



TPSA | CANADA-INDONESIA TRADE AND
PRIVATE SECTOR ASSISTANCE PROJECT

Report
May 2017

Investment Opportunities in Indonesia:

Services

Canada

Program undertaken with the financial
support of the Government of Canada
provided through Global Affairs Canada

WAVTEQ

BKPM
INDONESIA INVESTMENT COORDINATING BOARD

Investment Opportunities in Indonesia: Services

Prepared by WAVTEQ

WAVTEQ is a global consulting and technology company focused on helping governments worldwide attract foreign direct investment (FDI).

About the TPSA Project

The Canada–Indonesia Trade and Private Sector Assistance (TPSA) Project is a five-year, C\$12-million project funded by the Government of Canada through Global Affairs Canada. The project is executed by The Conference Board of Canada, and the primary implementation partner is the Directorate General for National Export Development, Indonesian Ministry of Trade.

TPSA is designed to provide training, research, and technical assistance to Indonesian government agencies, the private sector (particularly small- and medium-sized enterprises, or SMEs), academics, and civil-society organizations on trade-related information, trade policy analysis, regulatory reforms, and trade and investment promotion by Canadian, Indonesian, and other experts from public and private organizations.

The overall objective of TPSA is to support greater sustainable economic growth and reduce poverty in Indonesia through increased trade and trade-enabling investment between Indonesia and Canada. TPSA is intended to increase sustainable and gender-responsive trade and investment opportunities, particularly for Indonesian SMEs, and to increase the use of trade and investment analysis by Indonesian stakeholders for expanded trade and investment partnerships between Indonesia and Canada.

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EXECUTIVE SUMMARY

The Canada–Indonesia Trade and Private Sector Assistance (TPSA) project has as a key objective to increase investment by Canadian firms in Indonesia. The TPSA project is funded by the Government of Canada through Global Affairs Canada and managed by The Conference Board of Canada (CBoC). The ultimate goal of the TPSA project is to reduce poverty and increase sustainable economic growth in Indonesia through the expansion of Indonesian trade with Canada and the encouragement of Canadian investment in Indonesia.

This report provides a summary of investment opportunities for Canadian companies in Indonesia's services sector.

Foreign investors across all industries are paying closer attention to the investment opportunities in Indonesia due to the size and growth of the economy, accessibility to the huge ASEAN market of 600 million people, and because Indonesia is becoming more pro-business and actively seeking foreign investment, including in sectors that were until very recently closed or partially closed to foreign investors.

Already the largest economy in ASEAN, Indonesia's GDP is forecast to increase from US\$862 billion in 2015 to US\$2.2 trillion in 2025. By 2025, Indonesia's economy will be nearly the same size as Canada's economy (forecast to be US\$2.6 trillion in 2025) and will be larger than India's economy was in 2015. Indonesia has a population of over 260 million, which is forecast to increase to 308 million by 2030. Just the increase in Indonesia's population is nearly the same size as Thailand's population.

These numbers in themselves demonstrate why foreign investors should be looking at Indonesia and, in fact, FDI into Indonesia is booming, increasing from US\$16.2 billion in 2010 to nearly US\$30 billion annually from 2013 to 2016.

Indonesia's services economy is already attracting significant levels of FDI, with nearly US\$50 billion of services FDI into Indonesia from 2011 to 2016.

Services FDI is driven by growth of the market, with the Indonesian services sector forecast to increase from US\$385 billion in 2015 to US\$712 billion in 2020. Indonesia will be the third most important country in the world in terms of contribution to growth in the global services sector from 2015 to 2020, showing the huge potential of Indonesia's services sector.

Within the services sector, key growth opportunities include:

- **ICT:** The market demand for the ICT sector in Indonesia is set to grow substantially. By 2020, market demand will reach US\$61.8 billion, an increase of over US\$20 billion within only five years. Indonesia is forecast to have the highest total IT spend in ASEAN by 2016, overtaking Singapore, with IT spending growing at nearly 8% per year. Indonesia is forecast to have over 79 million Internet users by 2020 with 30 million new users. Broadband subscriber lines in Indonesia is projected to increase 19.5% per year to 2010 and, already the fourth-largest mobile market in the world, Indonesia is forecast to have 348 million mobile phone subscriptions by 2020;
- **Air transportation:** Indonesia's aviation industry is booming, growing by 28% per year between 2005 and 2014, with 183 million additional air passengers forecast by 2034 and 45 new airports planned by 2025, leading to FDI opportunities in related PPP projects and technical services; and
- **Technical services:** With rapid growth in energy, construction, agribusiness, manufacturing, and air transportation, there is huge demand for technical services and related FDI.

Foreign investors in Indonesia are very positive about the opportunities. About 0% of existing Canadian investors are planning to re-invest in Indonesia and 85% of Canadian investors would recommend other companies to invest. The time is right to scope out the investment opportunities in Indonesia.

INDONESIA COUNTRY SNAPSHOT

Indonesia by the Numbers

Indonesia is one of the largest and fastest growing emerging markets in the world. Indonesia is the largest economy in ASEAN and Indonesia's GDP is forecast to increase from US\$862 billion in 2015 to US\$2.2 trillion in 2025. By 2025, Indonesia's economy will be nearly the same size as Canada's economy (forecast to be US\$2.6 trillion in 2025) and will be larger than India's economy was in 2015, which indicates the size of opportunity.

Indonesia by the Numbers

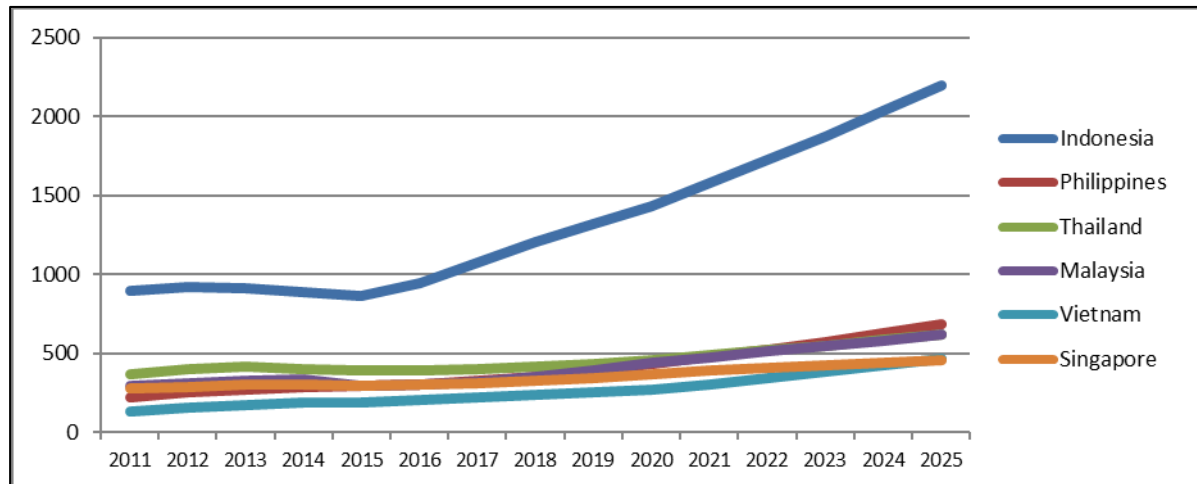


Source: WAVTEQ.

Economic Growth and Performance

As the following chart shows, Indonesia's economy started taking off in 2015. Now is the time companies should be considering investing in Indonesia to take advantage of the huge growth forecast in the economy, with almost US\$1 trillion expected to be added to the economy over the next 7 years (2017–2024)

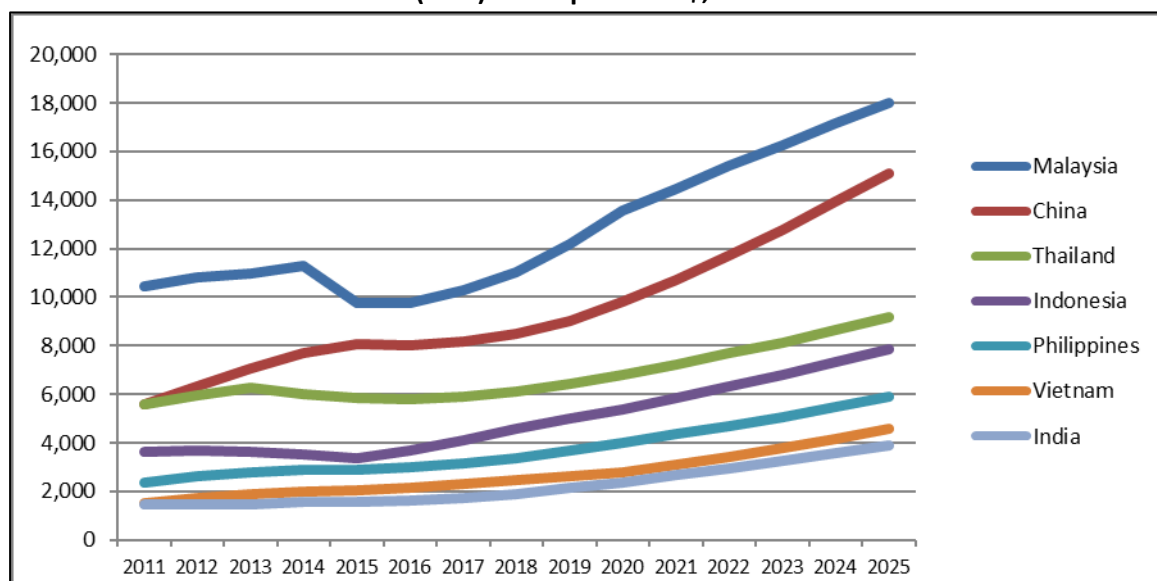
Gross Domestic Product (GDP) at Current Market Prices in US\$ Million, 2011–2025



Source: EIU, June 2016.

Out of the major economies in ASEAN, Indonesia has the fourth highest GDP per capita, which is forecast to more than double from US\$3370 in 2015 to US\$7840 in 2025. Rising income levels and large and growing middle- and high-income families are driving growth in demand across all industries.

Nominal Gross Domestic Product (GDP) Per Capita in US\$, 2011–2025

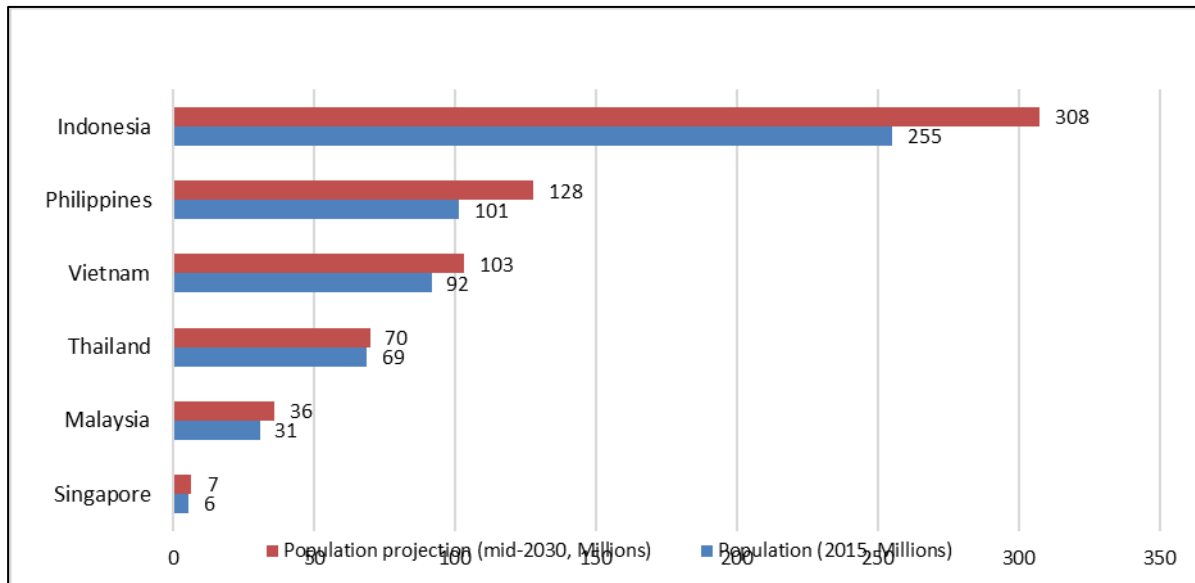


Source: EIU, June 2016.

Population and Skills

Indonesia has a population of over 260 million, which is forecast to increase to 308 million by 2030. Just the increase in Indonesia's population is nearly the same size as Thailand's population and far bigger than Malaysia's. Combined with rising disposable incomes, Indonesia's population size and growth makes Indonesia a highly attractive consumer market.

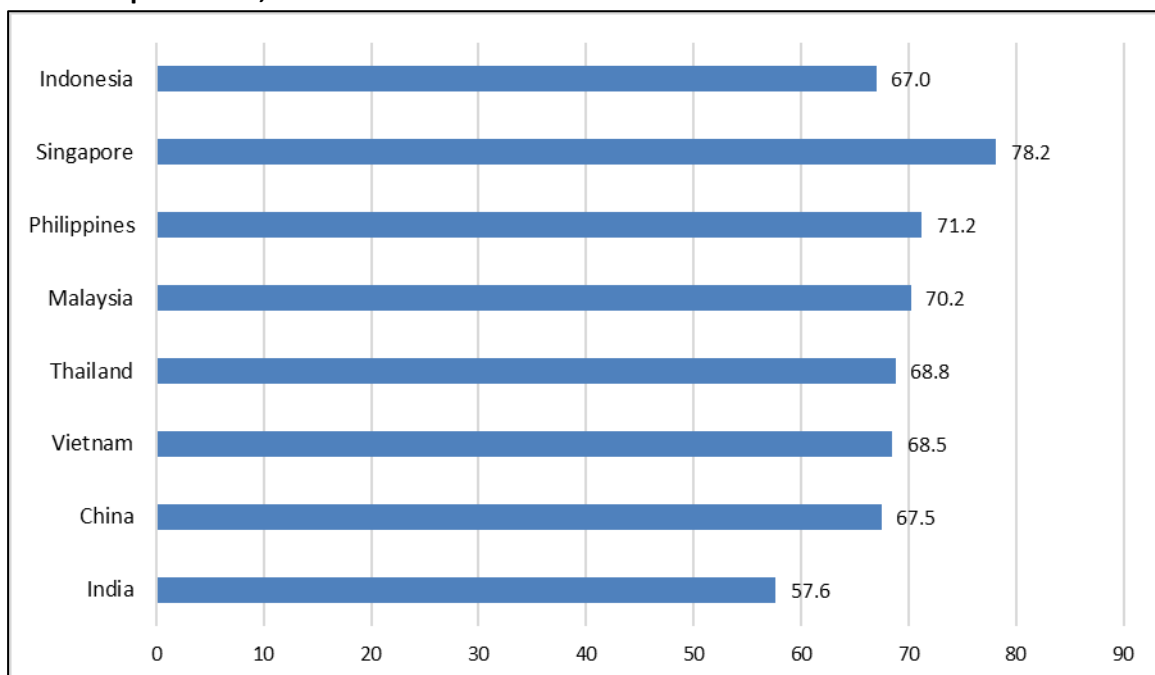
Population by Country with Forecasts, 2015–2030



Source: International Monetary Fund (country); national statistics (sub-national) (fDi Benchmark 2016); & Population Reference Bureau World Population Data Sheet (fDi Benchmark 2016).

In terms of human capital, the following chart shows that Indonesia has a comparable human capital index to other ASEAN countries, China, and India. Indonesia's human capital index is almost the same as China's.

