

2020 Outward Foreign Direct Investment of Listed Firms in SET and mai

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Executive Summary

At the end of 2020, 278 SET- and mai-listed firms, or 37% of all listed firms, engaged in outward foreign direct investment (OFDI), the same level as the previous year. Of these, 251 were SET-listed companies, while the remaining 27 were mai-listed. The majority of OFDI firms were in the Services sector, with ASEAN serving as the primary investment destination. Vietnam attracted the most Thai OFDI firms among all ASEAN countries, followed by Singapore and Myanmar.

In 2020, the OFDI flow from Thai listed firms was THB139 billion, a decrease of 53% or THB156 billion from the previous year, with SET-listed enterprises accounting for THB137 billion and mai-listed entities contributing for the remaining THB2 billion. Overseas investment constituted 9% of total investment made by Thai listed companies in 2020.

The bulk of OFDI in 2020 was made by the 50 largest companies on SET who had a combined capitalization of THB113 billion. ASEAN was the main target destination, attracting THB132 billion, or 95% of the total overseas investment, with Indonesia gaining the most capital from PT Bank Permata's acquisition deal worth over THB100 billion.

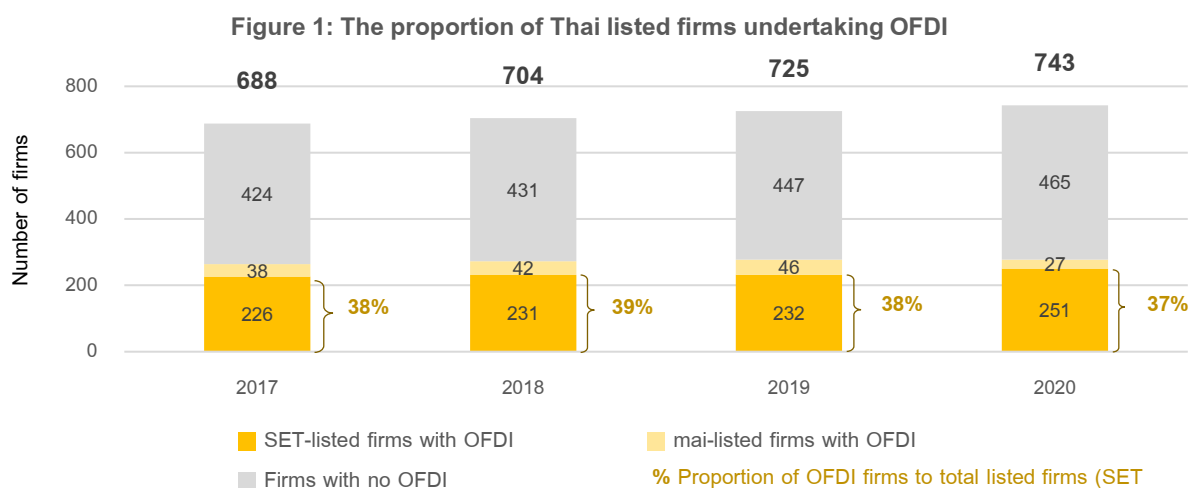
In 2020, SET- and mai- listed companies saw their revenues from abroad fall by 1.7%, or THB50 billion, from 2019 to THB2.96 trillion. The overseas revenue accounted for 26% of total revenues of Thai listed firms, with the majority coming from SET-listed companies, totaling THB2.94 trillion.

The top 50 listed companies controlled 67%, or THB2.1 trillion, of the total overseas revenue. Since more than half of the companies venturing abroad did not report revenue originations, the sources of 60% of the total OFDI revenues worth THB1.85 trillion were left unidentified. Nonetheless, existing data from companies that disclosed their revenue originations indicated that the ASEAN region was the most lucrative business location, generating THB486 billion in revenue for Thai listed firms, up 3% or THB1.6 billion from the year before. Among all ASEAN countries, Vietnam brought in the most money for Thai investors, followed by Indonesia and Singapore.

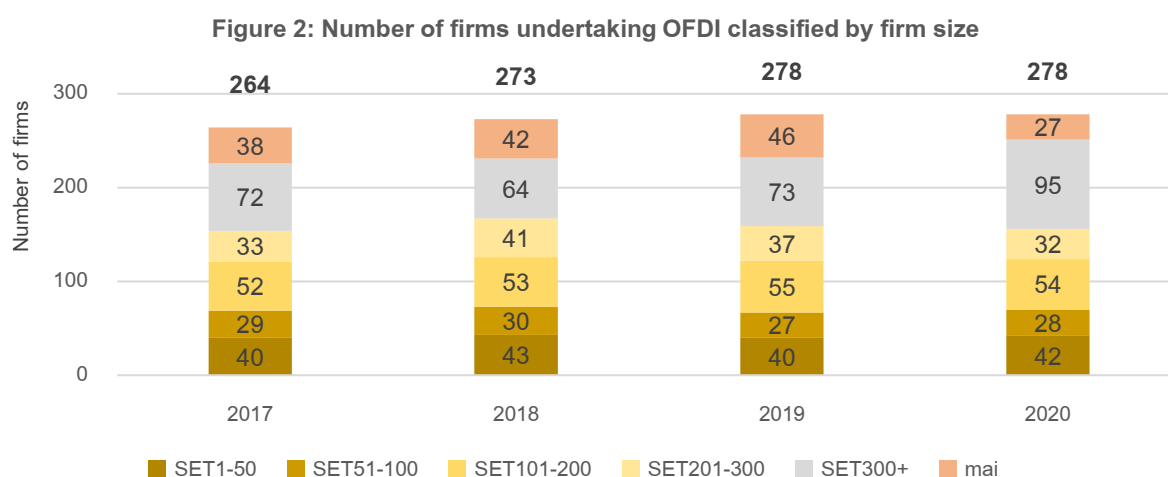
This research is based on financial statement notes, 56-1 forms, and other related documentation from listed corporations, which may not include all investment activities or reflect actual overseas revenues, as noted in the Limitations of Database section.

Chapter 1 : Status of Outward Direct Foreign Investment

In 2020, 278 listed companies, or 37% of the total 743 listed companies, engaged in outward direct foreign investment, consistent with the 38-39% range seen since 2017. Of these, 251 were SET-listed companies, a gain of 19 companies over the previous year, and 27 mai-listed companies, a fall of 19 firms from 2019 (Figure 1).

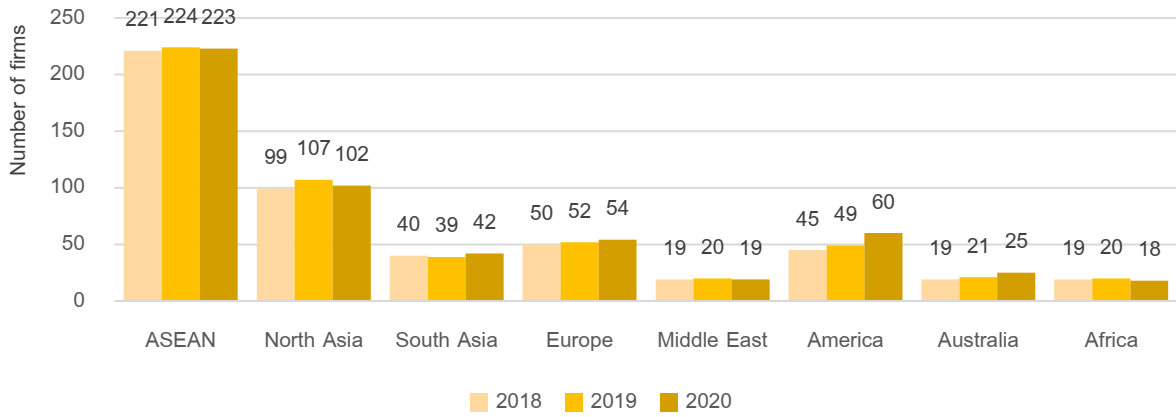


Small size companies (SET300+) made the most progress in terms of OFDI expansion, with 22 more companies investing abroad, representing a 30% increase over 2019, while larger firms (SET1-50, SET51-100, and SET101-200) maintained the same level of investment, with 60% of them, or approximately 120-130 companies, undertaking OFDI in 2020 (Figure 2).



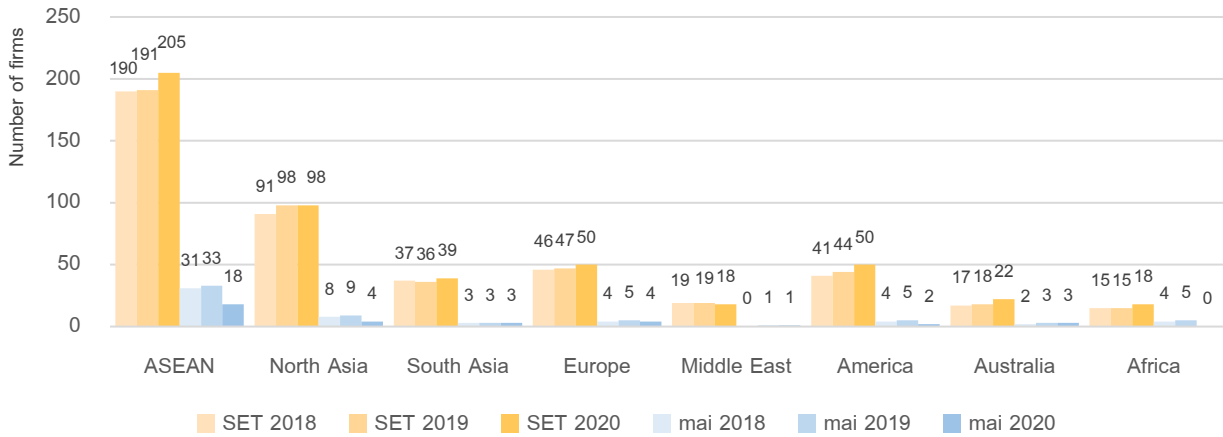
In 2020, the number of Thai OFDI companies increased in four regions: South Asia, Europe, America and Australia, with America witnessing the highest growth, attracting an increase of 11 firms, while ASEAN, North Asia, the Middle East and Africa all experienced declines, with North Asia seeing the sharpest drop of five companies (Figure 3)

Figure 3: Number of firms undertaking OFDI classified by region



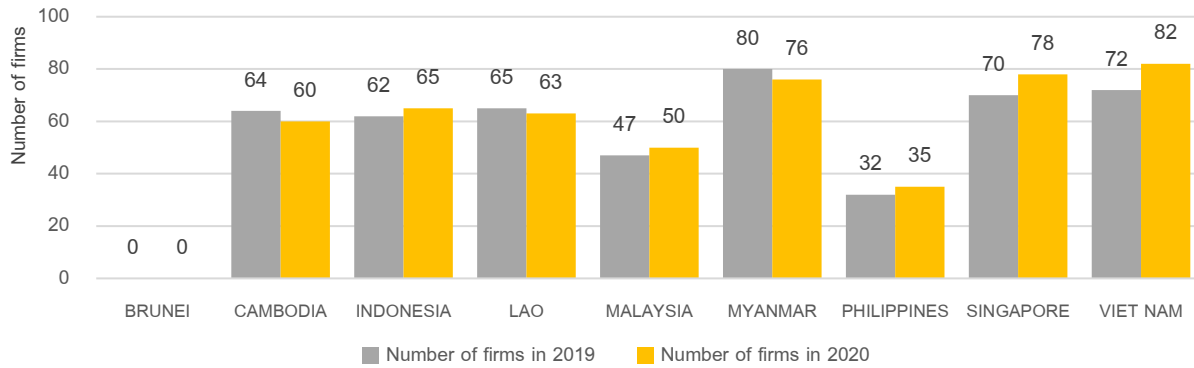
ASEAN was the most appealing destination for Thai OFDI, attracting 223 Thai companies in total, 205 of which were SET-listed and the remaining 18 were listed on mai (Figure 4).

