INDOPREMIER

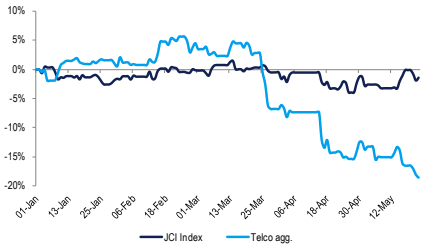
Telecommunications

OVERWEIGHT

Sector Initiation | 27 May 2024

Sector Index Performance

	3M	6M	12M
Absolute	-22.7%	-11.9%	-16.9%
Relative to JCI	-20.9%	-15.6%	-24.1%



Summary Valuation Metrics

EV/EBITDA (x)	2024F	2025F	2026F
ISAT IJ	5.1	4.7	4.3
TLKM IJ	4.7	4.6	4.4
EXCL IJ	4.4	4.1	3.8
MTEL IJ	8.7	8.1	7.6
TOWR IJ	7.9	7.2	6.6
TBIG IJ	12.7	12.0	11.4

P/E (x)	2024F	2025F	2026F
ISAT IJ	17.5	15.6	13.7
TLKM IJ	12.4	11.9	11.3
EXCL IJ	16.3	13.9	11.8
MTEL IJ	22.9	20.7	17.7
TOWR IJ	11.6	9.9	9.2
TBIG IJ	27.0	25.5	24.2

Div. Yield	2024F	2025F	2026F
ISAT IJ	2.0%	2.3%	3.2%
TLKM IJ	6.0%	6.5%	6.7%
EXCL IJ	2.0%	3.4%	4.7%
MTEL IJ	3.5%	3.5%	3.9%
TOWR IJ	2.8%	4.3%	5.0%
TBIG IJ	2.4%	2.6%	2.7%

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Starlink shall be a complementary service but not a substitute for FTTH

- We believe that Starlink is unlikely to replace the need for FTTH given its premium prices (Rp750k vs. FTTH ARPU of about Rp200-250k).
- Moreover, FTTH offers superior quality over LEO satellites in terms of latency, bandwith, reliability, and cost. Reiterate OW.

Starlink has officially launched its B2C services in Indonesia

Starlink, a wholly-owned subsidiary of SpaceX (a US aerospace company), has officialy launched its B2C services in Indonesia, and now it can sell directly to the retail market. Recall that previously Starlink had already established an exclusive agreement with TelkomSat to provide backhaul support in 3T areas (daerah tertinggal, terdepan, dan terluar) mainly in Eastern Indonesia. While this raise concerns on competition with the existing telcos, we view Starlink as a complimentary but not a substitute for telcos' FTTH services.

What are LEO satellites?

Starlink uses LEO satellites that orbit at c.200-2,000km above the earth; closer than traditional geostationary (GEO) satellites which allows for lower latency. Although LEO satellites are generally less costly to place, as they require less rocket power to place, they have a much smaller field of communication than a satellite at greater altitude, and also have a faster rotation around the earth. This necessitates a constellation of satellites to operate in concert and well-spaced, in order to provide the required coverage.

LEO satellites seem unlikely to replace the need for FTTH in urban areas given its significant premium total cost of ownership…

Despite the noises, in general, we see a limited impact on telcos' FTTH services. First, Starlink's residential package is priced at a significant premium to FTTH packages. Indeed, its monthly package is priced at Rp750k (vs. Indonesia's current FTTH ARPU of about Rp200-250k). While one might argue that it is cheaper in terms of the Rp/Mbps (c.18% lower than IndiHome's comparable package), we believe that the ticket price is relevant given that mass consumption is currently only at c.20-30Mbps (vs. Starlink's theoretical speed of 100-200Mbps). Further, its hardware equipment costs Rp7.8mn and it cannot be sold back to Starlink in the event of service termination.

… and inferior quality vs. fiber with the current state of technology

Second, with the current state of technology, FTTH offers superior quality over LEO satellites in terms of latency (data travels through fiber at the speed of light, which leads to lower latency compared to Starlink's signal), bandwith, reliability (LEO satellites need clear line of sight to sky in order to provide a stable connection) and cost (less viable for urban rollout given its high deployment/maintenance cost and limited bandwith). Thus, in the near/mid-term, we do not believe that LEO satellites could replace the need for FTTH in urban areas (see our previous note), but instead it could complement the placement in rural areas, where fiber rollout is economically less viable.

Maintain Overweight

In general, we believe that LEO satellites internet services (like Starlink) seem unlikely to replace the need for FTTH especially in urban areas, given its significant premium TCO and inferior quality vs. fiber. Instead, it shall complement FTTH services in rural areas (specifically 3T). Reiterate OW. Risks are: 1) heightened competition; 2) higher interest rates; and 3) weak purchasing power

Starlink seems unlikely pose an immediate threat for telcos and towercos

Starlink to complement telcos' FTTH services

We believe that LEO satellites internet services (like Starlink) seem unlikely to replace the need for FTTH in urban areas, given its significant premium total cost of ownership (TCO) and inferior quality vs. fiber. Instead, it could complement FTTH services in rural areas (specifically 3T – daerah tertinggal, terdepan, dan terluar), where fiber rollout is economically less-viable

First, Starlink's residential package is priced at a significant premium to FTTH packages. Indeed, its monthly package is priced at Rp750k (vs. Indonesia's current FTTH ARPU of about Rp200-250k). While one might argue that it is cheaper in terms of the Rp/Mbps (c.18% lower than IndiHome's comparable package), we believe that the headline price is more relevant, as mass market consumption is currently at c.20-30Mbps (vs. Starlink's theoretical speed of 100-200Mbps). Further, its hardware equipment costs Rp7.8mn and it cannot be sold back to Starlink in the event of service termination (after 30 days from the date of purchase).

