

SGX Presentation to Investors

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Singapore Exchange



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Who we are

Award-winning diversified exchange group

A diversified exchange group that runs key market infrastructure including the Singapore securities market and a pan-Asian derivatives exchange covering all major asset classes.

Exchange of the Year Asia Pacific

FOW International Awards 2019

Exchange of the Year 2019

Regulation Asia

Financial Metals Service Provider of the Year

*Standard & Poor's Global Platts Awards
2019*

Best FX Exchange in Asia and Best FX Clearing House in Asia

FX Week 2019

Exchange of the Year

Energy Risk Asia Awards 2018

Derivatives Exchange of the Year

Asia Risk Awards 2018

AsiaPac Derivatives Exchange of the Year

Global Capital 2018

- High operating margin of 51% in FY2019
- High ROE of 36% and Operating cash flow of 39 cents per share
- Dividend of 30 cents per share
- Most liquid international market for pan-Asian listed derivatives
- Most international exchange in Asia with 42% cross-border listings



Anchored in Singapore, Asia's only AAA-rated economy

Reputation for good corporate governance, infrastructure, regulation and strength of the broader advisory ecosystem

Our international footprint

Anchored in Singapore with global reach, serving a diverse set of international clients seeking Asian opportunities.



Our offices:

Beijing	Chicago	Hong Kong	London	Mumbai
New York	San Francisco	Shanghai	Singapore	Tokyo

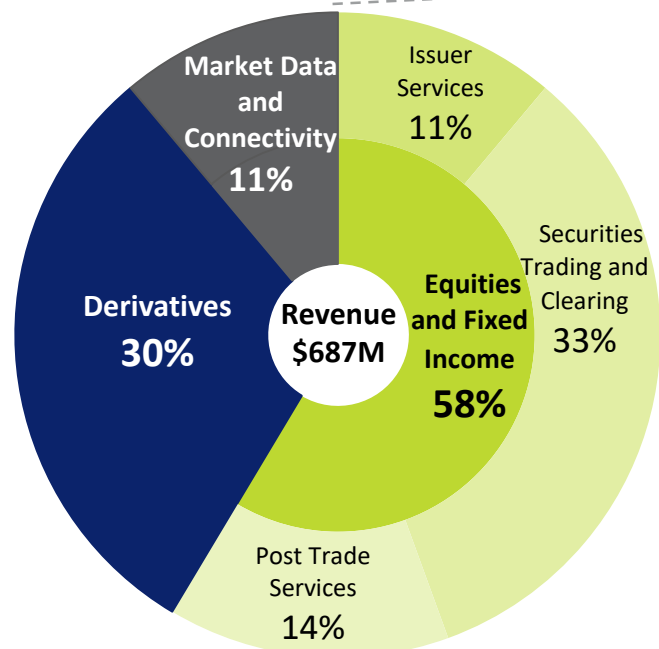
Key roles of our International offices

- Our key clients include: Sell-side participants, Interdealer brokers, Corporate trade clients, Institutional investors, Asset managers and Proprietary Trading Groups. T+1 volumes increased 40% y-o-y in FY2019.
- Engage existing clients and acquire new clients to improve liquidity (Fixed Income, Currencies, Commodities, Equities and Data, Connectivity and Indices).
- Increase memberships and listing of equity and debt instruments.

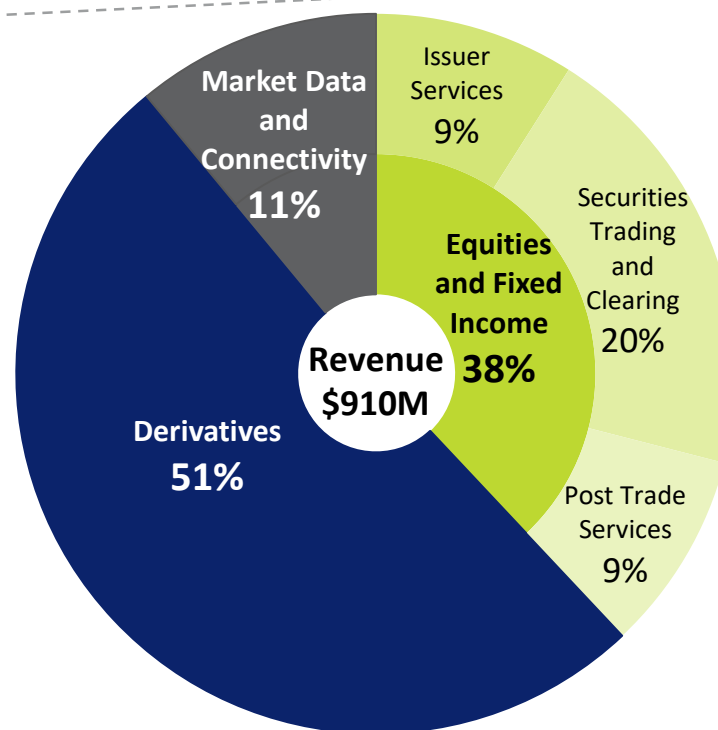
Successfully achieved growth in revenues

Revenue contribution from Derivatives grew from 30% in FY2014 to 51% in FY2019. Total revenue grew 32% during the same period.