Figure 4: Number of firms undertaking OFDI classified by region and market



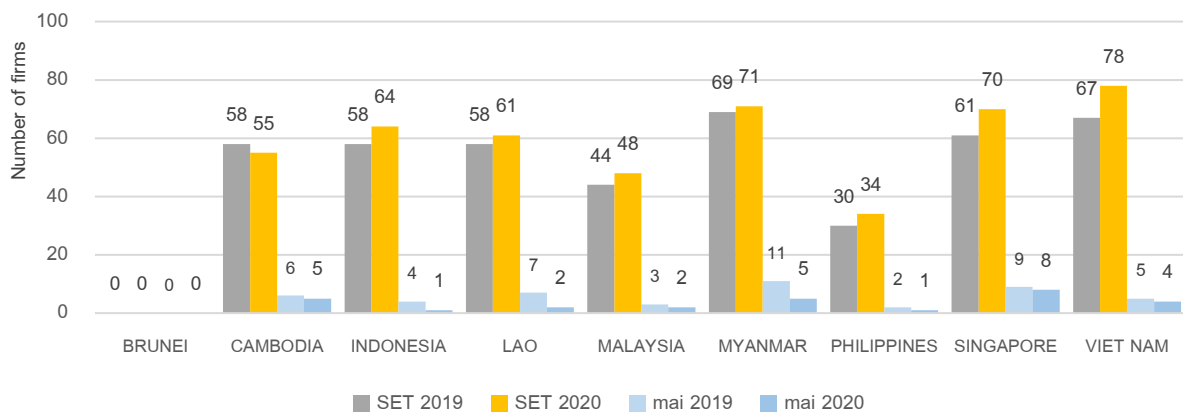
Looking into ASEAN, there was an increase of Thai OFDI firms in Indonesia, Malaysia, the Philippines, Singapore and Vietnam in 2020 (Figure 5). Vietnam witnessed the largest growth with the addition of 10 new companies. On the other hand, the number of Thai OFDI firms fell in Cambodia, Laos and Myanmar, with Cambodia and Myanmar each having the highest loss of four companies, and Brunei being the only ASEAN country with no reports of direct investment by Thai listed companies since 2019.

Figure 5: Number of firms undertaking OFDI in ASEAN



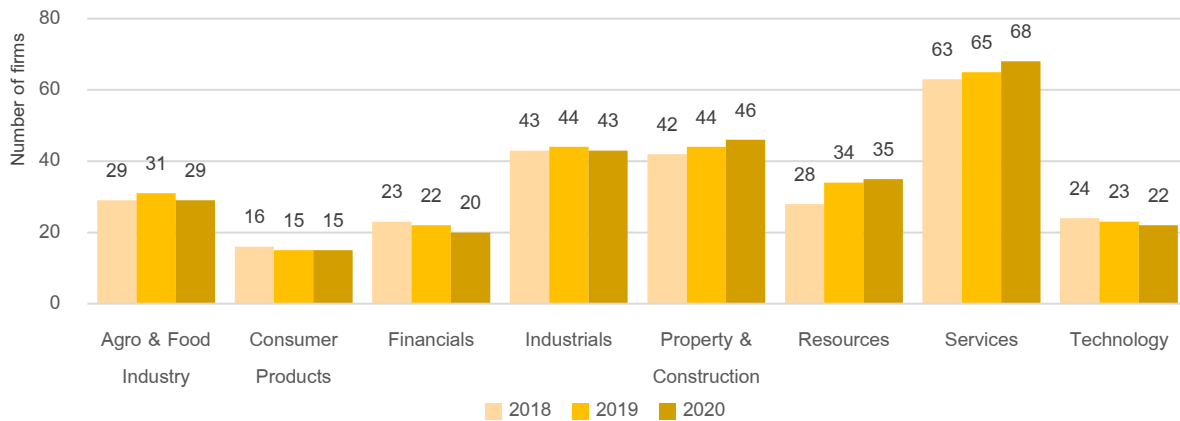
There was a decline in OFDI by mai-listed companies across all ASEAN countries in 2020 (except Brunei where there were no reports of Thai OFDI), with Myanmar experiencing the greatest decrease of six companies, followed by Laos, which lost five companies (Figure 6).

Figure 6: Number of firms undertaking OFDI in ASEAN (SET and mai)



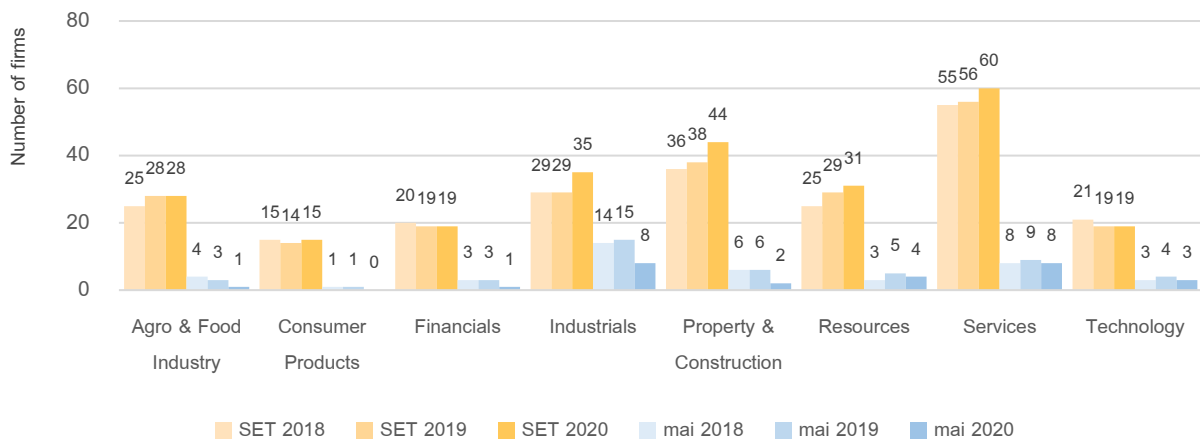
The overview of Thai OFDI in 2020, classified by industry, revealed an increase in number of firms undertaking OFDI in three industries: Property & Construction, Resources and Services, with the Services industry seeing the biggest growth, adding three companies. On the contrary, Agro & Food, Financials, Industrials and Technology industries all experienced declines, with Agro & Food and Financials losing the most companies, each losing two (Figure 7).

Figure 7: Number of firms undertaking OFDI classified by industry



The comparison of OFDI by SET- and mai-listed firms across different industries (Figure 8) demonstrated a fall in investment by mai-listed entities in all industries with the Industrials industry experiencing the most reduction of seven companies.

Figure 8: Number of firms undertaking OFDI classified by industry and market



In terms of OFDI status classified by industry and region, the Services industry had the highest number of OFDI firms in ASEAN, with 62 enterprises, followed by the Property and Construction industry, which had 33 firms in ASEAN (Figure 9).

Figure 9: Table of number of firms undertaking OFDI in 2020 classified by industry and region

Region / Industry	Agro & Food Industry	Consumer Products	Financials	Industrials	Property & Construction	Resources	Services	Technology	Total
ASEAN	20	10	20	30	33	29	62	19	223
North Asia	17	6	4	10	13	21	24	7	102
South Asia	4	3	2	7	8	2	13	3	42
Australia	1	0	0	6	7	5	4	2	25
Europe	14	3	1	7	10	6	9	4	54
Middle East	1	0	0	3	5	3	7	0	19
America	8	4	3	8	8	5	7	9	52
Africa	3	0	0	4	4	2	5	0	18
Total*	29	15	20	43	46	35	68	22	278

* The calculation excludes repeated firm counts

When categorized by ASEAN country and industry, the Services industry topped the list, with 29 OFDI enterprises in Myanmar, followed by 24 in Cambodia (Figure 10).

Figure 10: Table of number of firms undertaking OFDI in ASEAN in 2020 classified by industry and country

Country / Industry	Agro & Food Industry	Consumer Products	Financials	Industrials	Property & Construction	Resources	Services	Technology	Total
CAMBODIA	6	1	10	3	7	6	24	3	60
INDONESIA	10	3	4	14	6	12	14	2	65
LAO	4	1	15	4	8	12	17	2	63
MALAYSIA	3	2	1	9	8	7	17	3	50
MYANMAR	6	2	7	6	12	8	29	6	76
PHILIPPINES	3	1	3	5	6	6	8	3	35
SINGAPORE	7	2	5	7	13	15	20	9	78
VIET NAM	11	3	4	14	10	13	23	4	82
Total*	20	10	20	30	33	29	62	19	223

* The calculation excludes repeated firm counts

Chapter 2 : Value of Outward Foreign Direct Investment

In 2020, SET- and mai-listed firms had net investment outflows of THB139 billion, down 53% or THB156 billion from the previous year (Figure 11), reflecting the financial crisis caused by the Covid-19 pandemic. Of the total value, THB137 billion were from SET-listed firms while THB2.28 billion came from mai-listed entities (Figure 12).

Figure 11: Value of OFDI (SET and mai)