Moreover, similar to any other wireless network, Starlink's services could experience network congestion, depending on the number of users, usage, and location. To combat this, Starlink reserves the rights to adjust its prices as deemed necessary. Indeed, based on our observation, in Apr23, Starlink raised monthly prices by US$10 in limited capacity areas and reduced monthly prices by US$20 in excess capacity areas.

Fig. 1: Starlink for personal use in Indonesia

Categories	Services (monthly cost)	Details	Upfront cost	
			Hardwares	Shipping
Residential	Standard (Rp750k)	For typical residential customers. Unlimited Standard data.	Promo price (Rp4,680k) Original price (Rp7,800k)	Rp345k
Roam	Mobile regional (Rp990k)	Typically for RV/Caravans, Unlimited standard data, <10mph (16 kpi) during moving conditions	Promo price (Rp4,680k) Original price (Rp7,800k)	Rp345k
Boats	Mobile priority 50GB (Rp4,345) Mobile priority 1TB (Rp17,160) Mobile priority 5TB (Rp86,130)	Typically for maritime, emergency and mobile business. Can be used on ocean throughout international w aters	High performance (Rp43,721k)	Rp345k
Promo price until 10Jun24				

Source: Company, Indo Premier

Fig. 2: Starlink for business in Indonesia

Categories	Services (monthly cost)	Details	Upfront cost	
			Hardwares	Shipping
Fixed sites	Priority 40GB (Rp1,100)	Best for back up connectivity, small businesses and other low bandwidth apps. After using the set amount of Priority Data (40GB), continue receiving unlimited Standard Data.		
	Priority 1TB (Rp3,025)	Best for small/midsize business with average bandwidth needs, e.g. 5-10 users. After using the set amount of Priority Data (1TB), continue receiving unlimited Standard Data.		
	Priority 2TB (Rp6,116)	Best for midsize business with above average bandwidth needs, e.g. 10-20 users. After using the set amount of Priority Data (2TB), continue receiving unlimited Standard Data.		
	Priority 6TB (Rp12,320)	Best for enterprises with high bandwidth needs e.g. 20+ users	Standard (Rp7,800)	Rp345k
Mobility	Mobile priority 50GB (Rp4,345)	Can be used on land and ocean throughout the country		
	Mobile priority 1TB (Rp17,160)	Can be used on land and ocean throughout the country		
	Mobile priority 5TB (Rp86,130)	Can be used on land and ocean throughout the country	High performance (Rp43,721k)	Rp345k
Maritime	Mobile priority 50GB (Rp4,345)	Can be used on ocean throughout international waters		
	Mobile priority 1TB (Rp17,160)	Can be used on ocean throughout international waters		
	Mobile priority 5TB (Rp86,130)	Can be used on ocean throughout international waters	High performance (Rp43,721k)	Rp345k
Aviation	Business (Rp32,000)	Used for inflight connectivity in airlines	High performance (Rp2,400,000k)	
	Business unilmited (Rp160,000)	Used for inflight connectivity in airlines		

Source: Company, Indo Premier

Fig. 3: Starlink price comparison between Indonesia and Malaysia

Categories	Package name	Services (USD/month) ID	Services (USD/month) MY	Difference
Residential	Residential standard	47	46	1%
Roam	Mobile regional	62	147	-58%
Boats	Mobile priority 50GB	272	246	10%
	Mobile priority 1TB	1,073	985	9%
	Mobile priority 5TB	5,383	4,926	9%
Fixed sites	Priority 40GB	69	120	-43%
	Priority 1TB	189	207	-9%
	Priority 2TB	382	414	-8%
	Priority 6TB	770	1,238	-38%
Mobility	Mobile priority 50GB	272	246	10%
	Mobile priority 1TB	1,073	985	9%
	Mobile priority 5TB	5,383	4,926	9%
Maritime	Mobile priority 50GB	272	246	10%
	Mobile priority 1TB	1,073	985	9%
	Mobile priority 5TB	5,383	4,926	9%
USD/IDR	16,000			
USD/MYR	4.76			

Source: Company, Indo Premier

Fig. 4: Starlink price IDR/mbps

Categories	Package name	Services (IDR/month) ID	mbps	Rp/mbps
Residential	Residential standard	750,000	100	7,500
Roam	Mobile regional	990,000	50	19,800
Boats	Mobile priority 50GB	4,345,000	220	19,750
	Mobile priority 1TB	17,160,000	220	78,000
	Mobile priority 5TB	86,130,000	220	391,500
Fixed sites	Priority 40GB	1,100,000	220	5,000
	Priority 1TB	3,025,000	220	13,750
	Priority 2TB	6,116,000	220	27,800
	Priority 6TB	12,320,000	220	56,000
Mobility	Mobile priority 50GB	4,345,000	220	19,750
	Mobile priority 1TB	17,160,000	220	78,000
	Mobile priority 5TB	86,130,000	220	391,500
Maritime	Mobile priority 50GB	4,345,000	220	19,750
	Mobile priority 1TB	17,160,000	220	78,000
	Mobile priority 5TB	86,130,000	220	391,500
Average				106,507

