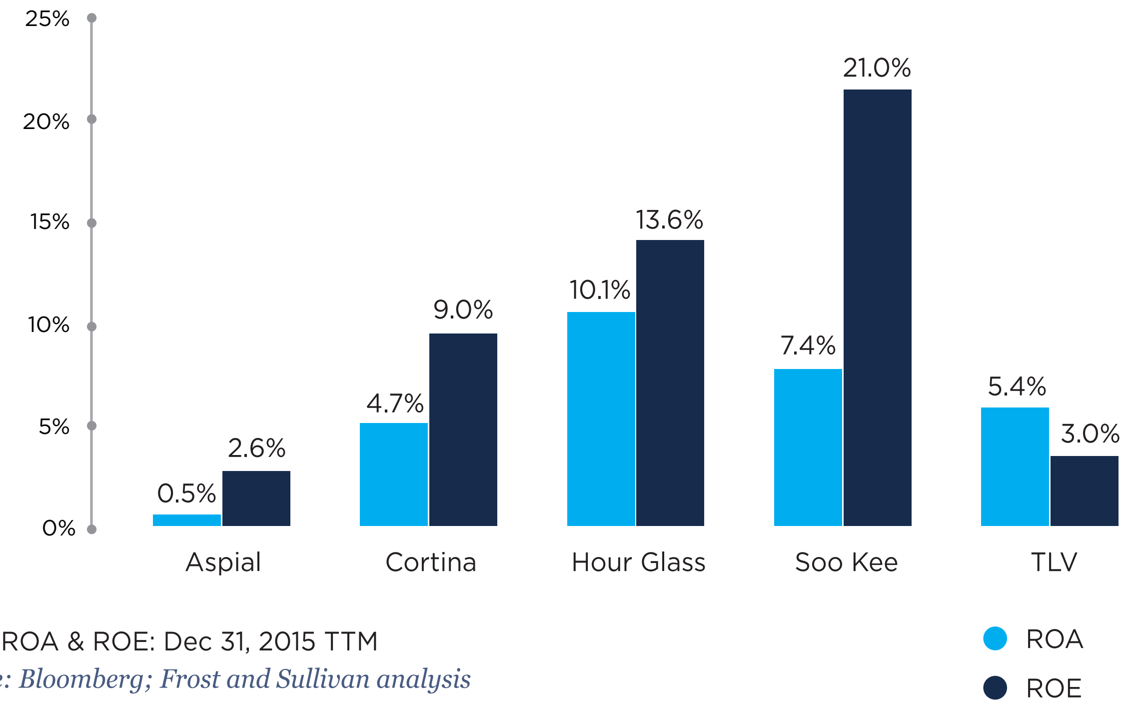
5.3.1 PRICE MULTIPLE COMPARISON



Note: P/E: Dec 31, 2015 TTM; P/B: Dec 31, 2015

Source: Bloomberg; Capital IQ; Frost and Sullivan analysis

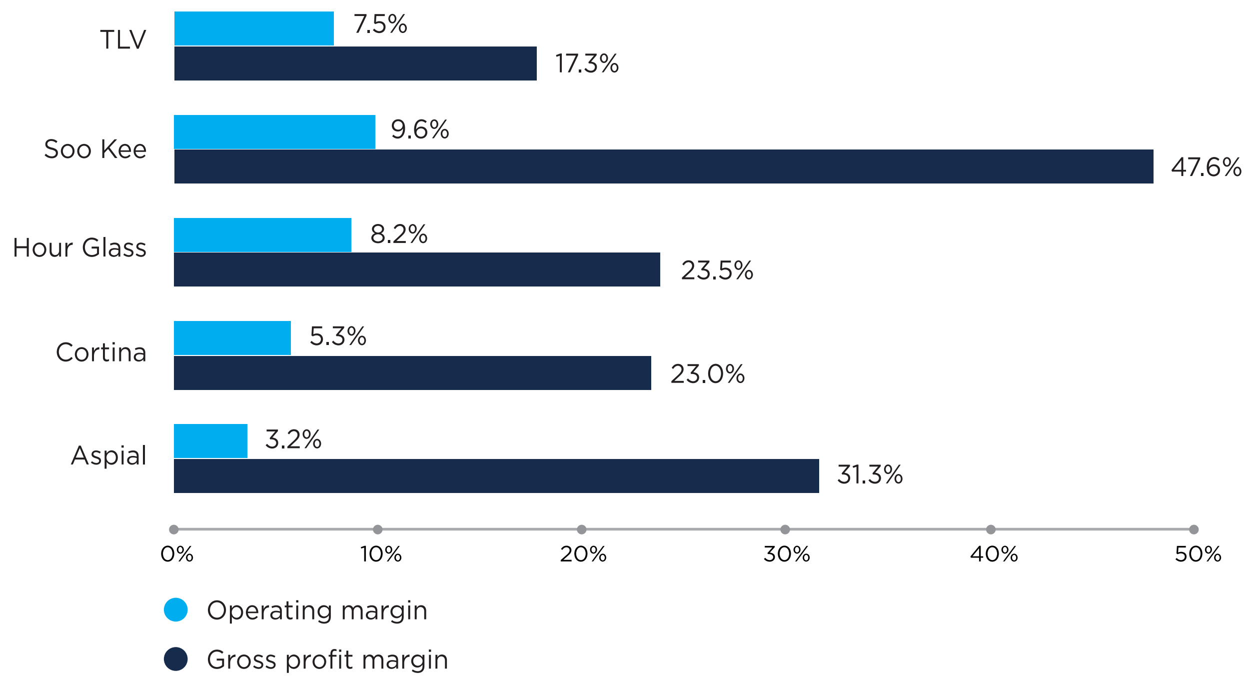
5.3.2 MANAGEMENT EFFECTIVENESS



Note: ROA & ROE: Dec 31, 2015 TTM

Source: Bloomberg; Frost and Sullivan analysis

5.3.3 PROFITABILITY



Note: Gross & Operating Margin: Dec 31, 2015 TTM;
Source: Bloomberg; Annual Reports; Capital IQ; Frost and Sullivan analysis

While the companies featured in the segment face increasing pressure from consumer confidence declines and rising costs, they continue to show strong momentum and healthy margins. To optimise margins, the companies are using the slowdown to streamline operations and close non-performing outlets while expanding in the region.

6. FASHION AND APPAREL

6.1 STRATEGIC ANALYSIS

6.1.1 SWOT

The following SWOT analysis examines the strengths, weaknesses, opportunities and threats that influence the fashion and apparel sector on a regional basis. The drivers are identified as factors which facilitate the segment growth, while restraints are identified as factors which hinder the growth of the segment. For each factor, the impact indicates the strength of the drivers and restraints based on current scenario.