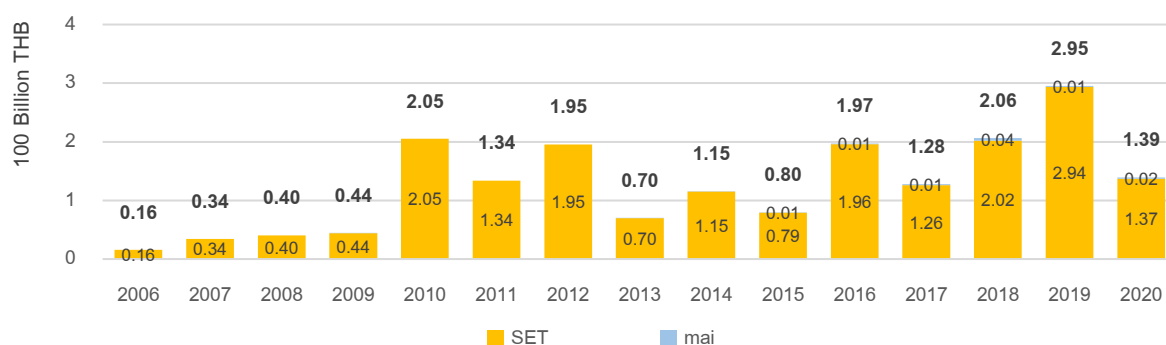
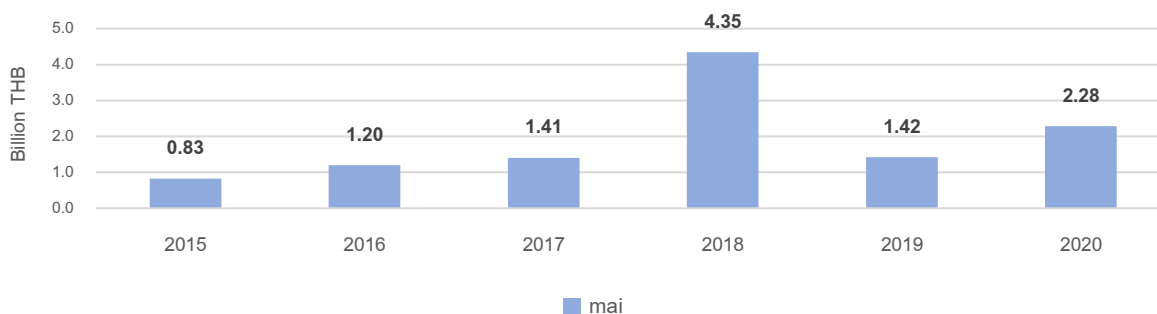
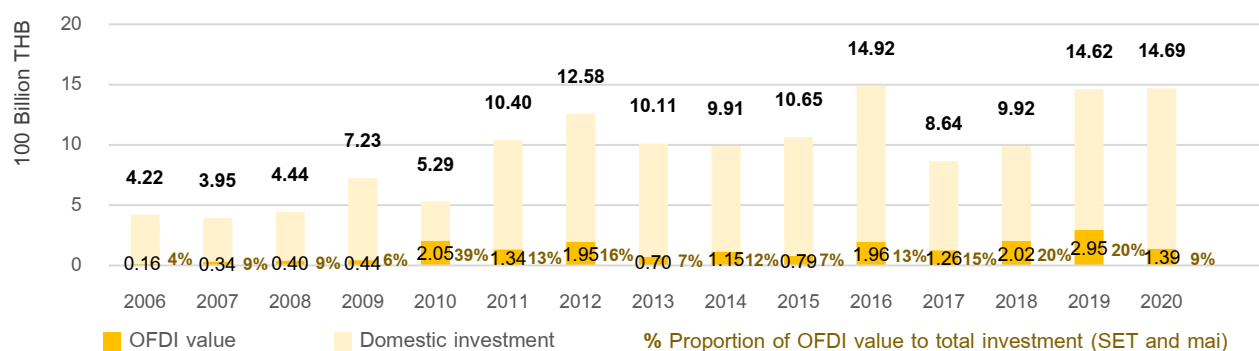


Figure 12: Value of OFDI (mai)



The OFDI value of Thai listed firms fell from 20% of total investment in 2019 to 9% in 2020, while domestic investment increased, in light of the economic crisis related to the COVID-19 pandemic, which prompted Thai investors to postpone overseas investment projects in order to focus on strengthening their domestic businesses (Figure 13).

Figure 13: The proportion of OFDI value to total investment



In terms of investment method, M&A had the highest OFDI value of THB121 billion in 2020 (Figure 14), while investing in subsidiaries and associated companies was the most preferred option for mai-listed firms, with a total value of THB1.39 billion (Figure 15).

Figure 14: Value of OFDI classified by investment method (SET and mai)

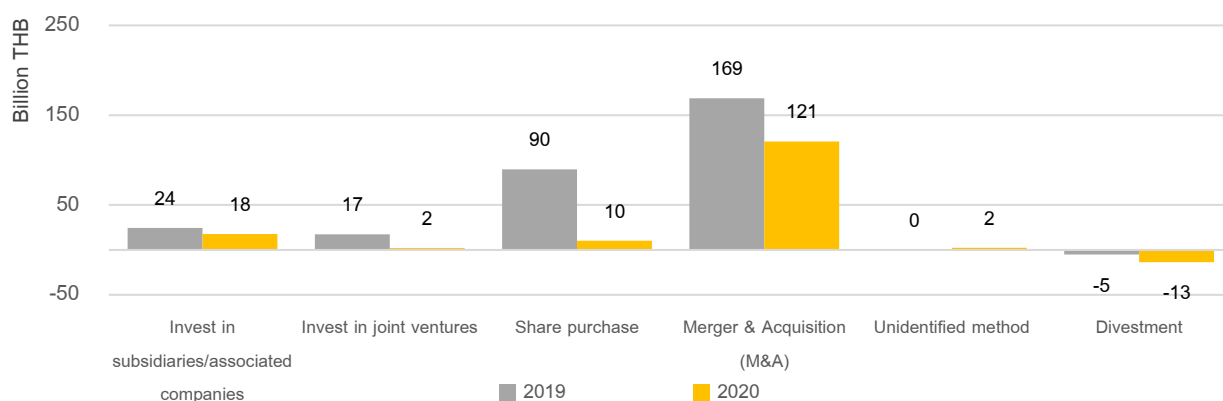


Figure 15: Value of OFDI classified by investment method (mai)

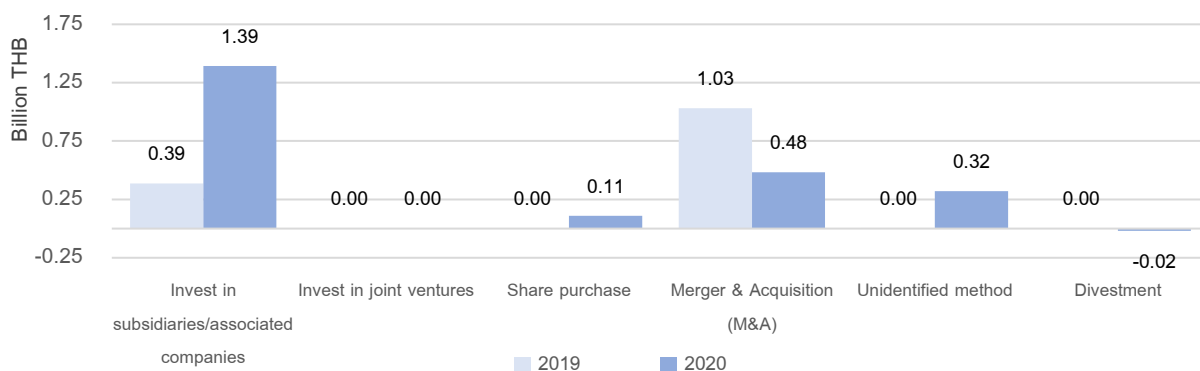


Figure 16: Table of value of OFDI (SET and mai) classified by investment method (billion THB)

Investment method/year	2017	2018	2019	2020
Merger & Acquisition (M&A)	47.67	29.41	168.79	120.82
Invest in subsidiaries/associated companies	48.31	41.50	24.48	17.57
Share purchase	42.15	112.54	89.62	10.20
Unidentified method	12.77	0.08	0.09	2.29
Invest in joint venture	1.83	28.04	17.38	1.96
Divestment	-26.57	-9.59	-5.11	-13.48

In terms of investment value based on market capitalization, listed firms in the SET50 group continued to be the biggest investors with THB113 billion invested in 2020, accounting for 81% of net OFDI value. However, the amount was 58% lower, or THB154 billion less, than in 2019. Meanwhile, mai-listed firms' OFDI value reached THB2.3 billion in 2020, up 64% or THB900 million from the previous year, with the majority concentrating in the Resources industry (Figure 17-18).

Figure 17: Value of OFDI classified by firm size

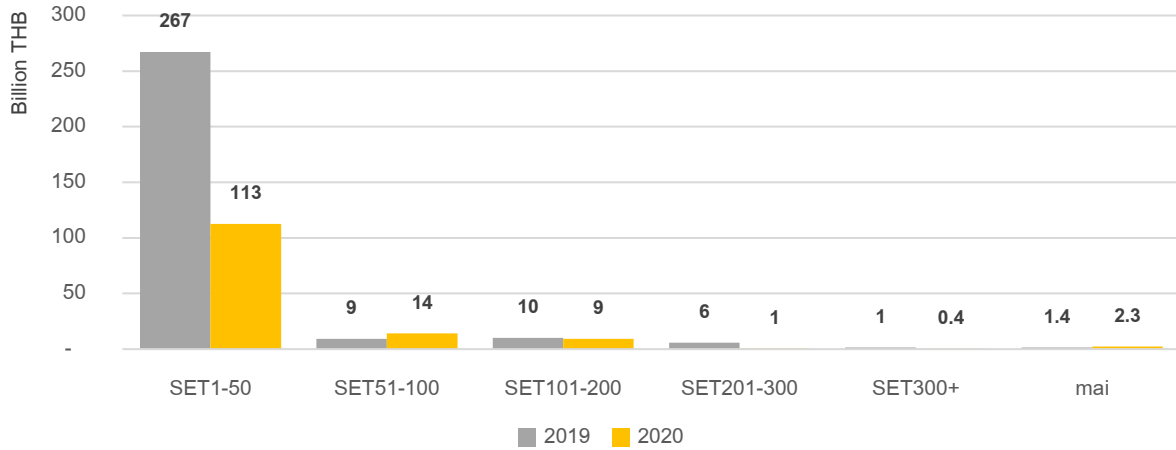
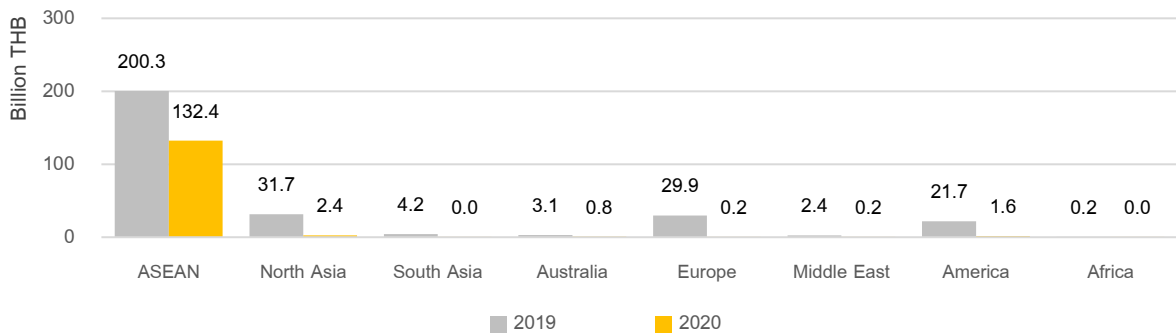


Figure 18: Table of value of OFDI classified by firm size (billion THB)

Size/Year	2017	2018	2019	2020
SET1-50	62.25	171.60	267.12	112.66
SET51-100	40.68	13.97	9.30	14.22
SET101-200	10.64	11.87	10.22	9.29
SET201-300	0.60	1.91	5.72	0.56
SET300+	12.06	2.63	1.47	0.36
mai	1.41	4.35	1.42	2.28

When broken down by region (Figure 19), ASEAN drew the highest investment valued THB132 billion, or 95% of net OFDI flow in 2020, but saw a 34% reduction, or THB68 billion, from the previous year. Investment in other regions fell by 93%, or THB88 billion, to THB7 billion in 2020.

Figure 19: Value of OFDI classified by region (SET and mai)



mai-listed companies' OFDI increased in three locations in 2020 (Figure 20): South Asia, North Asia, and Australia, which received THB590 million, THB60 million, and THB300 million, respectively. ASEAN remained the most appealing destination, with a total investment of THB1.33 billion, close to the amount invested in 2019.

