

Intangible Assets in ASEAN Capital Markets:

Trends, Gaps and Policy Implications



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Executive summary

In addition to its standard-setting endeavours, the IVSC routinely engages in thought leadership exercises through the dissemination of perspective papers and other non-authoritative publications to stimulate debate on topical issues.

In this study, IVSC, with the support of the Intellectual Property Office of Singapore (IPOS), undertook an empirical study of the intangible assets recognised and reported in financial statements of public companies of Southeast Asia (SEA). This included companies listed within and outside ASEAN. Specifically, this study focused on selected ASEAN-5 (Indonesia, Malaysia, the Philippines, Singapore, and Thailand) companies.

Recognised Intangible Assets ("RIA") grew from 1% of enterprise value ("EV") in 2005, to over 2% in 2022, with wide disparities across the ASEAN-5 markets.

Most markets exhibited significant concentration of their RIA in a small number of companies.

An examination of sectoral breakdown of the RIA shows that much of the Intangible Assets originate from the capitalisation of assets linked to concession businesses. Other RIA originate from Intellectual Property, a subset of Intangible Assets.

Finally, companies based in the ASEAN-5 region but listed outside the region have similar levels of RIA/EV in aggregate but higher levels of IP linked intangible assets.

This examination leads to several conclusions that might inform policy choices.

- 1** Intangible assets are of growing and lasting relevance for ASEAN companies, wherever they are listed.
- 2** Intangible assets are also held by companies that are not listed. These fall outside the scope of the current study.
- 3** There is an urgency for a comprehensive review of the existing financial reporting standards relating to intangible assets.
- 4** Policy makers should frame goals for promoting more recognition of intangible assets including IP in a holistic manner, including for financial reporting.

Introduction

In addition to its standard-setting endeavours, the IVSC routinely engages in thought leadership exercises through the dissemination of perspective papers and other non-authoritative publications to stimulate debate on topical issues. The topic of intangible assets has long been a focus of interest of the IVSC and of its stakeholders. For that reason, between 2021 and 2024 the Council published a series of papers entitled *“Getting tangible about intangibles”*.¹

The launch of the IVSC office in Singapore provided the opportunity to enhance the IVSC’s relationships with stakeholders in Asia, including the Intellectual Property Office of Singapore (**“IPOS”**). In addition to fulfilling the classic functions of a national Intellectual Property office, IPOS has advocated and worked towards a better understanding and the promotion of intangible assets within Singapore and in the international context.

In this study, IVSC, with IPOS’ support, undertook an empirical study of the intangible assets recognised and reported by Association of Southeast Asian Nations (**“ASEAN”**) public companies, listed within and outside ASEAN. Specifically, this study focused on selected ASEAN-5² companies. The execution of the project was contracted to J.S. Held (**“J.S. Held”**), a global consulting firm with a presence in Singapore. The Department of Accounting, NUS Business School, National University of Singapore (**“NUS”**) provided academic oversight of the project.

¹ [IVSC Perspectives Papers](#).

² ASEAN-5 includes: Indonesia, Malaysia, the Philippines, Singapore, and Thailand.

Section I – Scope of Study

An intangible asset is defined in International Accounting Standard 38 Intangible Assets (**“IAS 38”**) as “an identifiable non-monetary asset without physical substance”. This accounting definition excludes goodwill which is defined in International Financial Reporting Standard 3 *Business Combinations* (**“IFRS 3”**) as “an asset representing the future economic benefits arising from other assets acquired in a business combination that are not individually identified and separately recognised”.

In a business combination, intangible assets that are not individually identifiable are subsumed within goodwill recognised by the acquirer. In the absence of a business combination, goodwill is not recognised as an asset, even if it exists.

For the avoidance of doubt, **intangible assets surveyed in this study exclude goodwill**.³ They are referred to as Recognised Intangible Assets (**“RIA”**). It should be noted that RIA constituted only a small percentage

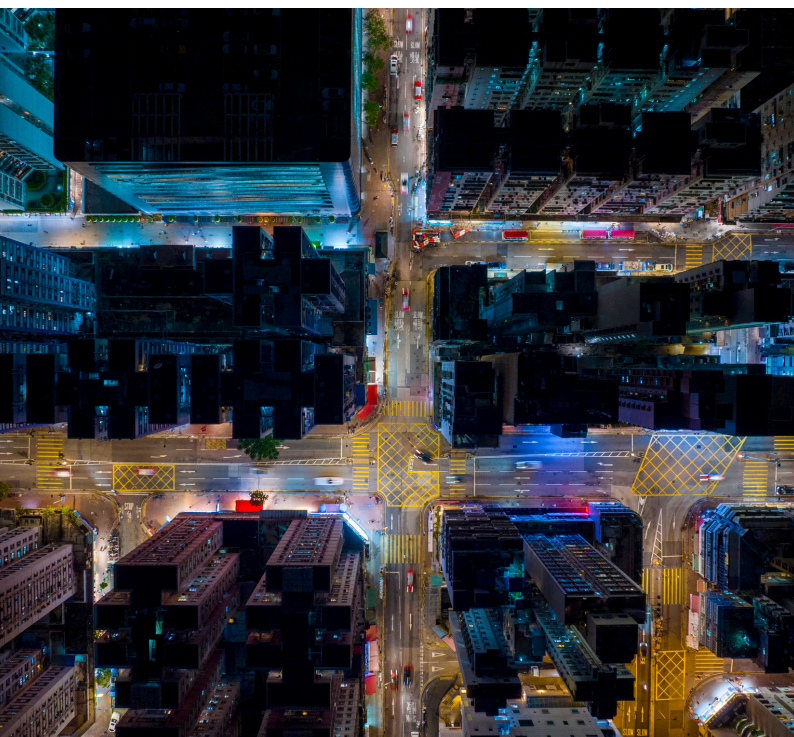
³ Paragraph 119 of IAS 38 specifies that “a class of intangible assets is a grouping of assets of a similar nature and use in an entity’s operations. Examples of separate classes may include:

- a. brand names;
- b. mastheads and publishing titles;
- c. computer software;
- d. licences and franchises;
- e. copyrights, patents and other industrial property rights, service and operating rights;
- f. recipes, formulae, models, designs and prototypes; and
- g. intangible assets under development.

In addition, novel assets such as cryptocurrencies and carbon credits may meet the definition of an intangible asset under IAS 38. However, since the study uses longitudinal data going back to 2005 and these assets do not represent a significant quantum even in the latter years of the period, they are disregarded.

of the market capitalisation.

The large gap identified in this study between the market capitalisation and the book equity of a company is due to both unrecognised intangible assets (individually identifiable) and internally generated goodwill (unidentifiable).



The scope of this study is:

- a. to identify and explain broader trends about the evolution of intangible assets among publicly listed companies in the ASEAN region;
- b. to identify and examine the possible lack of standardisation in intangible asset reporting despite the regional convergence towards International Financial Reporting Standards ("**IFRS**"); and
- c. to draw lessons, where possible, from the contrast between ASEAN companies listed locally and ASEAN companies listed outside the region.

The objective of this study is to provide

practical insights that can help inform discussions around intangible assets reporting, including:

- a. emphasising the growing and lasting relevance of intangible assets for selected ASEAN economies;
- b. demonstrating the relevance of the ongoing review of the existing financial reporting standards relating to intangible assets;⁴
- c. highlighting how intangible assets are integrated in broader trends and economic structures; and
- d. informing national and supranational policymakers as well as other stakeholders.

This report is structured as follows:

- ◇ Introduction
- ◇ Section I – Scope of Study
- ◇ Section II – Methodology
- ◇ Section III – Recognised Intangible Assets of Locally-Listed ASEAN-5 Companies
- ◇ Section IV – Recognised Intangible Assets of Foreign-Listed ASEAN-5 Companies
- ◇ Section V – Potential Additional Recognisable Intangible Assets
- ◇ Section VI – Conclusions

Additional data tables and charts are included in the Annex to this report.

⁴ The IASB is currently reviewing the recognition and measurement of Intangible Assets. In December 2024, the FASB published an [invitation to comment](#) (ITC) seeking feedback on whether it should pursue a standard-setting project related to intangible assets.

Section II – Methodology

The study examines the composition of RIA in comparison with enterprise values (“**EV**”) of companies listed in ASEAN-5, or originating in ASEAN-5 and listed on exchanges outside ASEAN-5.

In the context of this study, EV is calculated as:

EV = market capitalisation + book value of interest-bearing debt – cash and cash equivalents

Raw data used in this survey were extracted from the S&P Capital IQ platform (“**CapIQ**”) and any classification of data follows CapIQ definitions. This survey was conducted at five discrete dates: 31st December 2005, 2010, 2015, 2020, and 2022.