Figure 6-1: SWOT for Fashion and Apparel

STRENGTH

- Clothing and footwear are essentials hence there is always a basic sustenance demand
- Retailers are unaffected by individual customer preferences
- Demographically, the region offers tremendous advantages:
  - Fast-growing population signifies high demand for essential clothing and footwear
  - Over 80% of population is under 60 years old: hence, inclined to spend

WEAKNESS

- Highly competitive market, customers can easily switch from one retailer to another, and there is a low level of loyalty
- Low level of product differentiations.
  - Impossible to protect new fashion trends by copyright, royalty or IP
- Dependent on consumer confidence indices, which can swing at a rapid pace
  - This puts retailers at a risk of inventory losses.

OPPORTUNITY

- Growth in apparel and footwear market expected to be positive for the next 3-4 years
  - Sales growth, in the ASEAN region, is estimated between 3.9% - 7.7% over the next 3-4 years
  - Sales revenue, in Singapore, is estimated between 3% - 5.5% over the next 3-4 years
- Rising per capita income and rapid urbanisation are opportunities for retailers to capture the new urban middle-class especially in Malaysia and Indonesia.
- Slowdown is an opportunity to optimise footprint and close unprofitable outlets

THREAT

- Increasingly higher operating expenses in terms of property leases and staff costs
- Online retail poses a significant threat to conventional retailors who are not innovating
  - Brick-and-mortar stores are proving expensive in Singapore. Hence, more physical retail stores are coming up with online shopping apps and websites
- Slowdown in China has hurt the industry in the past 2 years. The dip in demand from Chinese tourists is likely to persist hurting physical retailers

Source: Frost & Sullivan analysis

In addition to examining the demographics within the ASEAN region, the propensity to spend and likelihood to purchase in a formal retail set-up needs to be evaluated as well. Rising per capita income and urbanisation in the region are fuelling growth in the fashion and apparel segments.

A key challenge for the sector is its high dependence on consumer confidence and the relentless pace of fashion. Since both these variables are highly volatile, retailers could easily find themselves with excess inventory in addition to facing high operating expenses.

6.1.2 DRIVERS AND RESTRAINTS

The drivers and restraints are considered in the context of the Singapore fashion and apparel segment, and their impact on the relevant companies operating in the country.

Figure 6-2: Drivers and Restraints for the Fashion and Apparel Segment

	DRIVERS	IMPACT
1	POPULATION GROWTH	LOW
2	GDP PER CAPITA	HIGH
3	URBANISATION RATE	LOW
4	ONLINE RETAIL	HIGH
5	INFLOW OF TOURISTS	LOW
6	CONSUMER CONFIDENCE	LOW

Source: Frost & Sullivan analysis

RESTRAINTS		IMPACT
1	OLD-AGE DEPENDENCY RATIO	HIGH
2	OPERATING COSTS	HIGH
3	LEVEL OF COMPETITION	HIGH
4	PACE OF FASHION CHANGES	HIGH

Source: Frost & Sullivan analysis

DRIVERS

- **Population Growth:** A growth in population is expected to stimulate demand for fashion and apparels. At a modest population growth rate of 0.64% per annum over the next 5 years, this macroeconomic indicator in Singapore has a minimal impact on the demand for clothing.

- **GDP per Capita:** This is a measure of available income to spend on fashion and apparel, and has a substantial impact on the segment. Singapore has the highest GDP per capita in the region, expecting to grow at a steady 5.4% per annum until 2020. The high GDP per capita in Singapore is a significant driver for increased spending in the fashion and apparel sector.

- **Urbanisation Rate:** A large urban population is likely to drive demand for organised retail in the country. Since Singapore has 100% of its population classified as urban, the demand for organised retail is also likely to be marginally impacted by this macroeconomic indicator.

- **Online Retail:** The flourishing online retail segment, expected to grow at 13% per annum till 2017, continues to influence traditional brick-and-mortar stores profoundly. Though only a small portion of total retail is estimated to be conducted online, there is increasing pressure for retailers to revamp traditional business models to suit customers' growing preference for online shopping, and potentially creating additional revenue streams.

- **Inflow of Tourists:** As a major tourist and fashion hub, Singapore offers visitors the latest in high-end brands and upcoming designs. Although the inflow of tourists has been stagnant at approximately 15 million for the past 3 to 4 years, tourists continue to supplement demand for fashion and apparel in the country.

- **Consumer Confidence:** While essential, fashion and apparel are items that consumers may avoid purchasing. In times of weak consumer confidence people tend to save more and put off spending on new clothing. Consumer confidence index for Singapore has been stagnant and on average below the 100-point benchmark since the 2nd quarter of 2011 which has been a considerable restraint to the retailers who have stocked up inventories based on anticipated demand.

RESTRAINTS

- **Old-Age Dependency Ratio:** A higher old-age dependency ratio, estimated to increase to 36 in 2030 from 16 in 2015, is anticipated to have a negative impact on fashion and apparel spending. The elderly are less likely to be motivated to keep up with or spend on the latest fashion trends, significantly influencing retail demand over both the short and long terms.

- **Operating Costs:** Higher property prices and labour costs have an impact on margins (i.e., if the retailers are to absorb higher input costs) or purchase prices (i.e., if the higher input costs are passed on to consumers). Most retailers in Singapore are citing higher rental and labour costs as major factors eroding their margins. Rentals in prime spaces in Singapore have increased by 1.2% annually while labour costs have on average moved up by 4.5% annually.

- **Level of Competition:** The level of competition among different retailers could potentially limit their margins and increase marketing and advertising costs. In Singapore, the fashion and apparel industry operates in "near perfect competition" which is characterised by limited product differentiation.

- **Pace of Fashion:** The rapidly evolving fashion trends sometimes place retailers in a predicament, especially in terms of outdated inventory. As a fashion hub, retailers in Singapore are at the forefront of fashion trends. However, this race to embrace new fads may leave retailers with obsolete inventories posing a significant restraint to their growth.

6.2 SGX-LISTED COMPANIES IN THE FASHION AND APPAREL SEGMENT

6.2.1 CHINA SPORTS INTERNATIONAL LIMITED

China Sports International is principally engaged in the design, manufacture, and sale of sports fashion footwear and the design and sale of sports fashion apparel. Designed to appeal to kids and young adults, its YELI products cater to a broad range of activities. YELI products are sold in China through local distributors and exported to countries in Europe, the Middle East, South America, Asia, and South Africa. The company has a retail network of more than 1,205 points-of-sale throughout first, second, third and fourth tier cities in the PRC. The company also manufactures footwear for OEM customers under international brands. China Sports International has a wholly-owned subsidiary, Theme Way Limited, based in Hong Kong.