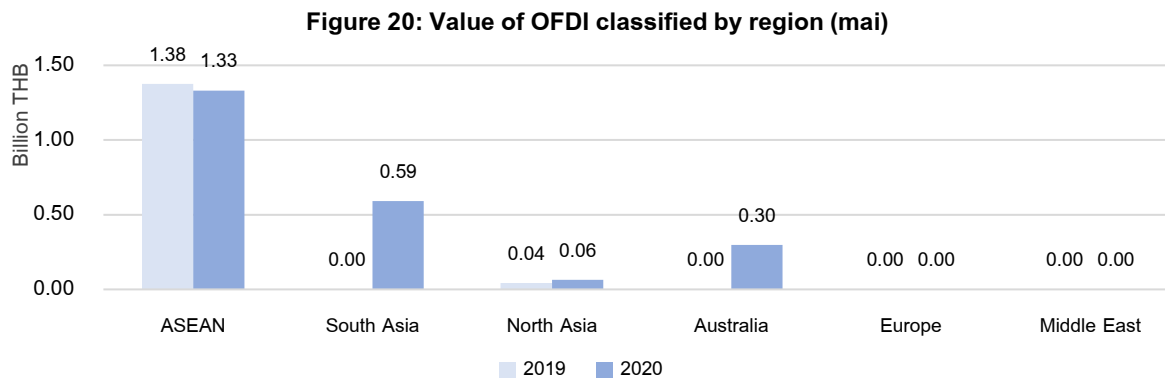


Figure 21: Table of value of OFDI classified by region (SET and mai), (billion THB)

Region/Year	2017	2018	2019	2020
ASEAN	48.41	40.69	200.27	132.36
North Asia	42.96	4.55	31.65	2.42
South Asia	-0.04	16.63	4.23	0.01
Australia	0.32	-3.56	3.09	0.76
Europe	8.57	102.70	29.90	0.19
Middle East	0.03	-1.24	2.41	0.19
America	12.88	32.70	21.67	1.59
Africa	-1.26	2.01	0.15	0.00

In relation to OFDI value by ASEAN country (Figure 22), Indonesia attracted the most investment, totaling THB104 billion in 2020, up THB60 billion from 2019, owing primarily to the acquisition deal of PT Bank Permata, worth over THB100 billion. Singapore was the primary location for mai-listed companies' OFDI, attracting THB810 million, a decrease of THB480 million from the previous year (Figure 23).

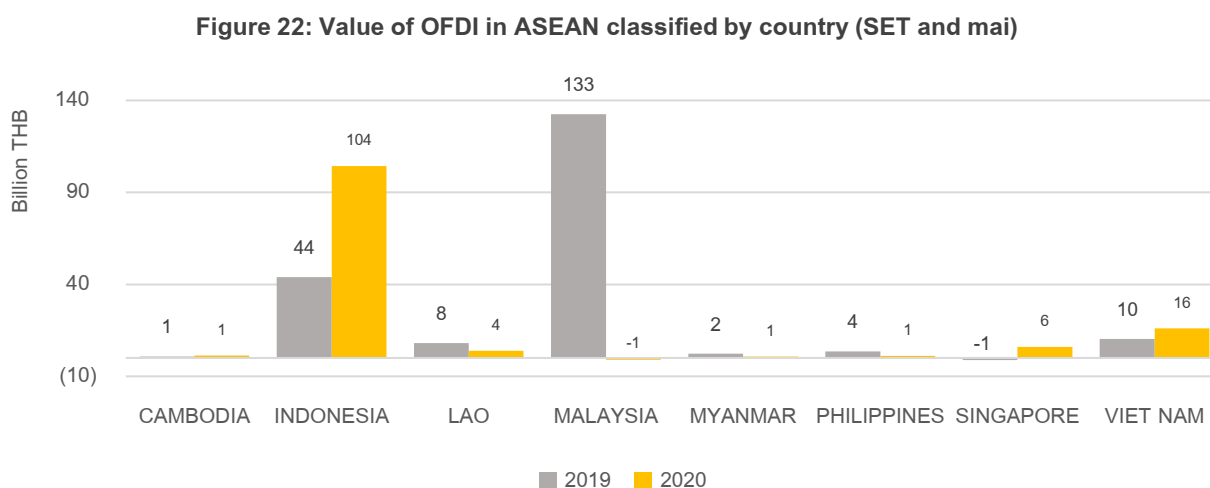


Figure 23: Value of OFDI in ASEAN classified by country (mai)

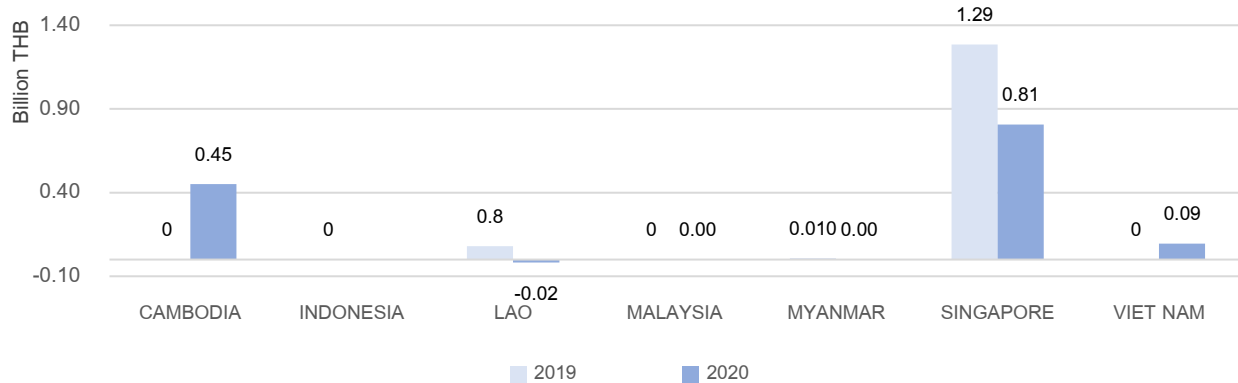


Figure 24: Table of value of OFDI in ASEAN classified by country (SET and mai), (billion THB)

Country / Year	2017	2018	2019	2020
INDONESIA	24	9	44	104
VIET NAM	24	13	10	16
MYANMAR	3	2	2	16
SINGAPORE	3	3	-1	6
LAO	5	6	8	4
CAMBODIA	3	5	1	1
PHILIPPINES	-16	1	4	1
MALAYSIA	4	2	133	-1
Total	48	40	200	147

In terms of the OFDI value classified by industry (Figure 25), the Financials industry made the largest investment abroad, totaling THB107 billion, due to the previously mentioned PT Bank Permata acquisition in Indonesia. The Resources industry ranked first among mai-listed companies, with a total investment of THB1.25 billion (Figure 26).

Figure 25: Value of OFDI classified by industry (SET and mai)

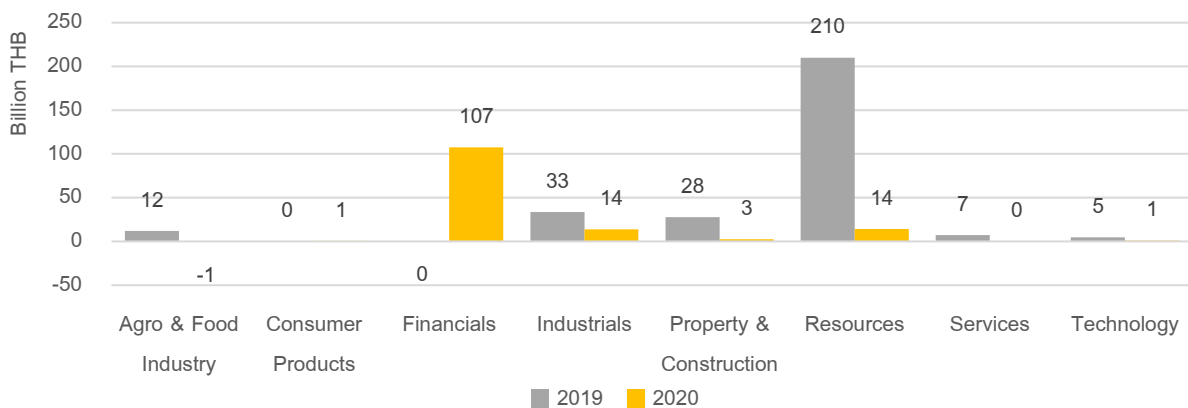


Figure 26: Value of OFDI classified by industry (mai)

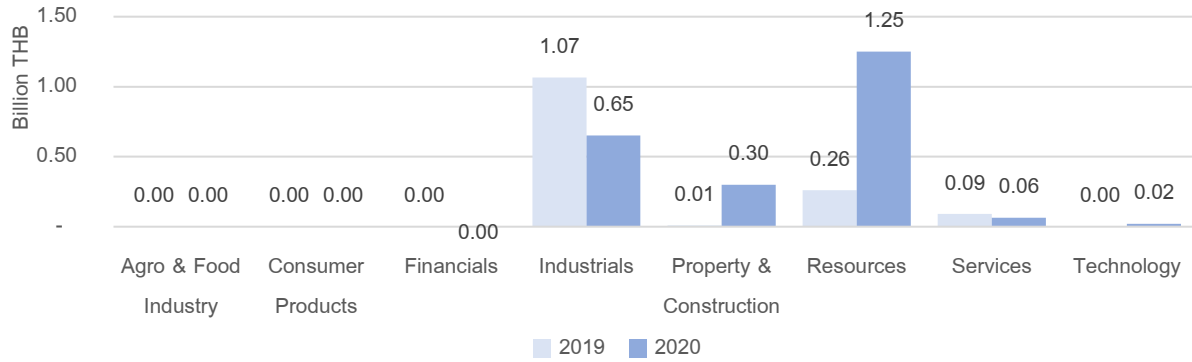


Figure 27: Table of value of OFDI classified by industry (billion THB)

Industry / Year	2017	2018	2019	2020
Agro & Food Industry	29	100	12	-1
Consumer Products	0	1	0	1
Financials	21	2	0	107
Industrials	19	45	33	14
Property & Construction	38	18	28	3
Resources	13	24	210	14
Services	7	12	7	0
Technology	0	0	5	1

In relation to the net OFDI value classified by industry and region in 2020 (Figure 28), the Financials industry made the biggest investment in ASEAN worth THB106 billion, in conjunction with the PT Bank Permata's deal noted previously, while the Agro & Food sector's investment in Europe fell the most, by THB3.4 billion.

Figure 28: Table of net OFDI value in 2020 classified by industry and region (billion THB)

	Agro & Food Industry	Consumer Products	Financials	Industrials	Property & Construction	Resources	Services	Technology	Total
ASEAN	1.14	0.03	106.13	8.71	1.05	12.31	2.49	0.51	132.36
South Asia	0.00	0.00	0.00	0.60	0.56	0.00	-1.15	0.00	0.01
North Asia	-0.22	0.29	1.30	0.06	0.00	1.44	-0.45	0.00	2.42
America	0.00	0.27	0.00	1.20	0.65	0.48	-0.97	-0.03	1.59
Australia	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.46	0.76
Europe	-3.40	-0.05	0.00	3.18	-0.06	0.00	0.33	0.19	0.19
Middle East	0.00	0.00	0.00	0.00	0.00	0.15	0.03	0.00	0.19
Africa	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	-2.49	0.54	107.43	13.74	2.51	14.39	0.28	1.13	137.52

Regarding OFDI divestment by industry and region in 2020 (Figure 29), the divestment amount accounted for 9.8% of the net OFDI value, with the Agro & Food industry in Europe making the largest withdrawal of THB3.74 billion, followed by the Industrials industry in ASEAN at THB2.56 billion.