Goodwill was the most significant intangible asset recognised by the surveyed companies, representing around S\$200 billion⁵, or 58% of aggregate total intangible assets. Goodwill arises exclusively from business combinations and is the result of specific intangible assets not being individually identifiable and recognised. While goodwill does have information value,⁶ the scope of this study focuses on RIA only.

As fluctuations in overall levels of RIA in dollar terms for a particular market often flow from changes in the composition of that market,

⁵ Unless stipulated otherwise, all amounts in this report are expressed in Singapore Dollar (“**S\$**”).

⁶ IVSC Perspective Papers “*Is Goodwill a Wasting Asset?*”, “*Current Information Value of the Impairment Test*”, “*Opportunities for Enhancing the Goodwill Impairment Framework*”, 2019–2020.

analysis of RIA in dollar terms alone would be of limited value. A clearer picture can be obtained by assessing how the aggregate value of RIA changes relative to the aggregate value of the corresponding companies at any given time within a market.

To avoid changes in overall levels of gearing distorting our analysis, we use enterprise value, rather than market capitalisation, as the denominator in our ratio. We have therefore calculated ratios of RIA to enterprise value (“**RIA/EV**”), for analyses in this study.

Companies Selected for Survey

The scope of this study focuses on the ASEAN region, given:

- the close trading relationships within ASEAN;
- the cultural and economic differences between the constituent nations and the extent to which studying the impact of those differences on intangible asset recognition and reporting might yield additional insights; and
- that ASEAN nations are often considered collectively in global analyses.

We have considered companies listed on the following major ASEAN-5 exchanges:

- Singapore – Singapore Exchange (“**SGX**”) comprising both the Mainboard and Catalist
- Indonesia – Indonesia Stock Exchange (“**IDX**”)
- Malaysia – Bursa Malaysia (“**KLSE**”)
- Philippines – Philippine Stock Exchange (“**PSE**”)
- Thailand – Stock Exchange of Thailand (“**SET**”)

Figure 1 below shows the enterprise values by year and by market for a total of 3,504 locally-listed ASEAN-5 companies surveyed.⁷

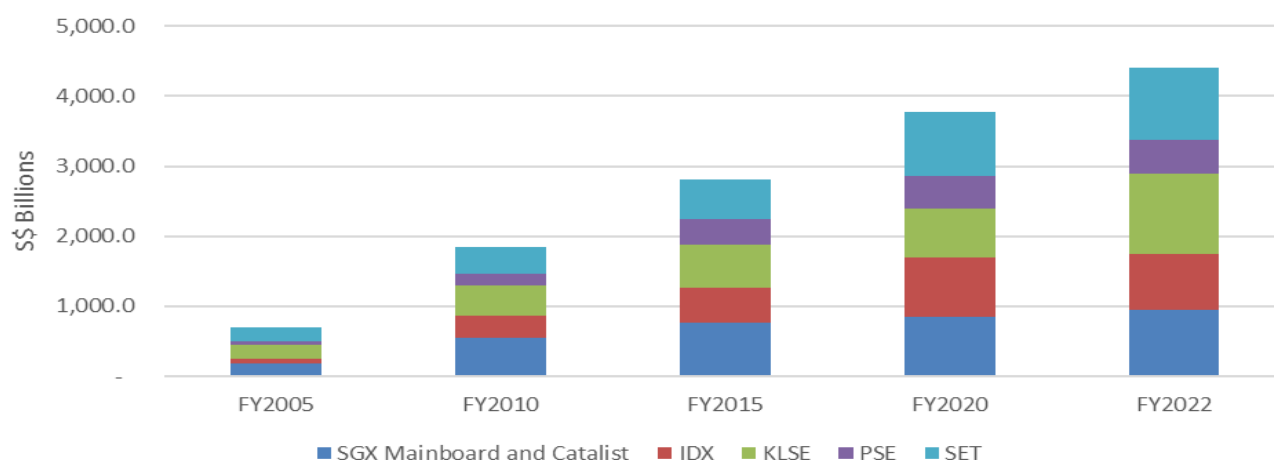


Figure 1 Enterprise Values by Year and by Market

The results of our analysis of the companies listed on ASEAN-5 exchanges are set out in Section III.

Smaller ASEAN exchanges have been excluded from the study since their inclusion is likely to be less meaningful given: (i) differing levels of practical compliance with IFRS;⁸ (ii) the low number of companies listed on them; and, (iii) the relative illiquidity of many of their listings.

The study also includes companies domiciled in ASEAN-5 but listed on foreign exchanges.⁹ The study examines the hypothesis that technology and other intangible asset-intensive businesses are more inclined to list on extra-regional exchanges (e.g. Grab's listing on NASDAQ). The analysis of those companies is set out in Section IV.

⁷ Breakdown of the number of listed companies on 31 December 2022: a) SGX with 596 companies; b) IDX with 803 companies; c) KLSE with 988 companies; d) PSE with 267 companies; and e) SET with 850 companies.

⁸ Vietnam published its IFRS roadmap in 2019 for compulsory IFRS adoption by 2025. Myanmar announced in 2018 its adoption of latest IFRS Standards from the 2022–2023 financial year. The date for application of full IFRS in Cambodia was set for 2012. Lao PDR does not appear in the list of countries recognised by IFRS Foundation for adoption of IFRS.

⁹ Foreign exchanges, as opposed to domestic exchanges, refer to exchanges outside ASEAN-5 countries, such as New York Stock Exchange, Nasdaq Exchange, and Stock Exchange of Hong Kong.

Section III – Recognised Intangible Assets of Locally-Listed ASEAN-5 Companies

The analysis in this section comprises three different exercises:

- a. a time series analysis assessing how RIA/EV ratios have evolved from 2005 to 2022 for each market and for all five markets in aggregate;
- b. a detailed analysis of RIA/EV ratios by country and by industry in 2022; and
- c. a focused review to identify the most significant items of intellectual property that were included within RIA.

a) Time Series Analysis 2005 to 2022

We have calculated the RIA/EV ratio for each year and each market by reference to the total RIA and total EV for that market (as opposed to calculating RIA/EV ratios for each company and then averaging those ratios).

To improve the comparability of ratios between observations, this analysis has been restricted to those 1,030 companies¹⁰ for which data were available for all five surveyed years of 2005, 2010, 2015, 2020 and 2022, spanning a 17-year period. Our analysis shows that total RIA across these 1,030 companies increased over the 17-year period from S\$ 6.5 billion in 2005 to S\$ 47.5 billion in 2022.

¹⁰ Breakdown by exchanges is as follows: a) SGX with 147 companies; b) IDX with 47 companies; c) KLSE with 493 companies; d) PSE with 70 companies; and e) SET with 273 companies.

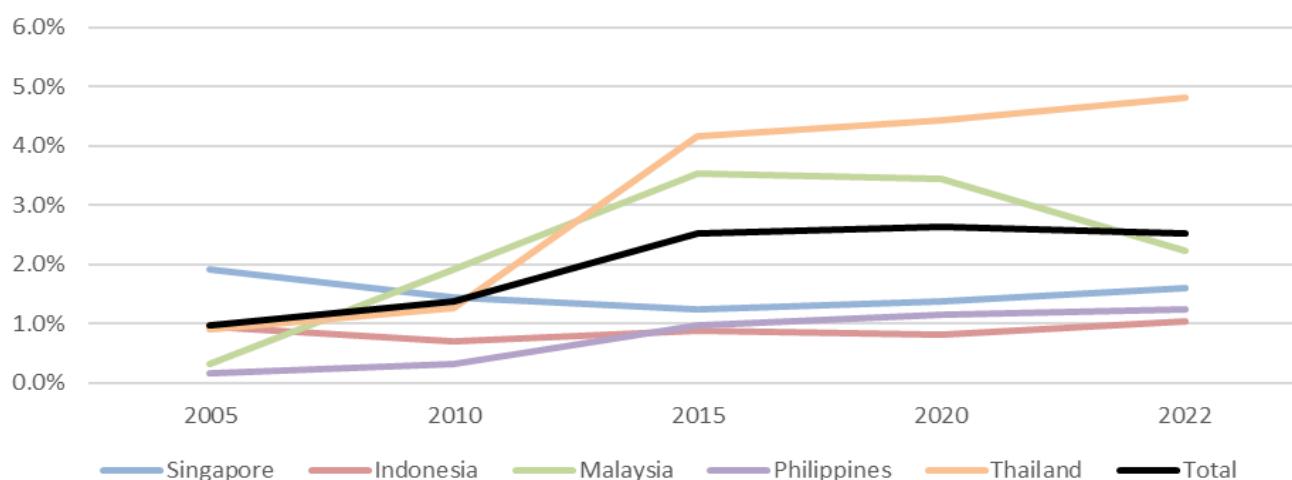


Figure 2 RIA/EV Ratio by Year and by Market (Time Series Analysis)

Figure 2 (above) shows that over the 17-year period covered by this study, there were noticeable increases in Malaysia and Thailand's RIA/EV ratios, stable ratios for Indonesia and the Philippines, and minor fluctuations for Singapore.