Human Capital Index, 2015¹

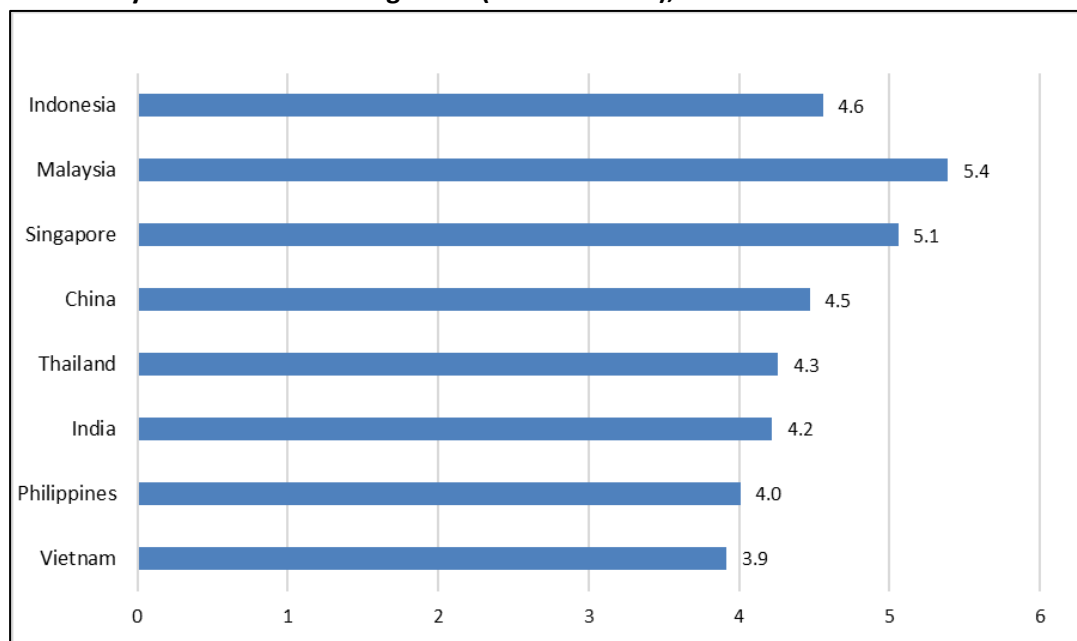


Source: The Human Capital Report, World Economic Forum, Switzerland, 2015.

Indonesia is rated as having a better availability of scientists and engineers than other countries in ASEAN except Malaysia and Singapore. Indonesia is also ranked higher than China and India.

¹ The Human Capital Index covers 46 indicators. Half of these are the result of disaggregating by education indicators and labour market indicators. For more information see: <http://reports.weforum.org/human-capital-report-2015/measuring-human-capital/>.

Availability of Scientists and Engineers (index out of 7), 2015²



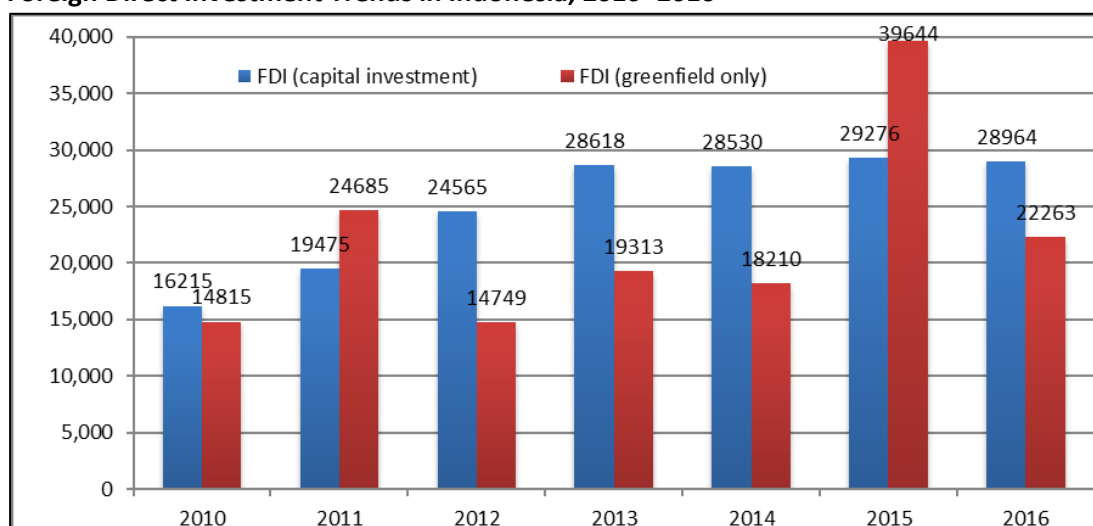
Source: Global Competitiveness Report, World Economic Forum, Switzerland, 2015-16.

FOREIGN DIRECT INVESTMENT IN INDONESIA

FDI Trends

FDI into Indonesia has increased significantly from US\$16.2 billion in 2010 to nearly US\$30 billion a year from 2013-2016, according to official FDI data from BKPM. Greenfield FDI has also increased rapidly from US\$14.8 billion of announced FDI projects to nearly US\$40 billion in 2015, based on data from the Financial Times.³

Foreign Direct Investment Trends in Indonesia, 2010–2016



Source: FDI capital investment data from BKPM; and FDI greenfield FDI data from fDi Markets from the Financial Times Limited.

² Based on an annual survey of over 14,000 executives.

³ Note that greenfield FDI data is based on announcements of FDI projects, not the actual FDI capital being invested in the year of the announcement. For more information on the different methodologies of measuring FDI see: www.fdiaccounting.com/methodology.cfm.

The table below shows FDI into Indonesia by major industry group. From 2011-2015, “Energy, Mining, Minerals & Utilities” attracting the biggest volume of FDI and second largest volume of greenfield investment.

FDI by Major Industry Group (inward FDI into Indonesia and outward FDI from Canada), 2011–2015

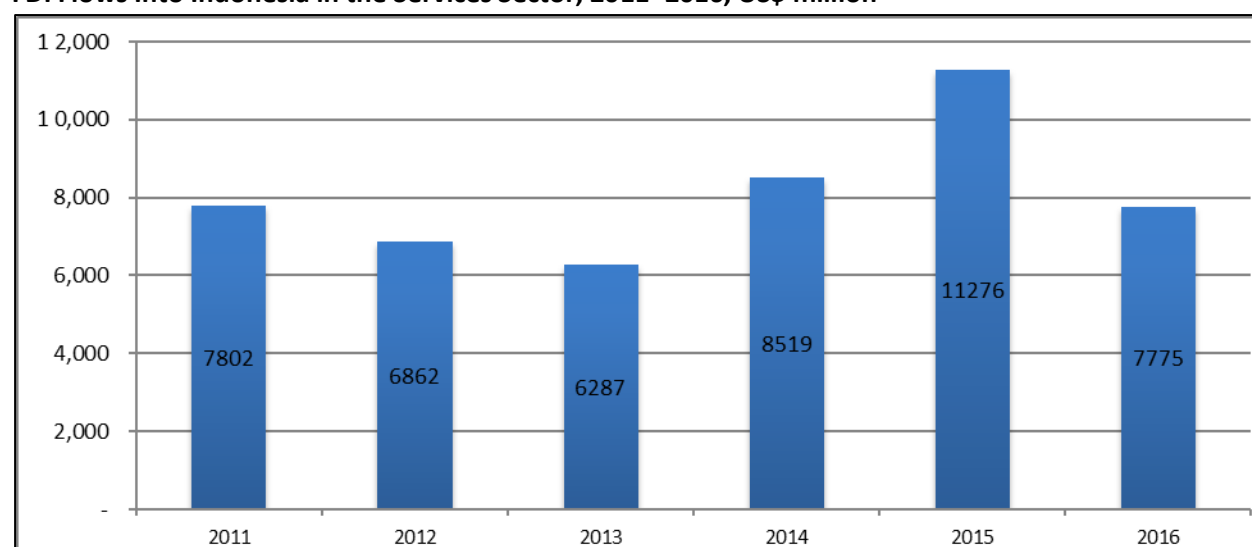
Industry sector grouping	FDI INTO INDONESIA			
	FDI (capital investment)		FDI (greenfield only)	
	# Projects	US\$ million	# Projects	US\$ million
Energy, Mining, Minerals & Utilities	4607	34629	43	24169
Agri-Business, Forestry & Wood Products	6287	19086	77	4623
Transportation & Warehousing	1098	14348	69	4855
Machinery, Metals, Electronics & Related	3942	13202	134	30563
Chemicals & Life Sciences	2116	11659	61	13283
Transport Equipment	1705	10161	89	8391
Construction & Real Estate	2429	8338	41	7840
Paper, Printing & Packaging	499	4146	6	262
Textiles	2079	3459	11	704
Retail & Wholesale	10159	3408	60	1673
Plastics & Rubber	1348	2741	31	3884
Tourism	2335	2636	22	1793
Other Services	5619	2137	221	5137
Other Industry	933	512	47	5246
TOTAL	45156	130462	912	112424

Source: WAVTEQ, based on www.fdimarkets.com and <http://www2.bkpm.go.id/en/investing-in-indonesia/statistic>.

FDI in Services

FDI in Indonesia’s services sector has averaged over US\$8 billion per year and, from 2011 to 2016, Indonesia attracted nearly US\$50 billion of services FDI showing the size of investment potential in Indonesia.

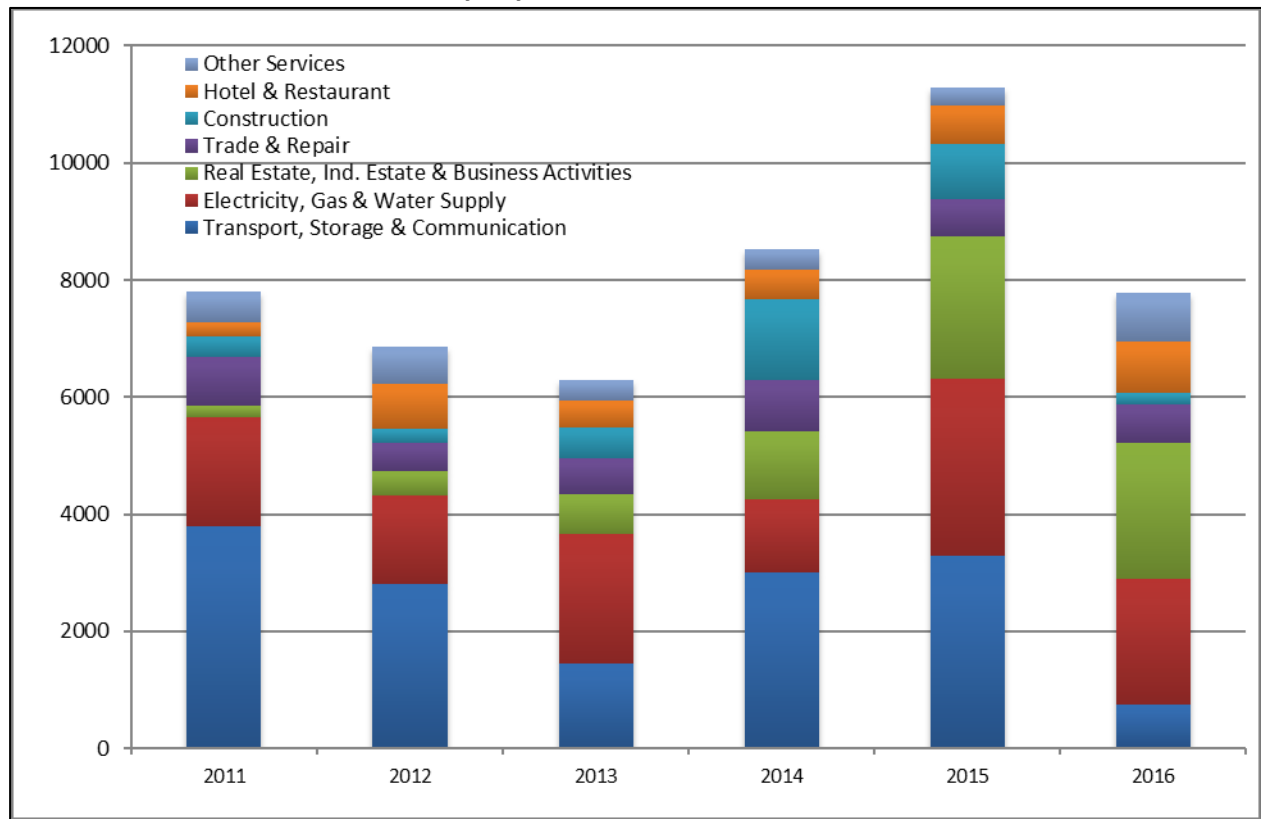
FDI Flows Into Indonesia in the Services Sector, 2011–2016, US\$ million



Source: WAVTEQ, based on BKPM data.

The chart below shows the breakdown of FDI in Indonesia by across services sectors.

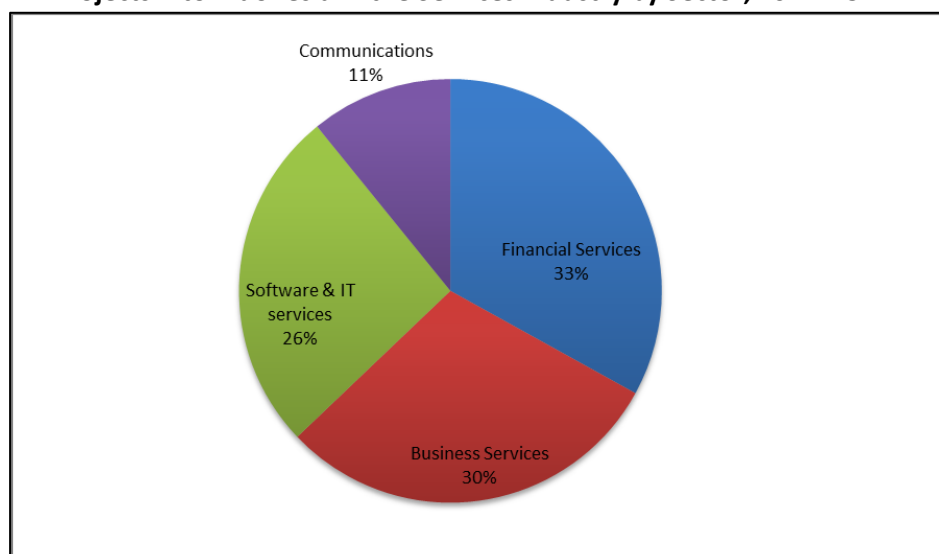
FDI Flows Into Indonesia in Services by Key Sectors, 2011–2016, US\$ million



Source: WAVTEQ, based on BKPM data.

A breakdown of greenfield FDI into Indonesia's services sector is shown below, which shows financial services, business services, and software & IT have all been key services sectors for greenfield FDI projects.

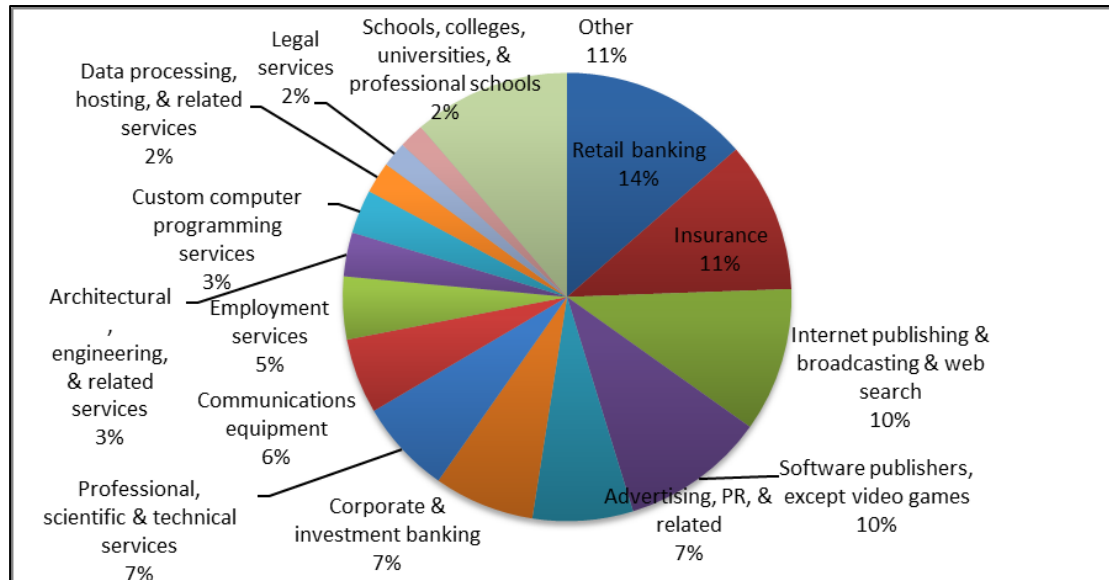
FDI Projects Into Indonesia in the Services Industry by Sector, 2011–15



Source: WAVTEQ, based on fDi Markets.

The pie chart below shows the more detailed breakdown of greenfield FDI projects into Indonesia by subsector. The top two subsectors have been retail banking and insurance. The software & IT subsectors related to the internet and software publishers were the next largest subsectors for FDI projects.

FDI Projects Into Indonesia in the Services Industry by Subsector, 2011–15



Source: WAVTEQ, based on fDi Markets.