6.2.2 FJ BENJAMIN HOLDINGS LIMITED

FJ Benjamin Holdings is engaged in brand building and management, and the development of retail and distribution networks for luxury and lifestyle brands in Asia. The company operates in Singapore, Malaysia and Indonesia. The company has 3 business segments: ongoing retail, distribution and export. FJ Benjamin's ongoing retail segment handles the operation of retail stores featuring consumer fashion, accessories and timepieces. The company retails products from brands such as Banana Republic, Catherine Deane, Celine, Gap, Givenchy, Goyard, Guess, La Senza, Raoul, and Sheridan. The company's distribution segment handles the distribution of consumer fashion, accessories, home furnishings, and timepieces. The company also distributes timepiece brands such as Bell & Ross, Chronoswiss, Gc Watches, Guess, Nautica, Rado, and Victorinox Swiss Army in

Asia. FJ Benjamin also distributes products related to its in-house brands such as Raoul and Catherine Deane in Europe, the US and the Middle East. FJ Benjamin's export segment is engaged in the export of consumer fashion, accessories and timepieces. The company manages 20 brands and operates 218 stores. FJ Benjamin also has ventures in lifestyle concepts and holds investments in St James Holdings Limited.

6.2.3 OSSIA INTERNATIONAL LIMITED

Established in 1982, Ossia International is engaged in the distribution and retail of luxury fashion apparel, bags, footwear, sporting goods and golf in the Asia-Pacific region. The company's markets include Singapore, Malaysia, Taiwan, and Hong Kong using various channels/outlets, sports as well as golf and fashion. Ossia has secured exclusive distributorship of well-known labels, such as Elle Active, Elle Petite, And 1, Prince, Mizuno Sports and Spank. In addition, the company has investments in Pertama Holdings Limited, a leading retailer of consumer electronics and home furnishings under the Harvey Norman brand of retail stores in Singapore and Malaysia.

6.2.4 SECOND CHANCE PROPERTIES LIMITED

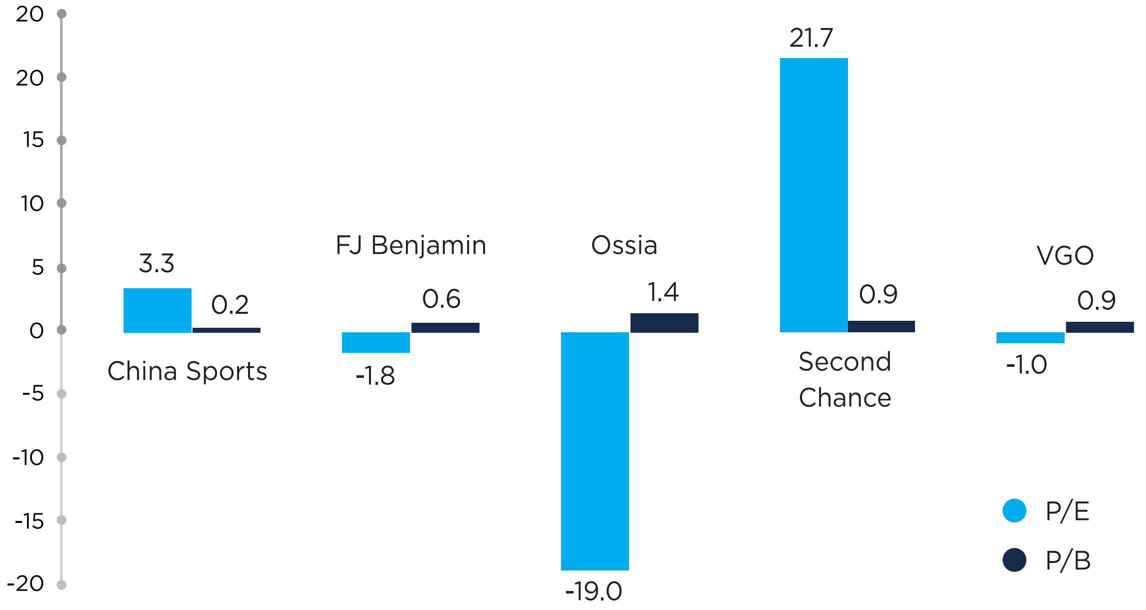
Founded in 1975, Second Chance Properties Ltd (formerly known as Second Chance Enterprises) is engaged in the retail of ready-made apparels and gold jewellery through a network of retail outlets in Singapore and Malaysia. The company operates in 4 core businesses: retailing of modern Islamic apparel under the "First Lady" brand name; retailing of gold jewellery under the "Golden Chance Goldsmith" brand name; property investment in choice retail properties as a source of rental income; and investing and trading in financial instruments (securities).

6.2.5 VGO CORPORATION LIMITED

Headquartered in Singapore, VGO Corporation is engaged in the retail and distribution of luxury, lifestyle fashion and sporting goods including footwear, equipment, apparel and accessories under the World of Sports Group of speciality sports retail shops. The company also hosts events in Singapore and Malaysia. The company was founded in 1982.