The total RIA/EV ratio however increased noticeably from 2005 to 2015 and was driven primarily by increases in Malaysia and Thailand.

We discuss the drivers for the increases observed in those two markets, as well as the relatively minor fluctuations in Singapore's ratio over the 17-year period below. These three markets are selected for further analysis as they contain large individual sample size of more than 100 occurrences and hence make the analysis more meaningful and representative.

RIA/EV ratios remained relatively stable for Indonesia and the Philippines from 2005 to 2022. RIA and EV both increased almost in tandem over the years. Yet their combined RIA accounted for less than 10% of the total for ASEAN-5 throughout the period. Concession rights were the most significant type of RIA

in these markets and these are discussed further below. Given the stability of ratios of Indonesia and the Philippines, the remainder of this section focusses on Singapore, Malaysia and Thailand which have experienced the greatest change in RIA/EV ratios.

Singapore

In the case of Singapore, the value of RIA of the companies surveyed in the time series analysis increased from S\$3.5 billion in 2005 to S\$7.3 billion in 2022 while the total EV increased from S\$183 billion to S\$457 billion. The increase in RIA and EV almost moved in tandem and as a result, the RIA/EV ratio of Singapore only fluctuated between 1% and 2% over the 17-year period covered.

As with other ASEAN-5 countries, Singapore also exhibited significant concentration of its RIA in a small number of companies. For example, Jardine Matheson Holdings Limited,¹¹

¹¹ Jardine Matheson Holdings Limited is a multinational conglomerate. Its subsidiaries include Jardine Pacific, Jardine Motors, Hongkong Land, Jardine Strategic Holdings, DFI Retail Group, Mandarin Oriental Hotel Group, Jardine Cycle & Carriage and Astra International.

which made up 9% and 7% of the total EV of Singapore in 2005 and 2022 respectively, contributed 50% of the Singapore's RIA in 2005 and 26% in 2022. The top three companies¹² accounted for 81% of Singapore's RIA in 2005, and 55% in 2022.

These fluctuations appeared to be driven to a greater extent by changes in the relative EV of different market sectors and specifically, increases in the EV of companies in the Real Estate and Financial Services sectors. These two sectors had negligible RIA relative to their enterprise values, which grew by 244% and 176% respectively over the 17-year period, relative to 149% for all sectors.

Despite the large percentage growth, at the end of the period, in 2022, RIA amounted to 0.4% of Real Estate sector's EV, and 0.4% of the Financial Services sector's EV.

In contrast, the Utilities sector saw an increase in the RIA/EV ratio from 0.2% in 2005 to 18.0% in 2022¹³ and the Communication sector observed a similar increase from 2.4% to 8.4%.¹⁴ However, given that the EV contribution from these two sectors made up only 8.7% of the entire Singapore EV in 2022, their increase did not significantly impact the overall RIA/EV ratio of Singapore.

¹² The companies in the ranking of contribution are Jardine Matheson Holdings Limited, Oversea-Chinese Banking Corporation Limited and Mandarin Oriental International Limited in 2005 and Jardine Matheson Holdings Limited, Olam Group Limited and Sunpower Group Ltd. in 2022.

¹³ Mainly driven by SII Environment Holdings Ltd., Zheneng Jinjiang Environment Holding Company Limited, Sunpower Group Ltd. and Sembcorp Industries Ltd as discussed in the later section.

¹⁴ Mainly driven by Singapore Telecommunications Limited and Asian Pay Television Trust as discussed in the later section.

Malaysia

In 2005, the most significant contributor to total RIA for Malaysia was MISC Berhad,¹⁵ ("**MISC Group**") which had RIA of S\$143 million. This represented the fair value of long-term charter hire contracts by subsidiaries, recognised at the date of acquisition, less accumulated amortisation over their remaining charter periods. This accounted for approximately 22% of the total RIA of Malaysia and approximately was 2.9 times larger than the next contributor.

Much of the increase observed for Malaysia from 2005 to 2010 was attributable to Genting Berhad ("**GB**")¹⁶ and Genting Malaysia Berhad ("**GMB**")¹⁷, both of which recorded significant licences with indefinite useful lives in their financial statements. GB had acquired Stanley Leisure Plc in 2006 for its casino licences in Malaysia while GMB acquired casino businesses in the United Kingdom in 2010. Collectively, GB and GMB accounted for 38% of the total RIA reported by companies listed on the Malaysian exchange in 2010. This corresponded with a tenfold increase from S\$651 million in 2005 to \$6,719 million in 2010. Subsequently, the value of RIA for both GB and GMB remained relatively constant in 2015, 2020 and 2022 and their contribution to the total RIA decreased from 24% to 18% as total RIA attributable to other companies grew.

¹⁵ Principal activities consist of ship owning, ship operating and other activities related to shipping services.

¹⁶ Principal businesses include leisure & hospitality, power generation, oil palm plantation, property development, biotechnology and oil & gas.

¹⁷ Principal activities cover leisure and hospitality services, which comprise gaming, hotel, entertainment and amusement.

Malaysia Airports Holdings Berhad (“**MAHB**”)¹⁸ had capitalised the costs incurred to acquire concession rights to operate airports in Malaysia and Turkey since 2009. By 2015, MAHB’s airport operating rights accounted for approximately 42% of Malaysia’s total RIA of S\$14,070 million.

The dollar value of Malaysia’s total RIA remained at similar levels in 2020 and 2022. However, its RIA/EV ratio decreased due to increases in the market value of existing listed companies and the introduction of new listed companies.

Thailand

Unlike in Malaysia, where a small number of companies contributed the majority of reported RIA, Thailand’s aggregate RIA was distributed across many companies in any of the five surveyed years.

Of all the Thailand-listed companies that recognised significant RIA, the most prominent was PTT Public Company Limited (“**PTT**”),¹⁹ which contributed more than 14% of Thailand’s total RIA each year. PTT has recognised various intangible assets during the years reviewed, including leasehold rights, land rights, computer software licences, other operating rights, patents, asset rights such as gas transmission pipelines, resource exploration and evaluation assets, and customer contracts. In particular, the increase in 2015 RIA was due to the capitalisation of exploration and evaluation costs incurred in the petroleum exploration and production business.

Aside from PTT, another prominent player was Advanced Info Service Public Company Limited (“**AIS**”) in the Communication Services sector. Through a series of successful bids in auctions beginning from 2012 for the licences for operation rights in telecommunication spectrums, AIS continued to expand its ownership for such licences which account for 14% to 26% of the total RIA in Thailand from 2015 to 2020.

As noted above, the growth in Thailand’s RIA was not just attributable to a small number of companies and sectors. For example, CP ALL Public Company Limited (“**CP ALL**”)²⁰ recognised intellectual property arising from the acquisition of several subsidiaries in 2013, thereby contributing to the observed increase between 2010 and 2015.

Further increases in Thailand’s RIA/EV ratio between 2020 and 2022 can be attributed to recognition of significant levels of RIA across other sectors and companies including Bangkok Expressway and Metro Public Company Limited²¹ and Minor International Public Company Limited (“**Minor International**”).²²

¹⁸ Core business is the management, operation, maintenance and development of airports.

¹⁹ Company mainly engages in upstream petroleum and natural gas, downstream petroleum, new business and infrastructure, and other related businesses.

²⁰ Principal activities are to operate the convenience store business in Thailand under “7-Eleven” trademark and other related businesses.

²¹ The Company mainly engages in the construction and management of expressways, the operation of metro services and commercial development.

²² The Company mainly engages in investment activities, hotel, restaurant operations, and distribution and manufacturing.



b) Analysis of Recognised Intangible Assets in ASEAN-5 in 2022

We have calculated RIA/EV ratios by both market and industry as at 31st December 2022. All 3,323 companies for which data were available in 2022 have been included in this analysis to provide the clearest picture of the current levels of RIA being reported by locally-listed ASEAN-5 companies.