FY2014 Revenue Breakdown



FY2019 Revenue Breakdown

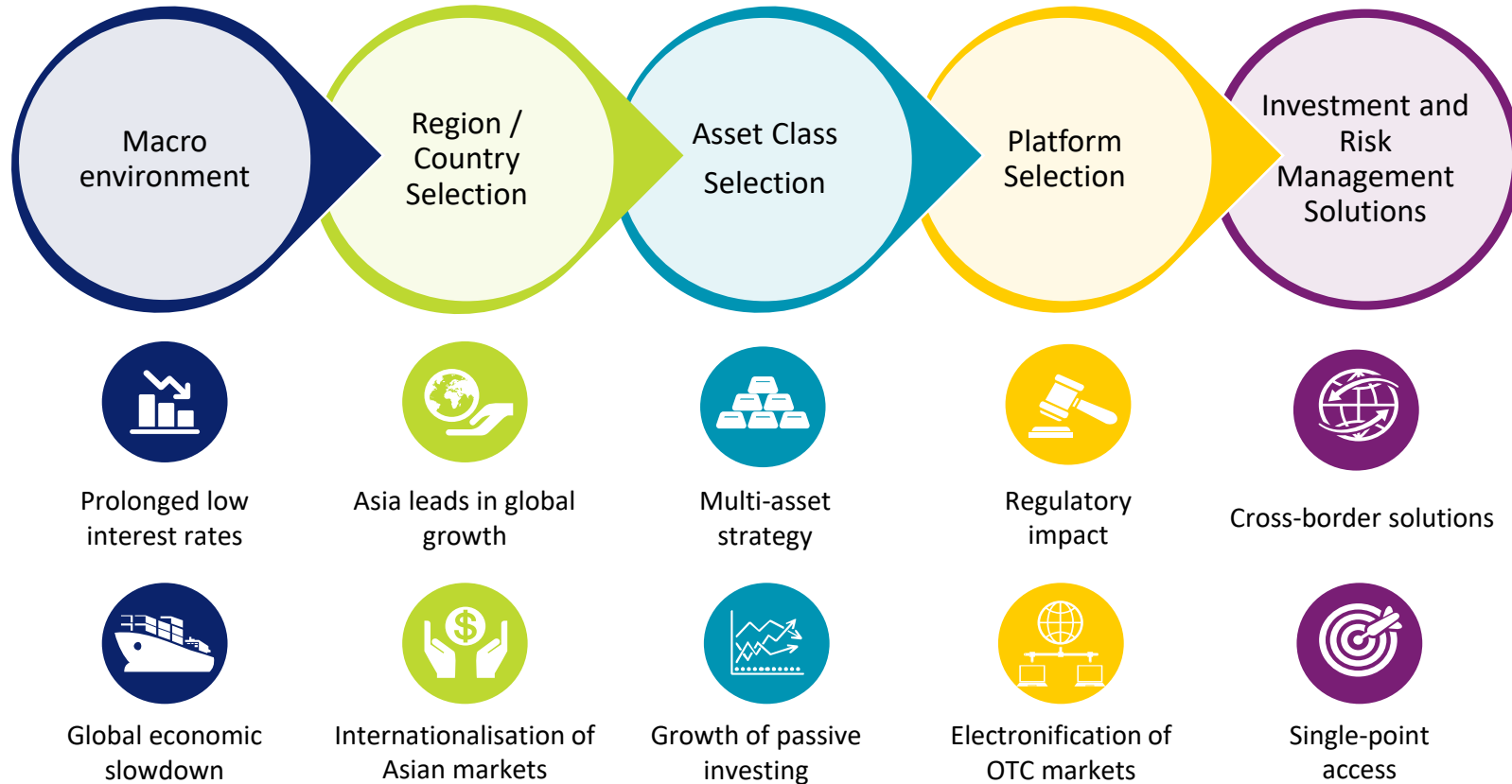


Net Profit: \$320 million

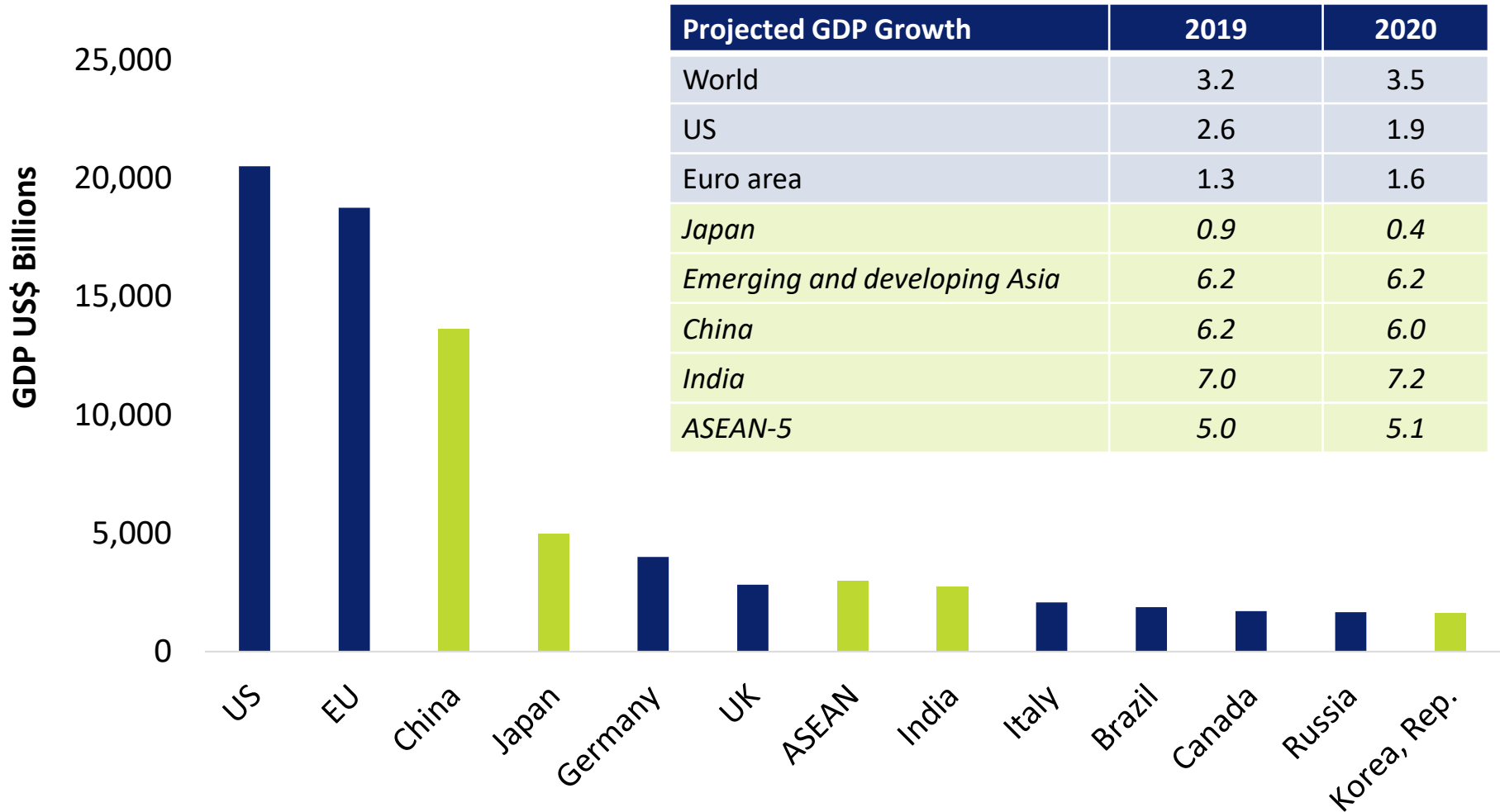
Net Profit: \$391 million

Note: Numbers may be subject to rounding
Source: SGX

Macro and investor trends shaping markets today



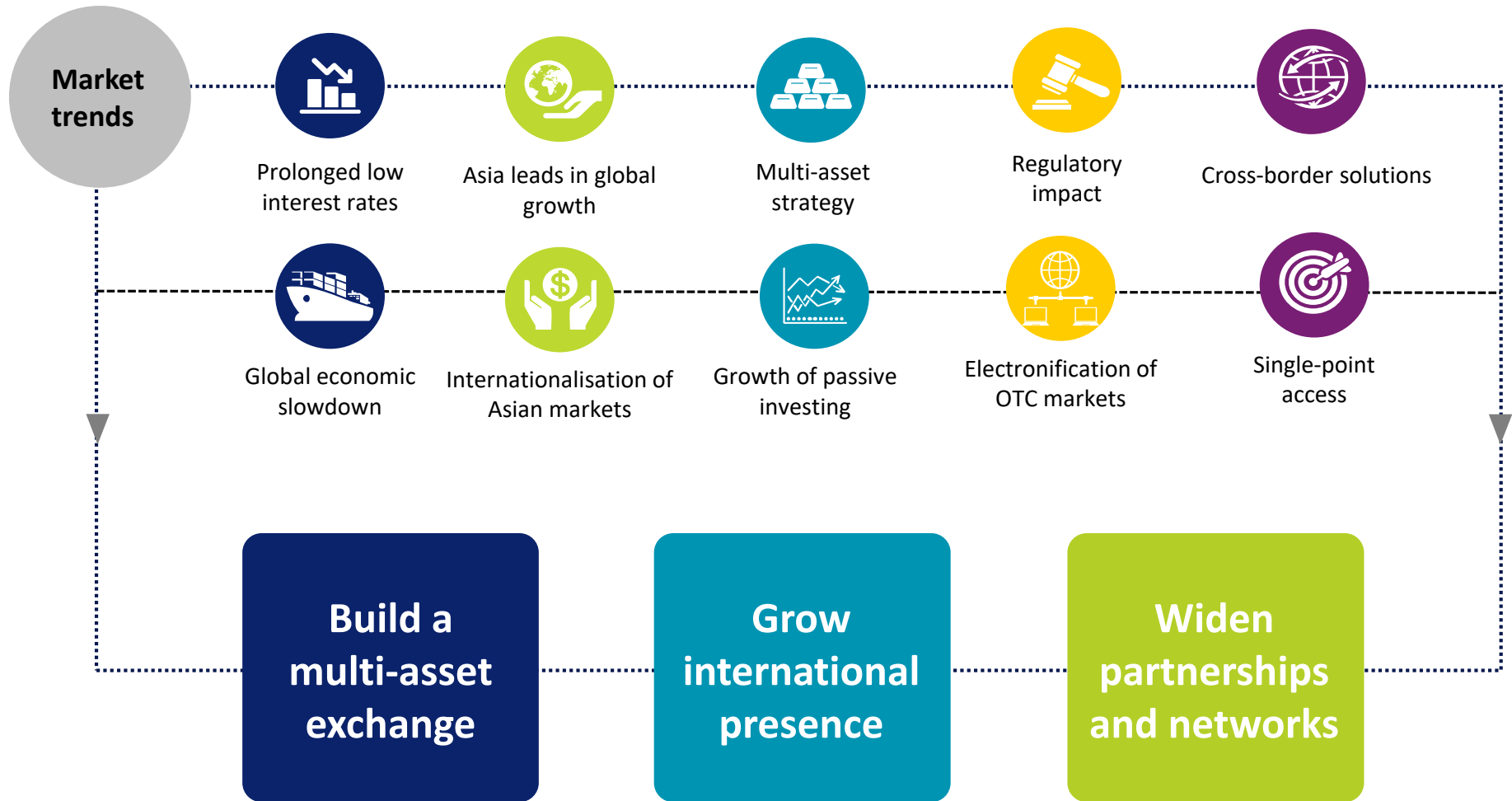
Investors seek access to Asia



Projected GDP Growth	2019	2020
World	3.2	3.5
US	2.6	1.9
Euro area	1.3	1.6
<i>Japan</i>	<i>0.9</i>	<i>0.4</i>
<i>Emerging and developing Asia</i>	<i>6.2</i>	<i>6.2</i>
<i>China</i>	<i>6.2</i>	<i>6.0</i>
<i>India</i>	<i>7.0</i>	<i>7.2</i>
<i>ASEAN-5</i>	<i>5.0</i>	<i>5.1</i>

Source: World Bank, IMF

Executing our strategic priorities



Four business and client units (from 1 July 2019)

Four business and client units covering the entire exchange value chain, resulting in diversified and resilient revenue streams.

Fixed Income, Currencies and Commodities (FICC)

- Fixed Income Listing & Trading
- Trading & Clearing of Pan-Asian currency and commodity derivatives



Equities

- Equity Listings
- Trading & Clearing of Pan-Asian equity index derivatives, cash equities, ETFs, Structured Warrants, REITs, DLCs, etc.
- Delivery, Settlement and Custody of securities



Data, Connectivity and Indices (DCI)

- FICC and Equities market data
- API and Co-location connectivity
- Development and bespoke calculation of indices



Global Sales and Origination (GSO)

- Nine international offices and specialist sales teams



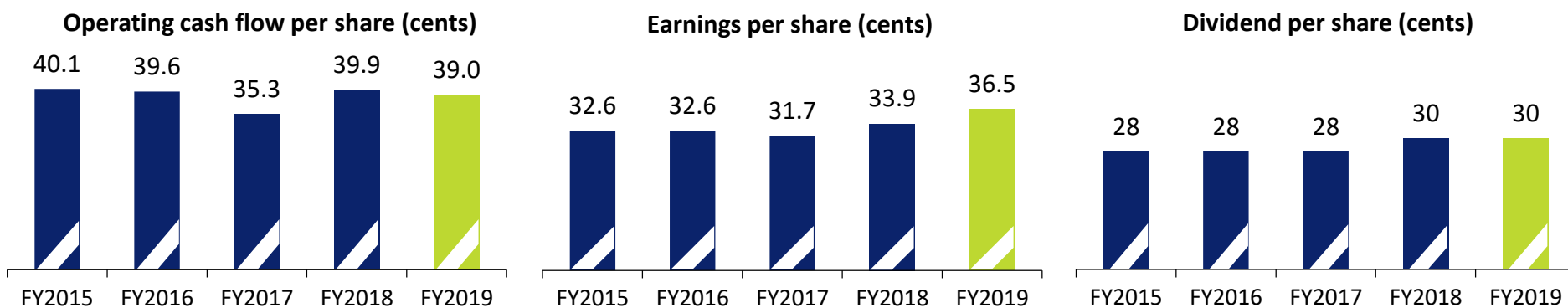
Our strengths as a multi-asset marketplace



Robust financials

- High operating profit margin of 51%
- High ROE of 36% and Operating cash flow of 39 cents per share
- Dividend of 30 cents per share

	FY2015	FY2016	FY2017	FY2018	Y-o-Y Change	FY2019
Revenue (\$ million)	779	818	801	845	+8%	910
EBITDA (\$ million)	459	469	460	486	+8%	524 ¹
EBITDA margin	59%	57%	57%	58%	-	58%
Operating profit (\$ million)	402	409	402	425	+9%	461
Operating profit margin	52%	50%	50%	50%	+2%	51%
Net profit (\$ million)	349	349	340	363	+8%	391
Return on equity	37%	36%	34%	34%	+6%	36%



Note: All figures in \$ millions unless otherwise stated and may be subject to rounding

Looking ahead... positioning for growth and scale



- Capture the digitalisation of the Fixed Income markets and rising convergence of OTC and listed FX and Commodity markets



- Aggregate and service varied demands from retail and institutional customer segments accessing our continuum of international equities products



- Focus on building capabilities in our Index Business to position ourselves for growth, amid a global shift towards passive investing



- Holistically serve all customer segments with the full spectrum of SGX products and services across asset classes



- Continue to expand globally and use our international presence to facilitate capital raising from key markets

Fixed Income, Currencies and Commodities (FICC)

A leading Fixed Income listing venue

Fixed Income	Size of Market 	Singapore 	SGX 
	<ul style="list-style-type: none"> Asia (ex-Japan) bond market of US\$14 trillion Shift towards electronic trading Regulatory trends favour shift to on-exchange clearing 	<ul style="list-style-type: none"> Strong distribution network to global investor base with US\$2.4 trillion of AUM in Singapore 	<ul style="list-style-type: none"> >US\$2.2T amount issued, with more than 6,600 listed bonds from over 56 countries in 26 currencies Launched SGX Bond Pro, an electronic platform for Bond Trading

Key SGX Highlights

>6,600 bonds

listed by 1,600 issuers from over 56 countries in 26 currencies

~40%

market share for listed G3 APAC bonds
Leading Bond listing exchange in Asia Pacific

~200

Number of customer sign-ups
SGX Bond Pro gaining traction

TRUMID

Expanding network

Largest and fastest growing currency futures exchange in Asia

Currencies

Size of Market

- US\$5 trillion traded daily
- Asian NDF, excluding CNH, is a \$73 billion DAV market with the potential to be futurised
- Largest off-exchange (OTC) market globally
- Regulatory trends favour shift to on-exchange clearing

Singapore

- US\$500 billion traded daily
- Largest currency center in Asia Pacific, third largest globally
- Leading global trading venue for key Asian currencies

SGX

- 21 currency futures and options contracts
- >70% market share in USD/CNH and > 40% market share in INR/USD
- Innovative FlexC FX futures offering
- Investment in BidFX

Key SGX Highlights

19

Futures

2

Options

Diverse Asian
FX suite

144%

Total Volume –
CAGR
Nov 13 – Mar 20

US\$7.0Bn

Open Interest value
(Mar 2020)

~US\$1.3T

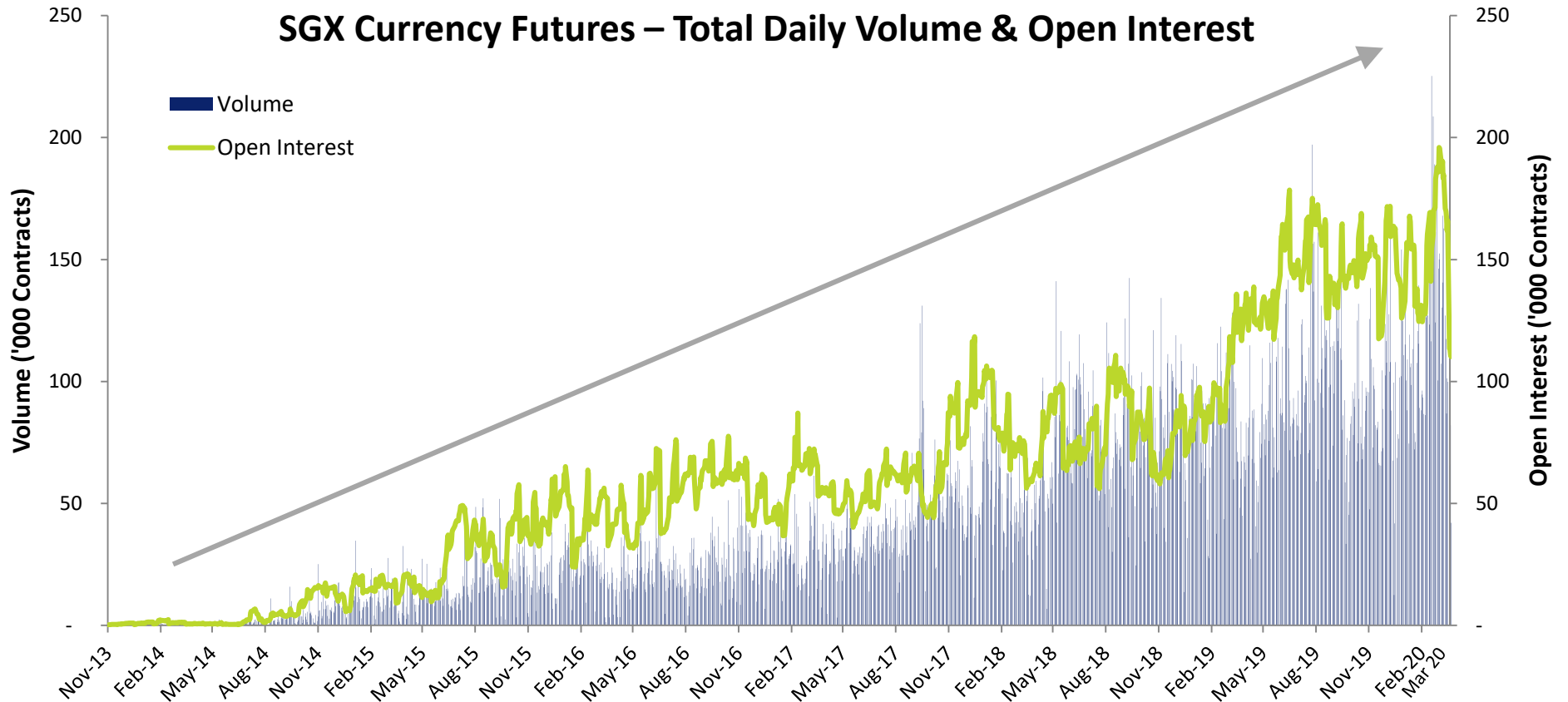
Notional value traded in
2019
up 44% y-o-y