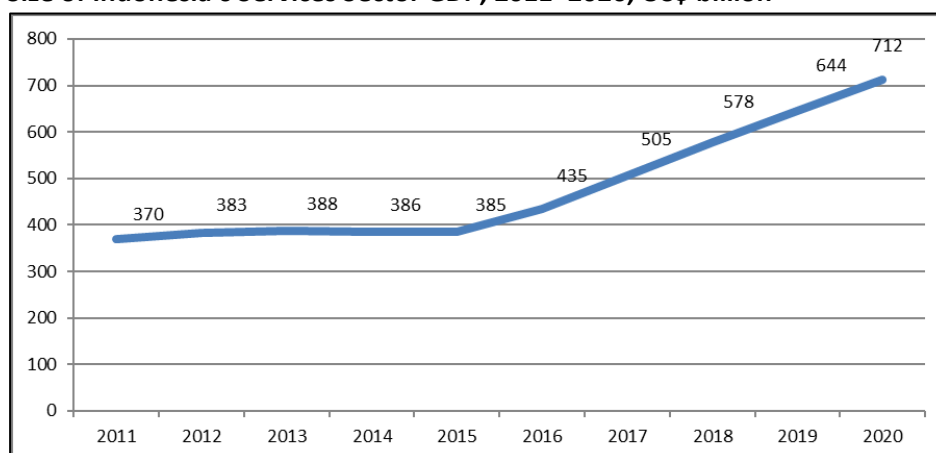
SERVICES SECTOR IN INDONESIA

Size of the Indonesian Services Market

Over the past decade, the Indonesian services sector has experienced a considerable growth. According to The World Bank, services represent 43% of Indonesia's total GDP and accounted for 45% of the total employment in 2015.

Indonesia's services economy is forecast to increase from US\$385 billion in 2015 to US\$712 billion in 2020. Indonesia is the third most important country in the world in terms of contribution to growth in the global services sector (2015 to 2020), showing the huge potential of Indonesia's services sector.

Size of Indonesia's Services Sector GDP, 2011–2020, US\$ billion



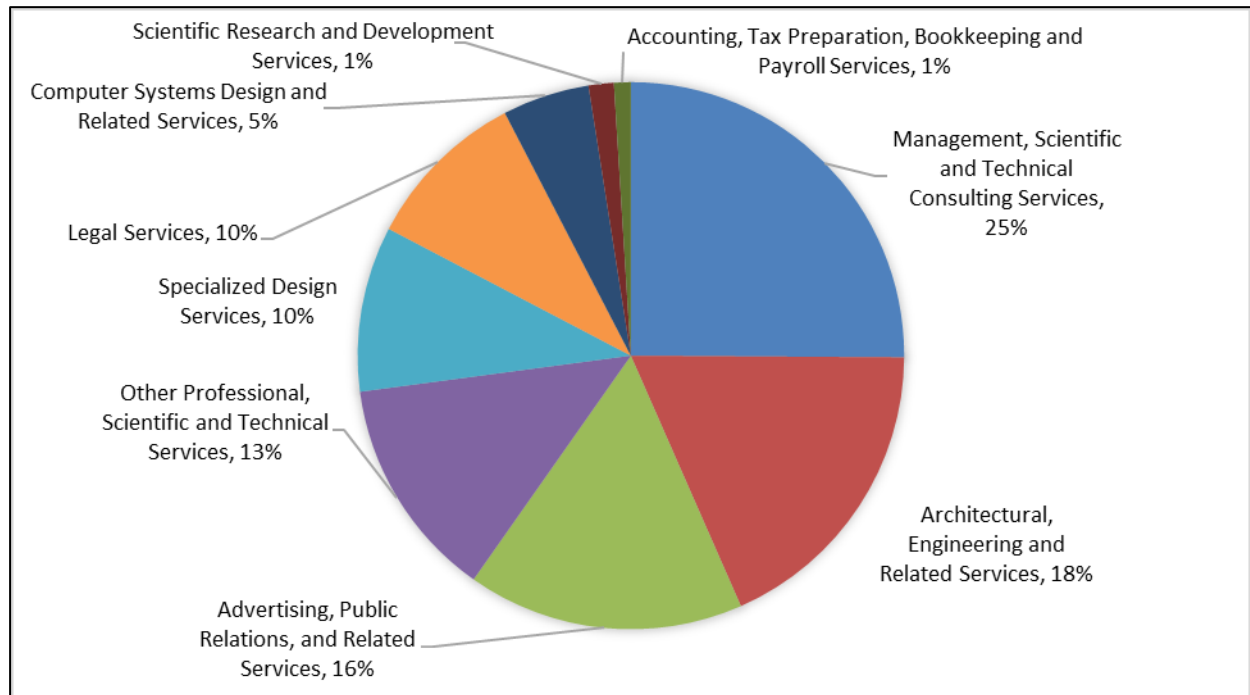
Source: EIU.

Professional, Scientific, and Technical Services

Sector size and composition

The following chart shows the breakdown within professional, scientific, and technical services, and shows the significance of each subsector in terms of the number of companies. There are 33,476 professional, scientific, and technical services companies,⁴ according to Dun & Bradstreet's Global Reference Solution (2016). Professional, scientific, and technical consulting services companies account for the largest proportion (25%), followed by architectural, engineering and related services companies (18%). There are approximately 5476 companies (16% of the sector total) involved in advertising, public relations, and related services.

Subsectors in the Professional, Scientific, & Technical Services in Indonesia, 2016



Source: fDi Intelligence, based on Dun & Bradstreet Global Reference Solution.

The Indonesian government plans to develop 100 science and technology parks by 2019 to improve the country's productivity and competitiveness. The initiative is one of the nine national priorities. Each park will cost approximately US\$7.2 million. Four parks will be national science and technology parks, 19 will be science parks, and 77 will be technology parks.

Investor case studies

Manulife

- Manulife has operated in Indonesia since 1985. Through various regulated entities, Manulife provides individual protection, investment, and savings accumulation solutions as well as group employee benefits solutions.
- The company distributes both conventional and takaful (syariah) products through multiple distribution channels including agency, bank, direct, and telemarketing.
- Manulife Indonesia has over 1.9 million customers supported by more than 12,000 employees and sales representatives in 1,500 points of sales throughout Indonesia.

⁴ SIC Codes: 8111, 7389, 6541, 8721, 7291, 7819, 8712, 0781, 8711, 7389, 1481, 1382, 1081, 8713, 8734, 7389, 7336, 8099, 7371, 7373, 7379, 7376, 8742, 7361, 4731, 8999, 8784, 0781, 7819, 3721, 3764, 8731, 3761, 3769, 3728, 8733, 3724, 8732, 7311, 8743, 7313, 7313, 7312, 7331, 7389, 5199, 8732, 7221, 8099, 7335, 7389, 8734, 0741, 0742, 4499, 8999.

Sun Life Financial

- Sun Life has been in Indonesia for nearly 20 years and currently operates through three entities, including through a joint venture with CIMB Niaga, Indonesia's fifth-largest bank (by assets).
- They employ over 400 employees and distribute their products nationally through 8,000 agents, 100 insurance advisors, and 300 telemarketers.
- The company had revenues of over IDR 2 trillion and had over IDR 7 trillion in assets at year-end 2013.

Bechtel

- Based in Jakarta. In 2015, the company signed a master service agreement with Indonesian state-owned energy company Pertamina. This partnership will see Bechtel help Pertamina prepare bankable feasibility studies, basic engineering designs, and front-end engineering designs for downstream projects, including for new refineries and for upgrading the capacity of existing refineries.

ThyssenKrupp

- In 2013 the company won a contract from PT Holcim Indonesia, to build a cement plant in near the town of Tuban on the northern coast of the island of Java. The contract is worth around US\$250 million.

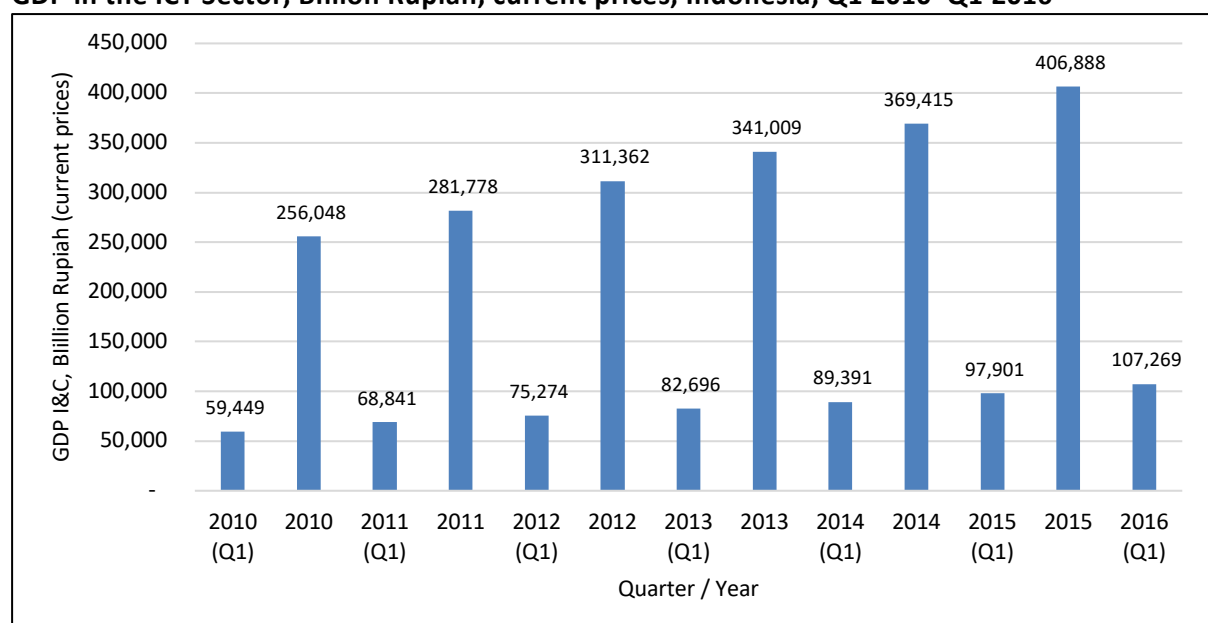
Information and Communication Technology (ICT)

ICT sector size and growth

Indonesia is embracing ICT and software products and solutions. Demand for innovative ICT and software solutions is growing, with a dynamic, young, and digitally-minded workforce (29.1% out of total economically active population is aged from 15 to 29 years) and consumer base. Rapid adoption of new technologies has also meant that Indonesia has leapfrogged over many other countries, with consumers embracing mobile internet access rather than increasingly outdated fixed line connections.

The chart below shows the growth in Indonesia's information and communications sector. So far in 2016, we can see a continuation of rapid growth with GDP in the information and communication sector reaching IDR107,269 in Q1 2016, which is 9.57% higher than its Q1 2015 value (IDR 97,901).

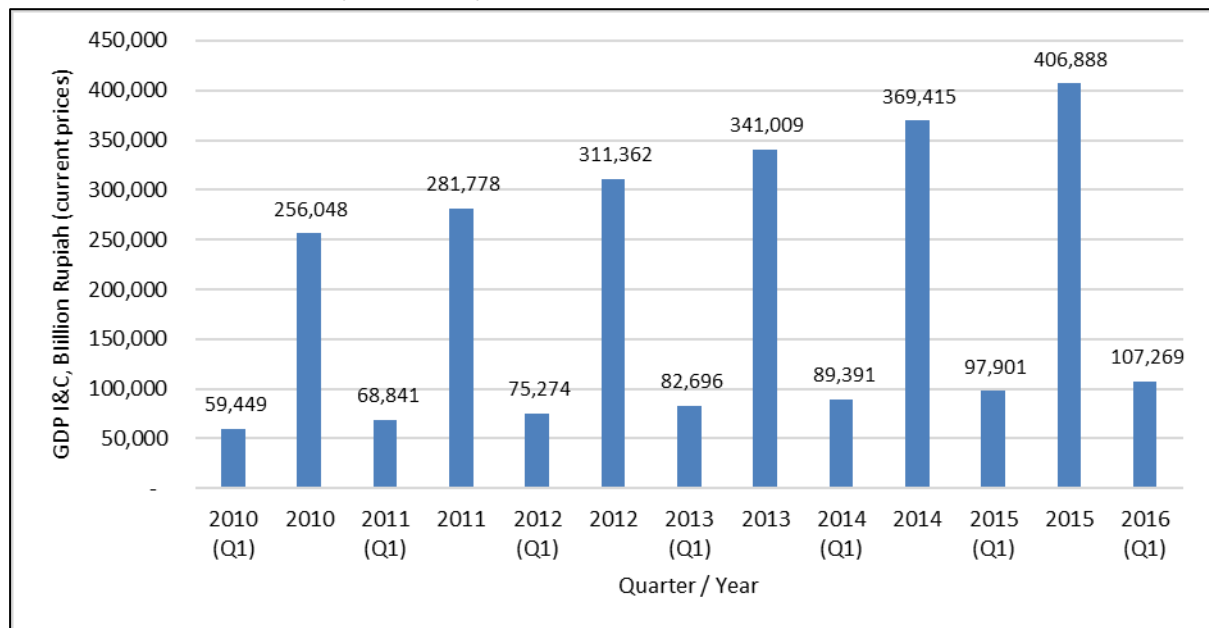
GDP in the ICT Sector, Billion Rupiah, current prices, Indonesia, Q1 2010–Q1 2016



Source: WAVTEQ based on Indonesia National Statistics <https://www.bps.go.id/index.php>.

The market demand for the ICT sector in Indonesia is set to grow substantially over the next five years, which is shown in the next chart. By 2020, market demand will reach US\$61.8 billion, an increase of over US\$20 billion, over the five-year period.

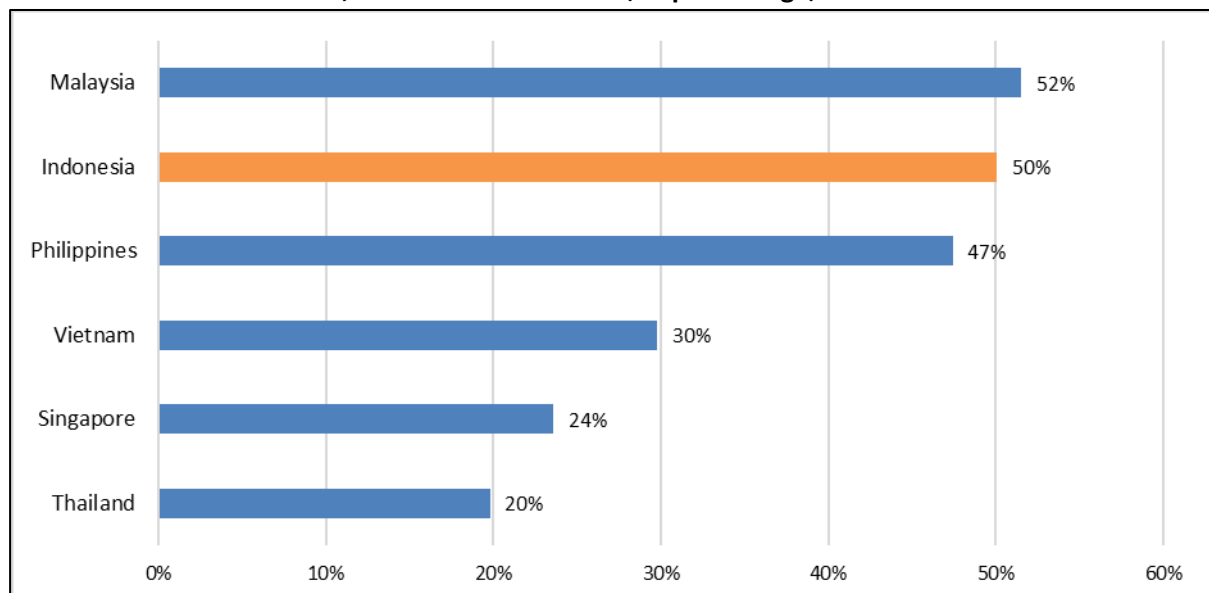
ICT Sector: Market Demand, Indonesia, 2016–2020



Source: Economist Intelligence Unit: Market Indicators and Forecasts.

The chart below shows that Indonesia's ICT sector market demand is forecast to grow by 50% over the next five years (2016–2020). This is the second highest growth rate of the selected ASEAN countries.

ICT Sector: Market Demand, Forecast Total Growth, in percentage, 2016–2020



*China: 108%, India: 59%.

Source: WAVTEQ, based on Economist Intelligence Unit: Market Indicators and Forecasts.