6.3 FINANCIAL ANALYSIS

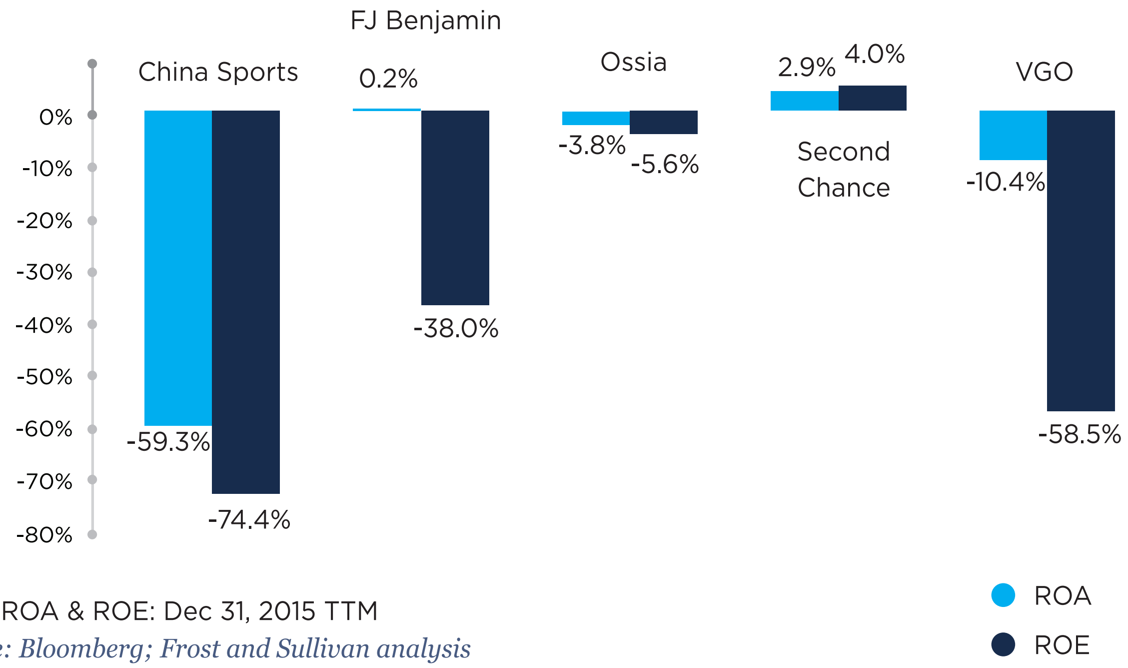
6.3.1 PRICE MULTIPLE COMPARISON



Note: P/E: Dec 31, 2015 TTM; P/B: Dec 31, 2015

Source: Bloomberg; Capital IQ; Frost and Sullivan analysis

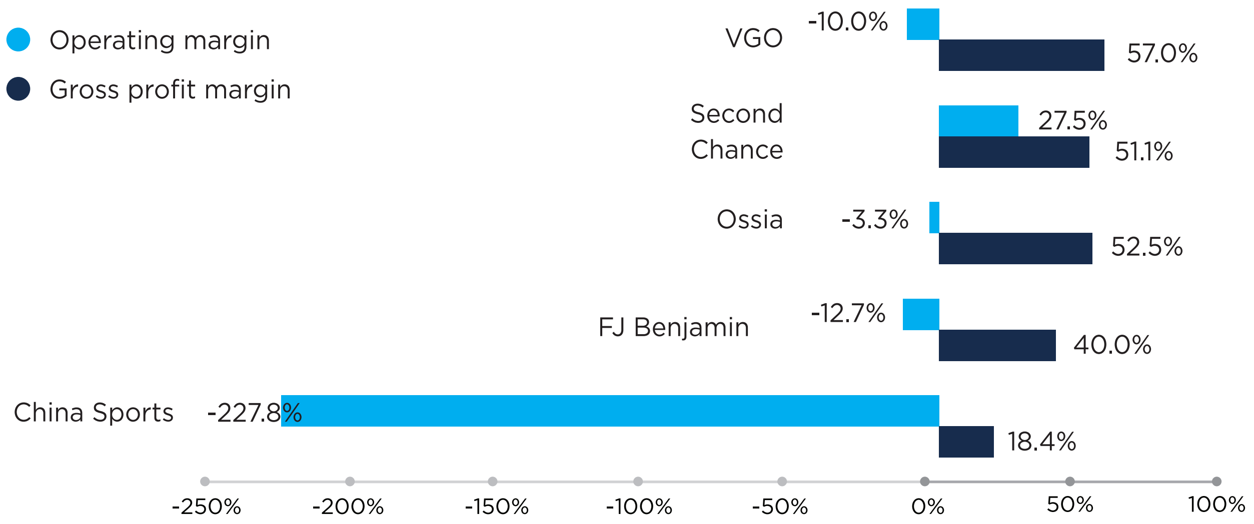
6.3.2 MANAGEMENT EFFECTIVENESS



Note: ROA & ROE: Dec 31, 2015 TTM

Source: Bloomberg; Frost and Sullivan analysis

6.3.3 PROFITABILITY



Note: Gross & Operating Margin: Dec 31, 2015 TTM

Source: Bloomberg; Annual Reports; Frost and Sullivan analysis

7. PAWNBROKING

7.1 STRATEGIC ANALYSIS

7.1.1 SWOT

The following SWOT analysis examines the strengths, weaknesses, opportunities and threats that influence the pawnbroking sector in Singapore.

Figure 7-1: SWOT for Pawnbroking

STRENGTH	○ Leading pawnbrokers in Singapore adopt modern business practices • An extensive retail network of outlets • Strong internal controls and risk management systems • Contemporary retail ambience and customer experience ○ Existing players are expanding their retail presence in Singapore and Malaysia
WEAKNESS	○ Regulatory barriers to entry • To operate in Singapore, a pawnbroking licence is required from the Registrar of Pawnbrokers • Must apply for a separate licence to sell new jewellery

	○ The operating margins of the business are adversely affected by the rising rental rates ○ Growing competitive pressures include: • High risk of new entrants to the business due to its lucrative returns
OPPORTUNITY	○ Increasingly more people are visiting pawnbrokers with the transparency, modern retail formats and open store concept to customers ○ The pawnbrokers can expand the range of pre-owned jewellery and watches: • To capitalise on the anticipated increase in consumer demand by broadening and optimising the selection of merchandise ○ As the ASEAN markets beyond Singapore evolve, it is an opportune time to expand by opening new stores and by acquisitions and consolidation
THREAT	○ Highly-susceptible to regulatory changes ○ The business is prone to fluctuations, especially in relation to gold prices. Sharp dips in gold prices could lead to the following: • The lending business would have lower collateral than the loan • On the retail end, the value of inventory is at risk ○ Rising interest rates: • Higher interest rates squeezes the Net Interest Margin for the lending business

Source: Frost & Sullivan analysis

The 3 leading pawnbrokers in Singapore have a strong foothold and continue to expand their retail base by contemporising their business with a modern retail look, implementing efficient management controls, and striving to serve customers in a transparent and fair manner. Although the sector faces challenges in terms of higher rental costs and intense competition, participants are expanding their bases and exploring markets beyond Singapore to Malaysia.

7.1.2 DRIVERS AND RESTRAINTS

The drivers and restraints are considered in the context of the Singapore pawnbroking segment, and their impact on the relevant companies operating in the country.

The drivers are identified as factors which facilitate the segment growth, while restraints are identified as factors which hinder the growth of the segment. For each factor, the impact indicates the strength of the drivers and restraints based on current scenario.

Figure 7-2: Drivers and Restraints for the Pawnbroking Sector

	DRIVERS	IMPACT
1	CONTEMPORARY BUSINESS PRACTICES	HIGH
2	COST OF LIVING	HIGH
3	SOCIAL ACCEPTANCE	HIGH

	RESTRAINTS	IMPACT
1	ALTERNATE SOURCES OF LENDING	HIGH
2	PRICE OF REAL ESTATE/RENTALS	HIGH
3	GOLD PRICE FLUCTUATIONS	HIGH
4	CONSUMER CONFIDENCE	LOW

Source: Frost & Sullivan analysis

DRIVERS

- **Contemporary Business Practices:** Pawnbrokers are embarking on modernisation efforts to make the industry more transparent, fair, and socially acceptable to customers. Pawnbrokers are enhancing the look and feel of their outlets, making them appear similar to conventional retail stores. The makeover as a modern retail store has been a strong growth driver for the business in Singapore.

- **Cost of Living:** According to The Economist, Singapore tops the list in the Cost of Living Index, making it the world's most expensive city. Demand for pawnbroking services could tremendously increase as people are likely to need additional funds to finance their consumption should other avenues be unavailable

- **Social Acceptance:** The level of social acceptance for pawnbroking and purchasing pre-owned jewellery is increasing in Singapore, and the stigma of visiting a pawnbroker is slowly reducing. The acceptance comes with a change in perception about pawnshops. A factor improving perception is the modern look and feel of pawnshops and a focus on fair trading practices by listed companies. Social acceptance is expected to remain an important driver for the growth of the pawnbroking business in the country.