The table below summarises the results of that analysis, with darker shades of blue indicating higher RIA/EV ratios:

Additional country level trends are presented in the Annex. The most significant categories of intangible assets contributing to the RIA ratios shown in the table above are explained below.

| | Singapore | Indonesia | Malaysia | Philippines | Thailand |
|---------------------------|-----------|-----------|----------|-------------|----------|
| Communication Services | 8% | 2% | 7% | 2% | 15% |
| Consumer Discretionary | 1% | 3% | 11% | 5% | 3% |
| Consumer Staples | 4% | 0% | 1% | 6% | 3% |
| Energy | 1% | 0% | 3% | 0% | 5% |
| Financials | 0% | 1% | 1% | 1% | 2% |
| Health Care | 1% | 1% | 3% | 3% | 0% |
| Industrials | 5% | 22% | 2% | 11% | 4% |
| Information Technology | 2% | 0% | 3% | 8% | 1% |
| Materials | 5% | 2% | 1% | 3% | 6% |
| Real Estate | 0% | 2% | 0% | 0% | 1% |
| Utilities | 18% | 0% | 3% | 20% | 4% |
| Unclassified | 0% | 0% | 0% | 0% | 1% |
| Aggregate EV (\$ billion) | 940.83 | 810.81 | 1,147.49 | 476.65 | 1,029.53 |
| Number of Companies | 596 | 803 | 988 | 267 | 850 |

Table 1: RIA/EV Ratio by Market and by Industry on 31 December 2022 (All Companies)

Utilities Sector

Philippines – Utilities sector RIA/EV Ratio: 20%

In 2022, the RIA for the utilities sector in the Philippines was dominated by Synergy Grid & Development Phils., Inc (“**Synergy**”), which was listed in 2021. Synergy’s RIA arose in 2008 when Synergy entered into a Concession Agreement granting Synergy the right to operate the regulated electricity transmission business. Subsequent additions to Synergy’s RIA included assets under construction and completed projects related to the regulated transmission business.

Singapore – Utilities sector RIA/EV Ratio: 18%

Among the 10 Utilities companies in Singapore, SII Environment Holdings Ltd., a top-tier integrated player in China’s water and environmental markets, acquired concession rights to operate water utilities prior to 2015. It was amortising the resulting intangible assets over the concession period and had an RIA/EV ratio of 37% in 2022. Similar concessions rights were recognised as intangible assets by other providers of public utilities services in China, including

Zheneng Jinjiang Environment Holding Company Limited, and Sunpower Group Ltd, with respective RIA/EV ratios of 37% and 87% in 2022.

Similarly, 67% of Sembcorp Industries Ltd.'s²³ RIA in 2022 was attributable to Singapore power generation permits that it had recognised as intangible assets, leading to an RIA/EV ratio of 5%.

Communication Services Sector

Malaysia – Communications sector RIA/EV Ratio: 7%

Malaysia's major telecommunication service providers, Axiata Group Berhad and Maxis Berhad, capitalised their acquired telecommunication licences, which made up 72% and 67% of their total RIA, respectively.

Celcomdigi Berhad ("**Celcomdigi**") was formed through the merger of Celcom and Digi in 2022. The merger resulted in significant trademark and customer relationship assets being recognised.

Singapore – Communication Services sector RIA/EV Ratio: 8%

Among the 17 Communication companies, Singapore Telecommunications Limited ("**Singtel**"), with an RIA/EV ratio of 4% and StarHub Ltd of 14% both recognise acquired telecommunication and spectrum licences issued by the government authority and are

subjected to regulatory requirements. These licences were typically amortised over 4 to 21 years.

Similarly, Asian Pay Television Trust ("**APTT**"), with a focus on pay-tv and broadband businesses, capitalised acquired cable TV licences which it assessed as having indefinite useful lives. Interestingly, APTT has an RIA/EV ratio of 165%, largely because RIA contributes 85% of its total assets while its market capitalisation is much lower than its reported net assets.

Thailand – Communication Services sector RIA/EV Ratio: 15%

The communications sector in Thailand was similar to that in Singapore and Malaysia in that the major players such as True Corporation Public Company Limited ("**True Corporation**"), with an RIA/EV ratio of 28%, and AIS of 21%, recognised acquired telecommunication spectrum licences as intangible assets, which accounted for over 93% of the sector's RIA spreading across 46 companies.

Industrials Sector

Indonesia – Industrials sector RIA/EV Ratio: 22%

The industrials sector in Indonesia, with a total of 140 companies, recorded the highest RIA/EV ratio across all the sectors and all markets, at 22%.

This high ratio was mainly attributable to PT Jasa Marga (Persero) Tbk ("**PJM**"), PT Waskita Karya (Persero) ("**PWK**") and PT Citra Marga Nusaphala Persada Tbk

²³ The businesses are organised into four reportable segments based on the nature of products and services, namely Renewables, Integrated Urban Solutions, Conventional Energy and Other Businesses and Corporate.

("PCMN"), with RIA/EV ratios of 104%, 72% and 120% respectively, all of which were in the business of constructing, operating and maintaining toll roads in Indonesia. The toll road concession rights (recognised at the cost of constructing the corresponding roads and infrastructure), which were granted by the Government of Indonesia, were recognised as RIA and amortised over the remaining concession periods. The toll roads are transferred to the Government at the end of the concession period and the RIA will then be derecognised. Similar to APTT from Singapore's Communication Services sector, RIA formed the majority of the total assets and significant borrowings were recorded under liabilities.

Philippines – Industrials sector RIA/EV Ratio: 11%

As in Indonesia, much of the Philippines industrials sector's RIA was attributable to infrastructure operators. In addition to concession rights for toll roads, the biggest contributor to RIA, Top Frontier Investment Holdings, Inc. ("**Top Frontier**"),²⁴ also recognised concession rights for operating airports (including Manila International Airport and Boracay Airport), water utilities, power generation services and the Metro Rail Transit Line.

San Miguel Corporation ("**San Miguel**")²⁵ and International Container Terminal Services, Inc ("**ICTS**")²⁶ both recognised relating to the operation of port infrastructure as intangible assets.

Top Frontier, San Miguel and ICTS's RIA collectively accounted for 92% of the Philippine industrials sector's RIA. As such, they amount to 54% of the total RIA of the Philippine market.

Consumer Discretionary sector

Malaysia – Consumer Discretionary sector RIA/EV Ratio: 11%

75% of the RIA reported in the Consumer Discretionary sector in Malaysia was attributable to GB and GMB (whose casino and business licences are discussed above) and Berjaya Land Berhad ("**Berjaya Land**").²⁷

Berjaya Land similarly recognised gaming rights (to operate Toto betting in Malaysia) that were acquired through the Restructuring Scheme undertaken by Sports Toto Malaysia Bhd back in 1990.

24 Top Frontier is the largest shareholder of San Miguel Corporation ("SMC") in which it holds 62% total outstanding common stock. SMC is engaged in various businesses, including beverage, food, packaging, energy, fuel and oil, infrastructure and real estate property management and development. In 2013, Top Frontier acquired Clariden Holdings, Inc., a holding company with interests in exploration, mining and development through its subsidiaries. The Company mainly engages in the food and beverage, packaging, energy, mining, fuel and oil, infrastructure, cement, and real estate property management and development businesses worldwide.

25 Company mainly engages in various businesses, including food and beverage, packaging, energy, fuel and oil, infrastructure, cement and real estate property management and development.

26 Principal activities are to operate in cargo handling and related services.

27 Principal activities are property development, property investment, hotels and resorts, clubs and recreation, gaming in Malaysia, and Business operations in the Philippines and the United Kingdom.



c) Most significant items of Intellectual Property

Intellectual property (“IP”)²⁸ represents a subset of intangible assets²⁹ relating to creations of the mind, such as inventions; literary and artistic works; designs; and symbols, names and images used in commerce. While IAS 38 allows the capitalisation of intangible assets if they meet certain stringent criteria, it generally prohibits the recognition of internally generated intangible assets like brands and customer lists. Paragraph 63 of IAS 38 states that “Internally generated brands, mastheads, publishing titles, customer lists and items similar in substance shall not be recognised as intangible assets”. Brands and trademarks that are recognised on companies’ consolidated balance sheets normally arose from business acquisitions but are not internally generated.

IP is protected in law by, for example, patents, copyright and trademarks, which enable people to earn recognition or financial benefit from what they invent or create.

We have reviewed the disclosures relating to RIA in the financial statements of locally-listed ASEAN-5 companies and set out below the more significant items of IP identified through that review. The main RIA recognised by Indonesian companies is the concession rights from the Industrials sector, with no significant IP noted.

²⁸ As defined by the World Intellectual Property Organization (WIPO).

²⁹ An intangible asset is defined in International Accounting Standard 38 as an identifiable non-monetary asset without physical substance.

Singapore

Wilmar International Limited (“**Wilmar**”)³⁰ recognised brands valued at over S\$2 billion in 2022. Those included ‘Arawana’, ‘CSR’, ‘Madhur’ and various other brand names held by its subsidiaries. Similarly, Thai Beverage Public Company Limited (“**ThaiBev**”)³¹ recorded trademarks with value of over S\$1.2 billion, representing approximately 84% of its RIA.