Figure 29: Table of value of divestment in 2020 classified by industry and region (billion THB)

	Agro & Food Industry	Consumer Products	Financials	Industrials	Property & Construction	Resources	Services	Technology	Total
ASEAN	0.00	0.00	0.00	-2.56	-0.01	-2.18	-0.24	0.00	-4.99
South Asia	0.00	0.00	0.00	0.00	-0.11	0.00	-1.20	0.00	-1.31
North Asia	-0.51	0.00	0.00	0.00	0.00	-0.28	-0.76	0.00	-1.54
America	0.00	0.00	0.00	0.00	0.00	0.00	-0.97	-0.03	-1.01
Australia	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Europe	-3.74	-0.05	0.00	0.00	-0.11	0.00	0.00	-0.40	-4.30
Middle East	0.00	0.00	0.00	0.00	0.00	-0.26	0.00	0.00	-0.26
Africa	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	-4.25	-0.05	0.00	-2.56	-0.24	-2.72	-3.17	-0.44	-13.42

Chapter 3 : Revenue from Abroad

In 2020, revenue from abroad of listed companies fell by 2%, or THB50 billion, to THB2.96 trillion, compared to the previous year (Figure 30). However, when only mai-listed companies are considered, their revenue from abroad increased to THB20 billion, a 45% increase, or THB9 billion, from 2019. (Figure 31).

Figure 30: Revenue from abroad (SET and mai)

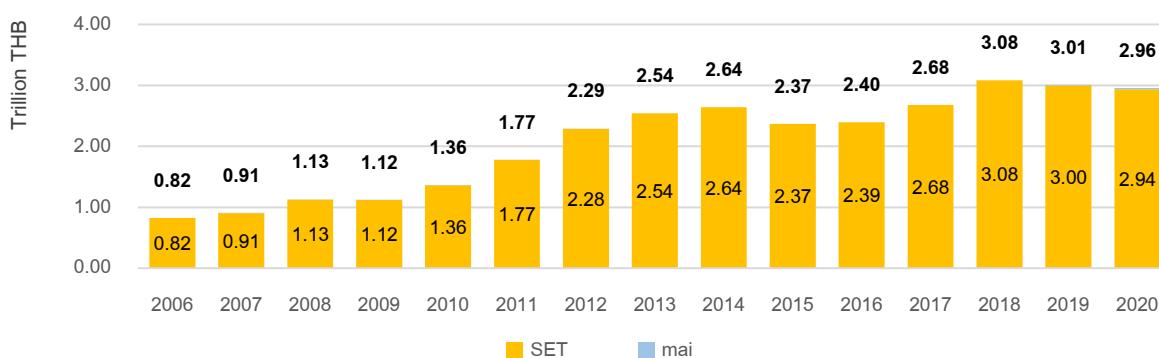
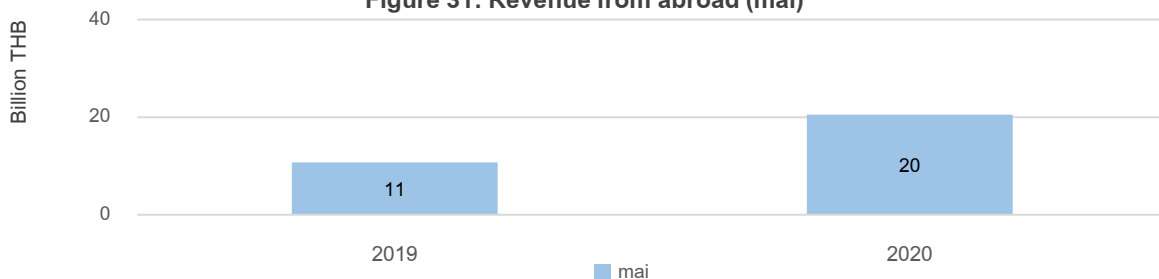
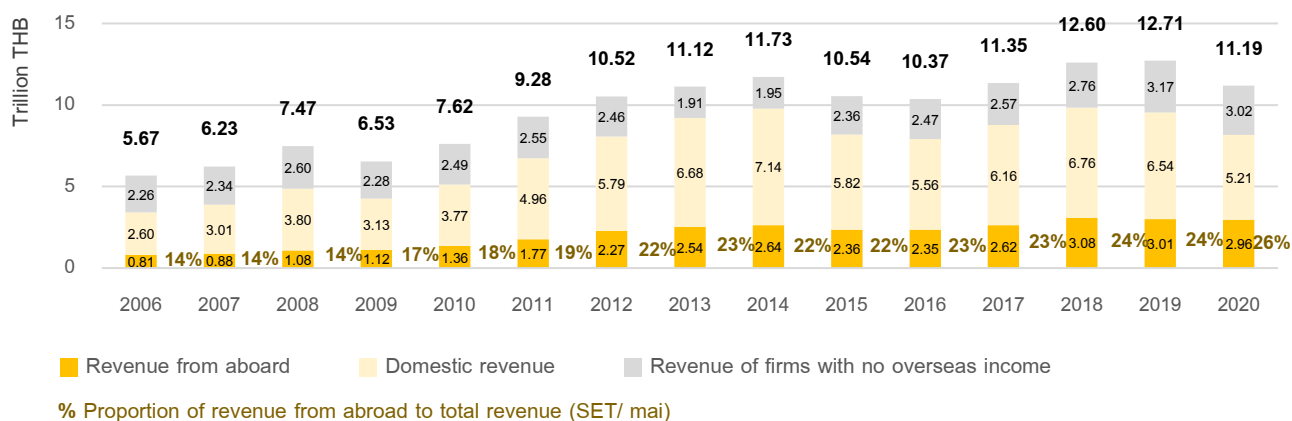


Figure 31: Revenue from abroad (mai)

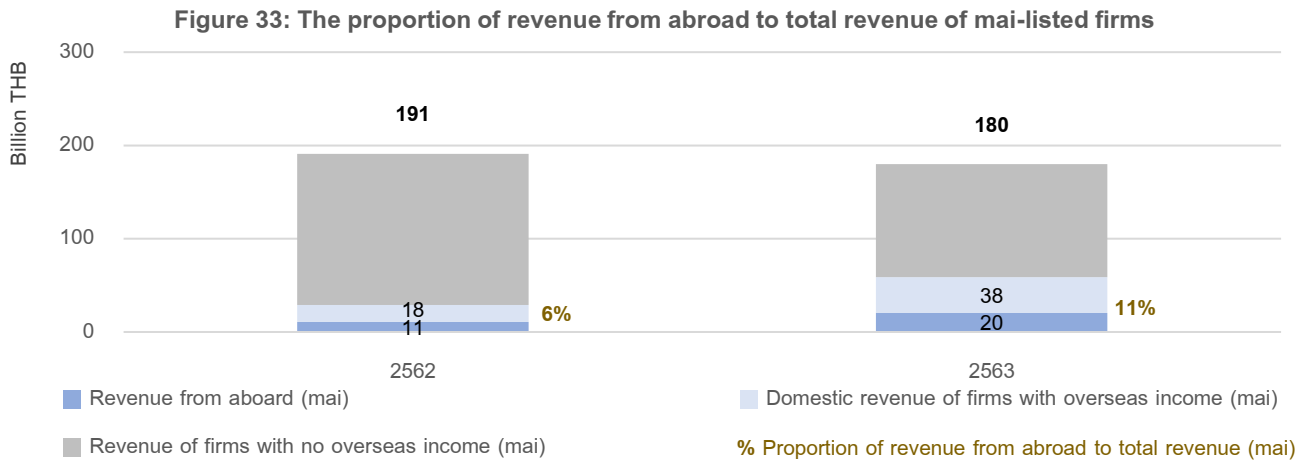


Revenue from abroad accounted for 26% of total revenues of Thai listed companies in 2020 (Figure 32), up 2% from the previous year, due in part to a decline in total revenues while overseas revenue remained stable.

Figure 32: The proportion of revenue from abroad to total revenue (SET and mai)



Overseas revenue of mai-listed companies accounted for 11% of total revenues, a 5% increase over 2019. (Figure 33).



When classified by firm size (Figure 34), the 50 largest listed companies (SET1-50) earned the most overseas revenue of THB2.1 trillion, a 5% increase, or THB100 billion, over the previous year, and accounted for 67% of total overseas revenue in 2020. mai-listed firms saw a 45% increase in overseas revenues as previously mentioned (Figure 31), while smaller companies (SET101-200, SET201-300, and SET300+) all saw decreases.

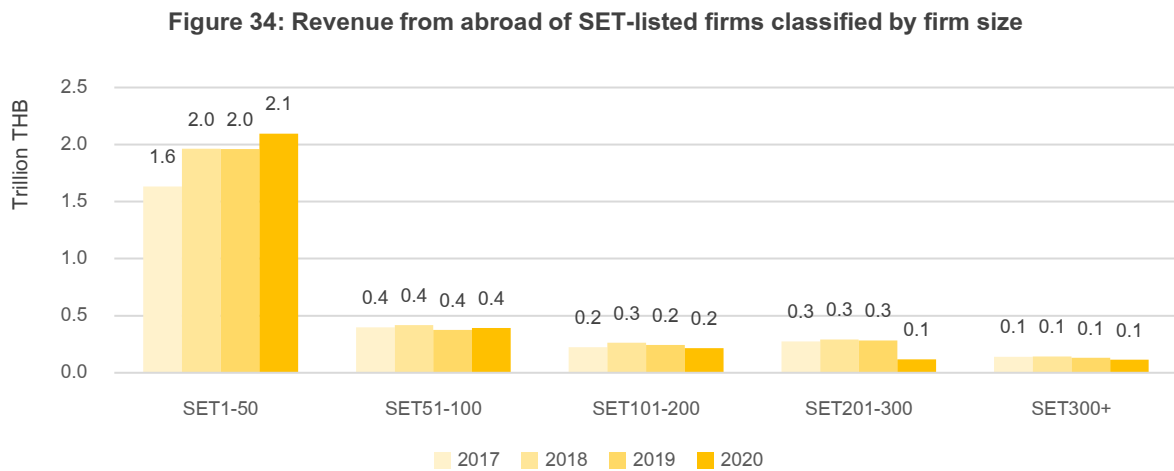
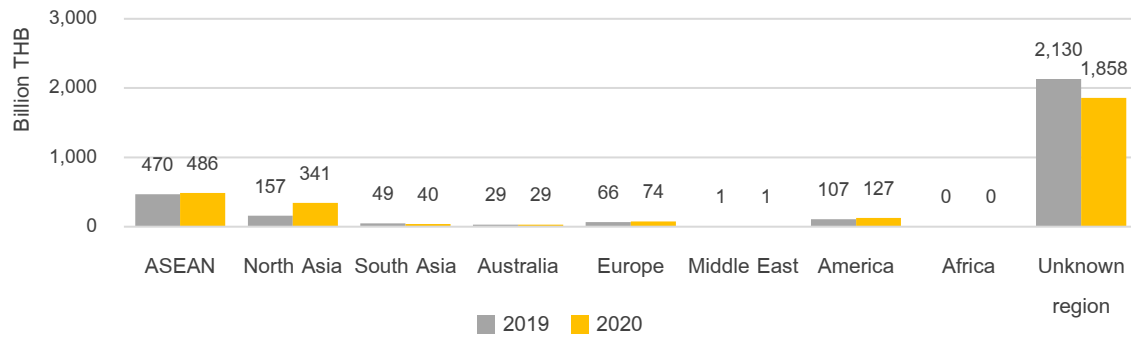


Figure 35: Table of revenue from abroad of SET-listed firms classified by firm size (billion THB)

Year / Group	SET1-50	SET51-100	SET101-200	SET201-300	SET300+
2017	1,633	399	223	274	141
2018	1,963	417	262	292	142
2019	1,961	376	244	282	131
2020	2,096	393	216	117	115

In terms of overseas revenue by region (Figure 36), the majority of listed firms did not specify the region from which the revenues originated, leaving the sources of 60% of total overseas revenue worth more than THB1.85 trillion unidentified. Based on the available data on the remaining THB1.25 trillion in revenues, or 40% of the total amount, with identified investing locations, ASEAN emerged as the region with the highest revenue of THB486 billion.