According to the Economist Intelligence Unit, Indonesia is forecast to have the highest total IT spend of selected ASEAN countries by 2016, overtaking Singapore. By 2020, Indonesia's IT spending will

amount to US\$17,202 million, behind only China and India. Indonesia is forecast to grow its IT spend at the highest rate of any ASEAN country (and higher than China and India) between 2015 and 2020, growing on average⁵ by 7.8% per year.

Total IT Spending in Million US\$ Among ASEAN Countries, 2015–2020

Country	2015	2016	2017	2018	2019	2020	% Growth 2015-2020
China	229892	215734	220493	226849	233741	240737	0.9%
India	41078	41586	45285	49933	54009	58479	7.3%
Indonesia	11807	12330	13268	14702	15887	17202	7.8%
Thailand	11778	11432	11618	12321	13070	13870	3.3%
Singapore	12054	11965	12389	12892	13220	13565	2.4%
Malaysia	10041	9480	10057	10971	11803	12709	4.8%
Philippines	6471	6710	7244	7653	7952	8275	5.0%
Vietnam	5325	5838	6382	6835	6986	7172	6.1%

Source: WAVTEQ, based on Economist Intelligence Unit Market Indicators & Forecasts.

E-commerce

Indonesia's enormous youth population combined with an increase in internet penetration across the country (19.1% in 2015) is expected to fuel an increase in electronic commercial transactions on the Internet. The most used online payment methods in Indonesia are online banking (39%), Visa (17%) and MasterCard (9%). Indonesia will have the highest number of internet users of any selected ASEAN country by 2020.

Indonesia is forecast to have over 79 million internet users by 2020, growing at an average annual rate of 10.2% per year between 2015 and 2020. Indonesia is expected to add an additional 30 million internet users over the next 5 years.

Internet Users, thousand persons, Selected ASEAN Countries, 2015–2020

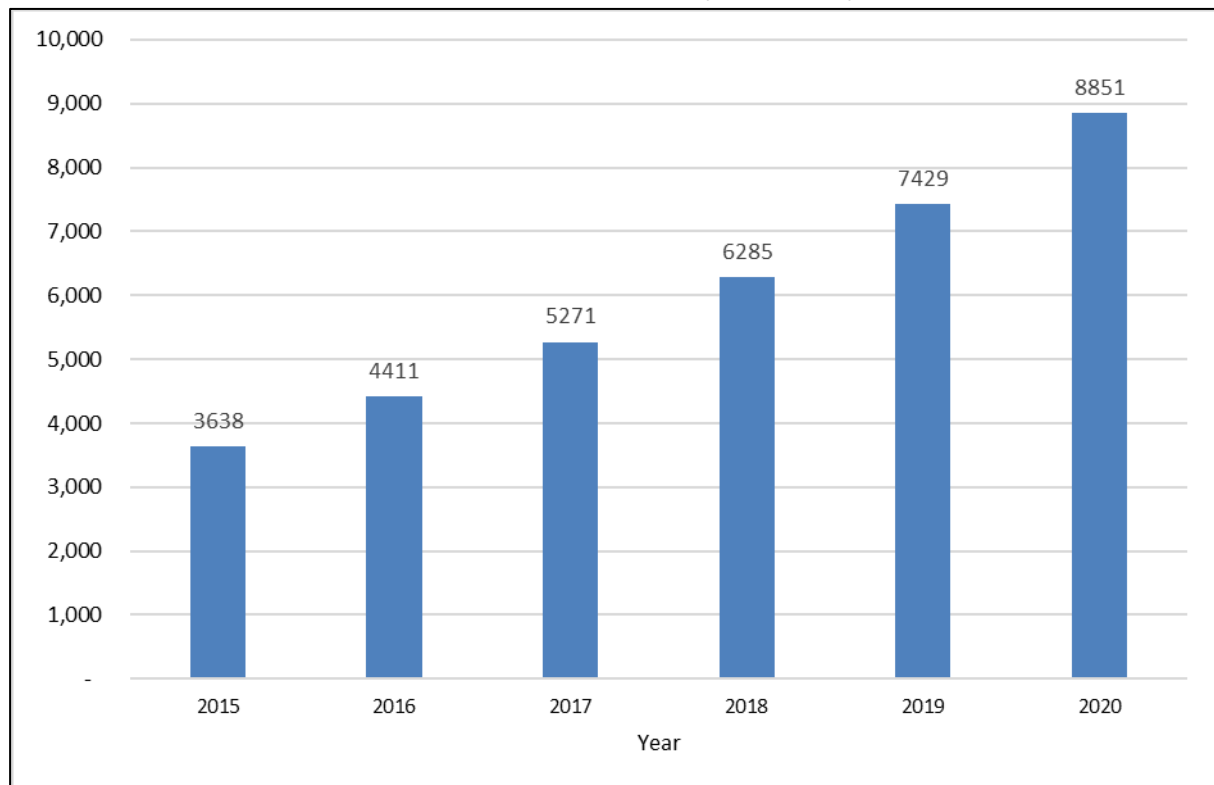
Country	Internet users (thousand)						% Growth 2015-2020
	2015	2016	2017	2018	2019	2020	
Indonesia	48822	54158	59739	65760	71835	79222	10.2%
Philippines	45508	51570	57727	64377	71380	78832	11.6%
Vietnam	49581	54136	58210	61748	64738	67203	6.3%
Thailand	27574	31958	36229	40562	44782	48997	12.2%
Malaysia	20830	21350	22201	23005	23779	24417	3.2%
Singapore	4628	4852	5011	5223	5430	5635	4.0%

Source: WAVTEQ, based on Economist Intelligence Unit Market Indicators & Forecasts.

The following chart shows the total number of broadband subscriber lines in Indonesia between 2015 and 2020. The total amount of broadband subscriber lines in Indonesia is projected to increase 19.5% per year between 2015 and 2020, growing at a higher rate than Thailand (17.7%), Malaysia (11.9%), the Philippines (6.2%), and Singapore (4.5%).

⁵ Compound annual average growth rate

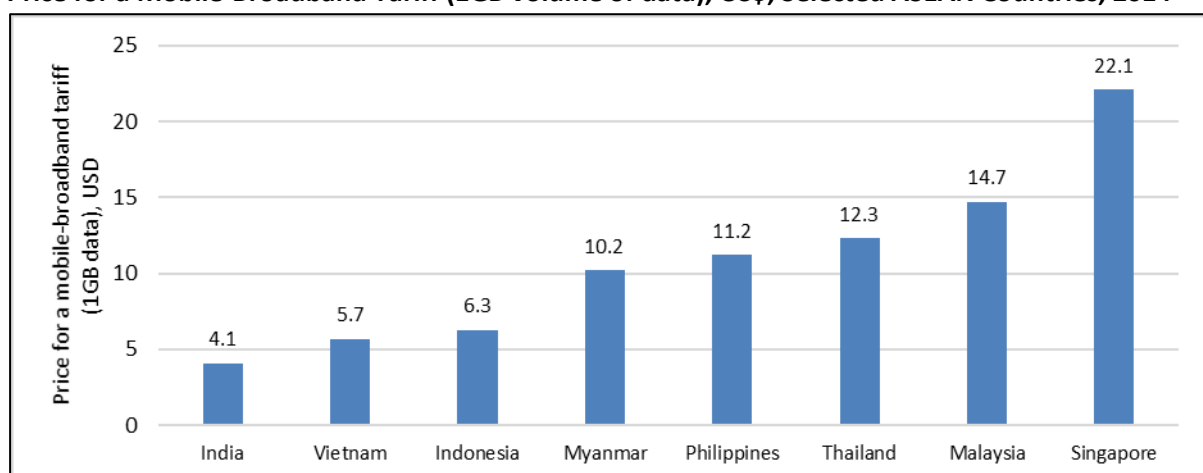
Total Number of Broadband Subscriber Lines in Indonesia, thousands, 2015–2020



Source: WAVTEQ, based on Economist Intelligence Unit Market Indicators and Forecasts.

Indonesia has a lower mobile-broadband tariff (1GB volume of data) than Myanmar, the Philippines, Thailand, Malaysia, and Singapore. According to the International Telecommunication Union (ITU), Indonesia has one of the lowest mobile-broadband tariff (1GB volume of data) among selected ASEAN countries. In Indonesia it costs US\$6.30 for the tariff, less expensive than Myanmar (US\$10.20), Philippines (US\$11.20), Thailand (US\$12.30), Malaysia (US\$14.70), and Singapore (US\$22.10).

Price for a Mobile-Broadband Tariff (1GB volume of data), US\$, Selected ASEAN Countries, 2014



*No data available for China.

Source: WAVTEQ, based on International Telecommunication Union.

Frost & Sullivan forecast Indonesia's e-commerce market to grow by 31.1% to reach US\$3.8 billion in 2019, driven by:

- Robust economic growth;
- High mobile adoption; and
- The large number of e-commerce players.

There is a clear market for technological advancement in both digital media and ecommerce, as Indonesians accumulate nine hours of screen time a day on average, according to Frost & Sullivan. This is the highest rate in the world.

Multi-screening is a term used quite frequently in Frost & Sullivan's report and refers to the use of multiple electronics throughout the day (i.e., televisions, mobile phones, desktop computers, laptops, tablets etc.) and it is this common multi-screening throughout Indonesia that can be taken advantage of by digital media marketing and advertising companies as well as e-commerce companies.

The Indonesian government has released a revised version of the Negative Investment List in 2016, which opens the door to major foreign investment in e-commerce, by allowing 100% foreign investment. Regarding the 2014 Negative Investment List, foreign investment was only open to e-commerce and marketplace platforms of more than IDR 100 billion (\$7.3 million) in value.

As the fourth-largest country in the world by population, and with one-third of this population having access to the internet, Indonesia's e-commerce market is expected to grow to US\$130 billion in 2020, with an annual growth of 50% according to the Indonesia Information and Communications Technology Ministry.

Canadian investors in Indonesia's e-commerce sector should consider:

- Working closely with the established players in e-commerce in Indonesia, who have experiences of both successes and challenges (<http://www.terrapinn.com/conference/ecommerce-show-indonesia/index.stm>);
- Close collaboration with the financial services sector to streamline online payments making them more accessible to consumers, including with major Canadian financial services investors already in Indonesia;
- Focus on online security, payment security and fraud prevention to build confidence among consumer and retailer alike (i.e., attract foreign investment in this field); and
- Identify key investors specifically in mobile (cellular) e-commerce, as the trend of internet usage via cell phones dictates this over traditional browser-based applications.

Mobile

Indonesia is the fourth-largest mobile market in the world and is in the top ten 3G markets. 100% of Indonesia's population is covered by mobile phone network coverage, according to the World Economic Forum's Global Technology Report 2016, and it is forecast that mobile phone subscriptions will reach 348 million by 2020.

In 2015, Indonesia had the highest volume of mobile phone subscriptions in ASEAN, with 323 million subscriptions—significantly higher than Vietnam (137million). It is forecast that mobile phone subscriptions in Indonesia will reach 348 million by 2020.

Total Number of Mobile-Phone Subscriptions, in thousands, Among Selected ASEAN Countries, 2015–2020

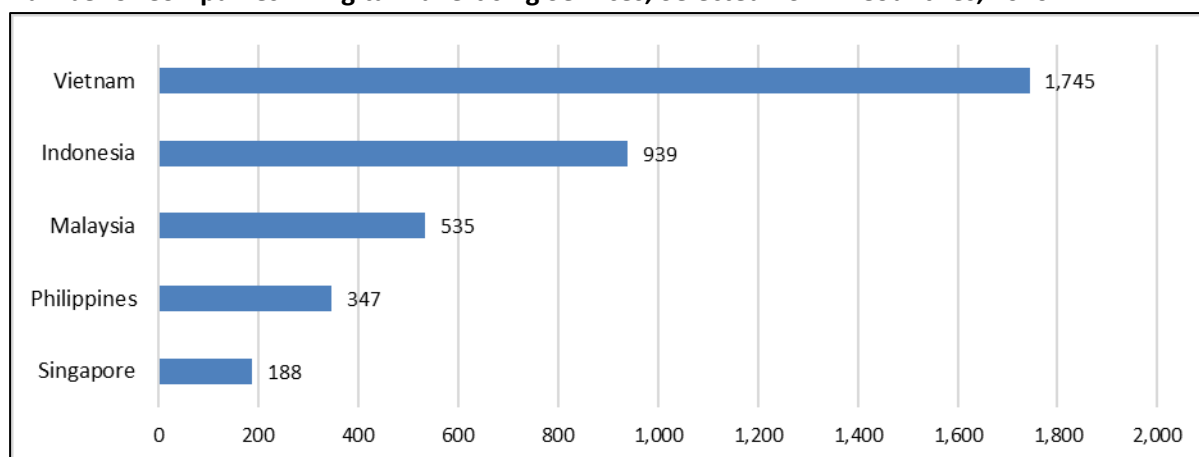
Country	Number of mobile-phone subscriptions (thousand)					
	2015	2016	2017	2018	2019	2020
China	1305738	1345919	1383266	1420597	1457499	1492804
India	1010428	1090644	1179455	1265551	1350317	1433751
Indonesia	323091	328731	334109	339080	343886	348125
Vietnam	137260	138992	141136	143524	146039	148701
Philippines	119221	124748	130502	136491	142984	149189
Thailand	84839	87565	92093	95904	98577	100653
Malaysia	44371	44941	45768	47065	48615	50454
Singapore	8196	8303	8469	8623	8925	9234

Source: WAVTEQ, based on Economist Intelligence Unit Market Indicators & Forecasts.

Digital media

Digital media is digitized content that can be transmitted over the internet or computer networks; it can include text, audio, video, and graphics. According to Dun & Bradstreet, Indonesia has a larger number of companies in digital advertising services than Malaysia, Philippines, and Singapore. The chart below shows the number of companies in digital advertising services among selected ASEAN countries.

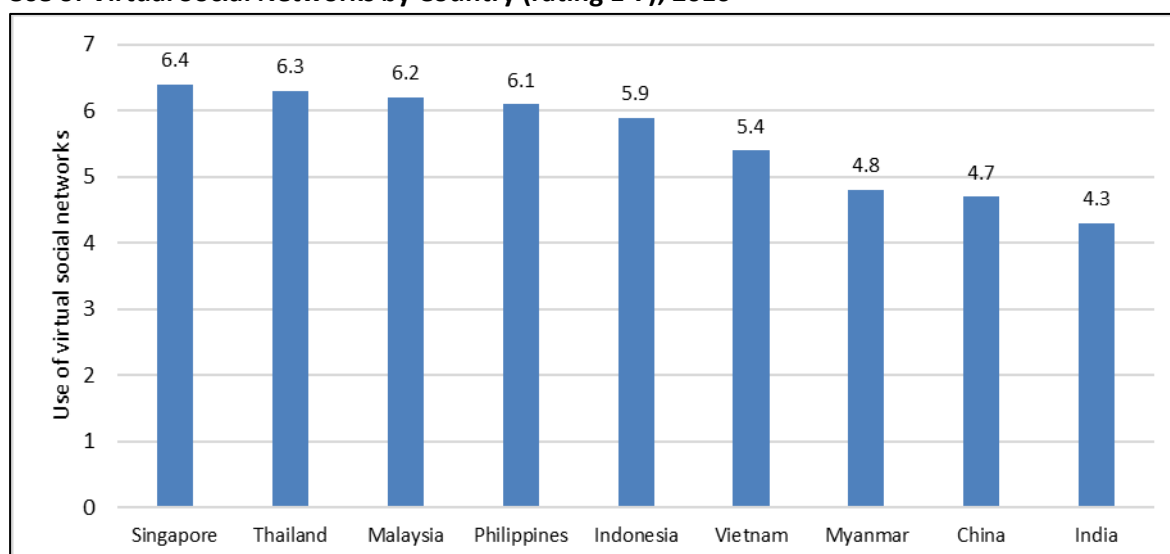
Number of Companies in Digital Advertising Services, Selected ASEAN Countries, 2016



Source: fDi Intelligence, based on Dun & Bradstreet Global Reference Solution SIC code 7311.

Compared to regional rivals such as Vietnam, Myanmar, China, and India, Indonesia has a higher score on the use of virtual social networks index as measured by the Global Information Technology Report 2016. Indonesia ranked 36th in the overall ranking, while Vietnam ranked 86th, Myanmar 111th, China 121th^h and India 130th.

Use of Virtual Social Networks by Country (rating 1-7), 2016



* 1 = not at all used. 7 = used extensively

Source: World Economic Forum's Global Information Technology Report 2016,
<https://www.weforum.org/reports/the-global-information-technology-report-2016/>.