Olam Group Limited (“**Olam**”)³² recognised brand names and trademarks including ‘OK Foods’ and ‘OK Sweets’ in its 2015 financial statements, accounting for approximately 25% of its 2015 RIA. Olam’s portfolio of brand names and trademarks continued to expand across the years mainly through acquisition of additional subsidiaries. For instance, Olam made three major acquisitions of Olam Chile Peppers, Jain Farm Fresh Foods, Inc. and Olam OT Holdings, LLC (formerly known as Olde Thompson) in 2021. As a result, additional brands and trademarks of ‘U.S. Cotton’, ‘Jain Farm Fresh Foods’, ‘Gel Spice’ and ‘Olde Thompson’ are recorded in Olam’s 2022 financial statements, with brands and trademarks collectively accounting for approximately 40% of its 2022 RIA.

³⁰ An integrated agribusiness that encompasses the entire value chain of the agricultural commodity business, from cultivation and milling of palm oil and sugarcane, to processing, branding and distribution of a wide range of edible food products in consumer, medium and bulk packaging, animal feeds and industrial agriproducts such as oleochemicals and biodiesel.

³¹ Business consists of four segments – spirits, beer, non-alcoholic beverages, and food.

³² Olam is a leading food and agribusiness supplying food, ingredients, feed and fibre.

Philippines

Top Frontier from the Philippines recognised trademarks and brand names, including ‘San Miguel’, ‘Ginebra San Miguel’, ‘Purefoods’, ‘Magnolia’, ‘Star’, ‘Dari Crème’, ‘B-Meg’, ‘Petron’, ‘Gasul’, ‘Eagle Cement’ and other IP rights to prepare, package, advertise, distribute and sell its products, amounting to 25% of Top Frontier’s RIA. Interestingly, several lawsuits relating to the trademarks were disclosed in the annual report. A subset of these trademarks and brand names were also recognised in the financial statements of San Miguel, a subsidiary of Top Frontier also listed on the Philippine Stock Exchange.

Malaysia

PETRONAS Chemicals Group Berhad (“**Petronas Chemicals**”)³³ increased its RIA significantly following its acquisition of Perstorp Holding AB in 2022. Petronas Chemicals reported significant trademarks (approximately 35% of its RIA) and patents and know-how (approximately 27% of its RIA).

Trademarks of Celcomdigi amounted to S\$0.5 billion or approximately 53% of its RIA in 2022, which related to Celcom’s trademark acquired through a business combination.

Thailand

Minor International recorded brand names (mainly for hotels) worth more than S\$1.7 billion, or approximately 84% of the company’s total RIA.

Most intangible assets recognised by CP ALL

from 2015 onwards comprised IP: software and other IP accounted for 96% of CP ALL’s RIA in 2022. However, little disclosure was made regarding the details of the other IP held by CP ALL aside from it arising from CP ALL’s acquisition of Siam Makro in 2013 and being assumed to have an indefinite useful life.

On the other hand, PTT, one of the largest contributors to Thailand’s total RIA from 2005 to 2022 as described in Section III above, began to enhance its disclosure by separating its copyright, licences and trademarks in 2020 from other intangible assets. Between 2020 and 2022, copyright, licences and trademarks increased from 11% to over 28% of PTT’s RIA.

Indorama Ventures Public Company Limited³⁴ recognised technology licences and knowhow of approximately S\$0.3 billion, accounting for 20% of Indorama’s total RIA.



³³ Petronas Chemicals was the chemical arm of PETRONAS and Malaysia’s leading integrated chemicals producer.

³⁴ Principal activities are to manufacture and distribute petrochemical products in Thailand and internationally. i

Section IV – Recognised Intangible Assets of Foreign-Listed ASEAN-5 Companies

Our research identified 178 companies that were domiciled in one of the ASEAN-5 jurisdictions but listed on an exchange outside ASEAN-5. Of these, only nine companies had data available for all five surveyed years covered by this study. The population has grown from 10 companies in 2005 to 174 companies³⁵ in 2022. Restricting our time-series analysis to the companies for which data were available for all five surveyed years, as we did for the ASEAN-5 listed companies, would have been overly restrictive.

The figure below therefore reflects the RIA/EV ratio for all 178 foreign-listed ASEAN-5 companies across the five surveyed years, insofar as those companies had the relevant data in any particular year, with the total for locally-listed ASEAN-5 companies included for comparison.



Figure 3 Comparison of RIA/EV Ratio for Locally-Listed and Foreign-Listed ASEAN-5 Companies

³⁵ Breakdown by exchanges is as follows: a) Stock Exchange of Hong Kong with 74 companies; b) NASDAQ Capital Market with 29 companies; c) NASDAQ Global Market with 16 companies; d) Australian Securities Exchange with 14 companies; and other 17 stock exchanges with individually less than 10 companies. Four of the 178 foreign-listed ASEAN-5 companies did not have available data, leaving 174 companies as at 31 December 2022.

High Observed RIA/EV Ratio for 2015

As noted above, there was a sharp increase in the RIA/EV ratio for 2015 which was mainly attributed to Trip.com Group Limited (“**Trip.com**”) which was based in Singapore and listed on US-based Nasdaq Stock Exchange. Trip.com accounted for 71% of the total RIA in 2015.

Historically, Trip.com, as an international one-stop travel service provider, recognised significant trademarks associated with “Ctrip” and “携程”. These trademarks were not subject to amortisation. A significant increase in Trip.com’s RIA occurred in FY2015 following Trip.com’s acquisition of Qunar Cayman Islands Limited (“**Qunar**”), a search-based commerce platform, which held significant trademark and domain name assets.

Since 2015, the value of RIA reported by Trip.com remained largely consistent in 2020 and 2022 but its contribution to the overall RIA of foreign-listed ASEAN-5 companies reduced

from 71% to 56% and 51% respectively due to additional RIA being reported by other newly listed companies. Trip.com's inclusion in this calculation may be considered tenuous, since it is incorporated in the Cayman Islands, and has most of its activities in China. Nonetheless, the address of its principal executive offices is in Singapore.³⁶

While Trip.com made a dominant contribution to the increase in the RIA/EV ratio in 2015, ASMPT Limited and Seagate Technology Holdings plc from the Information Technology sector and Kenon Holdings Ltd. from the Utilities sector also contributed to the overall increase.



³⁶ Source: Trip.com Group Limited US SEC Form 20F (2023).

Relative Mix of Intangible Assets

To better understand the relative mix of intangible assets and the extent to which IP made up the reported values, we undertook a detailed review of the categories of intangible assets reported by the largest contributors of RIA in 2022 for both locally-listed and foreign-listed³⁷ ASEAN-5 companies.

The results, covering over 75% of total reported RIA for both sets of companies,³⁸ are summarised in Figure 4 below:

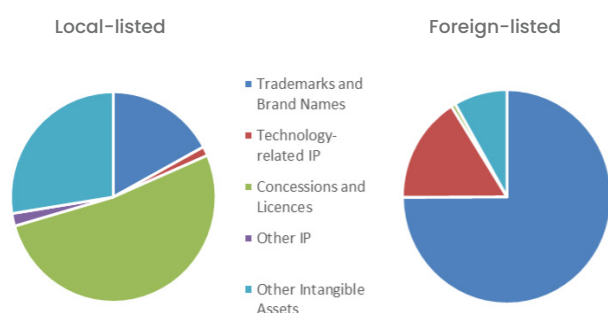


Figure 4 Composite of top 75% reported RIA

There was a stark difference between the mix of intangible assets recognised by locally-listed and foreign-listed ASEAN-5 companies although the overall RIA/EV ratios for both groups are very similar.

One possible hypothesis for the difference is that foreign-listed ASEAN-5 companies tend to be younger, faster-growing businesses which will therefore be more likely to have significant technology-related IP and more likely to have acquired trademarks or brand names requiring separate recognition within the financial statements. Conversely, more

traditional infrastructure development and investment companies which have recognised significant concessions on their balance sheets in relation to highways, airports or casinos are less willing or able to incur the costs required for a foreign listing and more likely to list only on domestic exchanges.

Foreign-listed ASEAN-5 companies recognise proportionally higher levels of trademarks, brand names and technology related IP, while locally-listed ASEAN-5 companies reported only significant RIA arising from concessions and licences.