Figure 36: Revenue from abroad classified by region (SET and mai)



Like SET-listed companies, most mai-listed companies did not indicate the region from where their overseas revenue came, leaving the sources of 60% of the total overseas revenue worth over THB12 billion undetermined (Figure 37). According to available data on the remaining THB8.2 billion with clearly identified investment locations, or 40% of the total amount, ASEAN generated the most revenue of THB4.88 billion.

Figure 37: Revenue from abroad classified by region (mai)

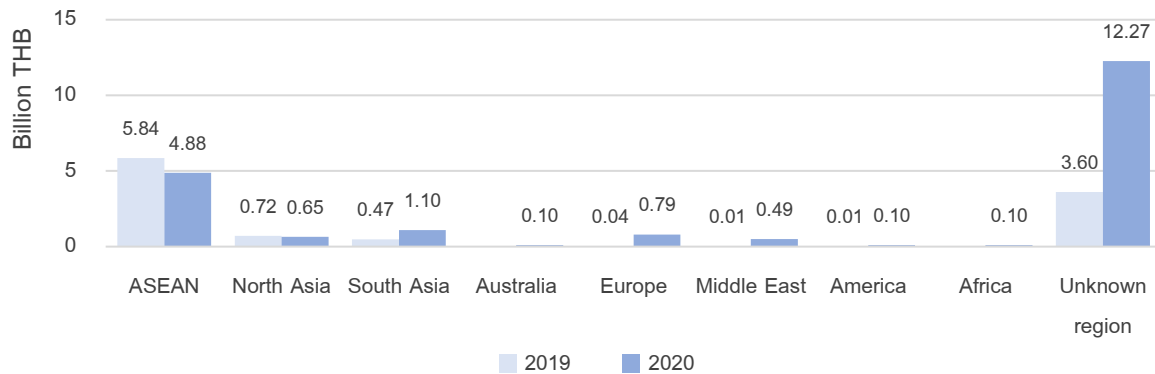
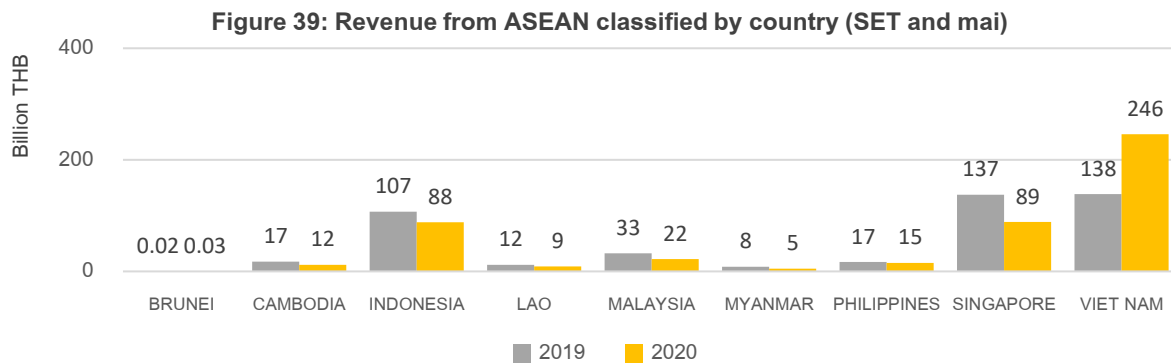


Figure 38: Table of revenue from abroad classified by region (SET and mai), (billion THB)

Year / Region	2017	2018	2019	2020
ASEAN	390.69	476.53	469.71	486.11
South Asia	167.78	202.91	164.70	340.03
America	97.14	99.66	106.66	127.08
Europe	34.78	60.99	65.64	74.19
North Asia	45.49	45.55	41.15	41.09
Australia	43.50	44.38	28.72	29.17
Middle East	1.31	1.54	1.12	1.39
Africa	0.00	0.00	0.00	0.10
Unknown region	1897.97	2152.19	2129.81	1857.72

In terms of overseas revenue by ASEAN country in 2020 (Figure 39), Vietnam generated the most revenue for Thai OFDI firms, totaling THB246 billion, a 78% or THB108 billion increase from the previous year. Singapore came in second with THB89 billion, down 35% or THB48 billion from 2019.



Singapore created the highest overseas revenues for mai-listed companies (Figure 40), totaling THB3.63 billion, a 24% or THB1.15 billion decrease from the previous year.

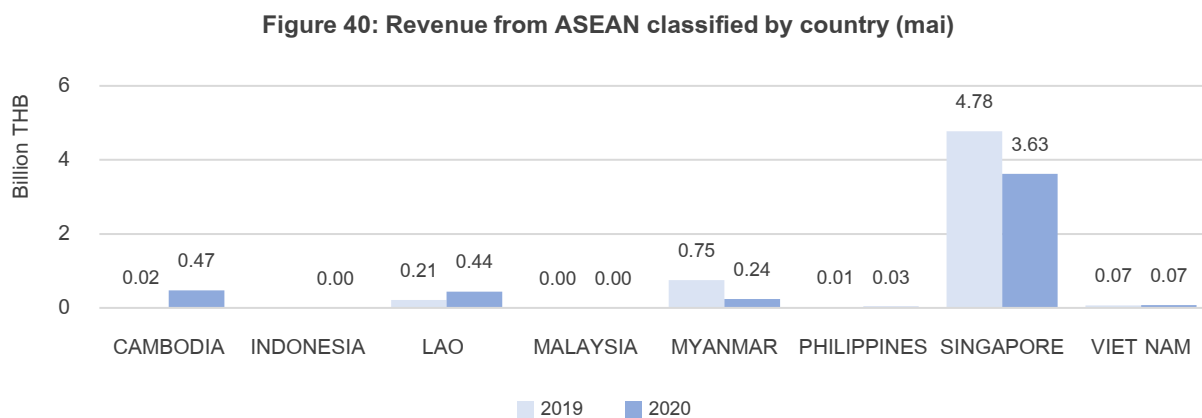
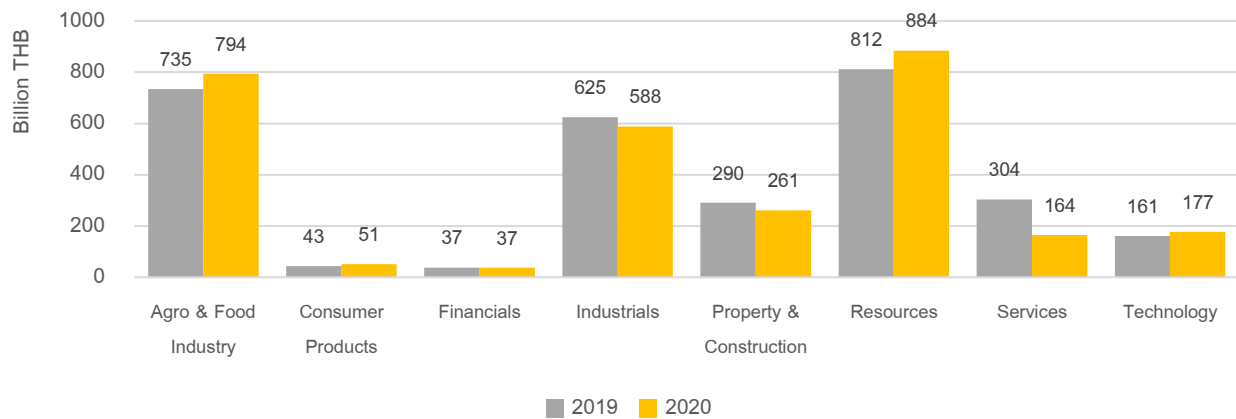


Figure 41: Table of revenue from ASEAN classified by country (SET and mai), (billion THB)

	2017	2018	2019	2020
VIET NAM	112.14	129.12	138.32	245.85
SINGAPORE	73.10	141.61	137.21	88.70
INDONESIA	94.83	108.39	107.29	88.30
MALAYSIA	41.94	38.97	32.62	22.13
PHILIPPINES	11.60	12.74	16.82	15.41
CAMBODIA	27.67	23.62	17.40	11.66
LAO	21.88	14.71	11.76	9.14
MYANMAR	7.52	7.34	8.27	4.89
BRUNEI DARUSSALAM	0.01	0.03	0.02	0.03
Total	2560.10	2641.34	2960.80	2620.50

Regarding overseas revenue by industry in 2020 (Figure 42), most industries maintained the same revenue level as the previous year, with the exception of the Services industry, which fell 46% from THB304 billion in 2019 to THB164 billion in 2020. The Resources industry generated the most overseas revenue, totaling THB884 billion, an increase of 8% or THB72 billion from 2019.

Figure 42: Revenue from abroad classified by industry (SET and mai)



Regarding mai-listed companies' overseas revenue by industry in 2020 (Figure 43), the Industrials industry produced the most revenue, totaling THB8.46 billion, a 2.5-fold increase over the previous year or a THB6.62 billion gain. The Resources industry came in second, with THB4.77 billion in overseas revenue, a 20% or THB1.18 billion decrease from 2019.