Expanding Network

Currency Futures as a growth driver

144% volume CAGR since November 2013



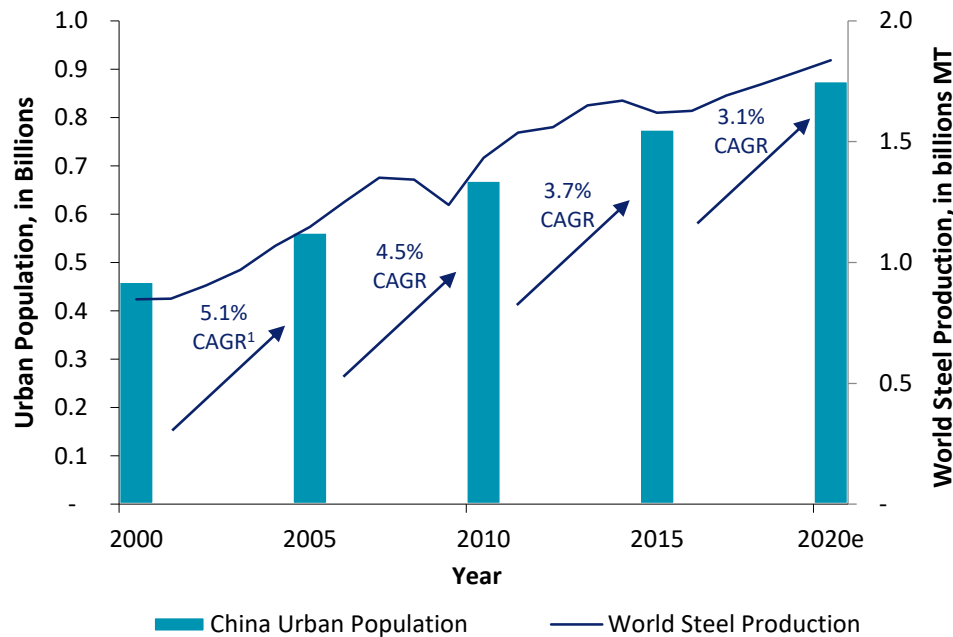
■ Asia's Best FX Exchange & Clearing House – by FX Week (2018 and 2019)

Note: Data as at 31 March 2020

Extensive Suite Of Commodities Products

- Complements Singapore's commodities hub status
- Demand for industrial commodities set to continue amid sustained urbanisation

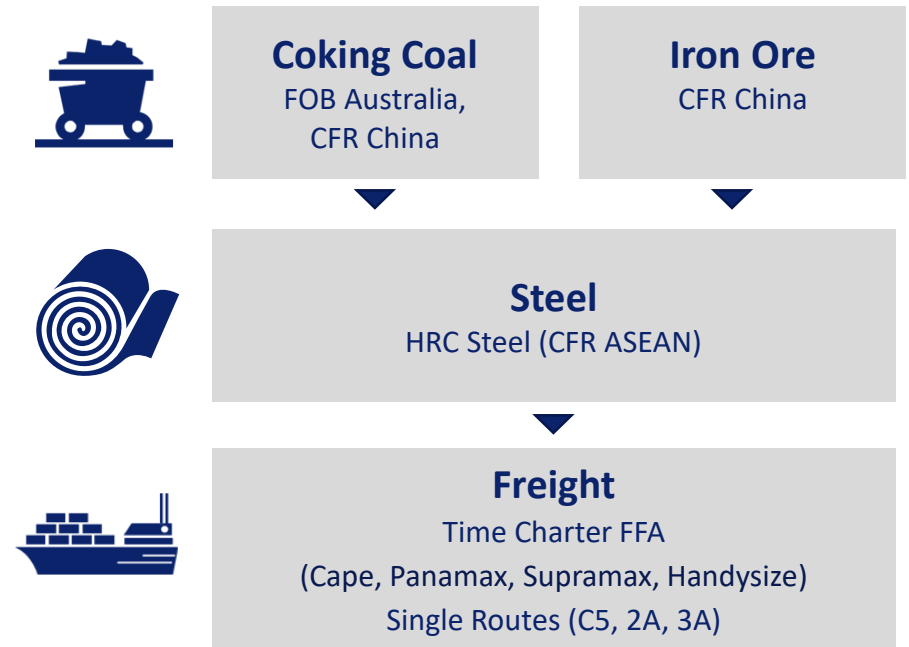
Urbanisation and Steel Production






Source :
 UN Population Division, <https://population.un.org/wup/DataQuery/>
 Steel production statistics: World Steel Association

¹ CAGR in chart relates to growth of China's Urban Population

Price-Discovery Centre For The Steel Value Chain



The leading offshore Iron Ore risk management hub

	Size of Market 	Singapore 	SGX 
Iron Ore	<ul style="list-style-type: none"> ▪ Largest in the metal market by tonnage ▪ Notional value of >US\$115B traded annually in the physical market ▪ Asia's first truly global commodity, with China a major consumer ▪ Increasing financialisation of Iron Ore 	<ul style="list-style-type: none"> ▪ Leading merchant hub for commodities houses with ~140 metals and mineral companies ▪ Include top iron producers e.g. Vale, Rio Tinto, BHP Billiton 	<ul style="list-style-type: none"> ▪ Global pricing and risk management centre ▪ Cleared 1.5 billion MT of iron ore in 2019 ▪ Offers a complete iron ore suite: 58% Fe, 62% Fe, 65% Fe ▪ Steel value chain incorporating coking coal and freight
	Key SGX Highlights		

1.5 billion MT

cleared in CY2019

> 95%

market share of international iron ore volumes cleared

Fe 65%

New high-grade Fe futures contract

1.5x

of paper to physical ratio

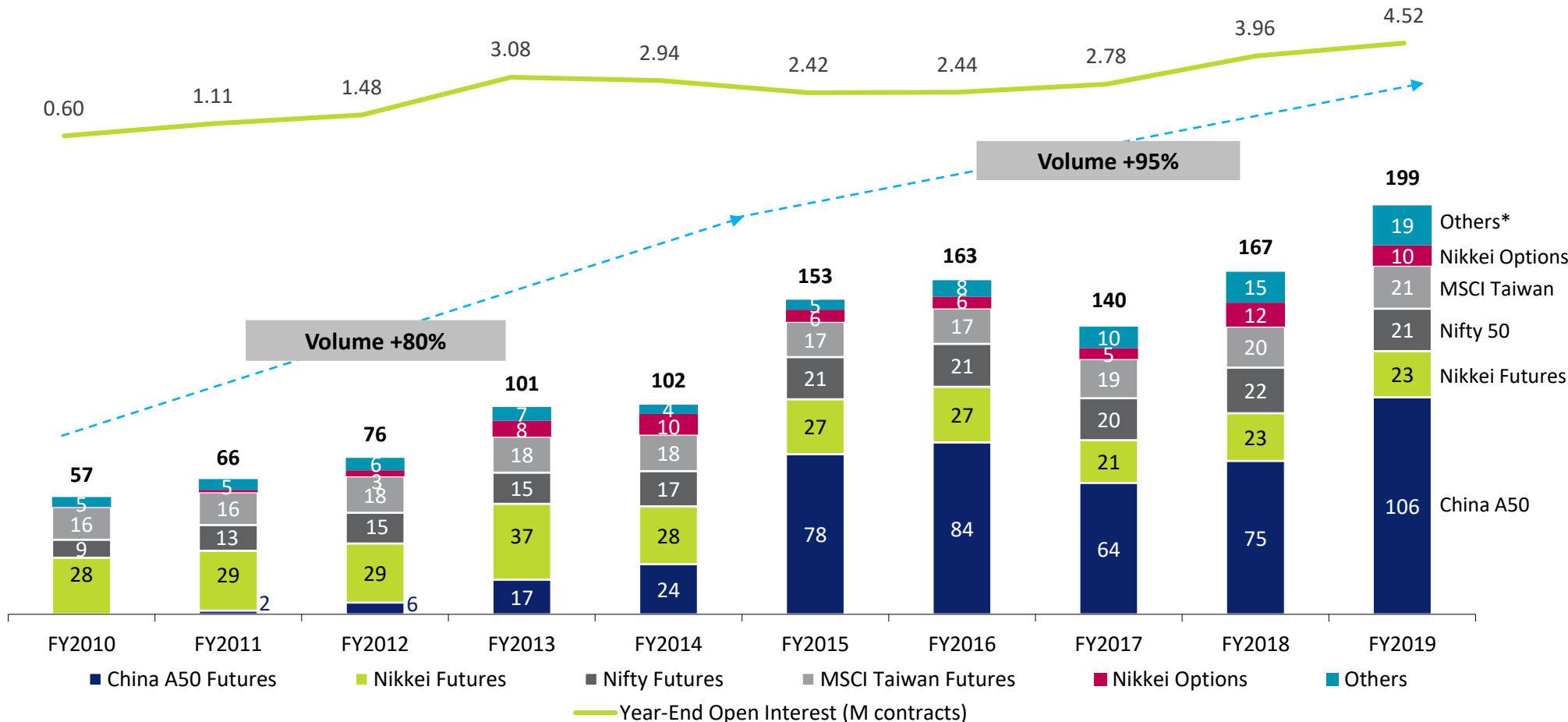
Potential to grow

Equities (Derivatives and Cash)