It is worth noting that some of the largest foreign-listed ASEAN-5 companies by market value do not recognise significant intangible assets in their financial statements, even though they are generally regarded as technology-focused companies. This group includes Sea Limited,³⁹ which was listed on the New York Stock Exchange with an RIA/EV ratio of 0.2% in 2022 as well as Grab Holdings Limited⁴⁰ which was listed on the Nasdaq Stock Exchange with an RIA/EV ratio of 0.8%. This low ratio is probably attributable to the fact that those companies nurtured and grew their intangible assets internally in their early years. Those outlays did not meet the strict criteria allowing the recognition of these development costs to be capitalised as an asset on the companies' balance sheet. Rather, those outlays were expensed as costs through the income statement..⁴¹

39 Sea Limited has EV of S\$36,461 million with a comparatively low RIA of S\$87 million.

40 Grab Holdings Limited has EV of S\$15,847 million with RIA of S\$131 million.

37 Such ASEAN-5 companies are typically listed on exchanges in more developed financial reporting jurisdictions such as New York Stock Exchange, Nasdaq Exchange, Stock Exchange of Hong Kong.

38 Fifty-two (52) locally-listed ASEAN-5 companies and six (6) foreign-listed companies contributed 75% of their respective RIA.

41 Grab Holdings Limited prepares its financial statements in accordance with International Financial Reporting Standards, while Sea Limited prepared its financial statements in accordance with U.S. Generally Accepted Accounting Principles (U.S. GAAP). While IAS 38 allows capitalisation of development expenditure under certain criteria, U.S. GAAP generally requires development expenditure to be expensed as incurred.



Section V – Potential Additional Recognisable Intangible Assets

Characteristics of Recognised Intangible Assets

The criteria for recognising intangible assets under both IFRS and US GAAP make it easier to recognise intangible assets through acquisitions than through internal generation.⁴² Our research shows that the recognition of most ASEAN-5 companies' RIA also arose through acquisition, either:

- a. by way of business combinations (e.g. Celcomdigi's recognition of trademark and customer relationship assets);
- b. through direct purchasing of rights (e.g. spectrum licences purchased by Singtel); or
- c. from the exchange of physical assets for rights to future income (e.g. concessions granted to PJM, PWK and PCMN for the toll roads that they constructed and transferred to the state).

Of the major contributors to locally-listed ASEAN-5 companies' RIA discussed above, only 0.6% of their RIA in 2022 related to ongoing technology development costs that were internally generated and capitalised during the development phase.

Drilling down to country level, the percentage of ongoing technology development costs were about 2.5%, solely contributed by Singapore Technologies Engineering Ltd. The other ongoing technology development

costs were contributed by Thailand with four companies making up 0.5% of Thailand's RIA.

This was lower relative to the 9% of RIA from capitalised development costs reported by foreign-listed ASEAN-5 companies in 2022, which were contributed by two companies.

Unaccounted for Market Value

Studies of the S&P 500 and other U.S. exchanges have shown that the market value of companies far exceeds the carrying amount of net assets and that the ratio of net assets to market value has decreased drastically over time. This implies the rise of unrecognised intangible assets in increasingly technology-driven economies.⁴³

In the oft-quoted Intangible Asset Market Value ("IAMV") Study conducted by Ocean Tomo,⁴⁴ IAMV for components of S&P 500 market value has increased from 17% of market capitalisation in 1975 to 80% in 2005 and 90% in 2020. Ocean Tomo has also expanded its research to components of S&P Europe 350 market up and observed a relatively smaller increase from 67% in 2010 to 75% in 2020. In the context of Asian exchanges, IAMV is significantly lower with the highest being Korea's KOSDAQ of 57% in 2020. It is worth noting that the RIA/EV ratio discussed in the earlier sections considered what the company has recognised on the balance sheet while IAMV considered both unrecognised intangible assets (individually identifiable) and internally generated goodwill (unidentifiable).

These regional differences are further supported by the Intangible Benchmark

⁴² A study of the UK market found a correlation between YoY changes in the value of intangibles reported by UK companies and levels of M&A activity in the UK – Paragraphs 3.8 to 3.14, Intangibles research project – final draft quantitative report, 28 March 2024, UK Endorsement Board

⁴³ [Intangible Asset Valuation: 5 Valuation Methods & Guide](#) (Chris Walton, JD):

⁴⁴ Ocean Tomo, [Intangible Asset Market Value Study](#)

Index study conducted by Everedge⁴⁵ published in 2022, where the Intangible Asset Enterprise Value Trend for S&P 500 companies increased from 72% in 2005 to 85% in 2020 while the same for FTSE ST All Share Index companies decreased from 57% in 2010 to 28% in 2020. One of the hypotheses advanced in that report was that the discrepancies in intangible assets between markets are the result of the sectoral composition of those markets. The intangible asset proportion within sectors across the markets covered by the study, was found to be broadly similar.

This study replicates similar assessments of data with locally-listed⁴⁶ and foreign-listed ASEAN-5 companies and the results are shown in Figure 5 and Figure 6 below, respectively.

The charts for locally-listed and foreign-listed ASEAN-5 companies show that the markets (particularly exchanges such as New York Stock Exchange, Nasdaq Exchange, Stock Exchange of Hong Kong) ascribe a significant value to ASEAN-5 companies beyond the value recognised on those companies' balance sheets.

In 2022, 41% of the EV ascribed to foreign-listed ASEAN-5 companies was not reflected in the tangible or intangible assets (including goodwill) recognised on those companies' balance sheets. The corresponding percentage for locally-listed ASEAN-5 companies was just 10% in 2022.

Possible factors which might contribute to the additional value placed on foreign-listed ASEAN-5 companies include:

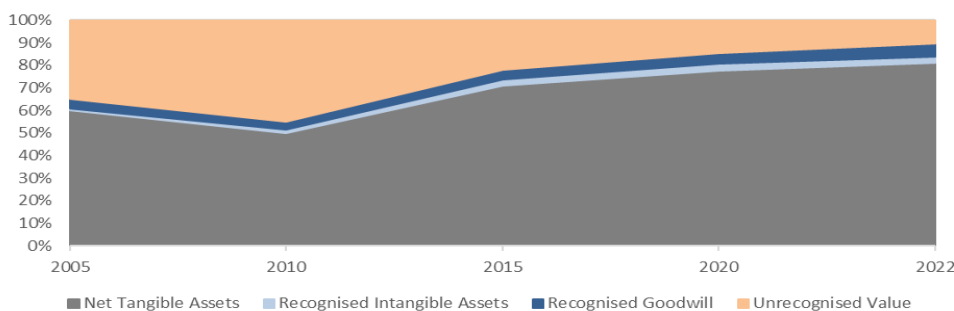


Figure 5 Composite of Enterprise Value for Locally-Listed ASEAN-5 Companies

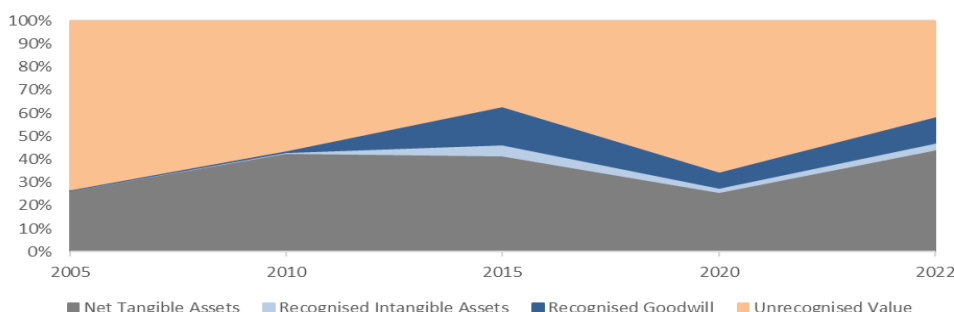


Figure 6 Composite of Enterprise Value for Foreign-Listed ASEAN-5 Companies

⁴⁵ Everedge Intangible Benchmark Index

⁴⁶ The results for the 1,030 locally-listed ASEAN-5 companies for which data were available for all five surveyed dates, excluding companies in the Real Estate sector since the reported values of that sector's net tangible assets exceeded their enterprise value.

- a. higher growth expectations and greater availability of additional capital to fund that growth;
- b. higher levels of intangible assets which could not be recognised for financial reporting purposes but which the market was willing to ascribe value to; and/or
- c. market participants in foreign exchanges being willing to ascribe higher values to overwise comparable businesses.⁴⁷

⁴⁷ See, for example:

- Navigating the IPO landscape: Insights into Southeast Asia trends and Singapore's tech appeal, NUS;
- What is stopping firms from listing on SGX and what more can be done?;
- Growing interest in overseas listings among companies in Asia, including Singapore The Straits Times



Section VI – Conclusions

The survey of ASEAN-5 publicly listed companies leads to several conclusions:

Conclusion 1 – Intangible assets are of growing and lasting relevance for ASEAN companies, wherever they are listed.