RESTRAINTS

- **Alternate Sources of Lending:** Loans, both secured and unsecured, serve as generic competition to pawnshops. Growth in alternative lending sources could adversely impact the pawnbroking business.
- **Price of Real Estate/Rentals:** Higher real estate prices could have an immediate effect on margins and retailers.
- **Gold Price Fluctuations:** A rapid decrease in gold prices puts the lending business at collateral risk, where the collateral may be of lower value than the loan and at the same time place the retail business at inventory risk.
- **Consumer Confidence:** Linked to the state of the economy, consumer confidence increases on the back of a positive outlook. In a thriving economy, people are less likely to use pawnbroking services to finance their consumption needs and continue relying on their incomes. However, in a city like Singapore where consumer confidence has been on a slight decline in recent years, consumers may resort to pawnbrokers to finance their purchasing needs.

7.2 SGX-LISTED COMPANIES IN THE PAWNBROKING SEGMENT

7.2.1 MAXI-CASH FINANCIAL SERVICES CORPORATION LIMITED

Maxi-Cash Financial Services Corporation, through its subsidiaries, participates in the provision of financial services in the form of pawnbroking activities. It is also involved in the retail and trading of pre-owned jewellery and watches. The company offers pendants, necklaces, rings, earrings, bracelets and bangles under its brand Maxi-Cash. It sells these products through pawnshops and retail outlets in 40 locations across Singapore. In addition, the company offers rental of properties and provision of other support services. Maxi-Cash Financial Services Corporation operates in Singapore.

7.2.2 MONEYMAX FINANCIAL SERVICES LIMITED

MoneyMax Financial Services (MoneyMax), together with its subsidiaries, is a pawnbroker, retailer, and trader of pre-owned jewellery and watches. Since establishing its first outlet in Yishun in 2008, MoneyMax has expanded its reach to the mass market. Today, MoneyMax is one of the largest pawnbroking chains in Singapore, with 37 outlets strategically located in Singapore. In 2014, the company acquired a majority stake in a network of 11 pawnshops in Malaysia, making it the largest pawnbroking chain with a presence in Singapore and Malaysia.

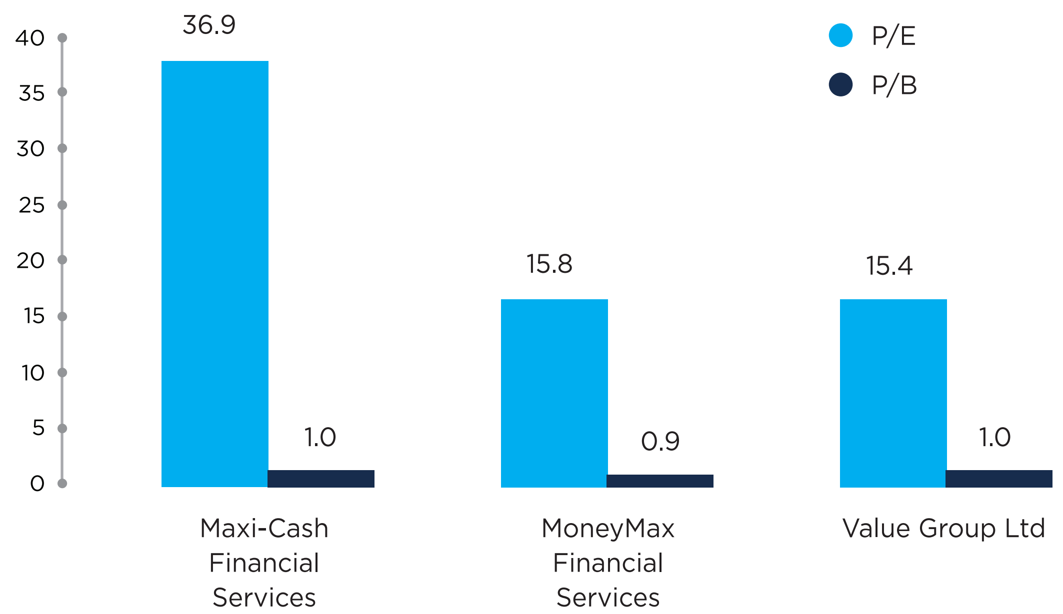
7.2.3 VALUEMAX GROUP LIMITED

ValueMax Group provides pawnbroking and secured moneylending services, as well as the retail and trading of pre-owned jewellery and gold. With the group's first pawnbroking outlet established in 1988, ValueMax is one of the most established and trusted pawnbroking chains and gold traders in Singapore. Backed by a proven track record and in-depth industry knowledge, ValueMax has expanded to 24 outlets in Singapore, with 3 other pawnshops operated by associated and investee companies. In Malaysia, ValueMax operates 8 stores through associated companies.

7.3 FINANCIAL ANALYSIS

The 3 listed companies outlined above closed at a premium to their IPO prices on the respective first day of the trading, indicative of investor confidence and growing interest in the pawnbroking segment in Singapore. The following ratios represent a few performance indicators of the industry:

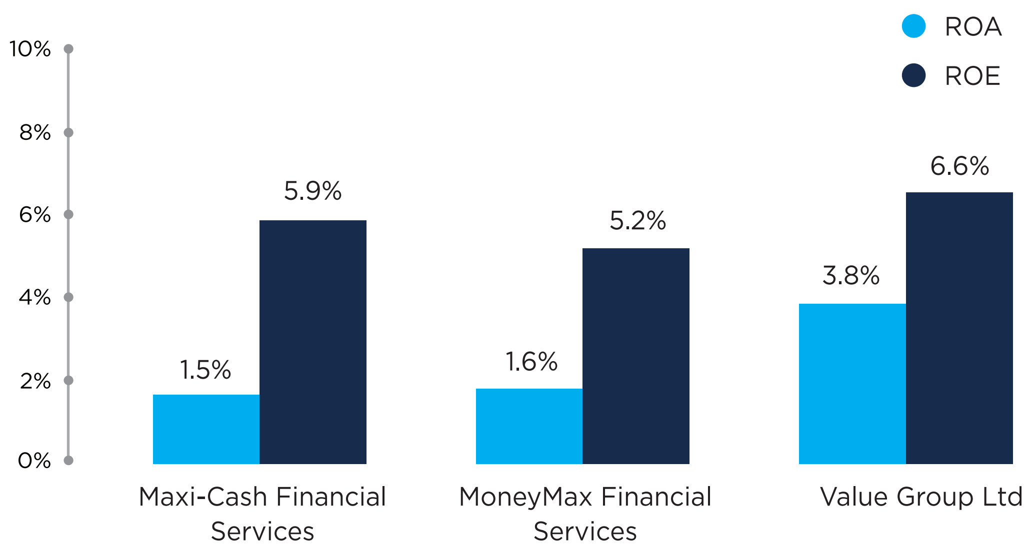
7.3.1 PRICE MULTIPLE COMPARISON



Note: P/E: Dec 31, 2015 TTM; P/B: Dec 31, 2015

Source: Bloomberg; Capital IQ; Frost and Sullivan analysis

7.3.2 MANAGEMENT EFFECTIVENESS

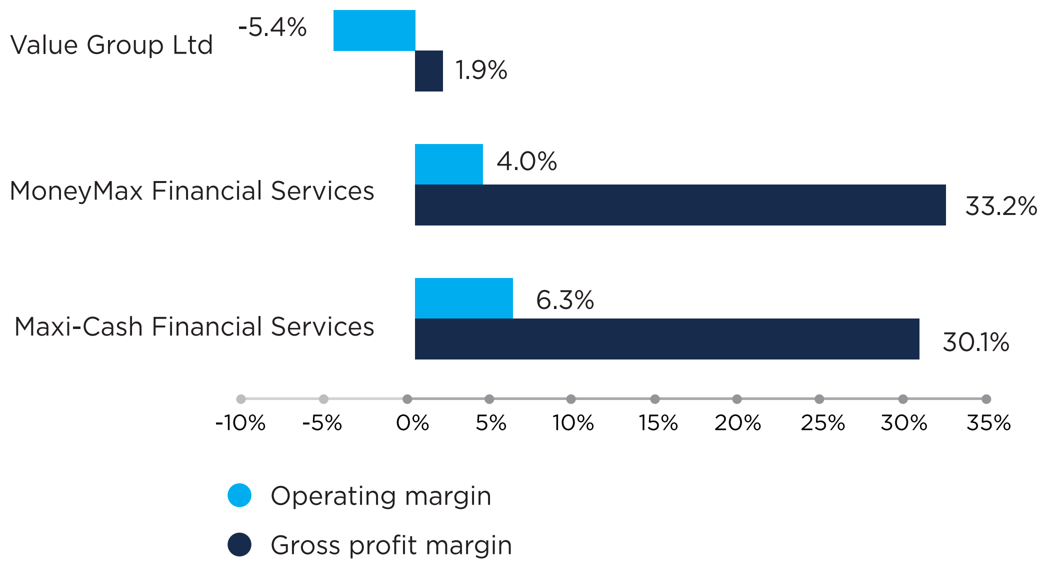


Note: ROA & ROE: Dec 31, 2015 TTM

Source: Bloomberg; Frost and Sullivan analysis

The lower P/B and ROA are due to the substantial asset base of the lending business. However, this does not suggest the business is performing sub-par to the other retail business segments.

7.3.3 PROFITABILITY



Note: Gross & Operating Margin: Dec 31, 2015 TTM
Source: Bloomberg; Annual Reports; Frost and Sullivan analysis

A major positive for the pawnbroking industry is the robust demand for loans from pawnbrokers. Data from the Department of Statistics in Singapore indicates that the loans dispersed increased by 19.4% on an annual basis from S$1.8 billion in 2008 to S$5.3 billion in 2014. Over the same period, the pledges grew by 8% from S$2.7 million to S$4.2 million.

8. EDUCATION

8.1 STRATEGIC ANALYSIS

8.1.1 SWOT

The following SWOT analysis examines the strengths, weaknesses, opportunities and threats that influence the education sector in Singapore.

Figure 8-1: SWOT for Education

STRENGTH

- High demand for quality education supported by:
  - Singaporeans' keen focus on education
  - High GDP per capita
  - Fully urbanised population
- International hub attracting highly-skilled talent demands world-class education
- Good infrastructure to support education
  - Consistently since 2008 about 3% of GDP is spent on education
  - Presence of many global institutes

WEAKNESS

- Limited market size in terms of:
  - Total population
  - Geographic expanse
- Private education regulated by Private Education Act
- Most Private Education Institutes (PEIs) rely on foreign teachers, students and curriculum
- Singapore tertiary education institutes are not major global brands
- The decreasing number of student enrolments, both local and international

OPPORTUNITY

- Opportunity to expand in the region
  - As a regional leader, Singapore's PEIs have a strong brand value in the region
- Singapore's education ecosystem enhanced by government support in R&D and new technologies
  - Singapore government has earmarked S$19b for R&D
  - Universities supporting incubation centers
- Singapore-based institutes are beginning to leverage technology, i.e., EdTech to expand the reach and enhance learning

THREAT

- Singapore attracts global education institutes, increasing competition for local PEIs. Higher-income expatriates prefer global brands over Singaporean institutes
- Youth population likely to drop, affecting demand for education
- Rising education and living costs for foreign students.
  - Higher costs will lead to students considering other venues for education
- Education institutes from emerging markets such as China and India are observed to have improving standards through partnerships with global institutes, leading to lower student enrolments from these markets

Source: Frost & Sullivan analysis

The decreasing number of both local and international student enrolments is a significant threat to the private education sector in Singapore. According to the Council for Private Education (CPE), there were an estimated 77,000 local students and 29,000 international students enrolled in private commercial schools in 2014; a decline from 2011 when there were nearly 100,000 local students and 35,000 international students enrolled at these schools.

8.1.2 DRIVERS AND RESTRAINTS

The drivers and restraints are considered in the context of the Singapore education segment, and their impact on the relevant companies operating in the country.

The drivers are identified as factors which facilitate the segment growth, while restraints are identified as factors which hinder the growth of the segment. For each factor, the impact indicates the strength of the drivers and restraints based on current scenario.

Figure 8-2: Drivers and Restraints for the Education Sector

	DRIVERS	IMPACT
1	GDP PER CAPITA	HIGH
2	GOVERNMENT SUPPORT	HIGH
3	ADOPTION OF EDTECH	HIGH
4	INFLOW OF EXPATRIATES	LOW

	RESTRAINTS	IMPACT
1	COST OF LIVING	HIGH
2	DEPENDENCE ON FOREIGN TEACHERS	HIGH

Source: Frost & Sullivan analysis

DRIVERS

- **GDP per Capita:** The average tuition fees for schools adopting an international curriculum range between S$25k and S$35k per year. As a result, families with higher disposable incomes are more likely to be able to afford to enrol their children at private education institutions (PEIs). Demand for admissions at PEIs is highly dependent on disposable income levels. Singapore has the highest GDP per capita in the region, forecast to grow at a steady 5.4% per annum until 2020.

- **Government Support:** Singapore's Ministry of Education (MOE) develops and formulates policies to further education initiatives. For instance, the Singapore Pre-School Accreditation Framework (SPARK) is a standard drawn up to assess the quality of Early Childhood Care and Education (ECCE) providers. The Singapore Government also supports research and entrepreneurship cells in universities through grants. In a recent press statement, the Economic Development Board of Singapore (EDB) announced the expected release of new sites with 30-year leases towards the development of the Foreign School System (FSS) sector in 2015. Active government support is anticipated to be a key driver for growth in this sector.