Source: Company, Indo Premier

Fig. 5: Conventional providers IDR/mbps

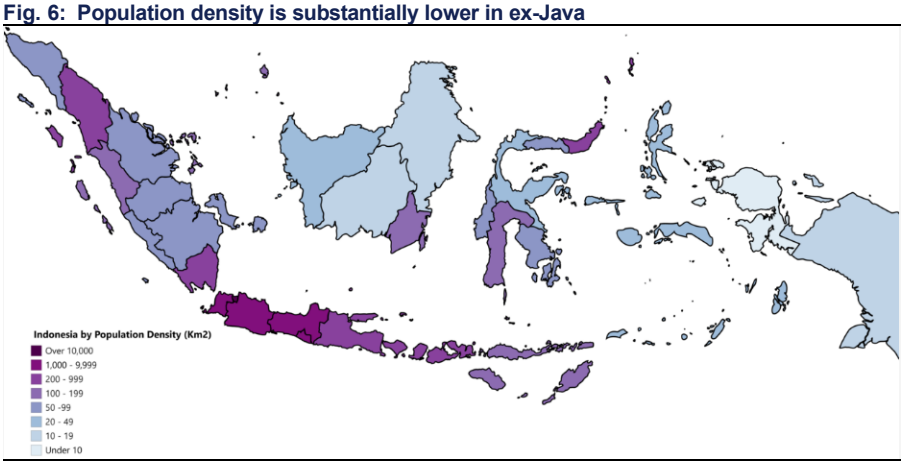
Provider	Services (IDR/month) ID	mbps	Rp/mbps
Indihome	477,205	58	10,069
MyRepublic	376,706	79	6,801
First Media	968,889	289	3,290
Biznet	527,500	90	8,486
XL Satu	504,600	325	2,403
CBN	1,371,000	367	3,773
MNC Play	483,000	54	10,101
Oxygen	457,125	64	7,887
ICON+	331,600	43	10,353
Balifiber	420,818	60	9,767
Indosat HiFi	415,000	196	4,055
Average			6,999

Source: Company, Indo Premier

Second, with the current state of technology, FTTH offers superior quality over LEO satellites in terms of latency (data travels through fiber at the speed of light, which leads to lower latency compared to Starlink's signal), bandwith, reliability (LEO satellites need clear line of sight to most of the sky in order to provide a stable connection), and cost (less viable for urban rollout given its high deployment/maintenance cost and limited bandwith). Thus, in the near/mid-term, we do not believe that LEO satellites could replace the need for FTTH in urban areas, but instead, it could complement it in rural areas, where fiber rollout is economically less viable.

Indeed, FTTH (fiber-to-the-home) is a business with inherently high fixed cost base and sizable upfront investment. As such, its return profile tends to diminish as deployments move away from dense urban areas and fewer households are served per km of fiber. While we believe that FWA (fixed wireless access) remains the most economically-viable FTTH alternative in sparsely populated and/or less affluent areas (see our previous note), LEO satellites (like Starlink) is likely a more suitable option for 3T areas (daerah tertinggal, terdepan, dan terluar).

Fig. 6: Population density is substantially lower in ex-Java



Source: Company, Indo Premier

Can Starlink de-throne traditional telcos and towercos?

Starlink currently does not offer direct-to-cell services, but it is currently in development and is planned to be rolled out in 2H24. Nonetheless, as aforementioned, given the limitations of current technologies, we believe that it is unlikely to be able to provide a comparable services to traditional telcos/towercos in the near future. Indeed, even the soon-to-be-launched next-gen satellites can only help telcos to provide coverage in 3T areas.

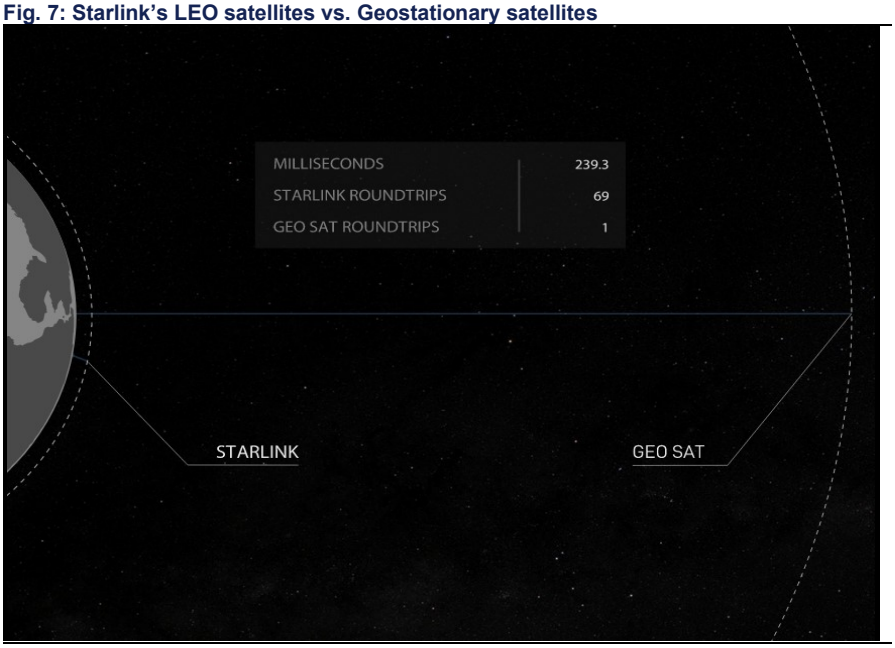
Based on our regional observations, there are already a few partnerships between telcos and Starlink/SpaceX, including: One NZ (New Zealand), Optus (Australia), and T-Mobile (the US). Previously, about 50/60/10% of NZ/Australia/US landmass has no cellular coverage and the telcos' partnerships with Starlink/SpaceX allow them to have coverage in these "dead zones." Starlink/SpaceX's next-gen satellites will be in orbit and ready to roll out SMS in the areas not currently covered by their network in 2H24, with voice and data to follow in 2H25.

Appendix

What is Starlink?
Starlink is a wholly-owned subsidiary of SpaceX (a US aerospace company). The company aims to send 42k low-earth orbit (LEO) satellites into space within the the next couple of decades, forming a ring of satellites around Earth. According to BroadbandNow, Starlink currently has 4.4k satellites. The company first launched its services in FY19 and currently has over a million subs.