Indonesia has the largest gaming market in ASEAN measured by number of gamers, with nearly two-thirds of the population playing video games and 20 million paying gamers. Indonesia is the fastest growing gaming market in ASEAN.

Digital Technology Indicators for ASEAN Countries

	Indonesia	Malaysia	Philippines	Singapore	Thailand	Vietnam
Population (in mm)	252.8	30.2	100.1	5.5	62.2	92.5
Online Population (in mm)	52.6	21.4	42.0	4.1	21.1	44.7
% of Population Online	20.8%	70.9%	42.0%	74.5%	33.9%	48.3%
Gamers (in mm)	34.0	14.3	27.2	2.8	14.7	31.4
Gamers as % of Total Population	64.6%	66.8%	64.8%	68.3%	69.7%	70.2%
Paying Gamers (in mm)	19.9	6.6	11	1.1	8.3	12.3
Paying Gamers as % of Total Gamers	58.5%	46.2%	40.4%	39.3%	56.5%	39.2%
Annual Spend/Payer	\$9.12	\$32.61	\$8.76	\$189.30	\$27.76	\$12.67
2014 Revenues (Excl. tax in \$mm)	181.1	214.2	96.8	201.6	230.3	155.8
CAGR 2013-2017E	37.3%	27.0%	36.5%	14.4%	30.9%	27.2%
Bank Account Penetration	36.0%	81.0%	28.0%	96.3%	78.0%	30.8%
Credit Card Penetration	1.6%	20.2%	3.2%	35.4%	5.5%	1.9%
Smartphone Penetration	24.0%	35.0%	15.0%	85.0%	37.7%	36.0%
Major Telecom Operators	Telkomsel, Indosat, XL	Celcom, Maxis Digi, U-Mobile	Globe Smart	Singtel, M1 Starhub	AIS, dtac Truemove	Viettel, MobiFone VinaFone

Source: Newzoo report, January 2015.

Cloud computing

Cloud computing is the practice of using a network of remote servers hosted on the internet to store, manage, and process data, rather than a local server or a personal computer and is becoming prominent software both in Indonesia and at a global scale. Cloud technology is rising rapidly in Indonesia—cutting operational costs for many businesses. Indonesia's cloud computing market is expected to reach more than US\$120 million by 2017. From 2010 to 2014, cloud computing has grown at an average annual rate of 48%. Indonesian IT firms are also offering advanced courses

related to cloud computing. Purwadhika Nusantara, a large local IT firm, has opened up a campus in Indonesia providing cloud computing programs.

FDI case studies

Microsoft Corporation

- Invested US\$2.5 billion in Indonesia in 2011 to develop cloud computing systems
- Major player in cloud computing in Indonesia, as most Indonesian companies are powered by cloud computing solutions provided by Microsoft
- In 2010, Steve Ballmer (former chief executive officer for Microsoft), saw less potential in China than in Indonesia for his company's growth due to high level of piracy and that international intellectual property rules are not being addressed by the U.S. government

Amazon.com Inc.

- Electronic commerce and cloud computing company that provides a collection of remote computing services
- The company is planning to open an ecommerce branch in Indonesia and have announced that they will invest US\$600 million in the first year (announced 2016)

Research in Motion

- Canada-based smartphone maker Research in Motion has set up an innovation centre in Bandung, Indonesia in partnership with the city's Institute of Technology. It will provide a host of educational and research programmes that focus mainly on mobile computing
- The company's goal is to nurture and accelerate mobile application development from the talent within Indonesia

Google

- Launched its Indonesia office in 2012, with aims to boost the whole technology and internet ecosystem in Indonesia and to help local businesses get online

Twitter

- In 2014 opened an office in the city of Jakarta, and the employment of at least 20 people

Facebook

- In 2014, Facebook opened an office in Jakarta, the capital city of Indonesia

Joyent Cloud

- The California company is a pioneer in cloud computing and their services are utilized by several major firms including LinkedIn
- The IT company has partnered with the Malaysian firm, Anise Asia, to provide cloud computing solutions to business concerns in Indonesia

Morphlabs

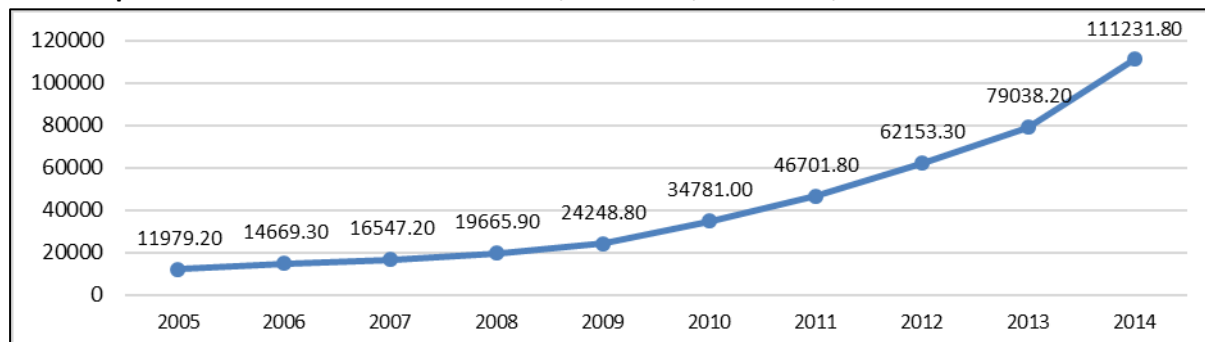
- California-based cloud platform provider Morphlabs plans to open a new data centre in Indonesia
- The company recently raised US\$5 million in funding, part of which it will use to open data centres and expand headcount. The company provides on-demand applications and delivery platforms for web-based applications

Air Transportation

Sector size and growth

Due to the archipelago geographic nature, Indonesia is highly dependent on transportation by water and air to connect over 17,000 islands. With nearly 700 operational airports in Indonesia, travelling by air has always been a popular means of transport in the country. The air transport subsector accounts for 26.16% of the total transport industry. The chart below shows the ten-year trend of air transportation contribution to real gross domestic product. Indonesia's aviation industry is booming, growing by 28.10% average per year between 2005 and 2014.

Air Transportation Contribution to Real GDP*, Indonesia, IDR billion, 2005–2014



*2000 constant market prices

Source: Statistics Indonesia.

Further growth in air transportation and freight is expected:

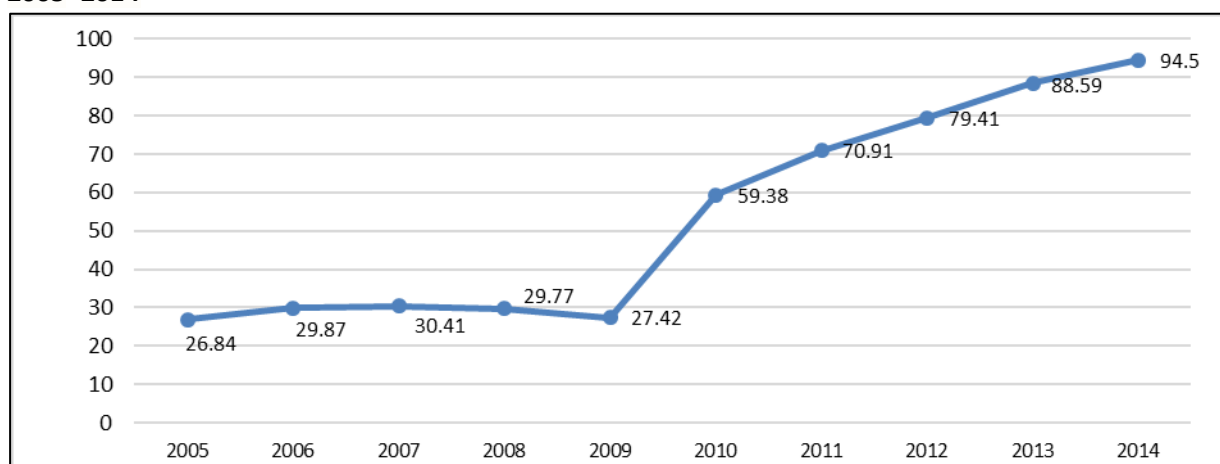
- Indonesia's airports are in urgent need of additional capacity. By 2034, Indonesia's airports are expected to handle an additional 183 million passengers compared to today.
- By 2034, Indonesia is expected to be the sixth-largest market for air travel. By then, some 270 million passengers are expected to fly to, from, and within the country, which is three times the size of today's market.⁶
- The ASEAN Open Skies Policy (also known as ASEAN Single Aviation Market) was implemented in 2015 and is a multilateral agreement on the opening of freight services between ASEAN countries, a move that plans to help increase air cargo volume by 50% this year and remove tariffs, with carriers free to operate across the ASEAN market. Indonesia is to open seven cities to incoming and outgoing freight services, including Palembang, South Sumatra; Manado, North Sulawesi; Makassar, South Sulawesi, and Biak, Papua.

Demand

Indonesia's airport sector is recording steady growth thanks to a rapid rise in the number of domestic and international air travellers, as well as freight. The economic growth in the country is contributing to this—real GDP grew in Indonesia at a compound average growth rate of 5.07% between 2012 and 2016. Additionally, the increasing tourism, international trade, and the development of regional economic centres such as Medan and Makassar will continue to drive demand in the air transport industry. The following chart shows the number of domestic and international aircraft passengers in Indonesia between 2005 and 2014. There was a huge increase in the number of passengers between 2009 and 2010 (doubling the number of passengers). Since then, we see a year-on-year increase with 94.5 million passengers recorded in 2014.

⁶ <http://www.iata.org/pressroom/pr/pages/2015-03-12-01.aspx>.

Number of Domestic and International Aircraft Passengers, Indonesia, millions of passengers, 2005–2014



Source: Economist Intelligence Unit Market Indicators & Forecasts.

Capacity

The table below shows the destinations that can be reached directly by air from Jakarta, as well as their respective flight time and flight distance (miles). A flight from Soekarno–Hatta International Airport to Singapore takes only 1 hour 36 minutes. There are 326 direct flights per week from Jakarta to Singapore, 258 flights to Kuala Lumpur (Malaysia), and 105 flights to Bangkok (Thailand). Other international destinations such as Hanoi (Vietnam), Naypyidaw (Myanmar), and New Delhi (India) can only be reached by non-direct flights from Jakarta.

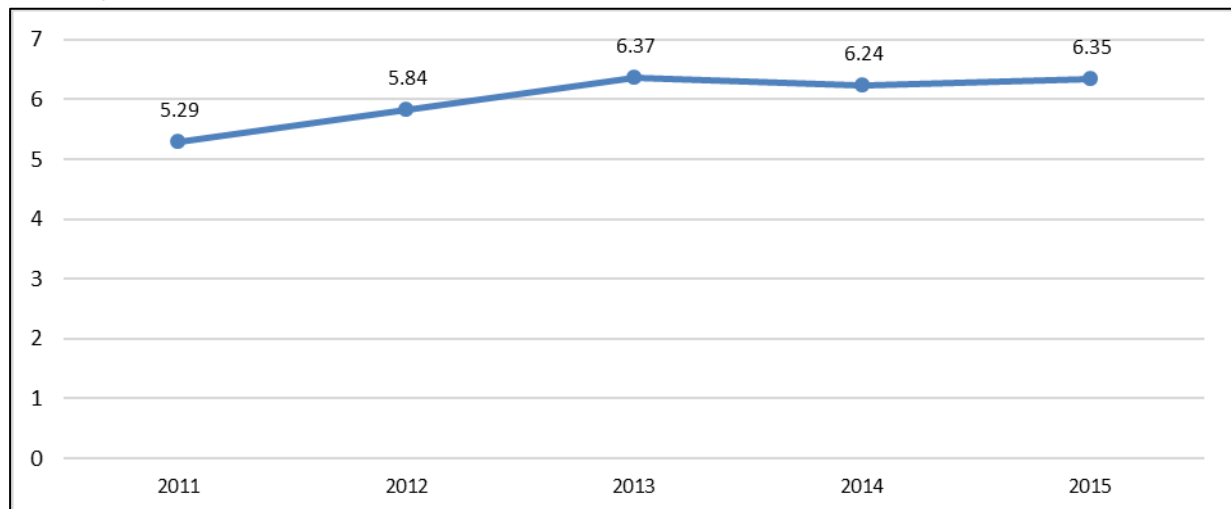
Direct Flights from Soekarno–Hatta International Airport, Indonesia, 2016

Flight type	Destination city	Country	Number of direct flights per week	Flight time	Flight distance (miles)
Direct	Singapore	Singapore	326	1 hr 36 min	553
	Kuala Lumpur	Malaysia	258	1 hr 58 min	733
	Bangkok	Thailand	105	3 hr 22 min	1436
	Manila	Philippines	18	3 hr 57 min	1727
	Xiamen	China	17	4 hr 59 min	2239
	Ho Chi Minh	Vietnam	14	2 hr 50 min	1168
	Shanghai	China	14	5 hr 58 min	2732
	Bandar Seri Begawan	Brunei	12	2 hr 23 min	944
	Fuzhou	China	8	5 hr 14 min	2369
	Bayan Lepas	Malaysia	7	2 hr 19 min	908
	Beijing	China	6	6 hr 58 min	3230
	Tianjin	China	4	6 hr 52 min	3187
	Kota Kinabalu	Malaysia	3	2 hr 36 min	1051
	Zhengzhou	China	3	6 hr 12 min	2850

Source: WAVTEQ, based on OAG Flight Guide Worldwide and Travelmath. <http://www.travelmath.com/>.

The next chart shows the total number of departure passengers of international flights from Soekarno–Hatta International Airport between 2011 and 2015. In 2015, the total number of departure passengers of international flights registered was 6.35 million people; this figure grew by 19.9% from 2011 to 2015.

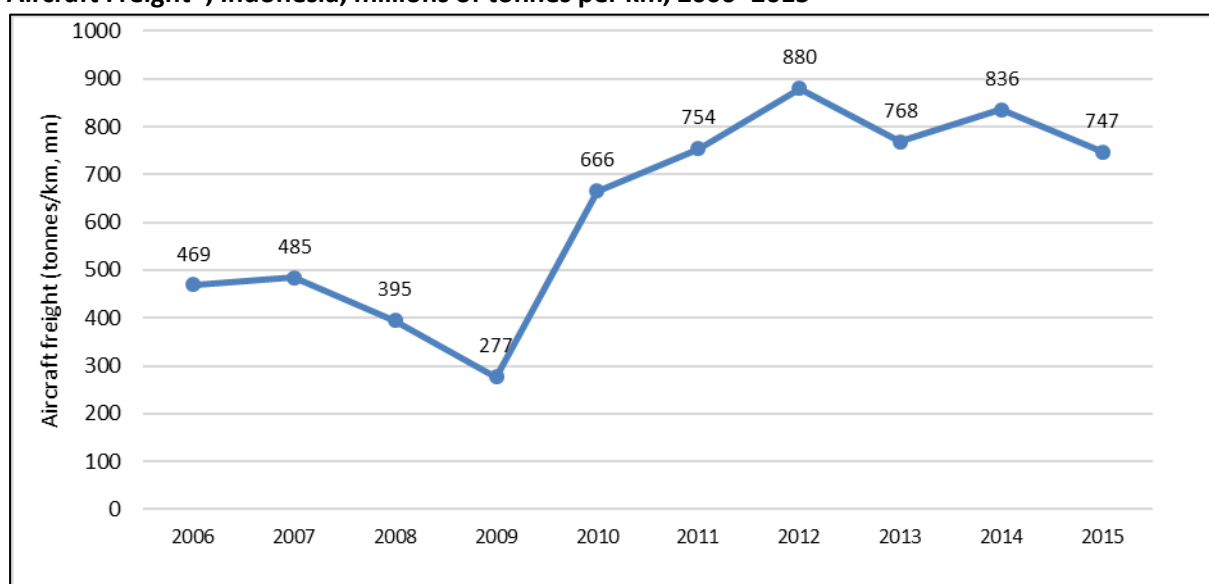
Departure Passengers on International Flights from Soekarno–Hatta International Airport, millions, 2011–2015



Source: Statistics Indonesia.

The chart below shows the trend in Indonesian aircraft freight. In 2015, air (freight) transportation totalled 747 million ton per kilometre.

Aircraft Freight*, Indonesia, millions of tonnes per km, 2006–2015



Source: Economist Intelligence Unit Market Indicators & Forecasts.