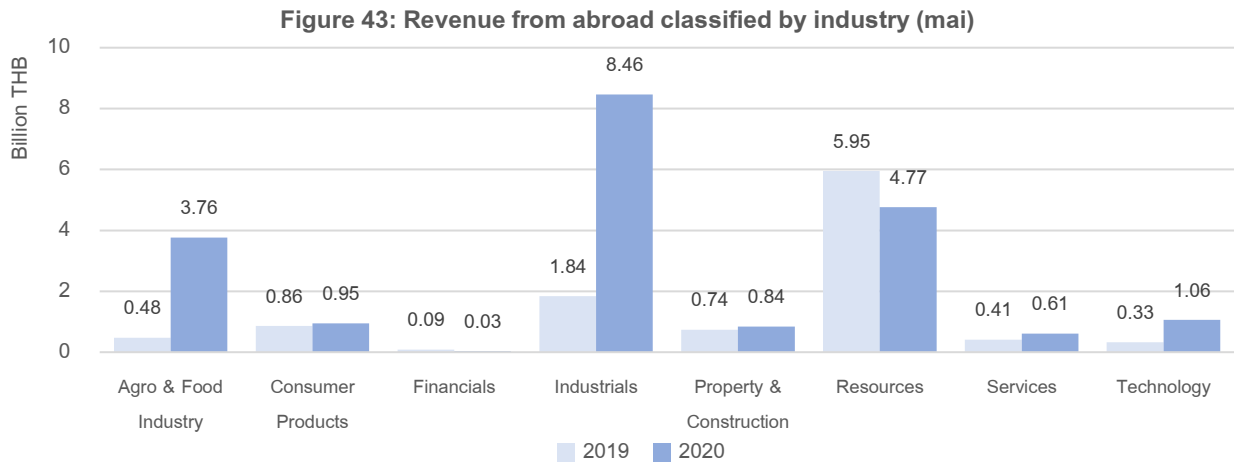
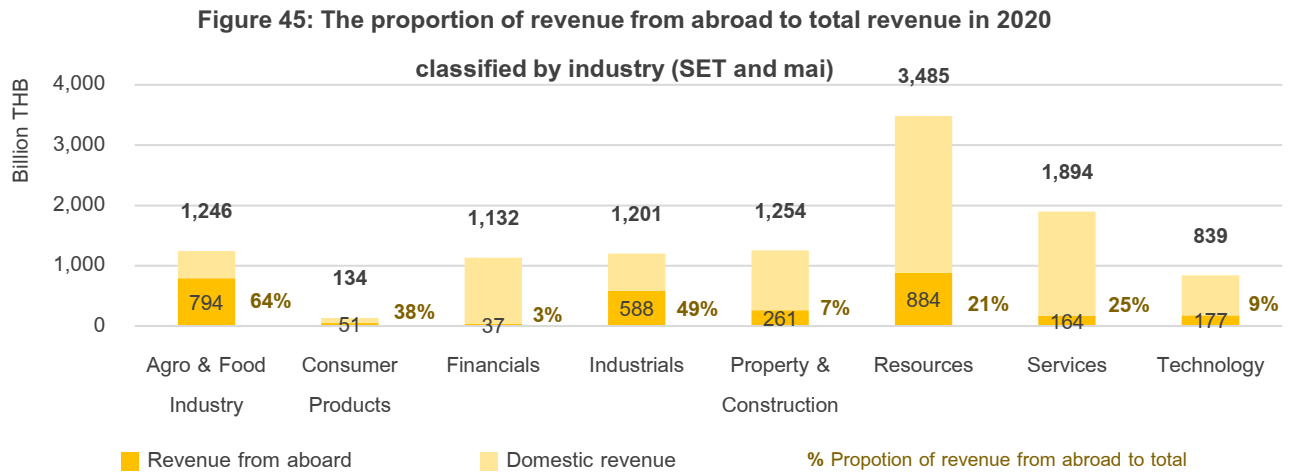


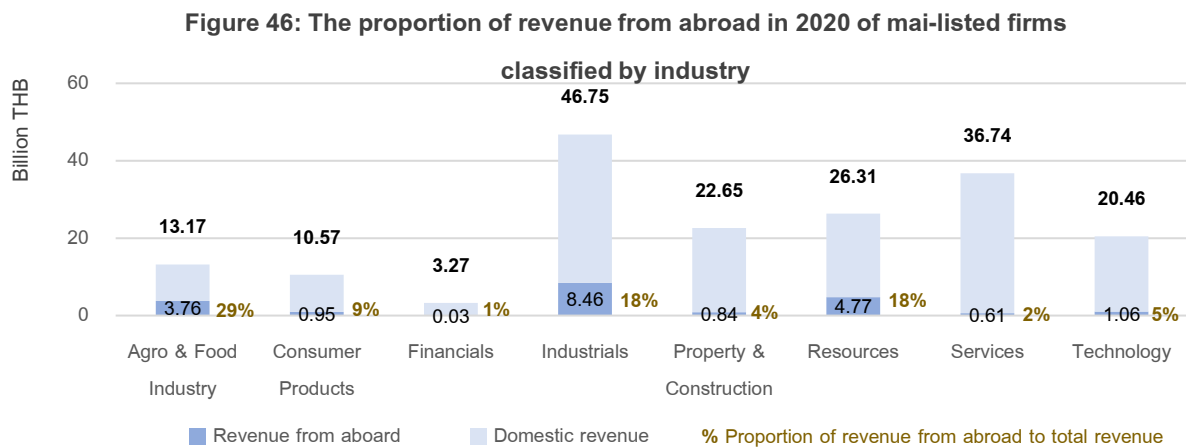
Figure 44: Table of revenue from abroad classified by industry (SET and mai), (billion THB)

Industry / Year	2017	2018	2019	2020
Agro & Food Industry	640	701	735	794
Consumer Products	42	43	43	51
Financials	28	35	37	37
Industrials	526	641	625	588
Property & Construction	296	314	290	261
Resources	687	858	812	884
Services	294	313	304	164
Technology	167	178	161	177

When it comes to the proportion of overseas revenue to total revenue by industry (Figure 45), the Agro & Food industry had the highest ratio, with 64% of total income coming from abroad, followed by the Industrials industry, which had 49%. Overseas revenue accounted for 3% of total revenue in the Financials industry, the smallest amount of any industry.



In line with the overall trend, the Agro & Food industry had the highest proportion of overseas revenue to total revenue of 29% for mai-listed firms, while the Financial industry had the smallest proportion of 1% (Figure 46).



In terms of overseas revenues by industry and region in 2020 (Figure 47), the Agro & Food industry's investment in South Asia generated the most revenue, THB196 billion, followed by its investment in ASEAN, which generated THB119 billion.

Figure 47: Table of revenue from abroad in 2020 classified by industry and region (billion THB)

	Agro & Food Industry	Consumer Products	Financials	Industrials	Property & Construction	Resources	Services	Technology	Total
ASEAN	118.63	0.04	0.01	83.88	77.73	109.28	80.67	15.86	486.11
South Asia	195.80	3.12	0.00	55.67	49.48	15.44	3.61	16.91	39.92
North Asia	11.75	6.90	0.00	7.94	0.11	6.04	1.97	6.39	341.20
America	63.27	7.56	0.00	7.44	1.06	3.77	0.07	43.92	127.08
Europe	1.97	2.28	0.00	4.81	6.49	1.93	8.62	48.10	74.19
Australia	0.29	0.00	0.00	1.06	1.91	25.39	0.00	0.53	29.17
Middle East	0.00	0.01	0.00	0.60	0.00	0.33	0.45	0.00	1.39
Africa	0.01	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.10
Unknown region	401.96	31.48	36.89	426.28	124.60	722.22	68.93	45.35	1,857.72
Total	793.68	51.40	36.90	587.77	261.36	884.40	164.32	177.06	2,956.88

Chapter 4 : Economic Exposure Universe

The compilation of Thai listed firms engaging in OFDI and/or generating revenue from abroad (Economic Exposure Universe) was created to promote understanding among all parties involved on each firm's potentials as well as the linkage of Thai firms to international economies, allowing them to grow even further. This paper categorizes Economic Exposure Universe into 3 groups:

1. 'Global Economic Exposure Universe' includes firms undertaking OFDI and/or having revenue from abroad.
2. 'ASEAN Economic Exposure Universe' includes firms undertaking OFDI and/or having revenue from ASEAN countries.
3. 'CLMV Economic Exposure Universe' includes firms undertaking OFDI and/or having revenue from CLMV countries.

Figure 48: Table of number of firms undertaking OFDI and/or having revenue from abroad

	2019			2020		
	SET	mai	Total	SET	mai	Total
Global Economic Exposure Universe	333	77	410	337	61	398
ASEAN Economic Exposure Universe	211	37	248	219	26	245
CLMV Economic Exposure Universe	161	27	188	168	19	187

Thai listed firms in Global Economic Exposure Universe in 2020 (398 firms: 337 in SET and 61 in mai)

Agro & Food Industry (51)	Consumer Products (32)	Financials (22)	Industrials (88)		Property & Construction (60)			Resources (45)	Services (72)		Technology (28)
Agribusiness (8)	Fashion (17)	Banking (8)	Automotive (15)	Steel (14)	Construction Materials (17)		Property Development (22)	Energy & Utilities (37)	Commerce (19)	Tourism & Leisure (7)	Electronic Components (9)
GFPT	AFC	BAY	3K-BAT	CEN	COTTO		AMATA	AGE	BEAUTY	ASIA	CCET
LEE	BTNC	BBL	AH	CITY	DCC		AMATAV	AKR	BJC	CENDEL	DELTA
NER	CPH	CIMBT	CWT	GJS	DRT		AP	BANPU	COL	DTC	HANA
PPPM	CPL	KBANK	EASON	GSTEEL	EPG		CGD	BCP	CPALL	ERW	KCE
STA	ICC	KKP	GYT	INOX	GEL		CPN	BCPG	CRC	LRH	METCO
TRUBB	NC	KTB	HFT	MCS	PPP		FPT	BGRIM	CSS	SHANG	SMT
TWPC	PDJ	SCB	IHL	MILL	Q-CON		LH	BPP	GLOBAL	SHR	SVI
UVAN	SABINA	TTB	INGRS	SAM	SCC		MBK	CKP	HMPRO	Transportation & Logistics (14)	TEAM
Food & Beverage (39)	SAWANG	Finance & Securities (7)	IRC	SMIT	SCCC		MJD	DEMCO	ILM	AAV	W
APURE	SUC	AEONTS	PCSGH	SSSC	SKN		NOBLE	EA	KAMART	B	Information & Communication Technology (13)
ASIAN	TNL	FNS	SAT	TGPRO	TASCO		NUSA	EGCO	LOXLEY	BA	ADVANC
BR	TPCS	FSS	SPG	TSTH	TCMC		ORI	EP	MAKRO	BTS	AIT
CBG	TR	GL	STANLY	TWP	TOA		PACE	ESSO	MC	III	ALT
CFRESH	TTI	JMT	TNPC	TYCN	TPIPL		PF	GPSC	MEGA	JWD	FORTH
CHOTI	UPF	SAWAD	TSC	mai (23)	UMI		PSH	GULF	MIDA	KEX	HUMAN
CM	UT	TK	Industrial Materials & Machinery (9)	2S	VNG		RML	GUNKUL	RSP	NOK	ILINK
CPF	WACOAL	Insurance (5)	CPT	ADB	WIJK		S	IRPC	SCM	PRM	
CPI	Home & Office Products (7)	BKI	CTW	CHO	Construction Services (16)		SC	LANNA	SPC	PSL	INTUCH
F&D	DTCI	NKI	CTW	CHO	APCS		SIRI	MDX	SPI	RCL	PT
HTC	FANCY	THREL	FMT	CPR	BJCHI		SPALI	PDI	Health Care Services (5)	THAI	SAMART
ICHI	KYE	TIP	HTECH	FPI	CK		U	PRIME	BCH	TTA	SYOA
KBS	L&E	TVI	KK	KUMWEL	CNT		WHA	PTT	BDMS	WICE	SYMC
KSL	OGC	mai (2)	PK	NDR	ITD		mai (5)	PTTEP	BH	mai (11)	THCOM
KTIS	ROCK	AIRA	SNC	PIMO	NWR		BSM	RATCH	SVH	HARN	TRUE
LST	TSR	BROOK	STARK	PJW	RT		META	SCI	THG	KIAT	mai (6)
M	Personal Products & Pharmaceuticals (6)		VARO	PRAPAT	SEAFACO		PPS	SCN	Media & Publishing (16)	KOOL	APP
MALEE			Packaging (15)	SANKO	SQ		STAR	SGP	AQUA	NCL	COMAN
MINT	DDD		AJ	SELIC	SRICHA		TAPAC	SPCG	AS	OTO	PLANET
NRF	JCT		ALUCON	SFT	STPI			SPRC	BEC	PHOL	SICT
OISHI	S & J		BGC	SWC	SYNTEC			SSP	FE	PICO	VIMAT
OSP	STGT		CSC	TMC	TEAMG			SUPER	GPI	QLT	VCOM
PM	STHAI		GLOCON	TMI	TRC			SUSCO	GRAMMY	SPA	
PRG	TOG		PTL	TMW	TTCL			TCC	JKN	TNDT	
RBF	mai (2)		SCGP	TPAC	WGE			TOP	MACO	YGG	
SAPPE	ECF		SFLEX	UBIS				TPIPP	MAJOR		
SAUCE	HPT		SITHAI	UEC				TSE	MONO		
SFP			SLP	UREKA				WHAUP	MPIC		
SNP			SMPC	YUASA				mai (8)	PLANB		
SORKON			THIP					ABM	PRAKIT		
SSC			TMD					QTC	TBSP		
SSF			TOPP					SAAM	TKS		
SST			TPBI					SEAOIL	VGI		
TC			Petrochemicals & Chemicals (12)	BCT				TAKUNI			
TFG			CMAN	GGC				TRT			
TFMAMA			IVL	PMTA				UPA			
TIPCO			PMTA	PTTGC				UWC			
TKN			SUTHA								
TU			TCCC								
mai (4)			TPA								
KASET			UAC								
MUD			VNT								
SUN			YCI								
XO											