- **Adoption of Education Technology or EdTech:** Globally, EdTech is a key differentiator between standard and premium educational institutes, revolutionising the learning experience between teachers and students. EdTech enhances the scope and reach of PEIs, enabling them to expand beyond domestic markets. Currently, the market is at a nascent stage, however with increasing adoption levels of learning management systems, EdTech is likely to revolutionalise the PEIs in Singapore.

- **Inflow of Expatriates:** Foreign students make up approximately 25% of the student population. The inflow of expatriates has a tremendous impact on the demand for private education. However, the influx has significantly slowed in recent years, from a high of 19% in 2008 to 2% in 2015, adversely affecting the education sector.

RESTRAINTS

- **Cost of Living:** Living expenses are a major consideration for foreign students contemplating an overseas education. Singapore is fast-becoming one of the most expensive cities in the world, motivating both local and international students to consider other global cities for higher education.

- **Dependence on Foreign Teachers:** The education institutes in Singapore rely on foreign teachers from the US, UK, Australia, and India. While the Ministry of Education has strong professional development support programmes in place, experts say improvements need to be made to attain international standards.

8.2 SGX-LISTED COMPANIES IN EDUCATION SEGMENT

8.2.1 INFORMATICS EDUCATION LIMITED

Informatics Education franchises, and licences computer and commercial training centres, and examination facilitators in Singapore, the UK, Asia-Pacific, and other regions. Informatics Education operates 2 segments: Higher Education and Corporate Training. The Higher Education segment offers diploma, advanced diploma, degree, masters, and doctorate qualifications in a range of business, engineering, and technological courses on campus as well as via its online virtual campus. The Corporate Training segment provides training and skills upgrading and enhancement to the general workforce in technical and non-technical areas. The company also offers computer and business education and training services; business management consultancy and child development services; and operation system support services. In addition, it manages an e-learning portal that offers e-learning for higher education, corporations, and education services.

8.2.2 OVERSEAS EDUCATION LIMITED

Overseas Education provides education in the English language for expatriate families living in Singapore and other programmes such as the Mother Tongue Programme, Intellectual Development Programmes (strategic games like Chess, Weiqi and Computer Coding), Enrichment Programmes, College Admission Counselling, Extra-Curricular Activities and Community Service. The company's school, Overseas Family School, offers kindergarten, elementary, middle, and high school programmes with International Baccalaureate curriculum to children aged 2 to 18 years. Its school has approximately 3,833 students from 73 countries. The company was founded in 1983 and is based in Singapore.

8.2.3 RAFFLES EDUCATION CORPORATION LIMITED

Raffles Education Corporation is a Singapore-based private education provider, owner and manager of education assets and facilities, and education-linked real estate investor and developer. Established in 1990, the Company operates 5 segments: Private Education System, National Education System, Oriental University City Campus Management, Corporate and Others, and Real Estate Investment & Development (new division set up in 2015). Raffles Education Corporation operates 30 colleges in 29 cities across 13 countries, including Australia, Cambodia, China, India, Indonesia, Malaysia, Mongolia, the Philippines, Saudi Arabia, Singapore, Sri Lanka, Switzerland and Thailand.

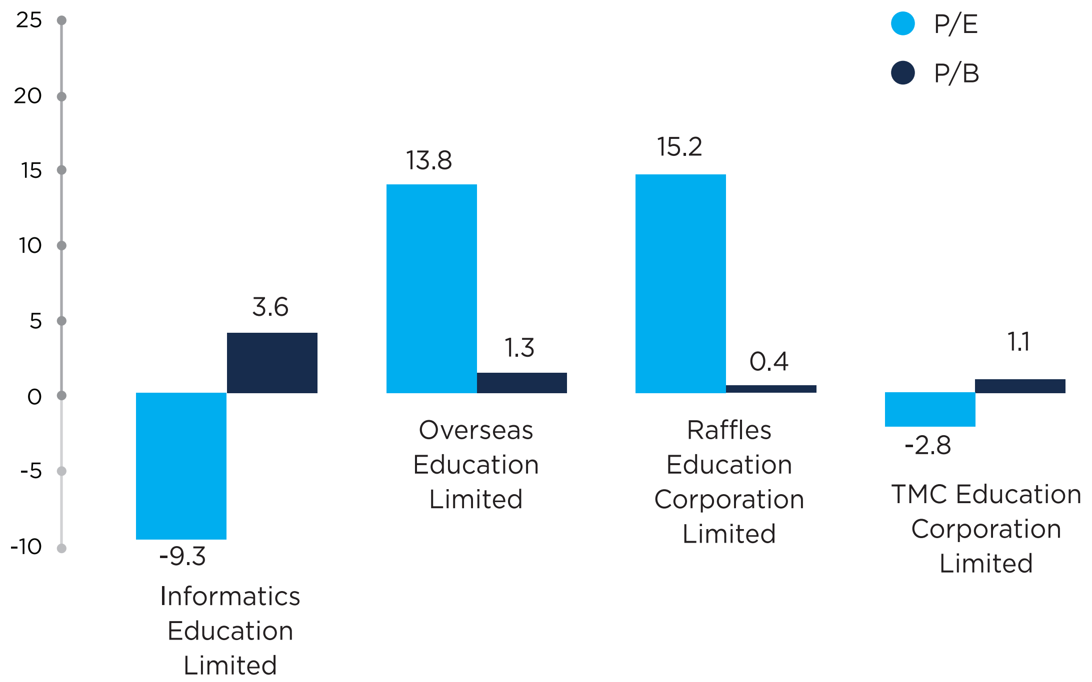
8.2.4 TMC EDUCATION CORPORATION LIMITED

TMC Education Corporation (TMC) is a Singapore-based investment holding company. The company provides education courses to students and operates segments that include tertiary education in Singapore and other segments. Its tertiary education in Singapore offers various courses including Business; Hospitality, Tourism and Culinary Arts; English Language Proficiency; IT; Monash College Diploma programme; Psychology; Mass Communication; and Law. TMC's other segment relates to holding of investment properties consisting of approximately 35 office units located at 111 North Bridge Road, Peninsula Plaza, Singapore. The properties have a total floor area of 1,209sqm. The company is also engaged in the provision of marketing and recruitment support services.

8.3 FINANCIAL ANALYSIS

The following ratios represent a few indicators of performance for the education sector in Singapore.