Rapidly growing offshore market for Asian Equity Derivatives

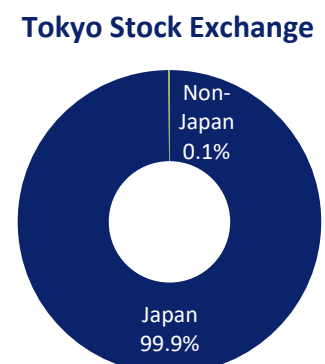
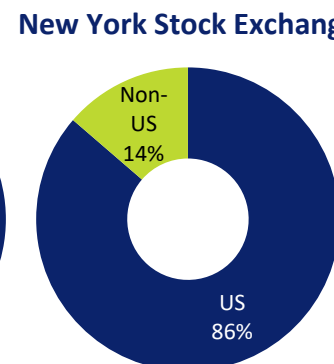
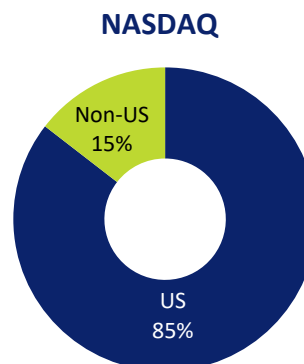
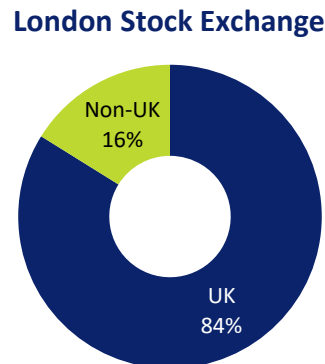
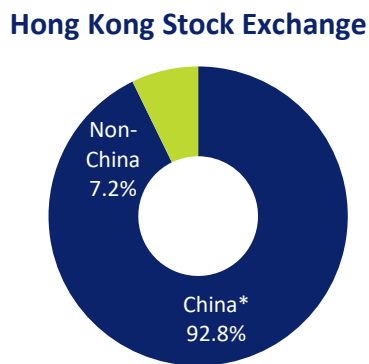
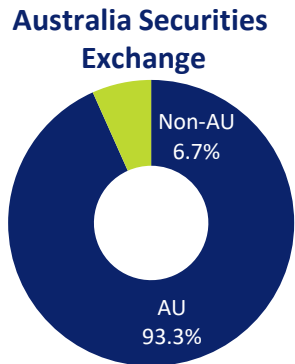
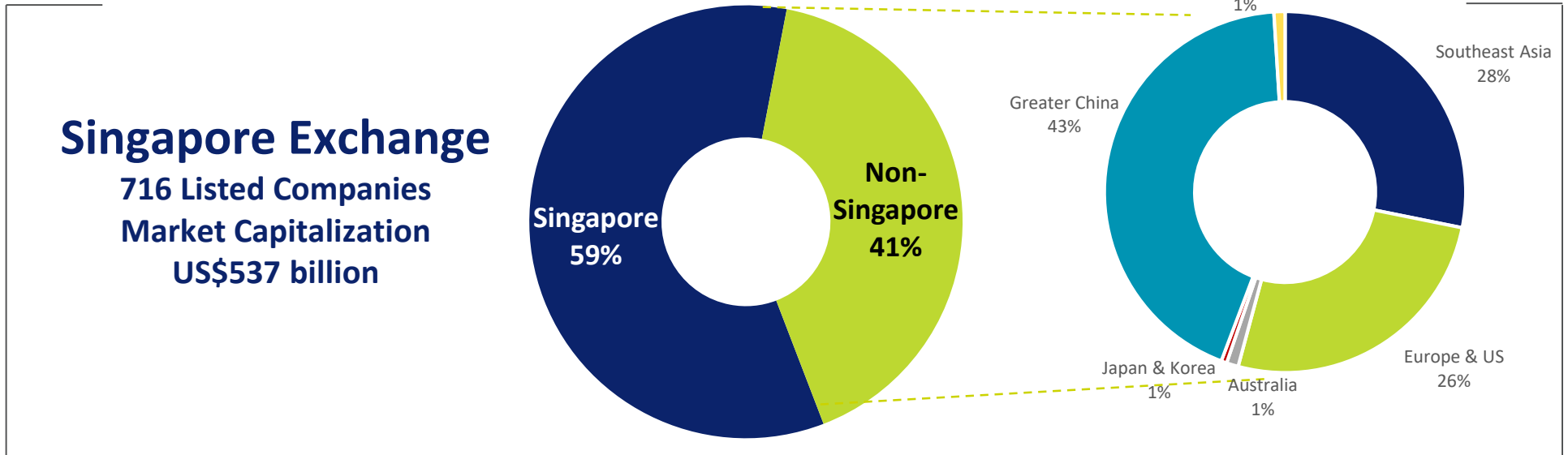
Multi-asset exchange, offering a broad range of Asian access and risk management solutions

Volumes and open interest, in millions



SGX is the Most International Exchange

More than 40% of total market cap of companies listed on SGX are overseas companies



*Note: Greater China includes Hong Kong, Taiwan and Mainland China companies

Top Sectors on SGX

Consumer



PE: 14x

- Includes food & beverage, retail and others
- 139 companies with market cap of US\$42 billion

Technology



PE: 17x[^]

- Includes technology hardware & equipment, digital, semiconductor and telecommunications services companies. Other businesses include media, clean tech and engineering.
- 82 companies with market cap of US\$46 billion

Healthcare



PE: 26x*

- Full range of companies from pharmaceuticals, healthcare services to medical devices technology
- 35 companies with market cap of US\$46 billion

Maritime, Offshore Services & Energy



PE: 12x

- Asia's largest cluster of listed companies
- 62 companies and 2 business trusts with market cap of US\$14 billion

Commodities



PE: 11x

- Includes Agri-commodities, Mineral & Oil & Gas Companies
- 33 companies with market cap of US\$22 billion

Real Estate



PB: 1.0x

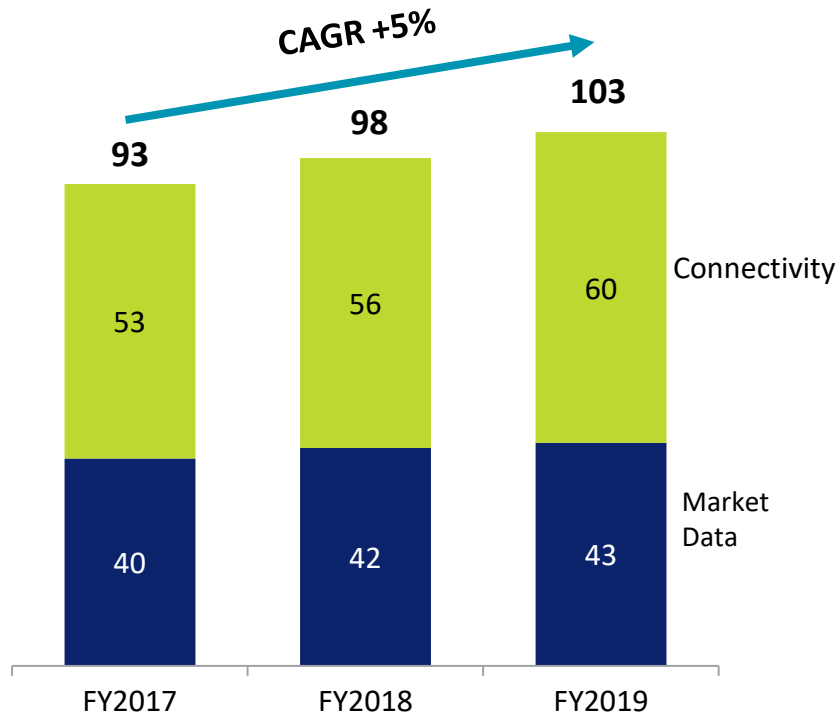
- Asia's broadest range of real estate companies and property trusts covering global real estate assets
- 110 real estate companies and property trusts with market cap of US\$101 billion

Source: Bloomberg & Singapore Exchange (Mar 2020)

Data, Connectivity and Indices (DCI)

Overview

Data, Connectivity and Indices



- Market infrastructure business driven by increased use of technology in trading
- Supports Securities and Derivatives Trading:

Data: Price data, Company Announcements, Financial Indices

Connectivity: Trading system connections, Network linkages and Data center co-location

Note: Numbers may be subject to rounding.

Index Business

- Global Exchange Traded Products (index-based) have AUM of > US\$4tn
- Index funds (unlisted) has grown >230% to > US\$ 6tn since 2007
- Acquisition of Scientific Beta (SB) in February 2020



Index Calculation Service

- Calculating for leading investment banks and asset managers
- Flexible index engine for calculating and disseminating wide variety of indices
- Strong governance framework to meet regulatory requirements
- Established capabilities in Europe



Proprietary Indices

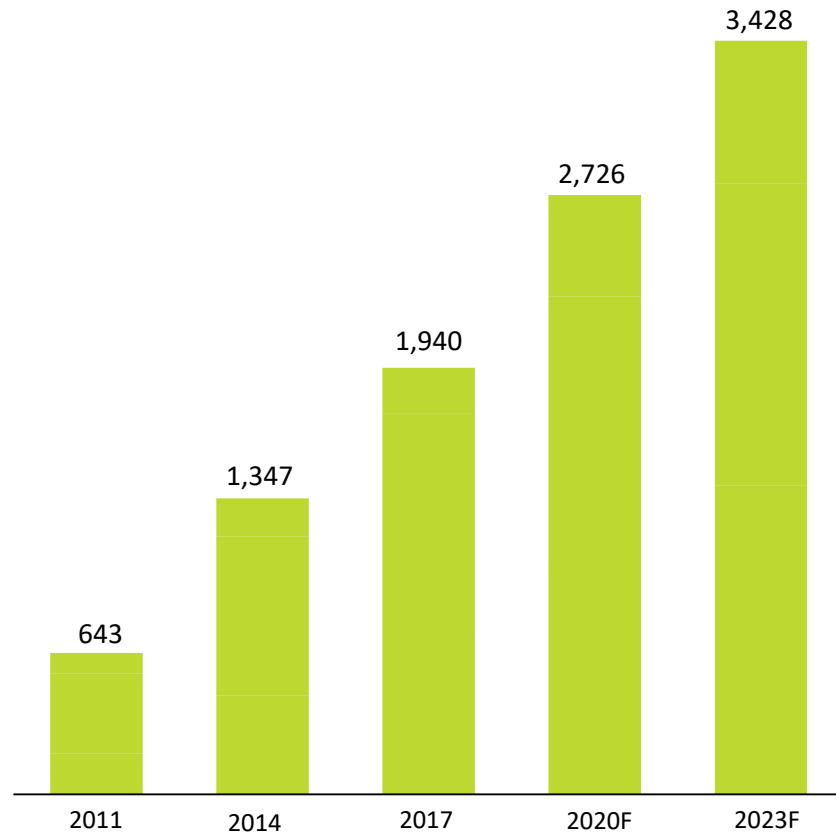
- **SGX iEdge Domestic Indices**
 - SGX Thematic indices e.g. S-REIT 20
 - SGX Sustainability index
- **SGX iEdge Regional Indices**
 - SGX Developed Asia Quality Dividend Index
 - SGX APAC Dividend REIT
- **Smart Beta Indices**
 - Developed by Scientific Beta

Index investing and the 'Smart Beta' market

Factor investing has seen significant growth in recent years, with assets using smart beta and factor-based strategies forecast to reach US\$2.7 trillion by 2020⁽¹⁾, and there is further room for growth.



Global Factor & Smart Beta AUM (USD billion)⁽¹⁾



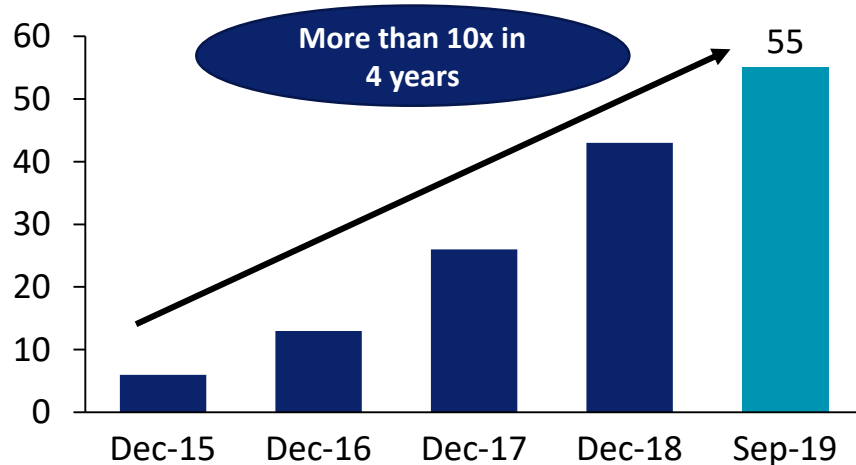
Recent acquisition of Scientific Beta will broaden SGX's index offering through the fast-growing 'Smart Beta' index space



- Established in 2012 by EDHEC-Risk Institute Asia
- Award winning 'Smart Beta' index firm which develops, produces and promotes multi- and single-factor indices
- HQ in Singapore; offices in France, UK and US
- Asset owner-focused client base

- ✓ High priority growth area for SGX
- ✓ Well-positioned in a high-growth market
- ✓ Financially attractive
- ✓ Brings unique capabilities to our Index business
- ✓ Exciting product innovation opportunities
- ✓ Strong potential linkages with SGX's product platform

Scientific Beta Assets Under Replication (US\$ bn)



Acquisition strategically elevates SGX's Index business

- 1 Broad index offering, with (a) strong research-based index construction capabilities, (b) index calculation services, and (c) expansion into smart ESG and green investing



- 2 Develop wider suite of products, leveraging SGX's product capabilities and Scientific Beta's academic rigor

- 3 Service wider range of clients, across geographies and client type (asset owners, asset managers and investment banks)