What are LEO satellites?
Starlink uses LEO satellites that orbit at c.200-2,000km above the earth; closer than traditional geostationary (GEO) satellites, which allows for lower latency. Indeed, Starlink can provide internet services at about 20-250Mbps (vs. 30-100Mbps for regular traditional satellite internet). Although LEO satellites are generally less costly to place, as they require less rocket power to place, they have a much smaller field of communication than a satellite at greater altitude, and also have a faster rotation around the earth. This necessitates a constellation of satellites to operate in concert and well-spaced, in order to provide the required coverage.

Fig. 7: Starlink's LEO satellites vs. Geostationary satellites

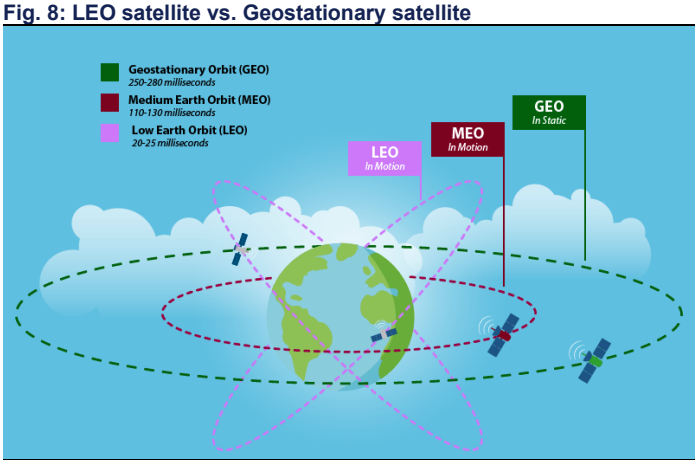


Source: Starlink, Indo Premier

Satellite design
Starlink's satellites provide internet connectivity by transmitting and receiving signals from ground stations and other satellites in the constellation. Each satellite is about the size of a table, with dimensions of 1.1 meters x 0.7 meters x 0.7 meters, and weighs c.260kg. They are equipped with a single solar panel and four high-performance antennas.

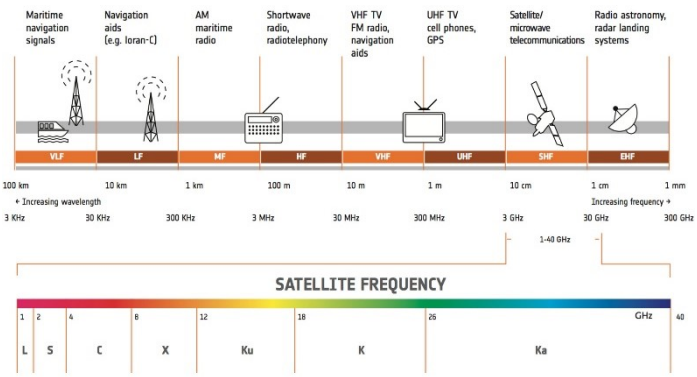
Most commercial satellites operate in one of four frequency bands: Ku-band, Ka-band, C-band, and L-band. Meanwhile, Starlink primarily operates using the Ku-band frequencies, which range from 12-18GHz.

Fig. 8: LEO satellite vs. Geostationary satellite



Source: IAS GYAN, Indo Premier

Fig. 9: Spectrum diagram

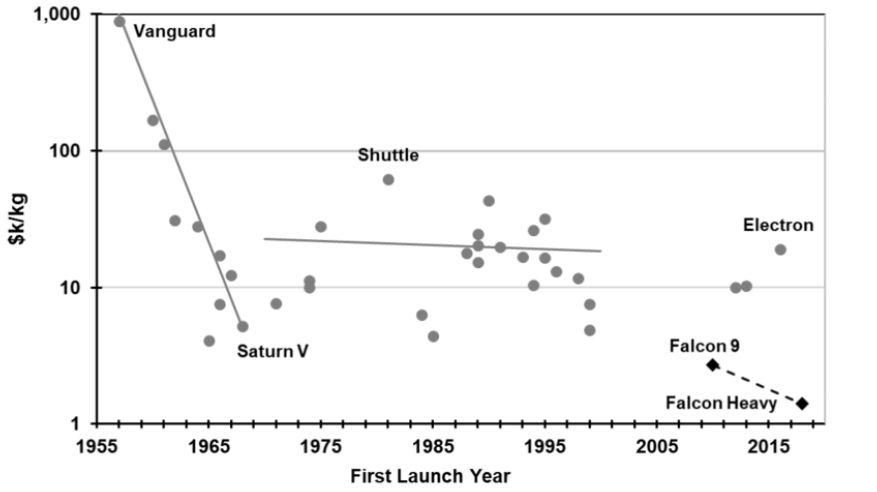


Source: ESA, Indo Premier

Satellite launch and deployment

Starlink's satellites are launched into space using SpaceX's Falcon 9 rockets, which can carry up to 60 satellites per launch. Once in orbit, the satellites are deployed systematically, in order to ensure even-spacing across the constellation, which is key in maintaining a blanket coverage. Recently, the cost to launch a LEO payload was US$1.4k/kg based on SpaceX's Faclon Heavy's cost, which is 700x cheaper than NASA's first rocket Vanguard and 44x cheaper than the Space Shuttle. On a separate note, Starlink's satellites replacement cycle is generally about five to seven years.