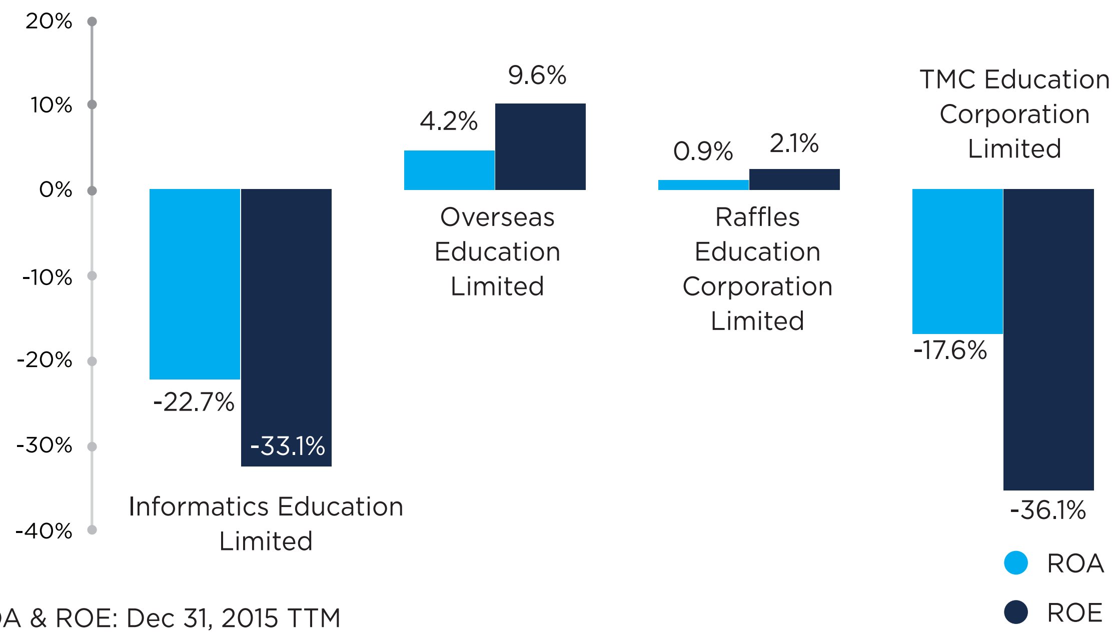
8.3.1 PRICE MULTIPLE COMPARISON



Note: P/E: Dec 31, 2015 TTM; P/B: Dec 31, 2015

Source: Bloomberg; Capital IQ; Frost and Sullivan analysis

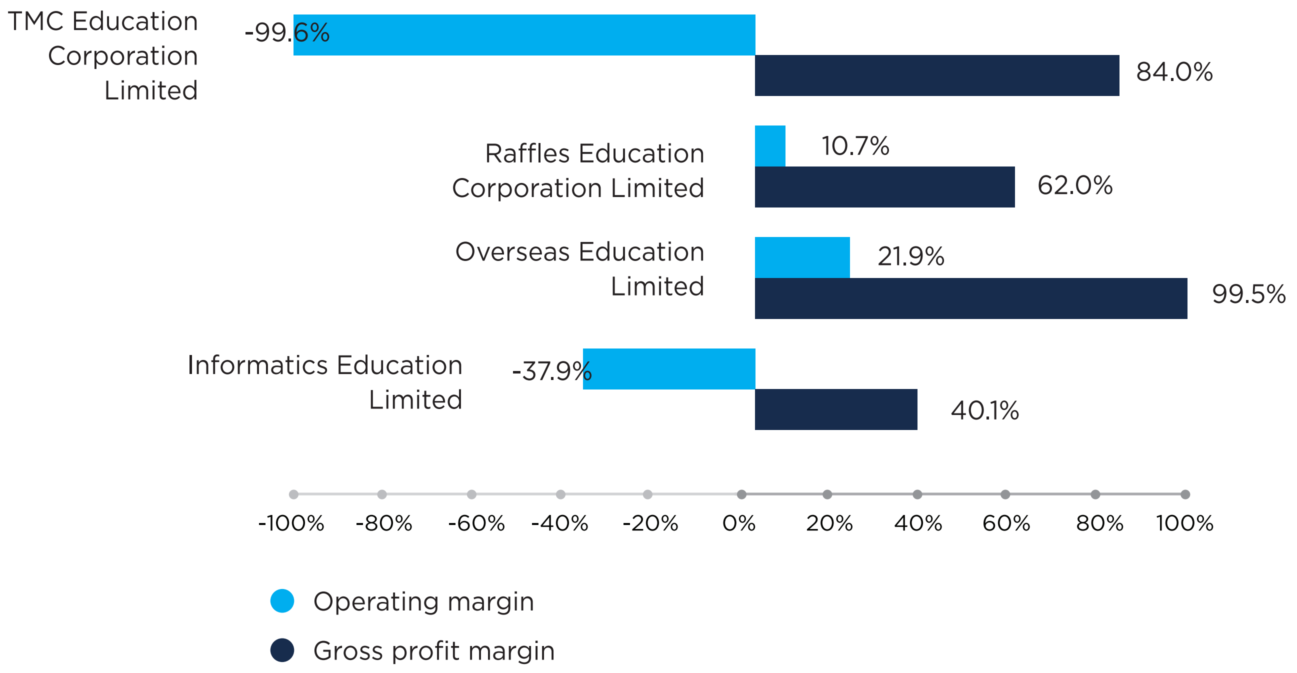
8.3.2 MANAGEMENT EFFECTIVENESS



Note: ROA & ROE: Dec 31, 2015 TTM

Source: Bloomberg; Frost and Sullivan analysis

8.3.3 PROFITABILITY



Note: Gross & Operating Margin: Dec 31, 2015 TTM

Source: Bloomberg; Annual Reports; Frost and Sullivan analysis

RESEARCH METHODOLOGY

Frost & Sullivan has prepared this study in an independent and objective manner, and it has taken adequate care to ensure its accuracy and completeness. We believe that this study presents a true and fair view, within the limitations of, among others, secondary statistics and primary research, and it does not purport to be exhaustive. Our research has been conducted with an "overall industry" perspective, and it may not necessarily reflect the performance of individual companies in the industry.

Forecasts, estimates, predictions, and other forward-looking statements contained in this report are inherently uncertain because of changes in factors underlying their assumptions, or events or combinations of events that cannot be reasonably foreseen. Actual results and future events could differ materially from such forecasts, estimates, predictions, or such statements.

Key financial metrics considered for each company include:

- Price Multiples: Price to Earning (P/E) and Price to Book (P/B)
  - P/E ratio indicates the dollar amount an investor can expect to invest in a company to receive one dollar of that company's earnings.
  - P/B ratio compares the market value of equity to the book value of equity; a better-performing company trades at higher multiples of its book value.

- Management Effectiveness: Return on Asset (ROA) and Return on Equity (ROE)
  - ROA gives an idea of how efficient management is at using its assets to generate earnings.
  - ROE measures a corporation's profitability by revealing how much profit a company generates with the capital shareholders have invested.

- Profitability: Gross Profit Margin and Operating Margin
  - Gross margin is used to assess a firm's financial health by revealing the proportion of money left over from revenues after accounting for the cost of goods sold. It suggests the viability of selling a product or service.
  - Operating margin measures the proportion of a company's remaining revenue after paying for variable costs of production such as wages and raw materials. It suggests the viability of conducting business.

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