The amount of RIA of locally-listed ASEAN-5 companies increased from 1.0% of Enterprise Value in 2005 to 2.5% of Enterprise Value in 2022. Foreign-listed ASEAN-5 companies exhibited a similar increase from 0.1% in 2005 to 2.8% in 2022. In absolute terms, total RIA across these listed companies increased by more than seven-fold from S\$ 6.5 billion in 2005 to S\$ 47.5 billion in 2022. By construction, therefore, much of the value assigned by investors is not captured by financial statements.

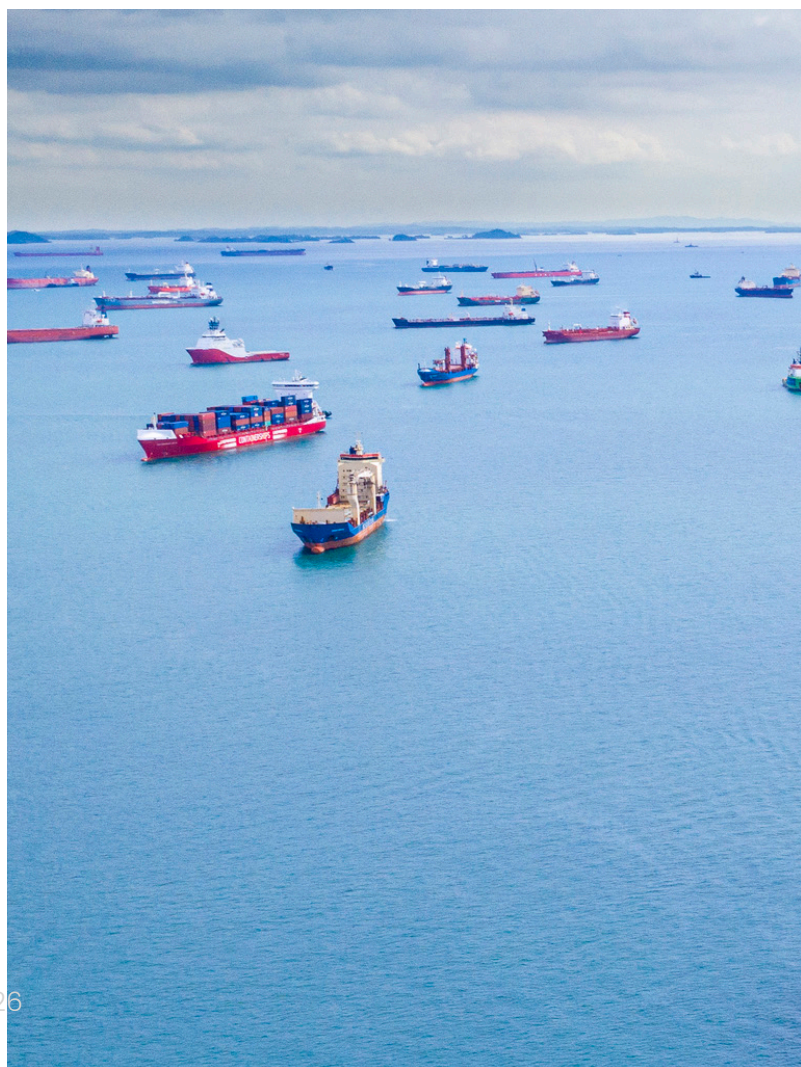
These observations call for several remarks:

- a. The discrepancy in the amount of intangible assets as a proportion to EV in the ASEAN-5 compared to the markets covered by the Ocean Tomo survey, even allowing for methodological differences in the analyses, might be the result of inter-market valuation discrepancies. For instance, multiples applicable in the US markets are generally higher than multiples for other markets. This premium has been widening in the past years and might have reinforced this phenomenon.
- b. Furthermore, the difference might be explained by the sectoral composition of the markets. For instance, banks and Real Estate Investment Trusts form a

substantial component of Singapore's total market capitalisation. These entities typically do not trade much above book value, we might observe a similar effect persist in the overall Singapore equity market.

- c. We have observed from the sample that foreign-listed ASEAN-5 companies tend to have a higher proportion of unrecognised assets than the locally-listed ASEAN-5 companies, and surmise that those businesses are generally considered to be more "intangible intensive". However, we have not examined the causes and tested the statistical significance of the differences.

An in-depth examination of these three hypotheses is beyond the scope of this study but could be a topic for further investigation.



Conclusion 2 – Intangible Assets are also held by companies that are not listed. These fall outside the scope of the current study.

This study has focused on the link between intangible assets, RIA reported under the IP category and market values, in the context of listed equity shares. As such, the study only captures one perspective of the intangible assets/IP ecosystem.

Conversely, it is possible that much of the IP present in the ASEAN-5 economies does not appear because the owners of the IP are not listed. Large family conglomerates, state-owned firms, and sovereign wealth funds own significant portions of businesses within the ASEAN-5. These assets might be monetised as part of financing transactions or measured during the periodic valuations of private capital vehicles such as Venture

Capital or Private Equity for purposes of financial reporting. However, by definition, this information is less accessible than information pertaining to listed companies.

This phenomenon is not limited to the ASEAN-5. There has been a global phenomenon of businesses remaining private or at least remaining “private for longer”.⁴⁸ These companies are not represented in this study. Within listed companies, issuers have been actively seeking to list in markets where higher valuations are available, as witnessed by the choice of venue of ASEAN companies listing outside the region.⁴⁹ The phenomenon of declining numbers of companies listed or of companies remaining “private for longer” might be skewed towards sectors with higher intangible asset intensity.

Estimating the value of privately owned Intangible Assets/IP in the ASEAN-5 region is beyond the scope of this study but could be a topic for further investigation.

Conclusion 3 – There is an urgency for a comprehensive review of the existing financial reporting standards relating to intangible assets.

The majority of intangible assets held by the surveyed companies are not recognised in the financial statements. Of those that are, a significant portion are linked to concession rights, gaming rights, spectrum licences. These are legitimate intangible assets in the context of financial reporting. However,

⁴⁸ For an illustration of this phenomenon in the US markets, please refer to table 4 in the following report.

⁴⁹ Relative valuations are not the only reason in selecting a listing venue.



they are generally tied to physical capital (a highway, a casino, telecom infrastructure). As such, they might be considered as more distant from pure non-rival intangible assets and intellectual property. This latter category includes patents, software and databases, trademarks, customer lists, and franchise agreements.

These intangible assets linked to concession rights might generally be less prone to foster second-order innovation, broad externalities, consumer surplus⁵⁰ and/or unexpectedly high growth, such as is the case with technology or pharmaceuticals.

It should be noted that not all these intangible assets are recognised in the context of financial reporting.

Furthermore, market participants ascribe values to unrecognised assets or ascribe values that do not necessarily coincide with the amounts recognised in the financial statements. This is apparent in the proportion of Enterprise Value that is not captured by financial statements, dubbed “unrecognised value” in the study above.

The financial reporting standard setters are taking note. In the case of the International Accounting Standards Board:

“[T]he IASB has started a project to comprehensively review the accounting requirements for intangibles. The project will assess whether the requirements of IAS 38 remain relevant and continue to fairly reflect current business models or whether the IASB should improve the requirements. The IASB acknowledges that a comprehensive review of IAS 38 will

be a large and complex project for the IASB and its stakeholders. Initial research will seek to define the scope of the project and explore how best to stage work on this topic to produce timely improvements to IFRS Accounting Standards.

Although the title of this project refers to intangible assets, the IASB will also consider whether the project should be limited to accounting for and disclosing information about financial statement elements—assets and expenses arising from expenditure on intangible items—or whether the project should aim to address intangible items more broadly.”⁵¹

In December 2024, the U.S. Financial Accounting Standards Board (FASB) released an Invitation to Comment (ITC) on the Recognition of Intangibles.⁵²

Financial statements of listed companies prepared in accordance with applicable reporting standards inform valuations and

51 [IFRS Foundation – Intangible Assets](#)

52 *“This ITC is focused on the initial recognition of intangibles. Specifically, the FASB would like to understand:*

1. *Whether there is a pervasive need to improve generally accepted accounting principles (GAAP) related to the accounting for and disclosure of intangibles (that is, is there a case for change)*
2. *What intangibles, or groups of intangibles, the FASB should consider addressing*
3. *What potential solution(s) the FASB should consider—including whether the potential solution or solutions are narrow for a specific intangible or could be applied broadly to a group of intangibles—and the expected benefits and expected costs of the potential solution(s)*
4. *Whether different accounting for intangibles should exist depending on how the asset is obtained (internally developed, acquired in a business combination, or acquired in an asset acquisition)*
5. *What information about intangibles an investor utilizes (or would utilize) for its analysis and how that information influences the investor’s capital allocation decisions.”*

50 Schumpeterian Profits in the American Economy: Theory and Measurement · Nordhaus, William D, (2004).

investment decisions.