Fig. 10: Launch cost per kg for LEO payload (US$)



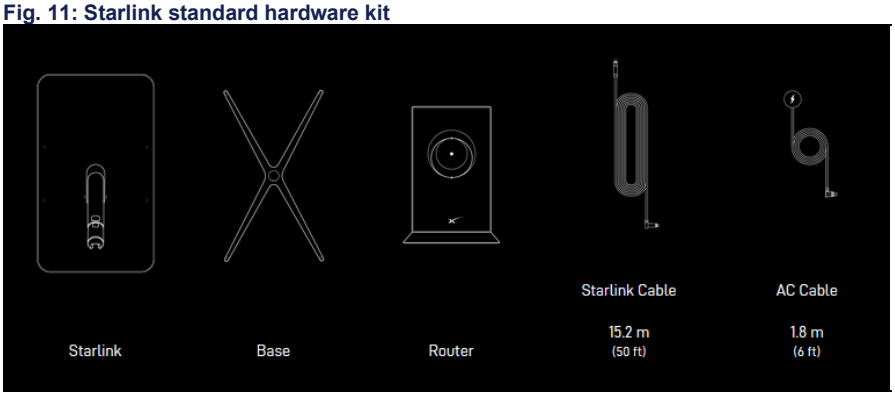
Source: Oxford Review, Indo Premier

Ground stations and user terminals

Starlink users need to use a Starlink-specific terminal, which is a small, box-sized device that communicates with the satellites. Each terminal is equipped with a built-in router, which can provide Wi-Fi connectivity to multiple devices within the home or business, and can be installed either indoors or outdoors.

These terminals operate using phased-array antenna technology, which allows communication with the satellites, even when they are moving rapidly across the sky. The phased-array antenna consists of multiple small antennas that work together to form a single, directional beam. This allows the terminals to track the Starlink satellites and maintain a stable connection with them.

Fig. 11: Starlink standard hardware kit



Source: Starlink, Indo Premier

Fig. 12: Telco comparables

	Company name	Country	FY22F EV/EBITDA (x)	FY23F EV/EBITDA (x)	FY23F P/E (x)	FY23F PBV (x)	FY23F Div. yld (%)
Indonesia							
TLKM IJ	Telekomunikasi Indonesia	IJ	6.1	5.8	16.5	2.2	4.1
EXCL IJ	XL Axiata	IJ	5.1	4.5	21.4	1.0	2.8
ISAT IJ	Indosat	IJ	5.6	5.0	30.6	1.3	0.0
Average			**5.6**	**5.1**	**22.8**	**1.5**	**2.3**
Asia							
600050 CH	China United	CH	3.2	3.1	17.7	0.9	2.9
603881 CH	Shanghai AtHub	CH	11.4	9.0	47.9	2.5	0.2
1310 HK	HKBN	HK	6.7	6.5	13.6	1.7	11.5
728 HK	China Telecom	HK	2.7	2.5	8.2	0.6	8.4
IDEA IN	Vodafone Idea Ltd	IN	14.8	12.3	NA	NA	0.0
BHARTI IN	Bharti Airtel	IN	10.0	8.5	28.6	4.6	0.5
TCOM IN	Tata Communications	IN	10.1	9.1	20.0	11.2	1.8
017670 KS	SK Telecom Co Ltd	KS	3.8	3.7	9.4	0.9	7.2
032640 KS	LG Uplus	KS	3.3	3.2	7.1	0.6	5.8
030200 KS	KT Corp	KS	3.2	3.1	6.9	0.6	6.5
AXIATA MK	Axiata Group Bhd	MK	5.5	5.5	17.6	1.5	4.5
DIGI MK	DiGi.Com Bhd	MK	16.0	14.3	23.7	43.0	4.1
MAXIS MK	Maxis Malaysia	MK	9.8	9.5	20.2	4.6	5.2
TEL PM	PLDT Inc	PM	6.2	5.8	10.9	2.3	6.7
ST SP	SingTel	SP	12.9	12.4	15.6	1.4	4.7
STH SP	StarHub	SP	6.5	6.0	14.1	2.9	5.4
ORDS OM	Omani Qatari Telecommunications Co SAOG	OM	3.8	3.8	21.3	1.1	4.7
DTAC TB	Total Access Communication PCL	TB	6.0	5.8	29.8	5.3	3.5
T MK	Telekom Malaysia Bhd	MK	5.1	5.0	13.3	2.1	3.9
ADVANC TB	Advanced Info Service PCL	TB	7.5	7.1	18.8	6.1	4.5
TRUE TB	True Corp PCL	TB	9.1	8.5	NA	2.1	1.2
JAS TB	Jasmine International PCL	TB	6.4	6.0	222.0	111.0	NA
GLO PM	Globe Telecom Inc	PM	7.4	7.1	15.2	2.4	4.6
Average			**7.4**	**6.9**	**27.7**	**9.5**	**4.4**
Europe							
ORA FP	Orange SA	FP	5.0	5.0	8.0	0.7	8.0
DTE GR	Deutsche Telekom AG	GR	7.3	6.5	11.7	2.1	3.9
O2D GR	Telefonica Deutschland Holding AG	GR	4.5	4.4	37.8	1.3	8.1
VOD LN	Vodafone Group	LN	6.0	6.1	9.3	0.5	8.9
TEL NO	Telenor ASA	NO	5.1	5.2	12.2	7.2	10.6
TELIA SS	Telia	SS	6.6	6.5	16.6	1.4	7.9
TEF SM	Telefonica	SM	5.3	5.3	10.9	0.9	9.0
Average			**5.7**	**5.6**	**15.2**	**2.0**	**8.1**
North America							
TMUS US	T-Mobile	US	9.2	8.5	20.8	2.6	0.0
VZ US	Verizon Communications	US	6.4	6.3	7.4	1.5	7.0
T US	AT&T	US	6.8	6.6	7.4	1.0	5.9
Average			**7.5**	**7.1**	**11.9**	**1.7**	**4.3**
Global Average			**6.5**	**6.2**	**19.4**	**3.7**	**4.8**

Source: Company, Bloomberg, Indo Premier

Fig. 13: Tower comparables (based on region)