*Sum of the metric tonnes of freight, express and diplomatic bags carried on each flight stage multiplied by the stage distance.

Government support and tenders

There is an urgent need for new runways and terminals to accommodate the growth in passenger numbers. The government is recognizing this as a problem and have taken several measurements to stimulate the developments in the infrastructure, representing opportunities for investment.

The government's roadmap for economic development in the years 2011 to 2025, known as the Master Plan for the Acceleration and Expansion of Indonesia's Economic Development (MP3EI), includes infrastructure projects totalling hundreds of billions of dollars. Due to financing constraints on the domestic market, foreign funds are needed on an enormous scale. Projects can be classified

as prospective and potential projects. A potential project is based on a preliminary study and must be in line with national/regional development goals.

The Indonesian National Development Planning Agency published a report in May 2015 listing the number of potential projects for air transportation.⁷ The name and estimated costs of these projects are shown below:

Potential PPP Projects and their Respective Estimated Costs for Air Transportation, US\$ million, Indonesia, 2015

Project name	Location	Estimated cost (US\$ millions)
Development of New Bali airport	Bali	510.00
Kulon Progo International Airport	DI Yogyakarta	500.00
Expansion of Fatmawati Soekarno Airport	Bengkulu	123.95
Expansion of Radin Inten II Airport	Lampung	109.37
Expansion of Sentani Airport	Papua	109.37
Expansion of Tjilik Riwut Airport	Central Kalimantan	109.37
Expansion of Mutiara Airport	Central Sulawesi	103.30
Expansion of Juwata Airport	North Kalimantan	103.30
Expansion of Sultan Babullah Airport	North Maluku	100.26
Expansion of H. As. Hananjoeddin Airport	Bangka-Belitung Islands	58.33
Expansion of Komodo Airport	East Nusa Tenggara	48.61
Expansion of Matahora Airport	Southeast Sulawesi	48.61

Source: Indonesia National Development Planning Agency, Public Private Partnerships 2015.

<http://pkps.bappenas.go.id/attachments/article/1302/PPP%20Book%202015.pdf>

The Indonesian Ministry for Transport is planning to construct 45 new airports by 2025 (24 by 2017) which provide public private partnership (PPP) opportunities for construction and operation as well as providing opportunities for investment within the supply chain and ancillary services.

The government's commitment to significantly increase infrastructural investment, not just in the development of airports, but investment in connecting road and rail links, not only provides opportunity for investment surrounding the infrastructural development, but also the spin off through increased capacities for logistics and distribution, which in turn is being fueled by domestic demand and the need for efficiency and competitiveness.

Foreign ownership restrictions in air cargo and other logistics have recently been loosened, with the levels of foreign ownership increased to 67% in both air cargo and warehouse distribution and to 100% for cold storage, which will increase the attractiveness of the sector to foreign investors and in turn increase competitiveness in the sector.

Logistics is driven by demand, so increased domestic consumption and increased volumes of exports and imports will fuel this demand, with the Indonesian Logistics Association expecting growth of between 10–12% in the industry in 2016.

Government initiatives to reduce logistics costs, such as incentivizing warehouse sharing, along with continued infrastructural investment in road, rail, and air will make the sector more attractive to FDI.

⁷http://www.gbgindonesia.com/en/property/article/2014/indonesian_infrastructure_tremendous_ppp_opportunities.php.

Eleven new bonded logistic centers are due to come on stream in 2016, with a further 50 planned for 2017.⁸

The key areas of focus are:

- Clarification on direct airport investment projects that are open to overseas investment— timeline and selection process.
- Map opportunities in supply chain for new airport development and existing airport expansions to define areas of opportunity for overseas investments, which could include professional and technical services, supply of machinery and equipment, and installation of services (e.g. fuel storage).
- Ancillary investment alongside infrastructure that is due to come into operation in the short term, such as ground handling, aircraft maintenance, passenger services, freight service, logistics, and distribution.⁹

The government is providing three main incentives to foreign investment into airport projects, which are:

1. Tax Allowance: 30% of investment value reduction of corporate net income tax for 6 years (5% each year).
2. Tax Holiday: A variety of sectors are covered in this regulation including machinery industries and non-PPP infrastructure. The period of tax holiday is between 5 and 15 years (previously it was 10 years), and now can be extended for up to 20 years. The minimum amount of investment is IDR 1 trillion.
3. Import Duty Facility: Machine, goods, and materials for production will have a two-year import duty exemption or four years for companies using locally produced machines (30% to 40%). This covers industries that produces goods and services in public transportation and construction.

Investor case studies

CAE

- Canada-based CAE has entered into a joint venture with Malaysia Airlines and has opened a new B738 simulation training centre in Glenmarie, Subang.
- The centre, maintained and operated by CAE, features a CAE 7000 Series Boeing 737-800 Level D full-flight simulator and a CAE Simfinity Boeing 737-800 Integrated Procedures Trainer.

FL Technics

- FL Technics, a provider of integrated aviation related services and a subsidiary of Lithuania-based Avia Solutions, has opened an 8400 square metre aircraft maintenance hangar at Soekarno-Hatta International Airport, Indonesia.
- It will create around 150 jobs and will help facilitate cooperation with Asian carriers, MROs, and other players in the Asia-Pacific region.

KEY STRENGTHS OF INDONESIA FOR FDI

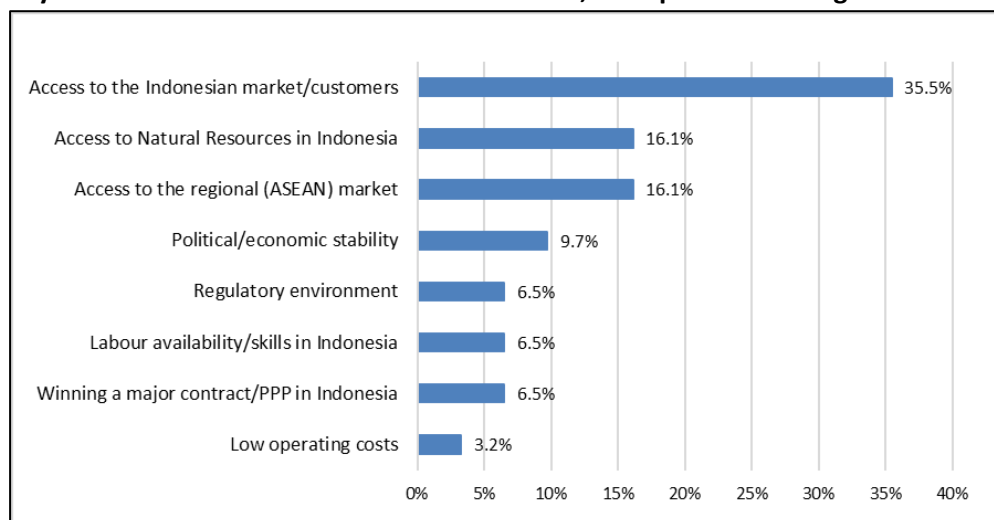
A field trip to Indonesia was conducted in June 2016 to meet with Canadian and other investors and key stakeholders. Interviewees were asked to identify the three most important location determinants for FDI into Indonesia. The following chart shows that access to the Indonesian market

⁸ <http://www.thejakartapost.com/news/2016/03/11/50-new-logistics-centers-open-2017-minister.html>.

⁹ http://www.gbgindonesia.com/en/services/article/2014/indonesia_s_aviation_andamp_airports_sector.php.
http://www.gbgindonesia.com/en/services/article/2016/indonesia_s_logistics_sector_making_connections_11383.php.

and customers is considered the most important location determinant, with over 35% of respondents citing this factor as one of the top three location determinants. The next most important factors were access to the regional ASEAN market and access to natural resources.

Key Location Determinants for FDI in Indonesia, % respondents citing factor

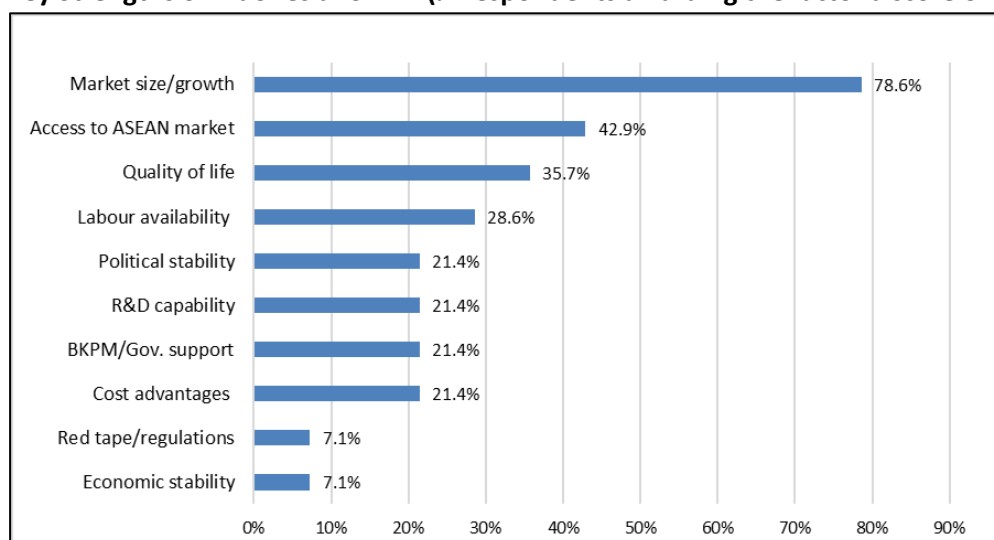


Source: WAVTEQ survey, June 2016.

Respondents emphasized the size and growth of the Indonesian and ASEAN market and that the high-growth economy offers a good return on investment and new sources of revenue independent of global markets, especially related to infrastructure and energy demand in Indonesia. Finding a good local partner is seen as key to navigating the regulatory climate and getting operations up and running. When forming a local partnership, investors recommend extensive due diligence and putting arbitration offshore.

Respondents were asked to rank location factors on a scale of 1 to 5 (1=Indonesia is very weak, 5=Indonesia is excellent). The next chart shows the key strengths of Indonesia for FDI. Over three-quarters of respondents saw market size and growth as a key strength and over 40% of respondents saw access to ASEAN as a key strength. The quality of life in Indonesia was seen as a key strength by over one-third of respondents and labour availability by over one-quarter of respondents.

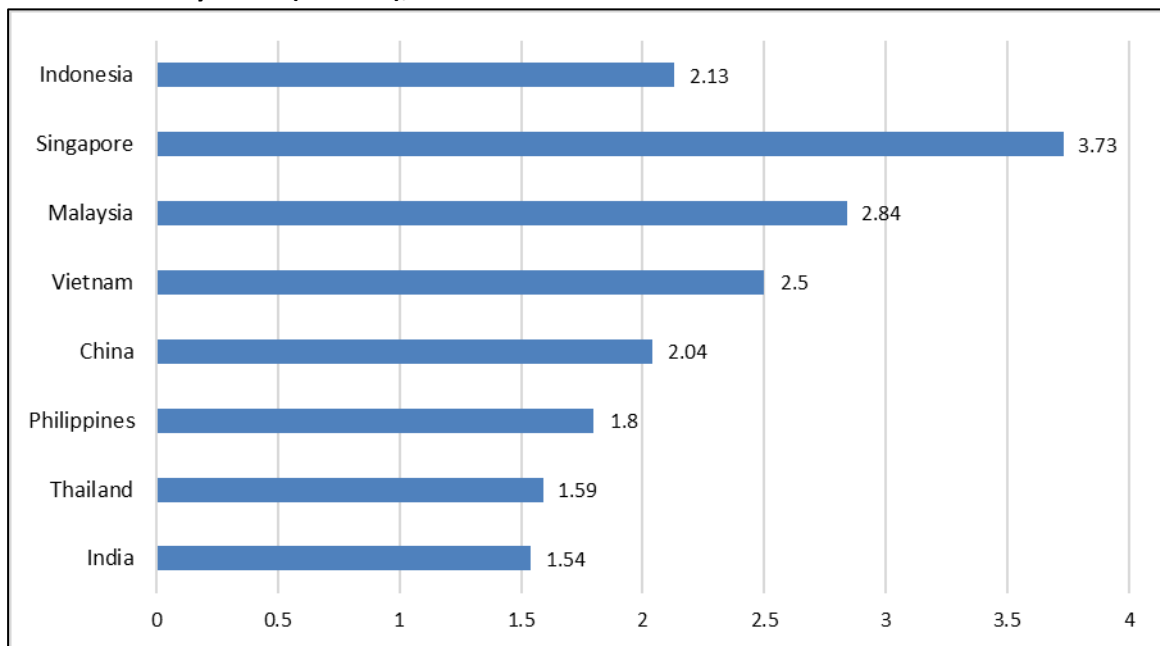
Key Strengths of Indonesia for FDI (% respondents awarding the factor a score of 4 or 5)



Source: WAVTEQ survey, June 2016.

Indonesia's overall political stability is evaluated as 2.13 out of a maximum of 4, which is below Singapore, Malaysia, and Vietnam but higher than China, Philippines, Thailand, and India.

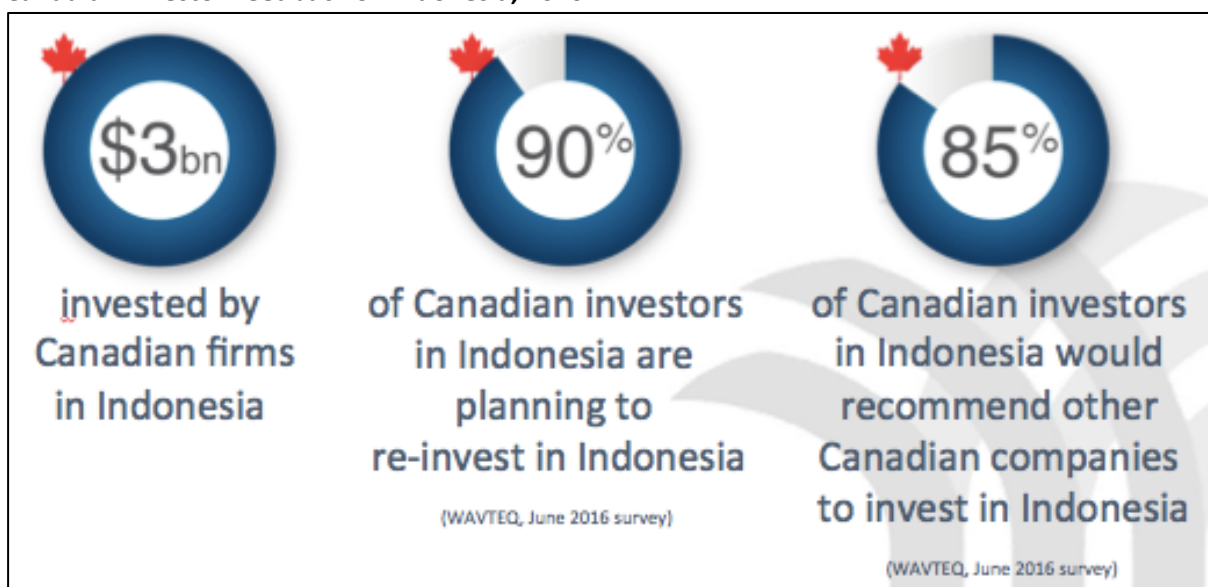
Political Stability Index (out of 4), 2015



Source: fDi Benchmark, (Based on Worldwide Governance Indicators 2016).

Canadian companies that have already invested in Indonesia are very positive about the investment opportunities, as shown in the following feedback. Investors highlighted the importance of understanding the local business culture and being in the market to succeed. They noted that the Indonesian culture is very welcoming and integrative and that there is easy access to government.

Canadian Investor Feedback on Indonesia, 2016



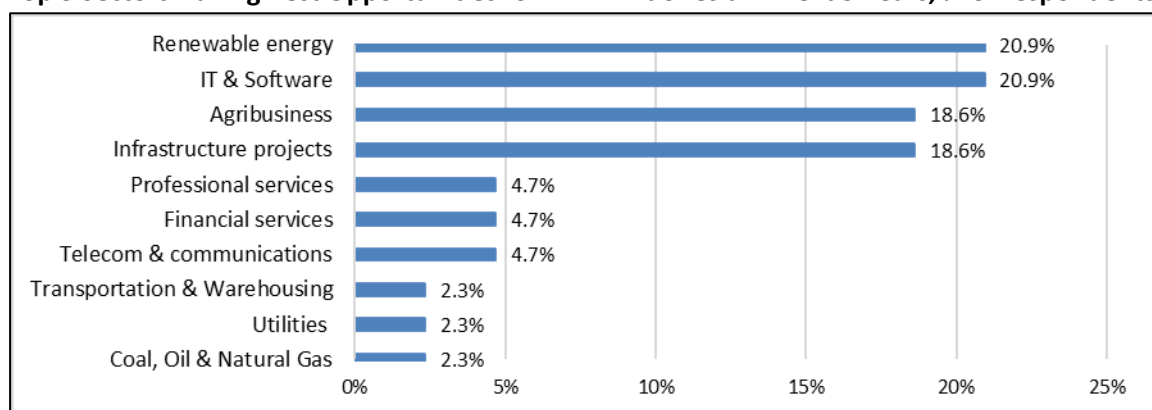
Source: WAVTEQ survey, June 2016.