Other Information

Delivering growth with bolt-on investments

Supporting SGX's multi-asset strategy

Fixed Income, Currencies and Commodities

Fixed Income



One of the fastest growing **electronic fixed income trading platform** in the US

Currencies



Rapidly growing **FX electronic trading solution** which serves institutional investors with single point of access to global OTC FX network

Commodities



Operates as a **price discovery platform for container, sea and airfreight** with potential to be a global spot trade execution venue and index provider (FBX)



Provides an **FX post trade platform** as a middle and back office utility based on Distributed Ledger Technology (DLT)



Physical commodity electronic marketplace to produce Asia-centric commodity indices and derivatives in partnership with the Zall Group and GeTS

Equities

Equities— Cash



Private Markets – **Pre-IPO funding raising** help create a pipeline for public market capital raising on SGX



Private Markets - **Regulated tokenized fundraising** and trading venue for asset-backed security tokens

Data, Connectivity & Indices

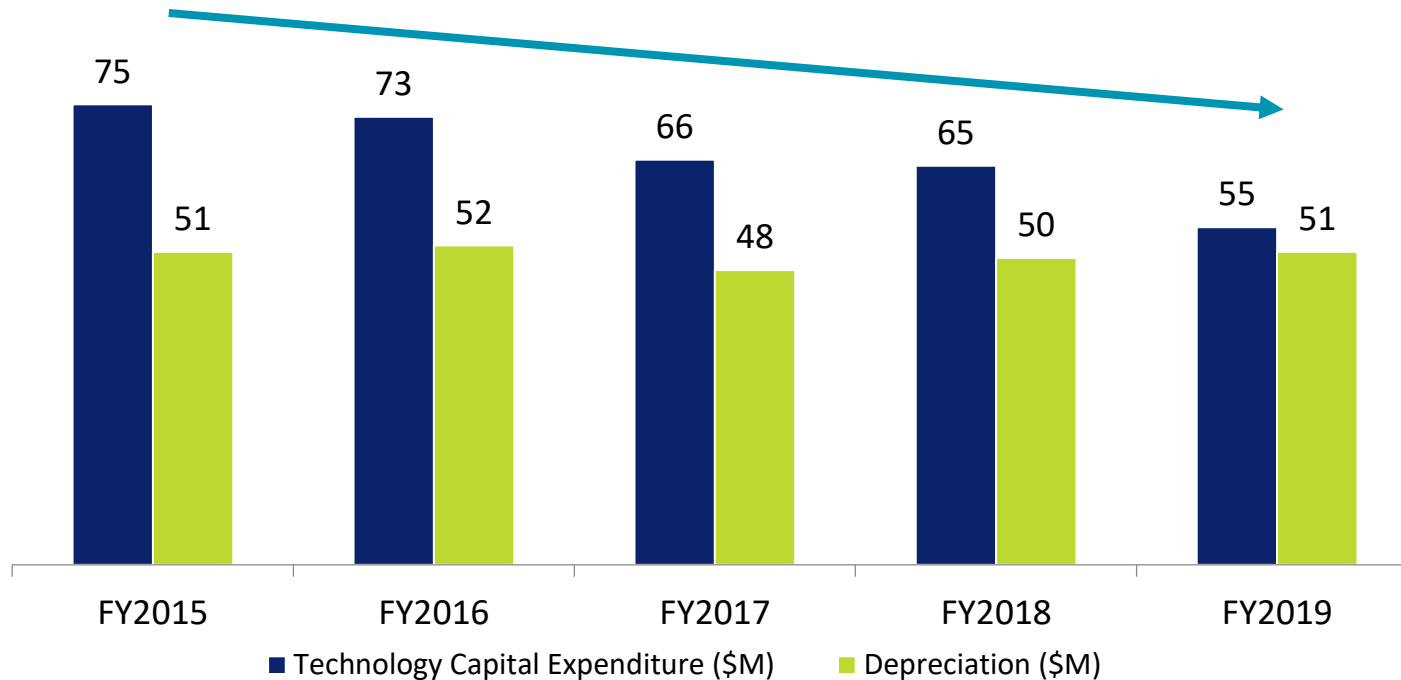
Indices



A 'Smart Beta' index firm, specialising in multi- and single-factor index investment strategies. Singapore-incorporated, with offices in France, UK and US. Offers (a) strong research-based index construction capabilities, (b) index calculation services, and (c) expansion into smart ESG and green investing

Major technology platforms have been built to support our multi-asset strategy

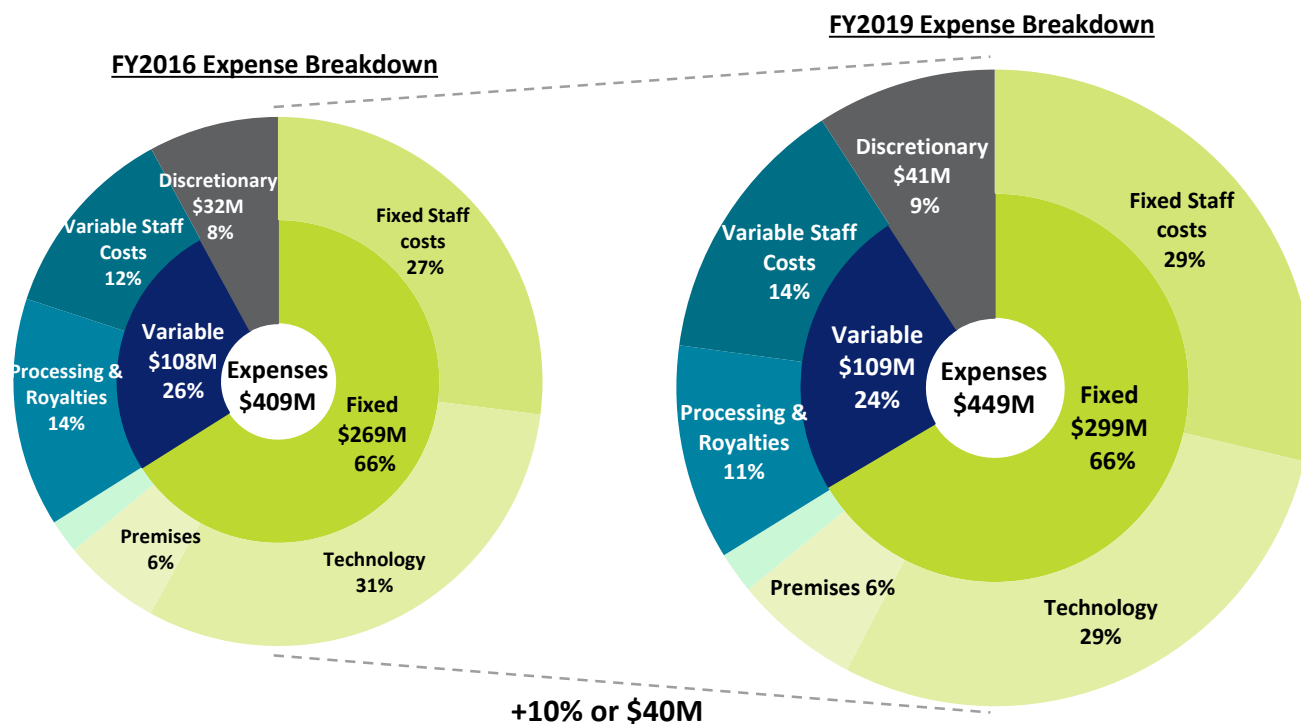
- FY2019 CAPEX of \$55M, below guidance of \$60M to \$65M
- Declining annual CAPEX – FY2020 CAPEX is expected to be between \$45M to \$50M



Note: All figures in \$ millions unless otherwise stated and may be subject to rounding

Disciplined in our expenditure

- Investments in building capabilities to support multi-asset strategy
- FY2019 expense of \$449M, up 7% from a year ago, CAGR of 3% from FY2016-FY2019
- FY2020 Operating Expense Guidance: \$485M to \$495M



- Fixed costs – 66%
Variable costs – 24%
Discretionary costs – 9%
- Variable costs
 - Variable staff cost increase in line with profitability
 - Processing & Royalties expenses are volume-related
 - Royalties are recovered as revenues under licence fees

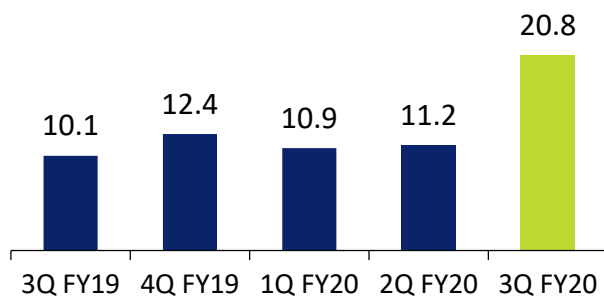
Note: Numbers may be subject to rounding.

Key Financial Indicators (Recent quarters)

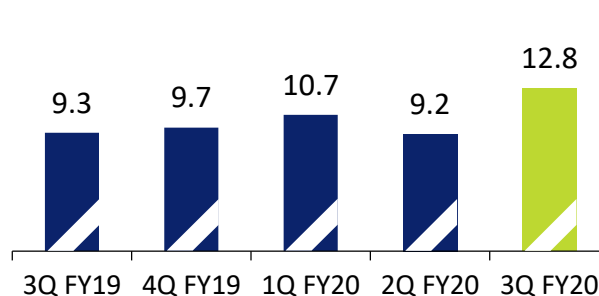
- High operating profit margin, EBITDA margin, and ROE of 55%, 63%, and 44% respectively
- Quarterly dividend per share of 7.5 cents per share
- From FY2021, SGX will report half-yearly financial results; Dividends will continue to be paid quarterly

	3Q FY2019	4Q FY2019	1Q FY2020	2Q FY2020	3Q FY2020
Revenue (\$ million)	229	248	248	231	296
EBITDA (\$ million)	134	139	156	141	186
EBITDA margin	59%	56%	63% ¹	61% ¹	63% ¹
Operating profit (\$ million)	118	123	135	119	163
Operating profit margin	52%	50%	54%	52%	55%
Net profit (\$ million)	100	104	114	99	138
Return on equity	37%	36%	40%	41%	44%

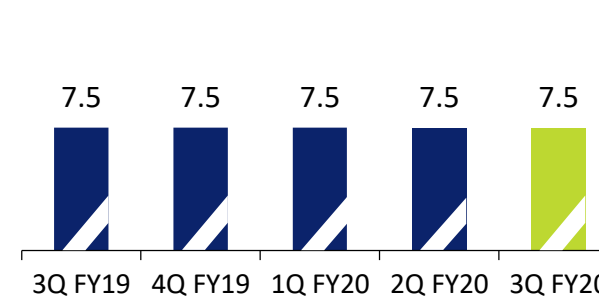
Operating cash flow per share (cents)



Earnings per share (cents)



Dividend per share (cents)



Note: All figures in \$ millions unless otherwise stated and may be subject to rounding

Appendix

- Cross margining example
- Shareholder profile
- Dividend history
- 3Q FY2020 Performance

Cross margining efficiencies

Correlated products, margin netting efficiencies

Note:

+ correlation Long – Short spread
- correlation Long – Long spread

INR/USD
FX futures

33%
Margin
offset

Nifty 50
Index Futures

Nikkei 225
Index Futures

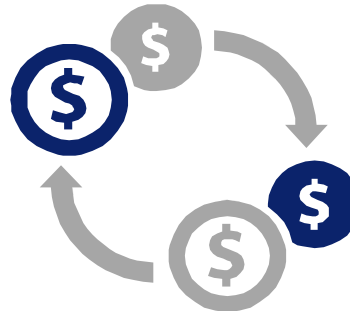
46%
Margin
offset

China A50
Index Futures

USD/CNH
FX futures

31%
Margin
offset

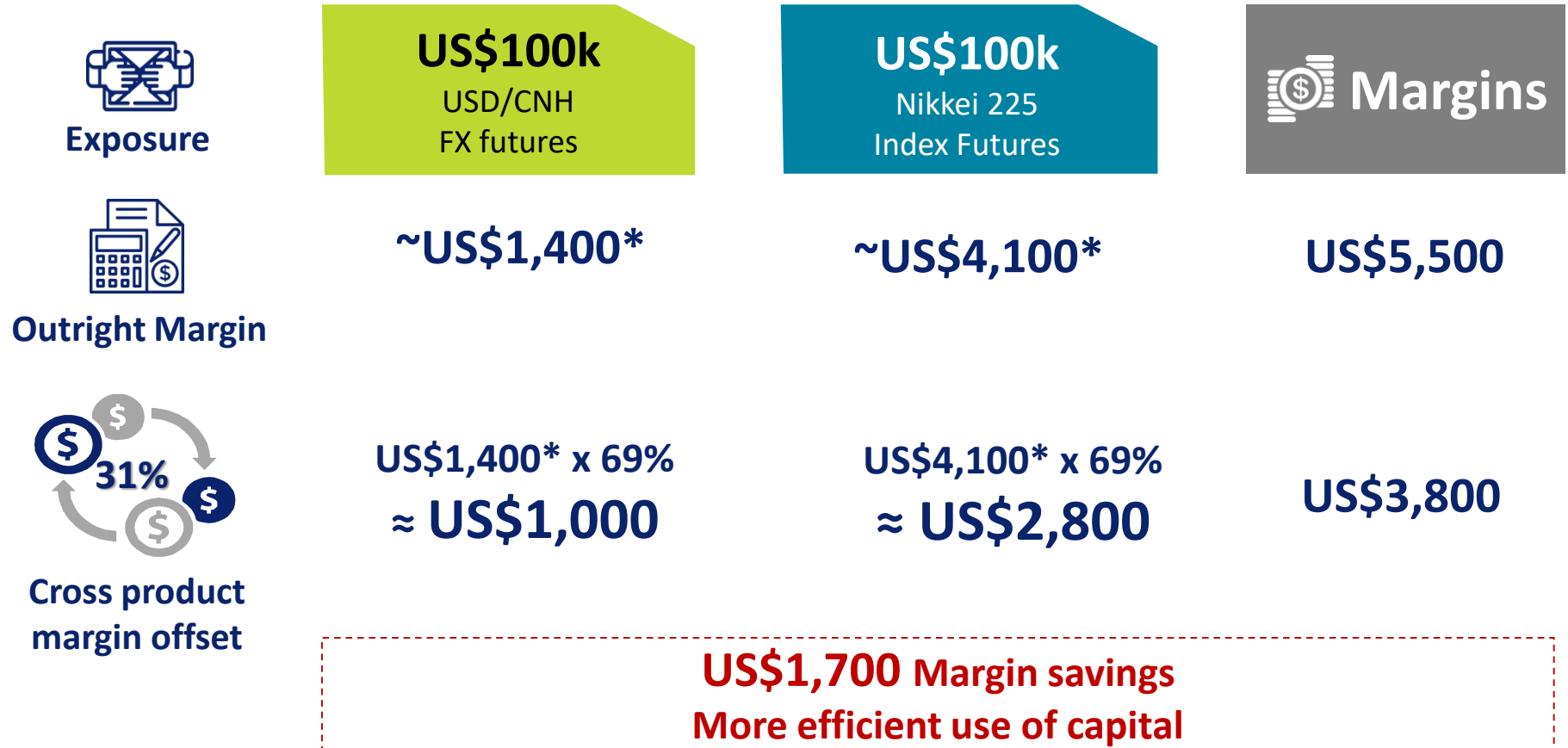
Nikkei 225
Index Futures



Note: Based on Margin Schedule as of 3 February 2020, full schedule available on SGX website

Cross margining example

More exposure with the same amount of margins



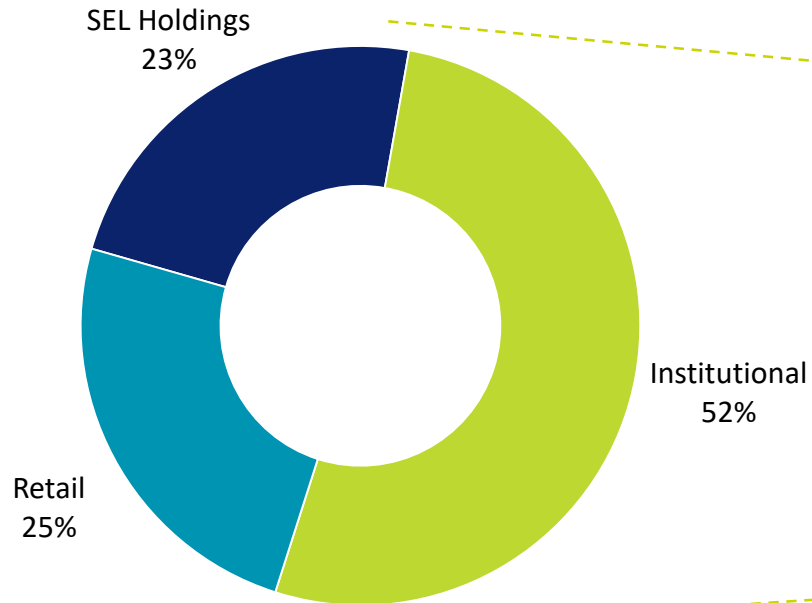
Note: Based on exchange rate as of 3 February 2020

Based on Margin Schedule as of 3 February 2020, full schedule available on SGX website

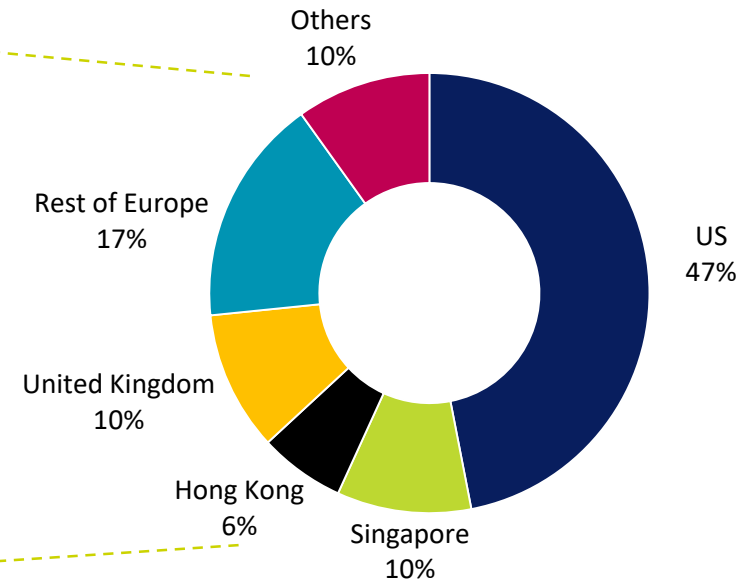
SGX shareholders' profile

Broad shareholding base with domestic retail shareholders, as well as domestic and international institutions

SGX Shareholder Composition¹



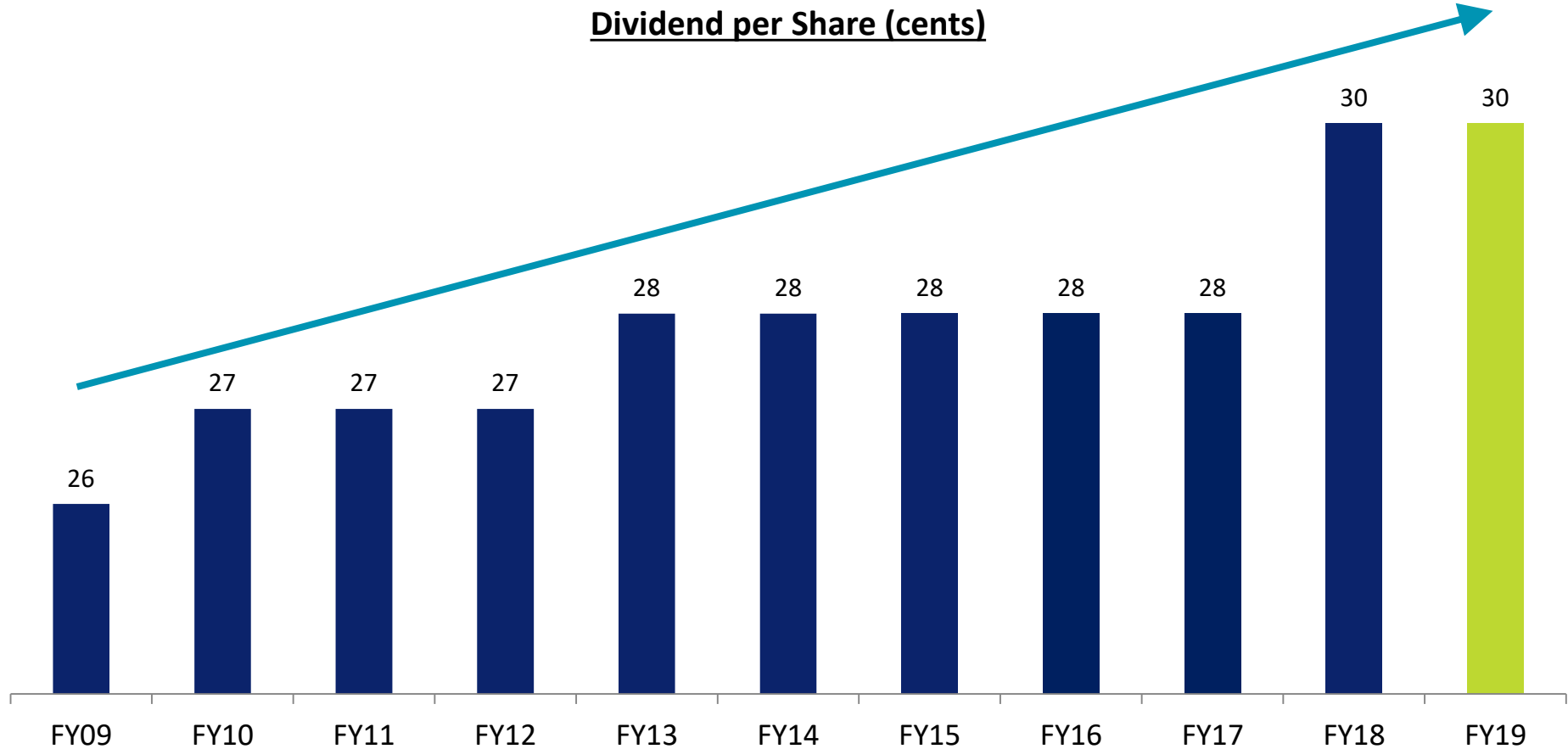
Institutional Shareholding by Geography



Note: Numbers may be subject to rounding.
¹As at 31 March 2020

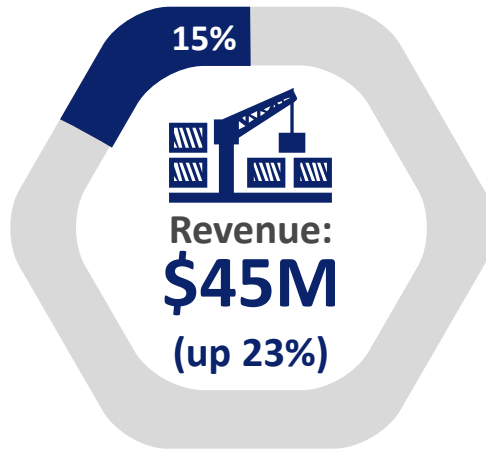
10-Year dividend history

Committed to returning value to our shareholders

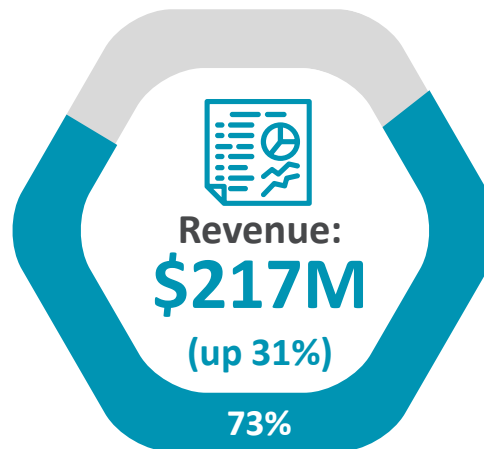


3Q FY2020 Performance

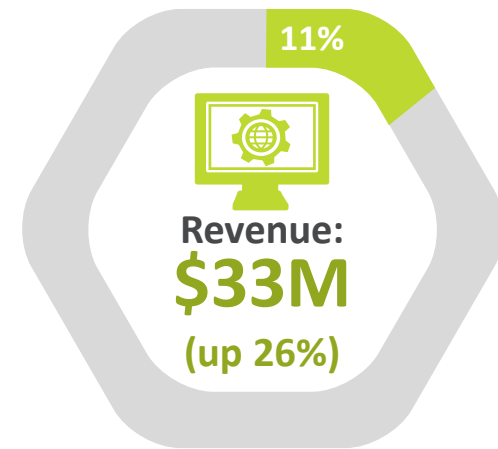
Fixed Income, Currencies & Commodities (FICC)