	Company name	FY23F EV/EBITDA (x)	FY23F P/E (x)	FY23F div. yld (%)
Indonesia				
CENT IJ	Centratama Telekomunikasi Indonesia Tbk PT	NA	NA	NA
MTEL IJ	Dayamitra Telekomunikasi PT	10.9	30.1	1.5
TOWR IJ	Sarana Menara Nusantara Tbk PT	10.4	14.5	1.1
TBIG IJ	Tower Bersama Infrastructure Tbk PT	13.0	28.0	1.6
Average		***11.4***	***24.2***	***1.4***
Asia				
788 HK	China Tower Corp Ltd	3.4	14.7	3.4
INDUSTOW IN	Indus Towers Ltd	5.2	9.3	5.5
Average		***4.3***	***12.0***	***4.4***
Europe				
CLNX SM	Cellnex Telecom SA	14.1	NA	NA
HTWS LN	Helios Towers PLC	6.7	NA	NA
INW IM	Infrastrutture Wireless Italiane SpA	15.1	24.9	3.3
VTWR GR	Vantage Towers AG	21.3	35.5	2.0
Average		***14.3***	***30.2***	***2.7***
North America				
AMT US	American Tower Corp	20.9	47.1	2.8
CCI US	Crown Castle Inc	18.1	36.3	4.6
SBAC US	SBA Communications Corp	24.8	67.3	1.0
TSSLF US	Telesites SAB de CV	NA	NA	NA
Average		***21.3***	***50.2***	***2.8***
Developed markets' average		***17.8***	***40.2***	***2.7***
Emerging markets' average		***7.9***	***18.1***	***2.9***
Global average		***12.8***	***29.1***	***2.8***

Source: Company, Indo Premier

Fig. 14: Tower comparables (captive vs. independent)

Bloomberg ticker	Company name	FY23F EV/EBITDA (x)	FY23F P/E (x)	FY23F div. yld (%)
Captive				
788 HK	China Tower Corp Ltd	3.4	14.7	3.4
MTEL IJ	Dayamitra Telekomunikasi PT	10.9	30.1	1.5
INDUSTOW IN	Indus Towers Ltd	5.2	9.3	5.5
INW IM	Infrastrutture Wireless Italiane SpA	15.1	24.9	3.3
VTWR GR	Vantage Towers AG	21.3	35.5	2.0
	Captive average	**11.2**	**22.9**	**3.1**
Independent				
AMT US	American Tower Corp	20.9	47.1	2.8
CLNX SM	Cellnex Telecom SA	14.1	NA	NA
CENT IJ	Centratama Telekomunikasi Indonesia Tbk PT	NA	NA	NA
CCI US	Crown Castle Inc	18.1	36.3	4.6
HTWS LN	Helios Towers PLC	6.7	NA	NA
SBAC US	SBA Communications Corp	24.8	67.3	1.0
TOWR IJ	Sarana Menara Nusantara Tbk PT	10.4	14.5	1.1
TSSLF US	Telesites SAB de CV	NA	NA	NA
TBIG IJ	Tower Bersama Infrastructure Tbk PT	13.0	28.0	1.6
	Independent average	**15.4**	**38.6**	**2.2**
	Global average	**13.3**	**30.8**	**2.7**

Source: Company, Bloomberg, Indo Premier

Fig. 15: ISAT EV/EBITDA band

Source: Company, Bloomberg, Indo Premier

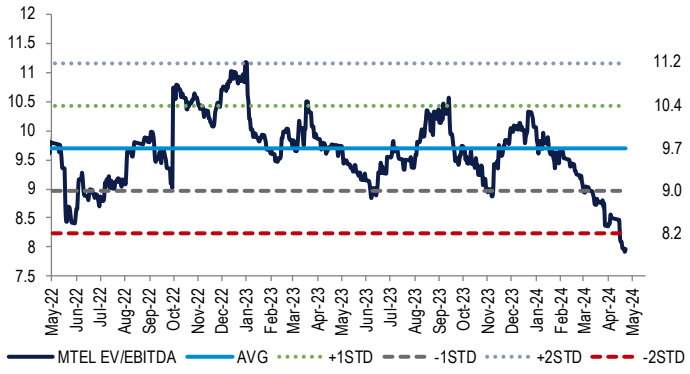
Fig. 16: TLKM EV/EBITDA band

Source: Company, Bloomberg, Indo Premier

Fig. 17: EXCL EV/EBITDA band

Source: Company, Bloomberg, Indo Premier

Fig. 18: MTEL EV/EBITDA band

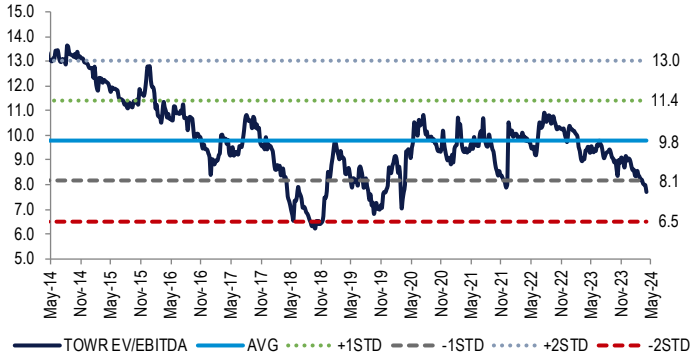


Source: Company, Bloomberg, Indo Premier

Fig. 19: TBIG EV/EBITDA band

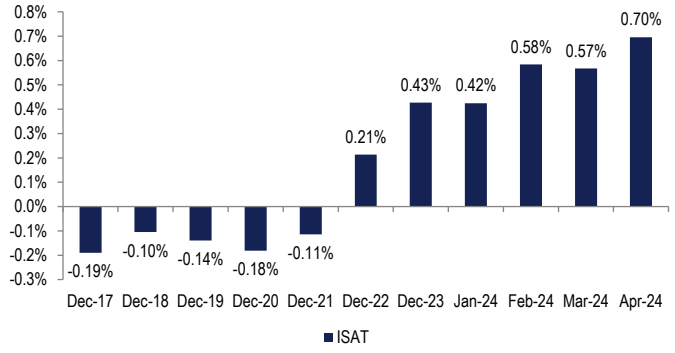
Source: Company, Bloomberg, Indo Premier