KEY INVESTMENT OPPORTUNITIES

Canadian Investor Feedback

Canadian and other investors and key stakeholders were asked to identify the top three sectors where they saw the best opportunities for FDI into Indonesia over the next five years. Renewable Energy and IT & Software were jointly ranked as the top sectors where existing investors see the strongest FDI opportunities for Canadian companies.

Top 3 Sectors Having Best Opportunities for FDI in Indonesia in Next 5 Years, % of respondents

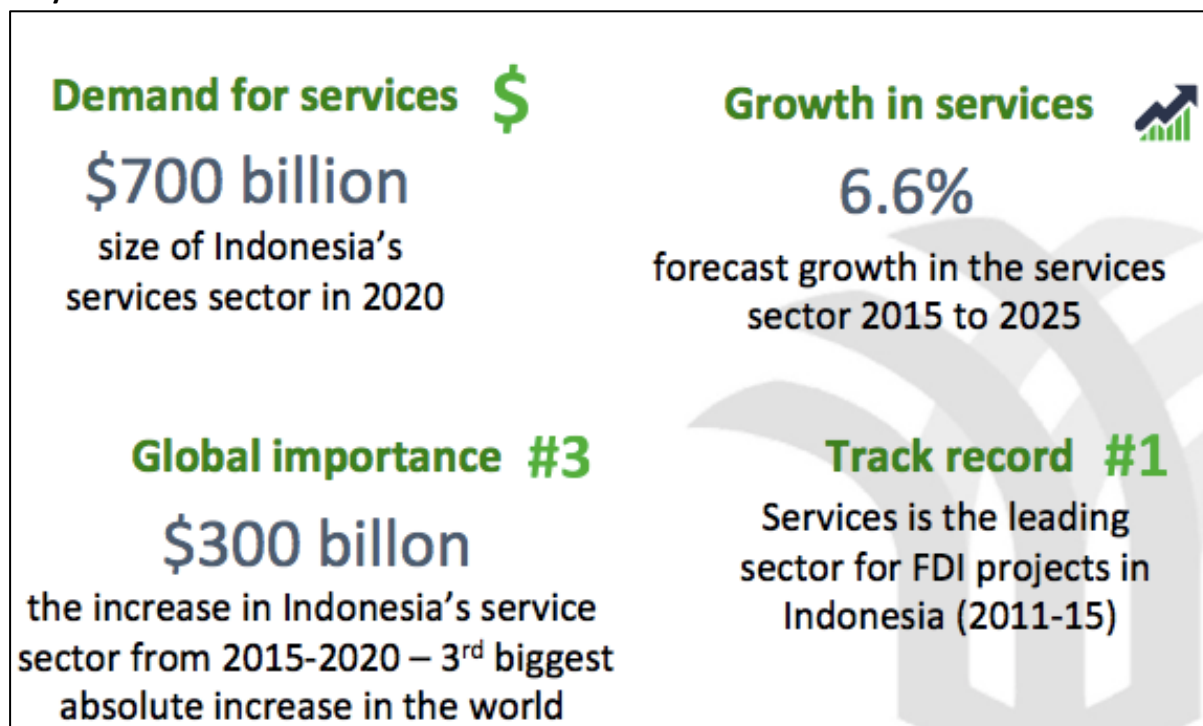


Source: WAVTEQ survey, June 2016.

Services Sector Potential

Indonesia's service sector is forecast to grow rapidly increasing to over US\$700 billion of GDP in 2020—an increase of over US\$300 billion from 2015 to 2020. The EIU forecasts the value added of Indonesia's services sector to grow by 6.6% per year from 2016 to 2020.

Why Invest in Indonesia's Services Sector?



Source: WAVTEQ.

Technology Sectors

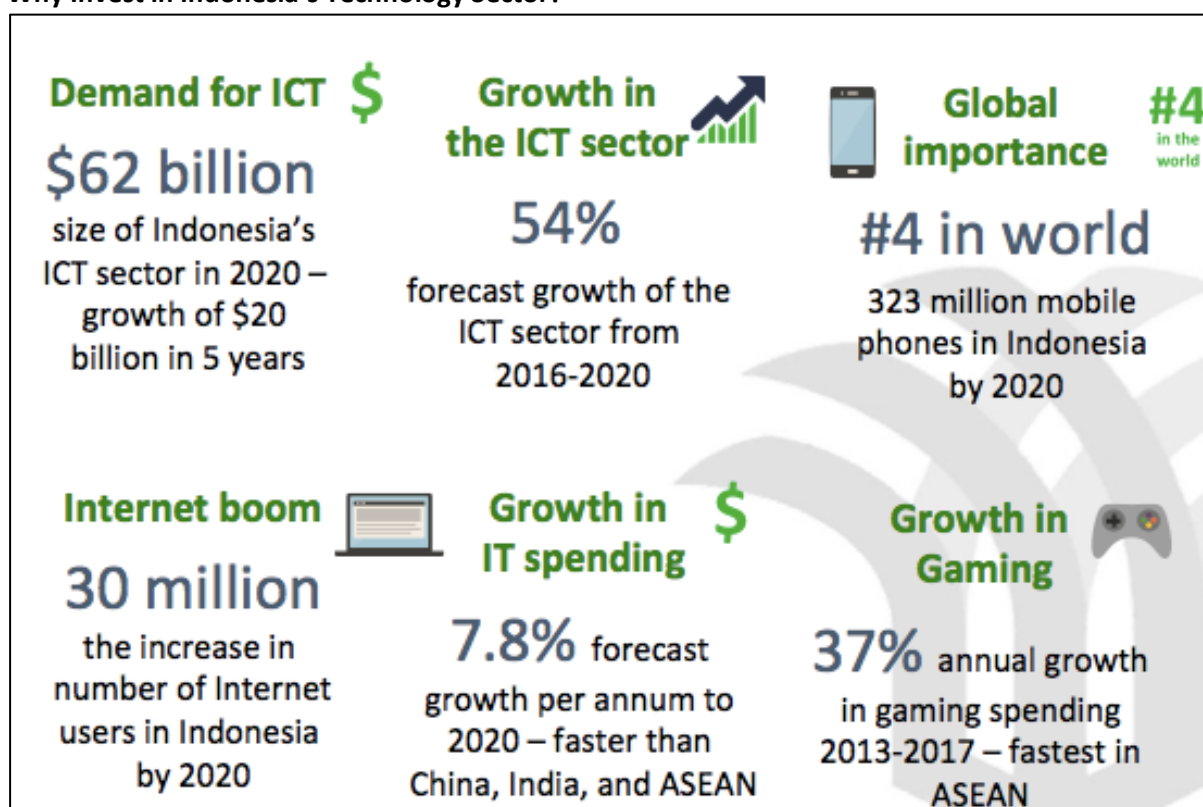
According to BKPM reports, Indonesia has the fastest growing mobile phone market in Asia-Pacific, is the leading country globally for average time spent on smartphones, has a rapidly growing cloud computer industry, has untapped potential in e-commerce, and has a growing market for call center services growing at 20% per year. The ICT market in Indonesia is forecast to grow from US\$37 billion in 2015 to over US\$60 billion by 2020, with IT spending increasing from US\$12 billion to US\$17 billion.

With the Indonesian government opening up the film sector, informal education, and E-commerce to 100% foreign ownership in 2016, there are new opportunities for FDI and major film studios have already moved into Indonesia. Other sectors including telecom networks and services (including call centres, ISPs, and content providers) and consulting services in construction have increased the maximum foreign ownership stake to 67%.

There are strong FDI opportunities for FDI into Indonesia across many sectors and subsectors. The following subsector is likely to have the strongest potential for Canadian FDI into Indonesia.

- **Software & IT:** Focus on digital media and e-commerce, which are now open to 100% foreign ownership and areas such as mobile security, where Canada has world-class companies.

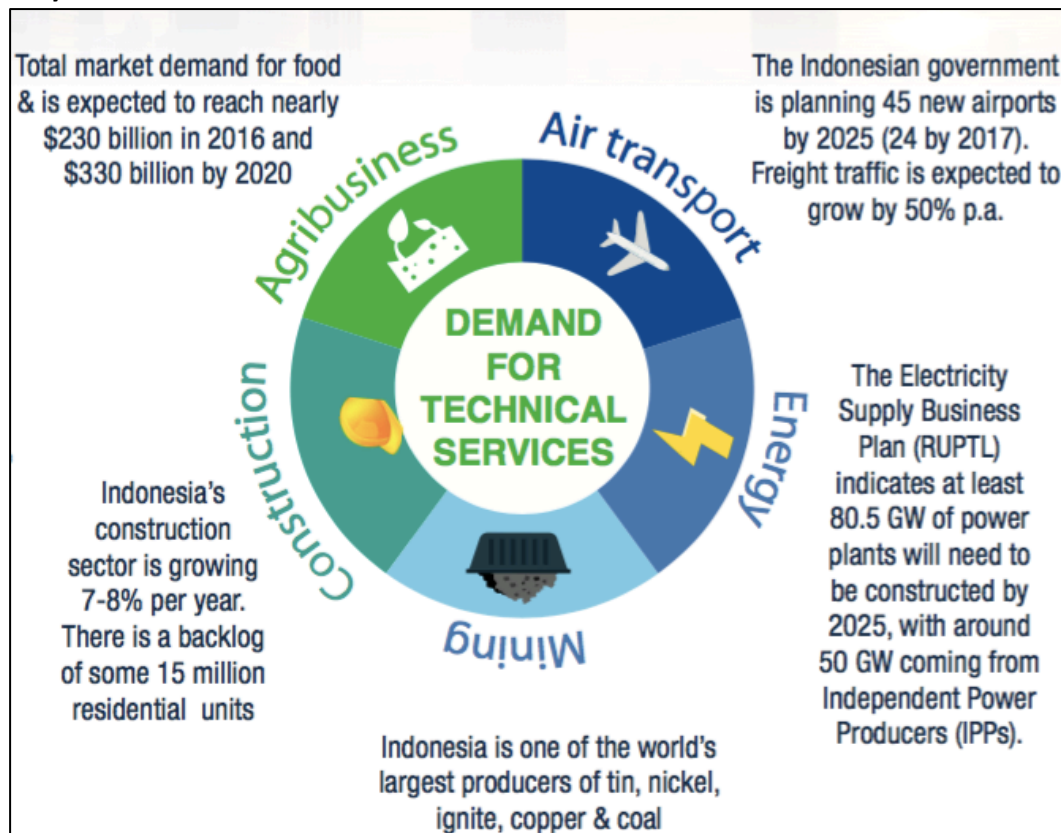
Why Invest in Indonesia's Technology Sector?



Source: WAVTEQ.

Professional, Scientific, and Technical Services

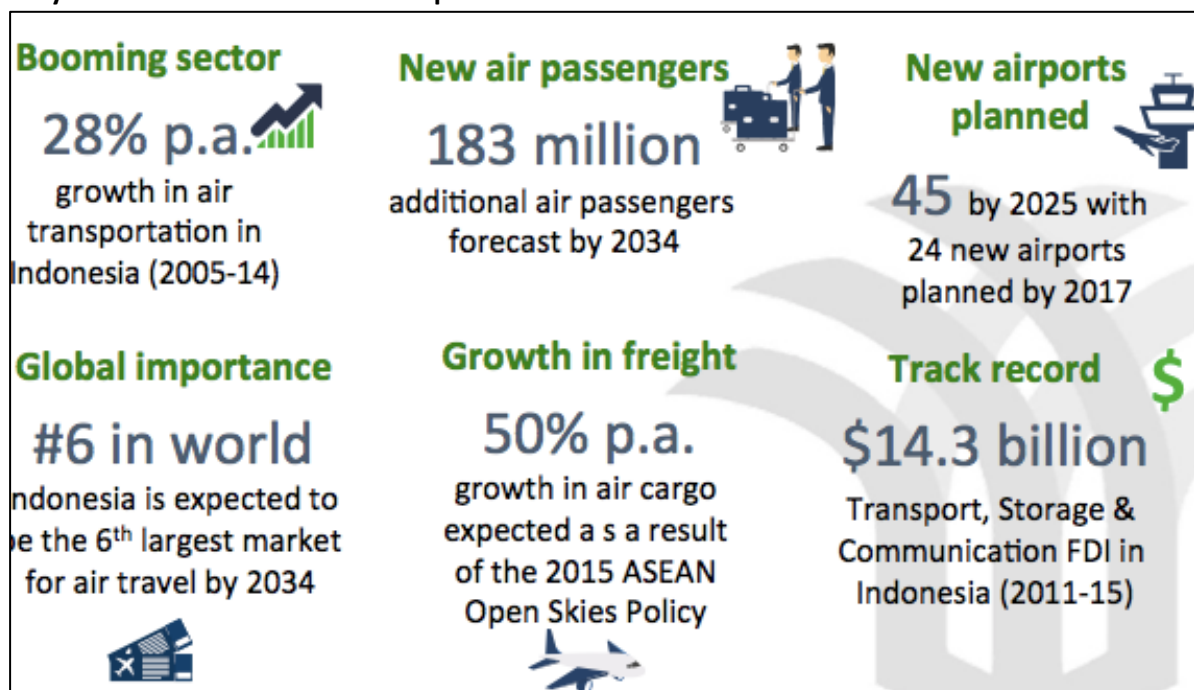
Why Invest in Indonesia's Technical Services Sector?



Source: WAVTEQ.

Air Transportation

Why Invest in Indonesia's Air Transportation Sector?



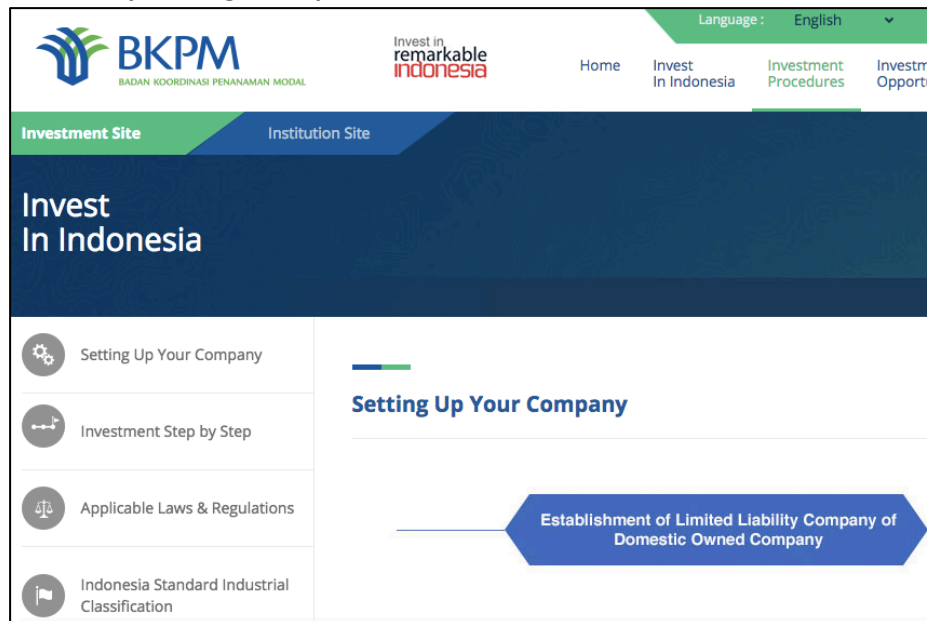
Source: WAVTEQ.

HOW TO INVEST IN INDONESIA

Government Support for your Investments

BKPM is the Indonesian government agency set up to assist foreign companies to invest in Indonesia. BKPM offers a one-stop shop and online service to help foreign investors, with targets for approval times. BKPM should be contacted to obtain the latest information on how to make services investments in Indonesia and on possible fast-track investment set-up and financial incentives available.