In a series of non-authoritative perspective papers, the IVSC documented the various challenges posed by the valuation of intangible assets and contemplated the impact on valuation of possible changes to the financial reporting standards. The IVSC stressed that it is incumbent on the financial reporting standard-setters to determine, design and implement those changes. It is also worth noting that financial reporting is only one of the intended uses for valuations.

Overall, however, the perspective papers found that

“(...) the common thread emerging from the series of perspective papers was the requirement for more granular information and disclosures by management to understand and to value intangible assets or businesses with a high proportion of intangible assets.

For that reason, an enhanced disclosure regime related to internally generated intangibles, along with the continued measurement and amortisation of purchased intangibles, will likely satisfy most of the evolving expectations and requirements imposed on valuations of intangible assets within the range of intended uses.”⁵³

Naturally, the implementation of sustainability standards from the ISSB might result in more data that will, in turn, inform valuations and investment decisions. This also applies to broader extra-financial data.

Furthermore, in Singapore specifically, the application of the Intangible Disclosure Framework, derived from, but distinct from the International Valuation Standards will also generate data that will be useful as inputs into the valuation processes.

Conclusion 4 – Policy makers should frame goals for promoting more recognition of intangible assets including IP in a holistic manner, including for financial reporting.

This study has examined the characteristics of intangible assets and RIA reported in the financial statements of ASEAN-5 companies listed locally and those listed outside the region.

One of the principal findings was the large size of intangible assets linked to concessionary businesses relative to the recognised values of IP and more innovative intangible assets.

In aggregate, there are differences in EV/RIA ratios of ASEAN-5 companies listed locally and those listed outside the region. Some of these differences might be due to the differing sectoral composition of those two groups, with the latter tending to have higher “intangible content”. However, this self-selection (of choosing to list outside the region) might be ascribed to valuation differentials available to issuers from certain sectors. For instance, it might make sense for a consumer technology company (with high intangible asset content and seeking a global investor base) to list in the United States to enjoy a higher valuation. However, a company with lower intangible asset content might not have realistic prospects of enjoying a worthwhile valuation uplift.

⁵³ IVSC Perspectives Paper – Making Intangibles More Tangible: Series Lessons

If that is the case, current efforts in several ASEAN-5 jurisdictions to improve equity markets might result in encouraging future companies with high intangible content to list in the region, if not the return of foreign-listed companies to the local exchanges.

Policymakers have made the promotion of intangible assets and IP a policy goal. This policy goal is not the same as, but interacts with, the recognition and measurement of those assets in financial reporting.

A strong intangible assets/IP position of a jurisdiction could be seen to enjoy several benefits including:

- a. More robust and stable tax base for the collecting authority;
- b. More encouragement for homegrown R&D and creative endeavours that will then benefit from adequate protection;
- c. More efficient capital allocation by investors, ranging from startups to institutional investors in public markets;
- d. More flexibility, and presumably more nuanced pricing, in financing portions of the capital stack, including equity, debt and secured or hybrid lending backed by certain intangible assets/IP;
- e. Lower barriers to entry for small enterprises to establish themselves or create some brand awareness. This is particularly important for economies where a growing fraction of the population aspires to join the middle class;
- f. More fairness in disputes such as minority oppression, damages, and family matters such as divorce, where the assets involved include intangible assets/IP.

The diversity of these policy goals suggests that policy actions should be holistic. Hence, policy makers should frame goals for promoting more recognition of intangible assets including IP in a holistic manner, including for financial reporting.

Section VII – Annex

Annex 1

Recognised Intangible Assets / Enterprise Value (RIA/EV) Ratio by Market and by Industry over Time (2005–2022)

| | <u>Singapore</u> | | | | |
|------------------------|------------------|------|------|------|------|
| | 2005 | 2010 | 2015 | 2020 | 2022 |
| Communication Services | 2% | 1% | 6% | 9% | 8% |
| Consumer Discretionary | 5% | 0% | 1% | 1% | 1% |
| Consumer Staples | 0% | 1% | 2% | 4% | 4% |
| Energy | 2% | 1% | 2% | 1% | 1% |
| Financials | 1% | 1% | 1% | 0% | 0% |
| Health Care | 0% | 0% | 1% | 1% | 1% |
| Industrials | 5% | 2% | 4% | 4% | 5% |
| Information Technology | 0% | 2% | 2% | 1% | 2% |
| Materials | 0% | 8% | 2% | 2% | 5% |
| Real Estate | 0% | 0% | 0% | 0% | 0% |
| Utilities | 0% | 4% | 6% | 16% | 18% |
| Unclassified | 0% | 0% | 0% | 0% | 0% |

| | <u>Indonesia</u> | | | | |
|------------------------|------------------|------|------|------|------|
| | 2005 | 2010 | 2015 | 2020 | 2022 |
| Communication Services | 5% | 1% | 2% | 2% | 2% |
| Consumer Discretionary | 0% | 0% | 0% | 0% | 3% |
| Consumer Staples | 0% | 1% | 0% | 0% | 0% |
| Energy | 0% | 0% | 2% | 2% | 0% |
| Financials | 0% | 0% | 1% | 1% | 1% |
| Health Care | 0% | 0% | 0% | 0% | 1% |
| Industrials | 0% | 0% | 8% | 21% | 22% |
| Information Technology | 0% | 0% | 1% | 2% | 0% |
| Materials | 0% | 0% | 0% | 2% | 2% |
| Real Estate | 1% | 0% | 0% | 1% | 2% |
| Utilities | 0% | 0% | 0% | 0% | 0% |
| Unclassified | 0% | 0% | 0% | 0% | 0% |

| | <u>Malaysia</u> | | | | |
|------------------------|-----------------|------|------|------|------|
| | 2005 | 2010 | 2015 | 2020 | 2022 |
| Communication Services | 0% | 9% | 8% | 12% | 7% |
| Consumer Discretionary | 0% | 7% | 14% | 13% | 11% |
| Consumer Staples | 0% | 1% | 1% | 1% | 1% |
| Energy | 0% | 2% | 2% | 2% | 3% |
| Financials | 0% | 2% | 1% | 2% | 1% |
| Health Care | 1% | 1% | 3% | 1% | 3% |
| Industrials | 1% | 3% | 9% | 9% | 2% |
| Information Technology | 1% | 2% | 1% | 2% | 3% |
| Materials | 1% | 0% | 0% | 0% | 1% |
| Real Estate | 1% | 0% | 0% | 0% | 0% |
| Utilities | 0% | 0% | 3% | 3% | 3% |
| Unclassified | 0% | 0% | 0% | 0% | 0% |

| | <u>Philippines</u> | | | | |
|------------------------|--------------------|------|------|------|------|
| | 2005 | 2010 | 2015 | 2020 | 2022 |
| Communication Services | 0% | 0% | 2% | 2% | 2% |
| Consumer Discretionary | 1% | 0% | 5% | 6% | 5% |
| Consumer Staples | 0% | 1% | 4% | 6% | 6% |
| Energy | 0% | 0% | 0% | 0% | 0% |
| Financials | 0% | 0% | 1% | 1% | 1% |
| Health Care | 0% | 0% | 3% | 2% | 3% |
| Industrials | 0% | 2% | 12% | 9% | 11% |
| Information Technology | 0% | 2% | 4% | 6% | 8% |
| Materials | 0% | 0% | 2% | 2% | 3% |
| Real Estate | 0% | 0% | 0% | 0% | 0% |
| Utilities | 0% | 1% | 1% | 1% | 20% |
| Unclassified | 0% | 0% | 0% | 0% | 0% |


| | <u>Thailand</u> | | | | |
|------------------------|-----------------|------|------|------|------|
| | 2005 | 2010 | 2015 | 2020 | 2022 |
| Communication Services | 2% | 1% | 10% | 17% | 15% |
| Consumer Discretionary | 2% | 1% | 1% | 5% | 3% |
| Consumer Staples | 1% | 3% | 5% | 4% | 3% |
| Energy | 1% | 1% | 16% | 3% | 5% |
| Financials | 1% | 1% | 1% | 2% | 2% |
| Health Care | 1% | 1% | 1% | 1% | 0% |
| Industrials | 0% | 1% | 2% | 5% | 4% |
| Information Technology | 5% | 1% | 1% | 1% | 1% |
| Materials | 1% | 1% | 2% | 3% | 6% |
| Real Estate | 0% | 0% | 1% | 1% | 1% |
| Utilities | 0% | 2% | 2% | 5% | 4% |
| Unclassified | 2% | 0% | 0% | 1% | 1% |



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