Equities



Data, Connectivity & Indices (DCI)



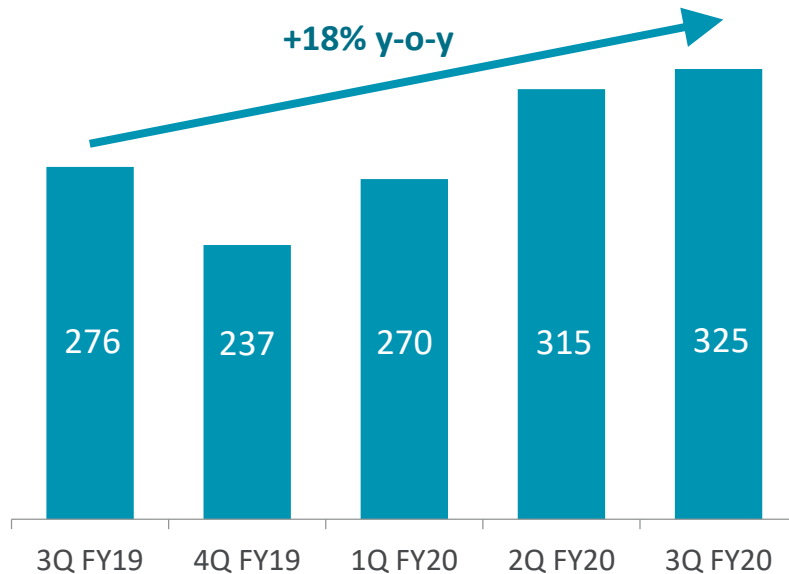
- Uncertainty surrounding the impact from COVID-19 led to higher trading activity on our markets
- SGX's multi-asset solution allowed investors to manage the risks of their Asian equities, currencies, and commodities portfolios
- Our international expansion led to higher T+1 session activity, contributing 20% to total derivatives volumes

FICC – Fixed Income

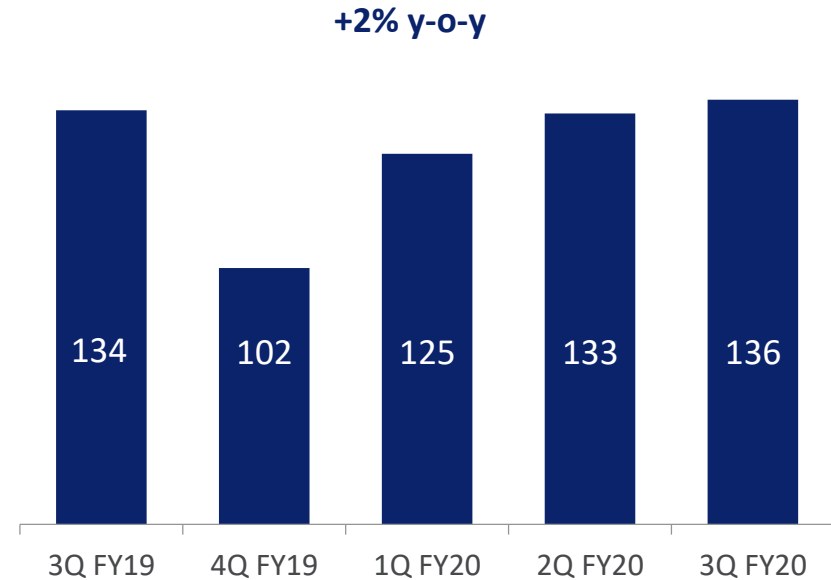
FICC
\$45M ↑ 23% y-o-y

- Number of new bond listings at 325, up 18%
- Total bond amounts issued at \$136B, up 2%
- Attracted bond issuers from Greater China, India and Japan

No. of New Bond listings



Total Bonds Amount Issued (\$B)



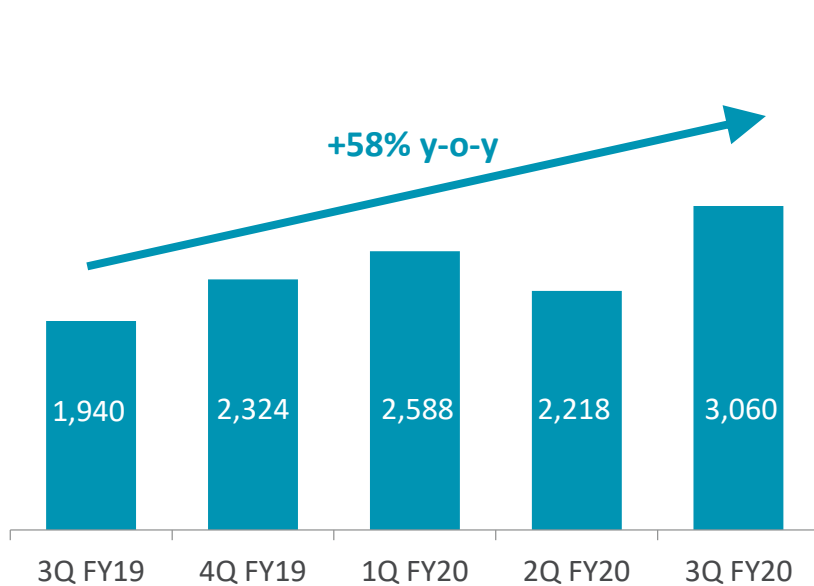
Note: All figures in \$ millions unless otherwise stated and may be subject to rounding

FICC – Currencies

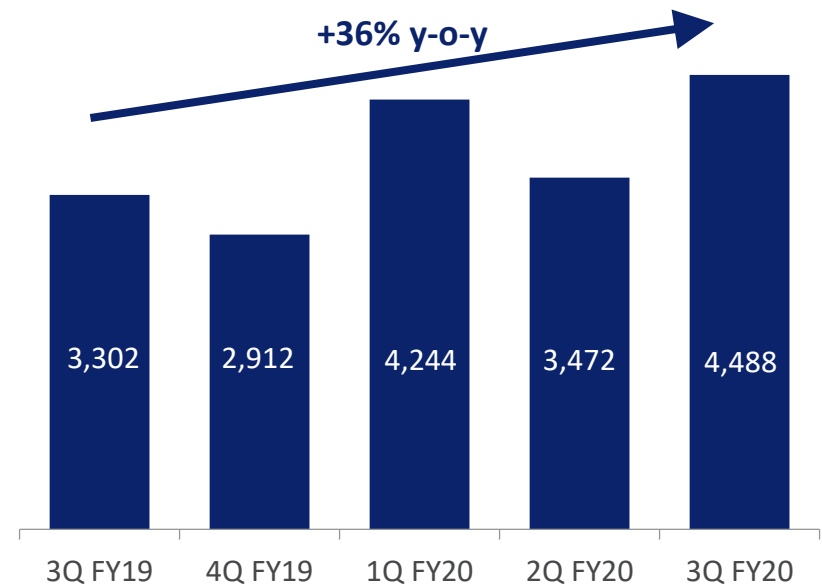
FICC
\$45M ↑ 23% y-o-y

- Currencies volume up 45% to 7.8M contracts
- Overnight T+1 volume increased 6%, contributing to ~28% of total currency volumes
- Quarter-end aggregate open interest at US\$7 billion, up 16% y-o-y

USD/ CNH Volume ('000 contracts)



INR/ USD Volume ('000 contracts)



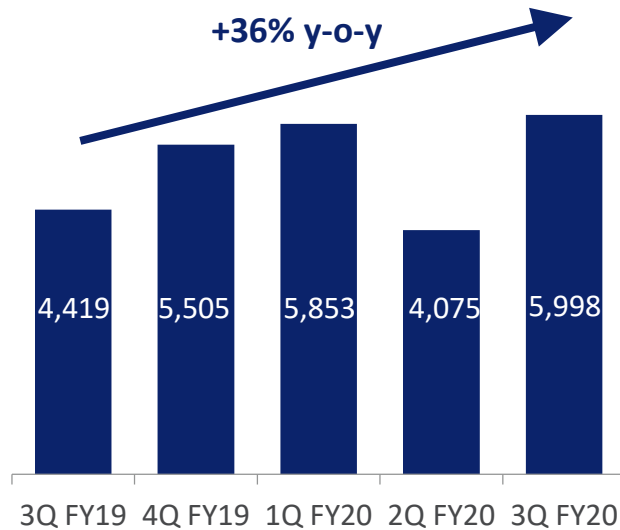
Note: All figures in \$ millions unless otherwise stated and may be subject to rounding

FICC – Commodities

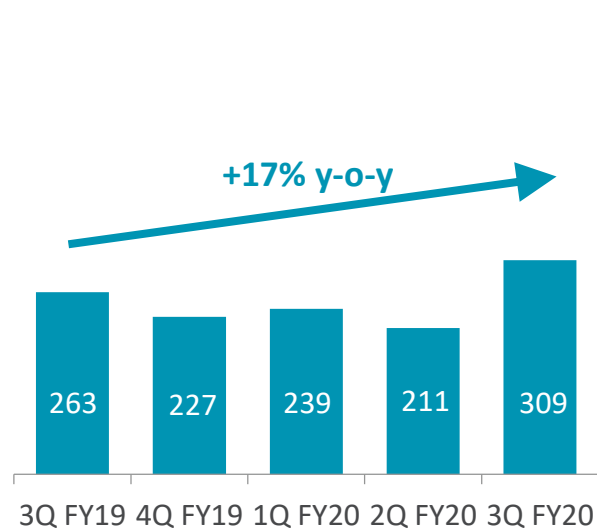
FICC
\$45M ↑ 23% y-o-y

- Iron ore volumes up 36% y-o-y to 6.0M contracts
- Established global benchmark with over 98% market share
- Growing liquidity through greater financialisation

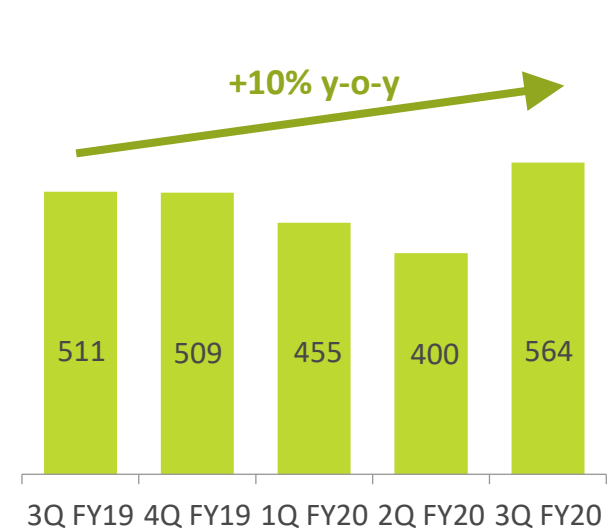
Iron Ore Derivatives Volume
(‘000 contracts)



Freight Derivatives Volume
(‘000 contracts)



Rubber Futures Volume
(‘000 contracts)