Fig. 20: TOWR EV/EBITDA band



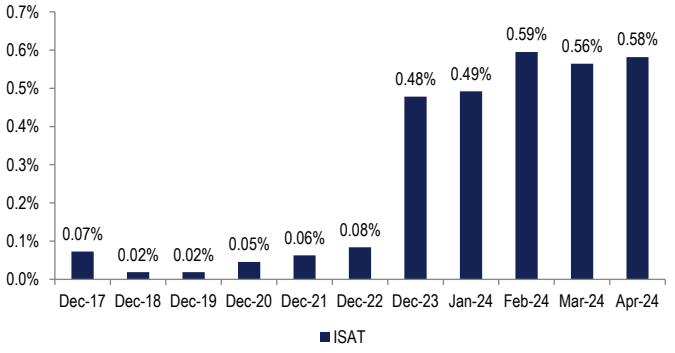
Source: Company, Bloomberg, Indo Premier

Fig. 21: ISAT local funds positioning vs JCI



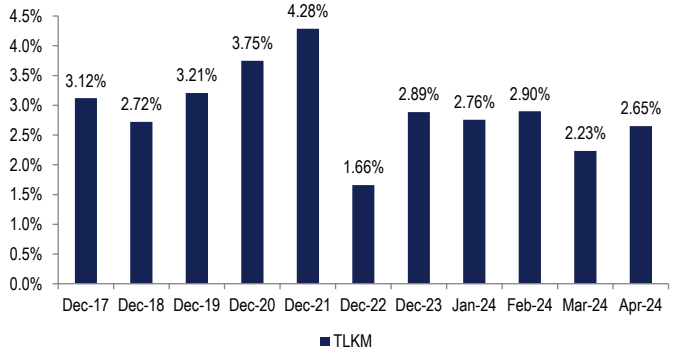
Sources: KSEI, IndoPremier

Fig. 22: ISAT foreign funds positioning vs MSCI



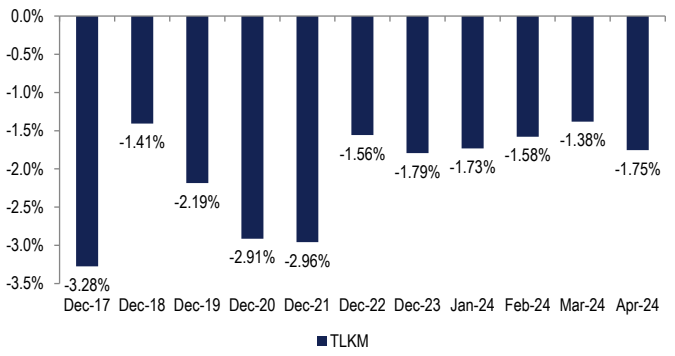
Sources: KSEI, IndoPremier

Fig. 23: TLKM local funds positioning vs JCI



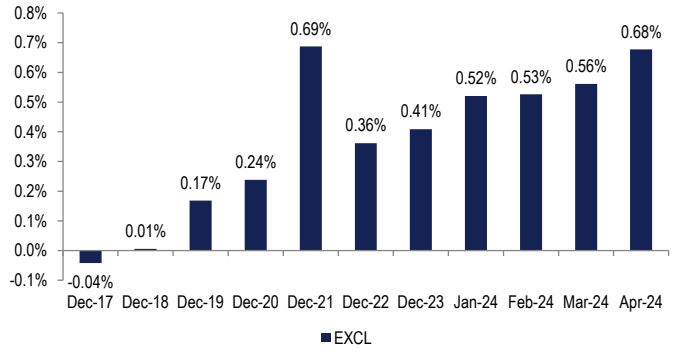
Sources: KSEI, IndoPremier

Fig. 24: TLKM foreign funds positioning vs MSCI



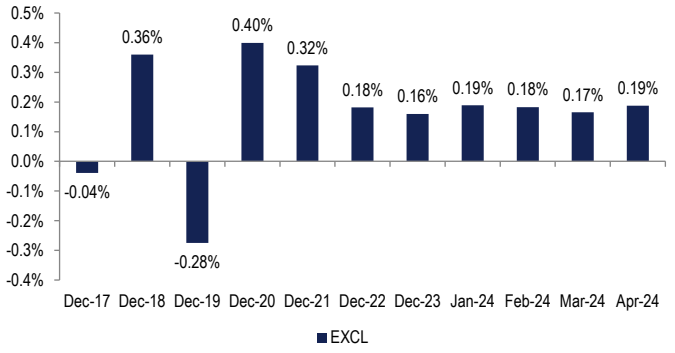
Sources: KSEI, IndoPremier

Fig. 25: EXCL local funds positioning vs JCI



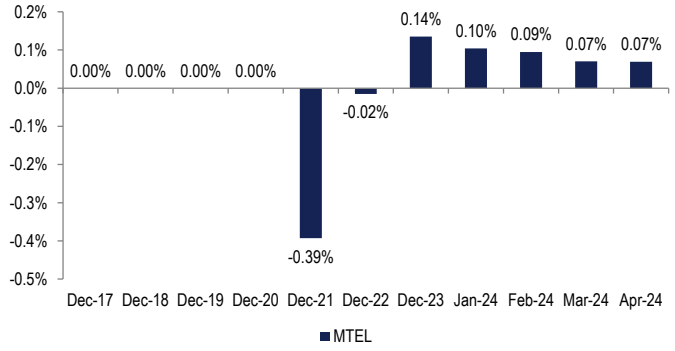
Sources: KSEI, IndoPremier

Fig. 26: EXCL foreign funds positioning vs MSCI



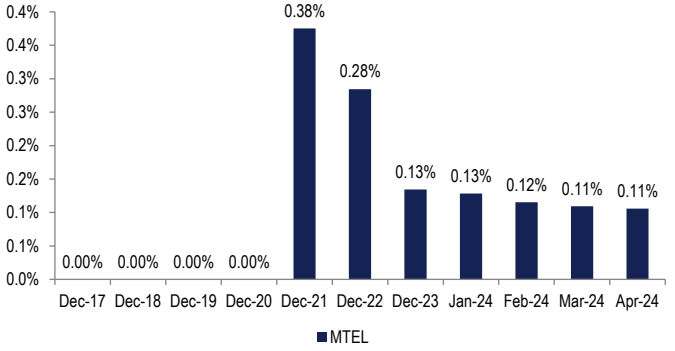
Sources: KSEI, IndoPremier

Fig. 27: MTEL local funds positioning vs JCI



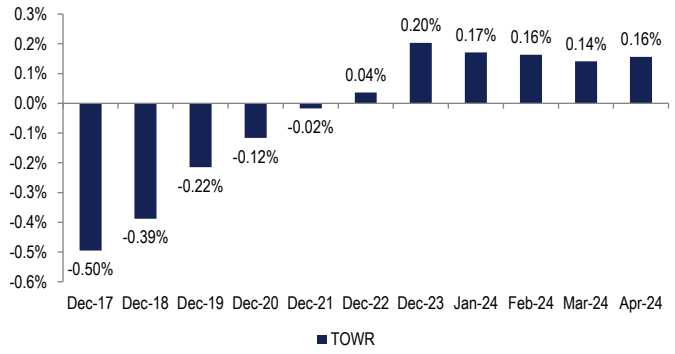
Sources: KSEI, IndoPremier

Fig. 28: MTEL foreign funds positioning vs MSCI



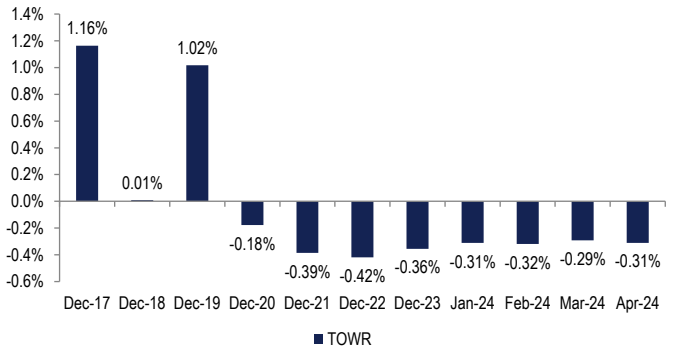
Sources: KSEI, IndoPremier