BKPM Helps Foreign Companies to Invest in Indonesia



Source: <http://www4.bkpm.go.id/en/investment-procedures/>

Online Licensing —National Single Window for Investment



Source: <https://online-spiipise.bkpm.go.id/>

For major investment projects, BKPM offers a fast-track service to help foreign investors get the approvals they need to set up operations in Indonesia.

Fast Track Service for Major Projects



BKPM
BADAN KOORDINASI PENANAMAN MODAL

Invest in
**remarkable
Indonesia**

Language : English

Home
Invest In Indonesia
Investment Procedures
Investment Opportunities

Investment Site
Institution Site

3 HOURS

INVESTMENT LICENSING SERVICE PROCEDURE

8 Investment Products + 1 Letter of Land Availability Information

BKPM issues 8 investment products, namely Investment License, Tax Registration Number, Establishment Deed and Decree of Legalization of the company from the Ministry of Law and Human Rights, Company Registration Certificate (TDP), Foreign Manpower Utilization Permit (IMTA), Foreign Manpower Utilization Plan (RPTKA), Importer-Producer Identity Number (API-P), Customs Identity Number (NIK) and Letter of Land Availability Information. Requirement for utilizing this service are:

01.



100 BILLION

Investment value worth 100 Billion Rupiahs or above, and/or

02.



1000 LABOURS

Employing at least 1,000 local workers;

03.



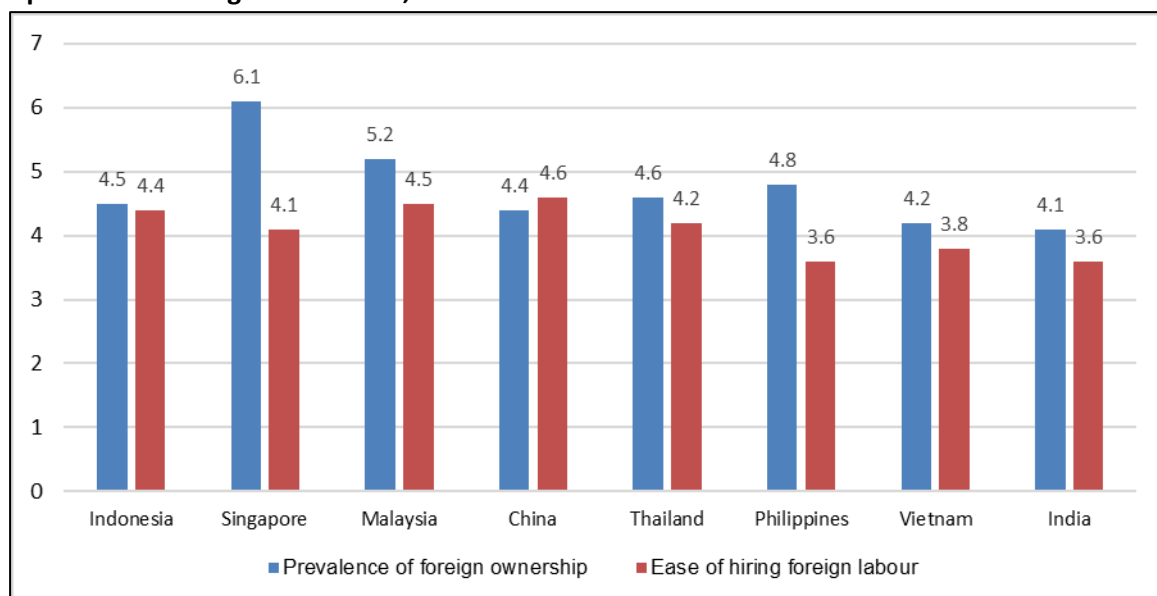
SHAREHOLDERS

Application must be submitted in person by at least one of the shareholders

Indonesia's Ease of Doing Business

The graph below shows that the prevalence of foreign ownership in Indonesia is higher than in China, Vietnam, and India and around the same level as Thailand. Indonesia is also one of highest ranked countries when it comes to ease of hiring foreign labour, performing better than Singapore, Thailand, Vietnam, and India.

Openness to Foreign Investment, 2015

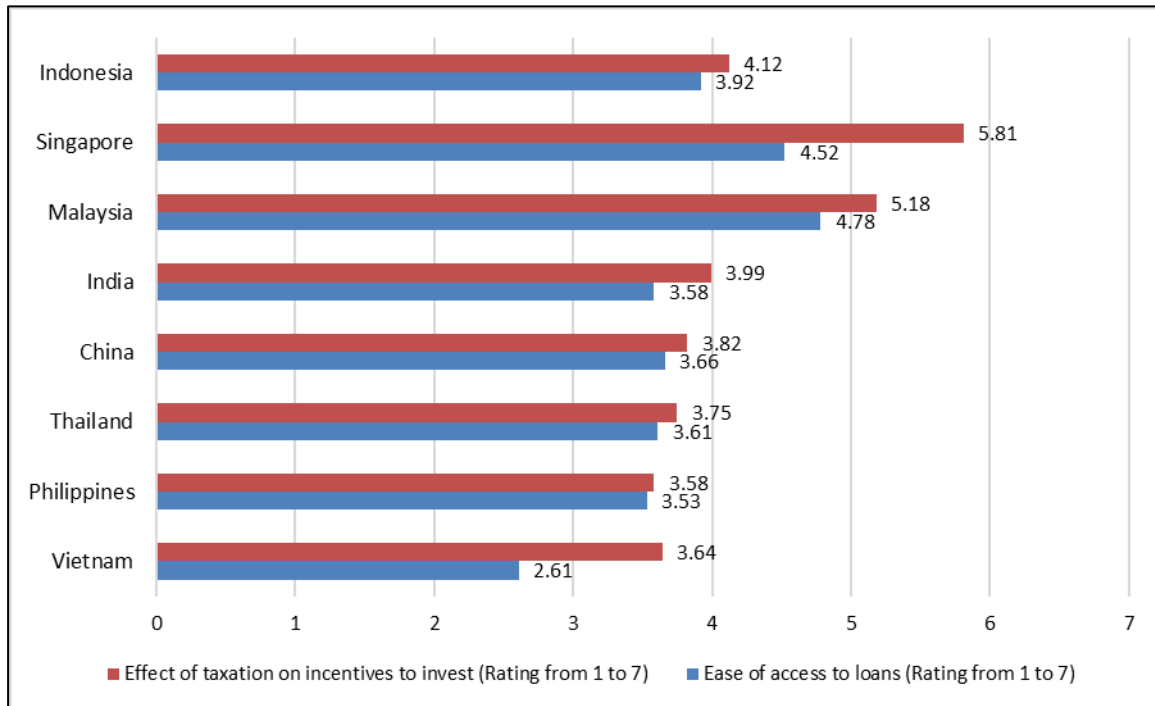


Source: World Economic Forum, The Global Enabling Trade Report; Travel and Tourism Competitiveness Report 2014 & Global Competitiveness Report, World Economic Forum, Switzerland, 2015-16.

In terms of availability of finance, Indonesia performs relatively well compared to most ASEAN countries, China, and India. Indonesia scores 4.12 out of 7 for the effect of taxation on incentives to

invest and 3.92 out of 7 for ease of access to loans, higher than China and India and ASEAN countries except Singapore and Malaysia.

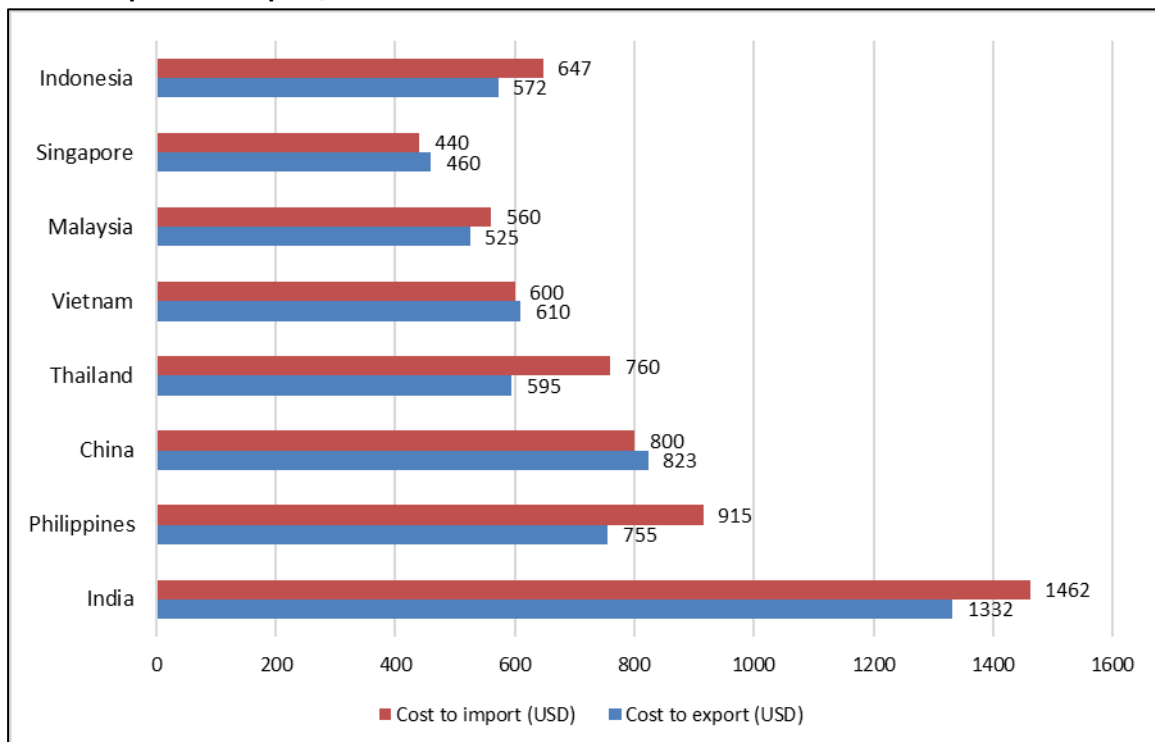
Availability of Finance Indicators, 2015



Source: Global Competitiveness Report, World Economic Forum, Switzerland, 2015-16.

Indonesia performs relatively well in terms of the cost to import and export, with costs much lower than India, Philippines, China, and Thailand.

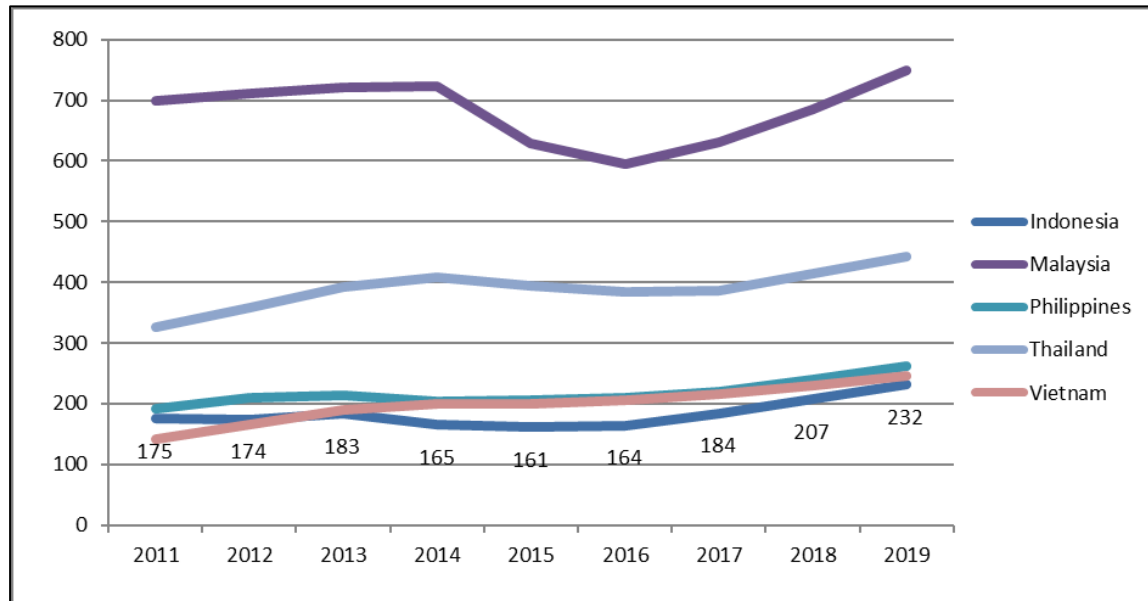
Cost to Import and Export, 2015



Source: fDi Benchmark 2016, (The World Bank: Doing Business 2015).

Indonesia is very cost effective—the average monthly wage is US\$161 and is forecast remain the lowest in ASEAN.

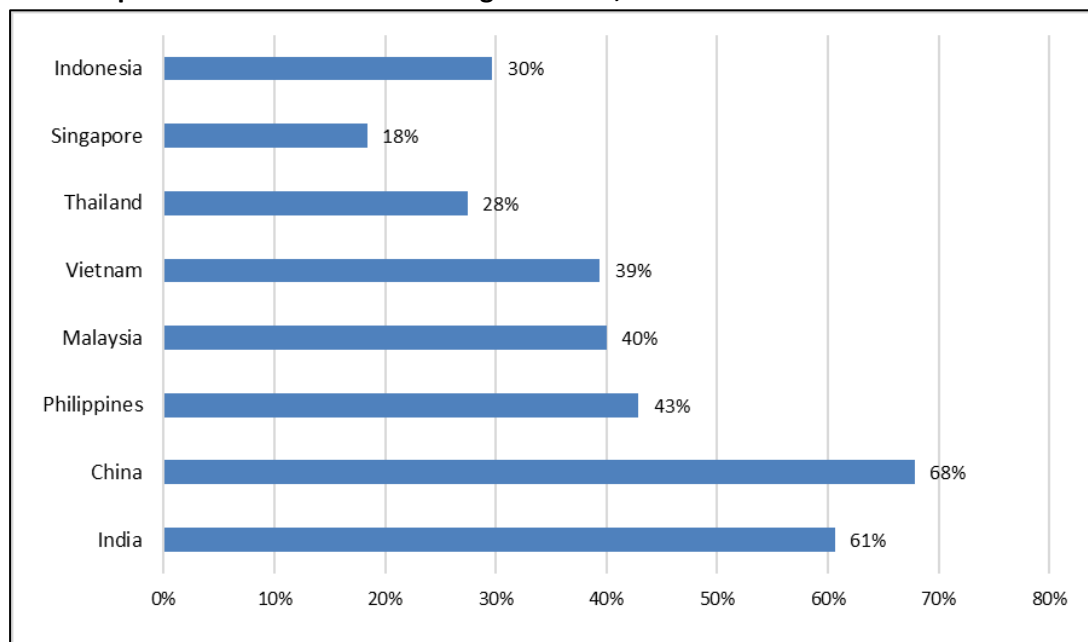
Average Monthly Wages, US\$, 2011–2020



Source: EIU.

Indonesia's total tax rate as a percentage of profit is competitive; only Singapore's is significantly lower.

Total Corporate Tax Rate as a Percentage of Profit, 2016¹⁰



Source: World Bank Doing Business 2016, & Deloitte 2016.

¹⁰ Total tax rate as a % of profit provides a comprehensive measure of the cost of all the taxes a business bears. It measures the amount of taxes and mandatory contributions payable by businesses after accounting for allowable deductions and exemptions as a share of commercial profits. Taxes withheld (such as personal income tax) or collected and remitted to tax authorities (such as value added taxes, sales taxes or goods and service taxes) are excluded.

KEY CONTACTS

BKPM provides a one-stop service contact centre for foreign investors.

One Stop Service Contact Centre

The screenshot shows the 'Invest In Indonesia' website. The header is dark blue with the text 'Invest In Indonesia' and a 'Contact Us' link. The sidebar on the left contains the following links: 'Contact & Location', 'Contact Center', 'One Stop Service' (highlighted with a green circle), 'BKPM Overseas Representative Offices', 'Foreign Desk in BKPM', and 'Public Complaint'. The main content area is titled 'One Stop Service Contact Center' and includes a list of services: '01 One Stop Service Center', '02 Services on investment license and facilities', '03 Services on access rights and and investment online system', '04 Sectoral licenses', and '05 Complaint submission'. A note at the top of the main content area states: 'For further consultation and application process below, please visit One Stop Service Contact Center at 0807 100 BKPM (2576). Operational hours from 07.30 am - 04.00 pm.'

Source: <http://www4.bkpm.go.id/en/contact-us-investment/one-stop-service-contact-center-investment#>