Thai listed firms in ASEAN Economic Exposure Universe in 2020 (245 firms: 219 in SET and 26 in mai)

Agro & Food Industry (23)	Consumer Products (12)	Financials (20)	Industrials (40)		Property & Construction (34)		Resources (33)	Services (64)		Technology (19)
Agribusiness (7)	Fashion (5)	Banking (7)	Automotive (10)	Petrochemicals & Chemicals (8)	Construction Materials (8)	Property Development (13)	Energy & Utilities (29)	Commerce (17)	Tourism & Leisure (5)	Electronic Components (5)
LEE	ICC	BAY	AH		EPG	AMATA	AKR	BEAUTY	CENTEL	CCET
NER	PDJ	BBL	CWT	BCT	GEL	AMATAV	BANPU	BJC	DTC	DELTA
PPPM	TPCS	CIMBT	EASON	CMAN	SCC	AP	BCP	COL	ERW	HANA
STA	TR	KBANK	HFT	IVL	SCCC	CPN	BCPG	CRC	LRH	KCE
TRUBB	WACOAL	KTB	IHL	PMTA	TASCO	FPT	BGRIM	CSS	SHANG	SVI
	Home & Office Products (2)								Transportation & Logistics (13)	Information & Communication Technology (11)
TWPC		SCB	INGRS	PTTGC	TCMC	MJD	BPP	GLOBAL		
UVAN	L&E	TTB	IRC	TCCC	TOA	NOBLE	CKP	HMPRO	AAV	
Food & Beverage (16)	TSR	Finance & Securities (7)	SPG	UAC	WIIK	PACE	DEMCO	KAMART	B	ADVANC
BR	Personal Products & Pharmaceuticals (4)	AEONTS	STANLY	VNT	Construction Services (11)	PSH	EGCO	LOXLEY	BA	AIT
CHOTI		FNS	TSC	Steel (3)	APCS	RML	EP	MAKRO	BTS	ALT
CPF	DDD	FSS	Industrial Materials & Machinery (5)	CEN	CK	SIRI	GPSC	MC	III	FORTH
CPI	S & J	GL	SAM		CNT	SPALI	GULF	MEGA	JWD	HUMAN
ICHI	STGT	JMT	SSSC		ITD	WHA	GUNKUL	MIDA	NOK	ILINK
KSL	TOG	SAWAD	HTECH	mai (6)	NWR	mai (2)	IRPC	RSP	PRM	INTUCH
M	mai (1)	TK	KKC	2S	RT	META	LANNA	SCM	PSL	PT
MALEE	ECF	Insurance (5)	PK	ADB	SEAFCO	PPS	MDX	SPC	RCL	SAMART
MINT		BKI	STARK	CHO	SQ		PRIME	SPI	THAI	THCOM
OISHI		NKI	Packaging (8)	PRAPAT	TEAMG		PTT	Health Care Services (5)	TTA	TRUE
OSP		THREL	BGC	SELIC	TTCL		PTTEP	BCH	WICE	mai (3)
RBF		TIP	CSC	UEC	WGE		RATCH	BDMS	mai (9)	APP
SNP		TVI	PTL				SCI	BH	HARN	SIMAT
TFG		mai (1)	SCGP				SGP	SVH	KIAT	VCOM
TFMAMA		AIRA	SITHAI				SSP	THG	NCL	
TU			SLP				SUPER	Media & Publishing (15)	OTO	
			TOPP				SUSCO	AQUA	PHOL	
			TPBI				TCC	AS	QLT	
							TOP	BEC	SPA	
							TPIPP	FE	TNDT	
							WHAUP	GPI	YGG	
							mai (4)	JKN		
							QTC	MACO		
							SEAOIL	MAJOR		
							UPA	MONO		
							UWC	MPIC		
								PLANB		
								PRAKIT		
								TBSP		
								TKS		
								VGI		

Thai listed firms in CLMV Economic Exposure Universe in 2020 (187 firms: 168 in SET and 19 in mai)

Agro & Food Industry (17)	Consumer Products (6)	Financials (18)	Industrials (34)		Property & Construction (21)	Resources (29)	Services (49)		Technology (13)
Agribusiness (4)	Fashion (2)	Banking (6)	Automotive (9)	Petrochemicals & Chemicals (7)	Construction Materials (5)	Energy & Utilities (25)	Commerce (17)	Tourism & Leisure (3)	Electronic Components (4)
LEE	ICC	BAY	AH		EPG	AKR	BEAUTY	CENTEL	CCET
STA	PDJ	BBL	CWT		SCC	BANPU	BUC	DTC	DELTA
	Home & Office Products (2)								
TRUBB		CIMBT	EASON	CMAN	SCCC	BCP	COL	SHANG	HANA
TWPC	L&E	KBANK	IHL	IVL	TASCO	BCPG	CRC	Transportation & Logistics (10)	SVI
Food & Beverage (13)	Personal Products & Pharmaceuticals (2)	Finance & Securities (7)			Construction Services (9)	BGRIM	CSS	AAV	Information & Communication Technology (7)
CHOTI	TSR	TTB	INGRS	PMTA	CKP	CKP	GLOBAL	BA	FORTH
CPF		SPG	IRC	PTTGC	APCS	DEMCO	HMPRO	BTS	HUMAN
KSL	S & J	AEONTS	STANLY	UAC	CK	EGCO	KAMART	III	ILINK
M	TOG	FNS	TSC	Steel (3)	CNT	EP	LOXLEY	JWD	INTUCH
MALEE		FSS	Industrial Materials & Machinery (3)	CEN	ITD	GPSC	MAKRO	NOK	RCL
MINT		GL		SAM	NWR	GULF	MC	SAMART	THCOM
OISHI		JMT		HTECH	RT	GUNKUL	MEGA	THAI	TRUE
OSP		SAWAD	mai (6)	PK	SQ	MDX	MIDA	TTA	
RBF		TK		STARK	2S	PRIME	RSP	WICE	mai (2)
SNP		Insurance (5)		Packaging (6)	ADB	TTCL	SCM	mai (6)	SIMAT
TFG		BKI		BGC	CHO	PTTEP	SPC	HARN	VCOM
TFMAMA		NKI		SCGP	PRAPAT	RATCH	SPI	KIAT	
TU		THREL		SITHAI	SELIC	SCI	Health Care Services (4)	NCL	
		TIP		SLP	UEC	CPN	BCH	OTO	
		TVI		TOPP		PACE	BDMS	PHOL	
				TPBI		PSH	BH	SPA	
						WHA	THG		
						mai (1)	Media & Publishing (9)		
						META	TOP		
							TPIPP		
							AQUA		
							AS		
							MACO		
							QTC		
							MAJOR		
							SEAOIL		
							MONO		
							UPA		
							MPIC		
							PLANB		
							PRAKIT		
							VGI		

Chapter 5 : Database Construction and Definition

Outward foreign direct investment (OFDI) database of listed firms in The Stock Exchange of Thailand was created to study the current direct overseas investment activities as well as revenue from abroad of Thai listed companies. The published research paper covers all listed firms in The Stock Exchange of Thailand (SET) and mai except every type of fund and those which are delisted and in rehabilitation. The number of firms used for compiling the database was as of the end of the year.

1.1 Data Sources

OFDI and foreign revenue data were obtained from the firms' publicly disclosed official reports such as notes of financial statement, 56-1 reports, annual reports and other corporate presentations.

1.2 Important Definitions

“Outward foreign direct investment (OFDI)” refers to investment in shares of firms abroad by investors (Thai listed firms). The investors must have controlling stakes whereby the investees can be subsidiaries, associated companies, joint ventures as well as investment assets such as factories built by the investors themselves. In addition, objectives of investment stated by listed firms have to be clearly identified. However, investment to set up an investment company or a holding firm is excluded. Portfolio investment is also excluded.

“Revenue from abroad” is the revenue derived from operation overseas and exports revenue from factories based in Thailand. Nevertheless, some firms usually classify revenue from overseas based on geographical locations of customers without indicating whether the amount is derived from operation overseas or exports. All foreign revenue that falls under these criteria will be classified as 'revenue from abroad'.

“Total revenue” is the total revenue disclosed in the annual audited financial statements of all SET- and mai- listed firms.

“Total investment” is the total cash flow from investing activities disclosed in the annual audited financial statements of all SET- and mai- listed firms.

“Firm size” refers to the ranking of firms on SET and mai based on market capitalization and divided into six groups: SET1-50, SET51-100, SET101-200, SET201-300, SET 301+, and mai.

“Industry” is categorized into eight groups, each with its own set of sectors classified using the SET criteria.

The Structure of 8 Industries and 28 sectors in 2020

Industry	Sector
Agro & Food Industry	Agribusiness
	Food & Beverage
Consumer Products	Fashion
	Home & Office Products
	Personal Products & Pharmaceuticals
Financials	Banking
	Finance & Securities
	Insurance
Industrials	Automotive
	Industrial Materials & Machine
	Packaging
	Paper & Printing Materials
	Petrochemicals & Chemicals
	Steel
Property & Construction	Construction Materials
	Construction Services
	Property Development
	Property Fund & Real Estate Investment Trusts
Resources	Energy & Utilities
	Mining
Services	Commerce
	Health Care Services
	Media & Publishing
	Professional Services
	Tourisms & Leisure
	Transportation & Logistics
Technology	Electronic Components
	Information & Communication Technology

1.3 Limitations of Database

Since there are neither regulations nor standards on OFDI and revenue from abroad reporting system, listed firms may or may not report such information. As such, this database may not fully reflect all the information.

The database may be updated in the future if listed companies make retrospective modifications to their earlier reporting on OFDI or overseas revenue.

To improve the efficiency and accuracy of the OFDI and revenue from abroad databases in the future, the Stock Exchange of Thailand's Research Department would like to propose standardized information disclosure and technology development for centralized OFDI and revenue from abroad information collection. However, the development of such processes may take some time.

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