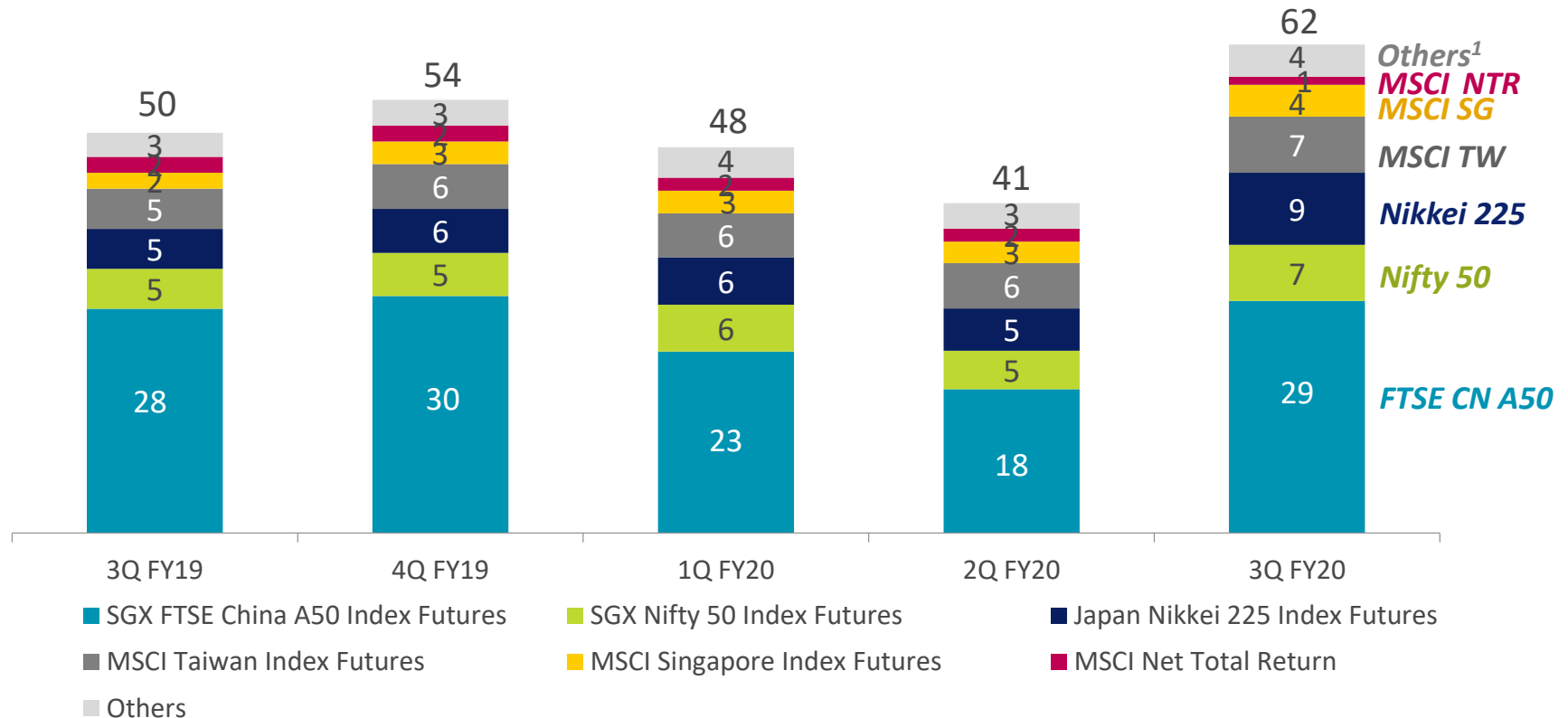
Note: All figures in \$ millions unless otherwise stated and may be subject to rounding

Equities – Equity Derivatives

Equities
\$217M, up 31% y-o-y

- Higher trading volumes in equity derivatives, up 24% y-o-y
- Overnight T+1 volumes contribute ~20% of total equity derivatives volumes

Equity Derivatives Volume (M contracts)

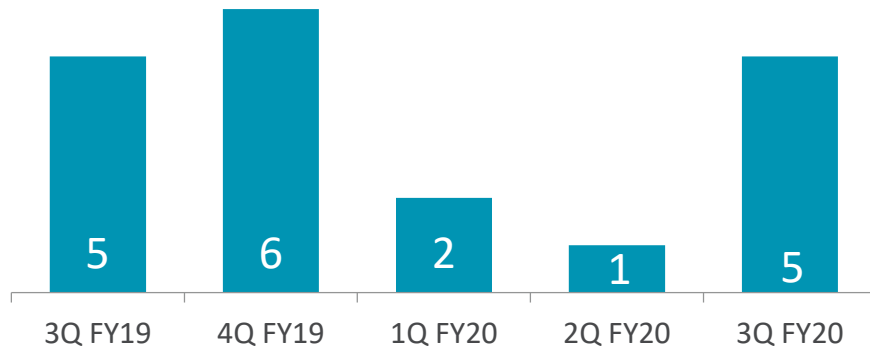


Equities – Cash Equities Listings

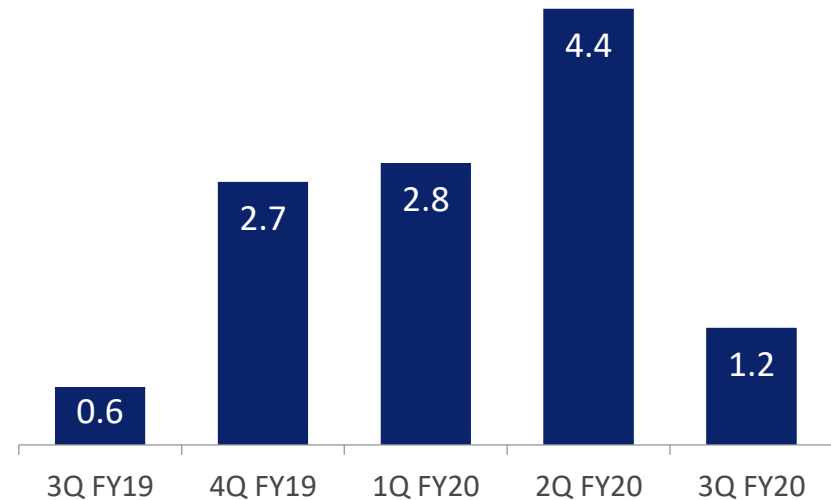
Equities
\$217M, up 31% y-o-y

- Listing revenue at \$9M, down 4%
- IPO funds raised ~\$700M in 3Q
- Total funds raised doubled to \$1.2B

No. of New Equity Listings



Total Equity Funds Raised (\$B)



Note: All figures in \$ millions unless otherwise stated and may be subject to rounding

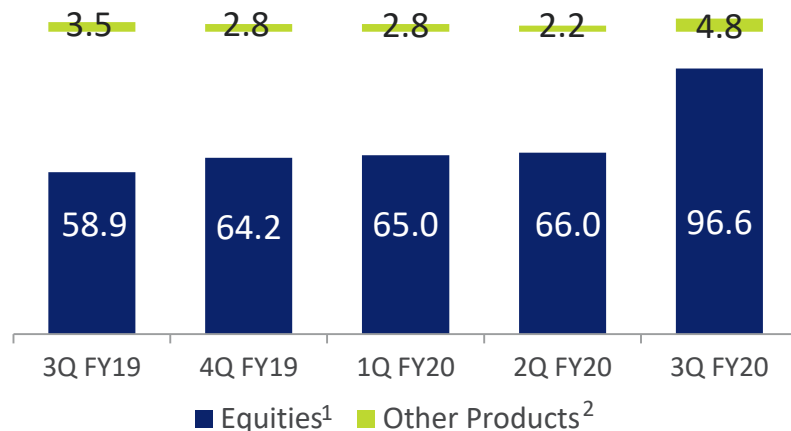
Equities – Cash Equities Trading & Clearing

Equities
\$217M, up 31% y-o-y

- Total traded value increased by 63% to \$101.4B
- Average Clearing Fee for Securities increased from 2.67bps to 2.71bps

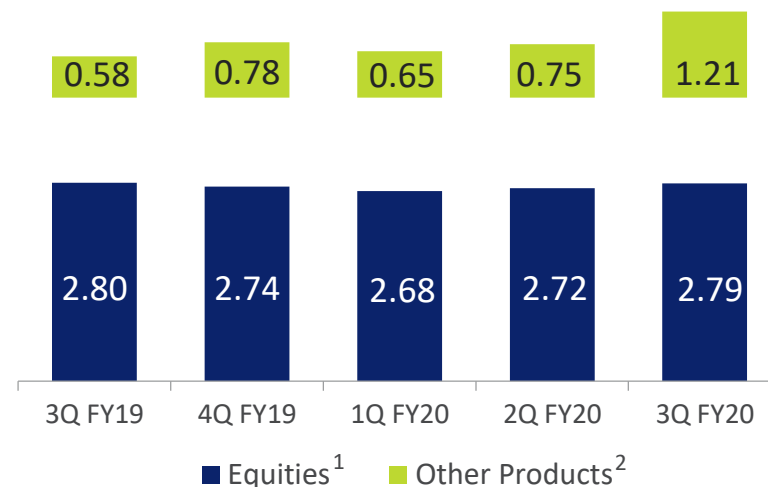
Securities Total Value Traded (\$B)

Total Traded Value	62.3	67.0	67.8	68.2	101.4



Average Clearing Fee by Products (bps)

Average yield	2.67	2.66	2.60	2.66	2.71



Note: All figures in \$ millions unless otherwise stated and may be subject to rounding

¹ Equities include ordinary shares, real-estate investment trusts and business trusts

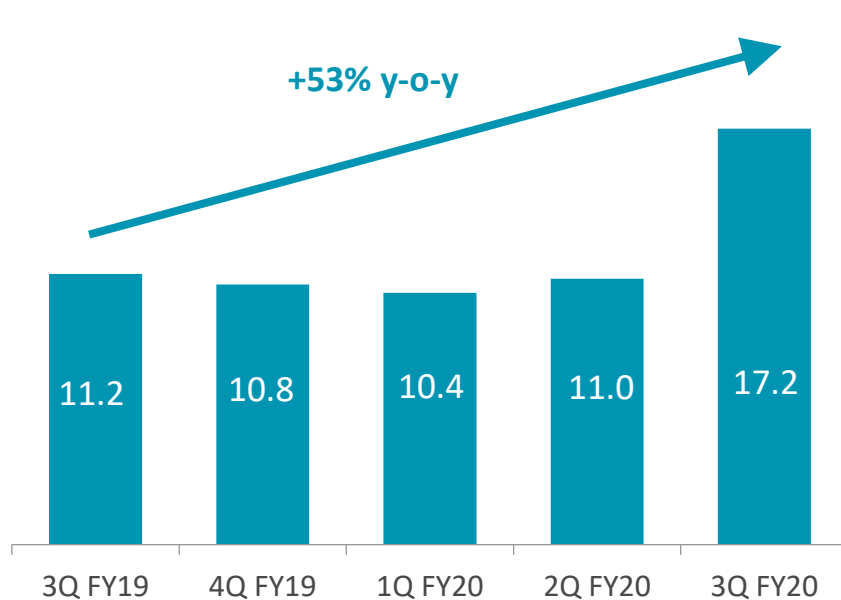
² Other products include structured warrants, exchange-traded funds, daily leverage certificates, debt securities, and American depository receipts

Data, Connectivity & Indices

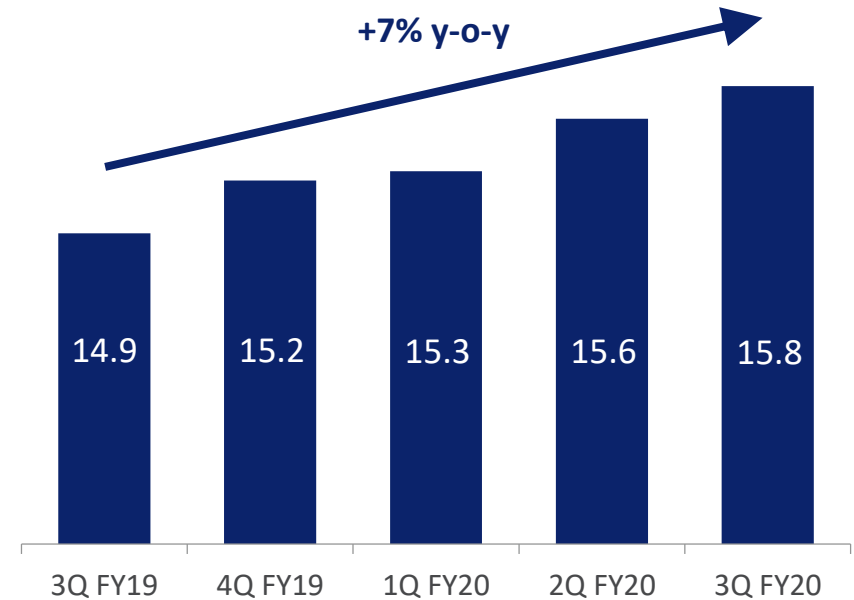
Data, Connectivity & Indices
\$33M ↑ 26% y-o-y

- Market data and Indices revenue up 53% to \$17M
- Revenue from Scientific Beta since February, of \$6M
- Connectivity revenue up 7% to \$16M from higher derivatives connectivity and continued growth of our colocation services business

Market Data and Indices Revenue (\$M)



Connectivity Revenue (\$M)



Note: All figures in \$ millions unless otherwise stated and may be subject to rounding

Thank You

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