Fig. 29: TOWR local funds positioning vs JCI



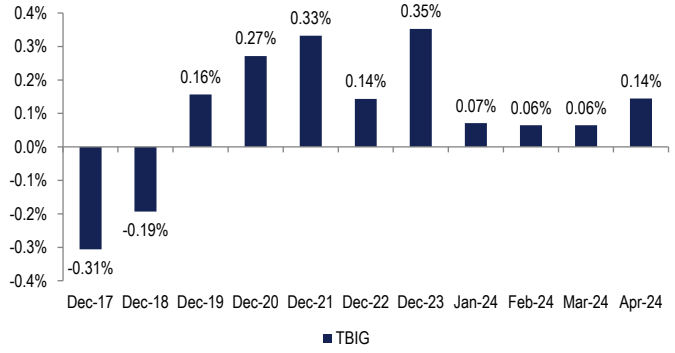
Sources: KSEI, IndoPremier

Fig. 30: TOWR foreign funds positioning vs MSCI



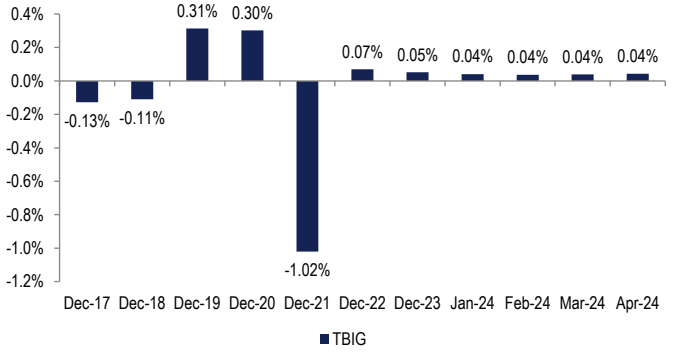
Sources: KSEI, IndoPremier

Fig. 31: TBIG local funds positioning vs JCI



Sources: KSEI, IndoPremier

Fig. 32: TBIG foreign funds positioning vs MSCI



Sources: KSEI, IndoPremier

SECTOR RATINGS

OVERWEIGHT	:	An Overweight rating means stocks in the sector have, on a market cap-weighted basis, a positive absolute recommendation
NEUTRAL	:	A Neutral rating means stocks in the sector have, on a market cap-weighted basis, a neutral absolute recommendation
UNDERWEIGHT	:	An Underweight rating means stocks in the sector have, on a market cap-weighted basis, a negative absolute recommendation

COMPANY RATINGS

BUY	:	Expected total return of 10% or more within a 12-month period
HOLD	:	Expected total return between -10% and 10% within a 12-month period
SELL	:	Expected total return of -10% or worse within a 12-month period

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