

# Morgan Stanley Virtual ASEAN Best Conference – Singapore Exchange Limited

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30 June 2020

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

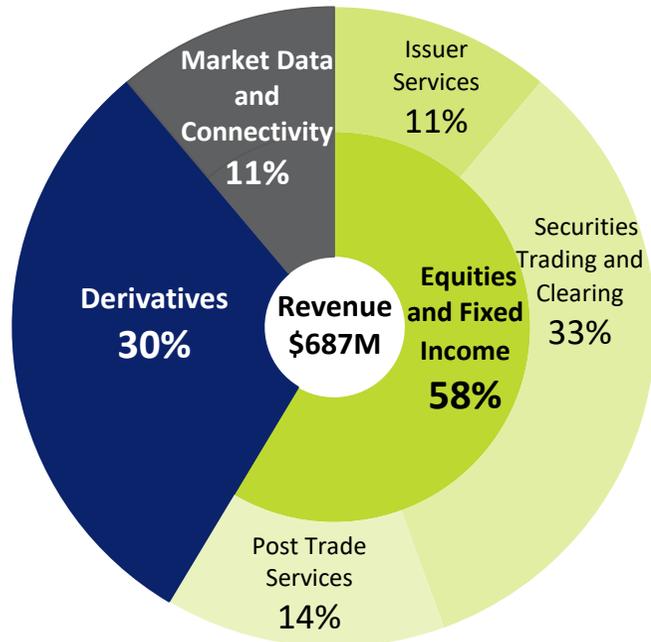
## Key roles of our International offices

- 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.

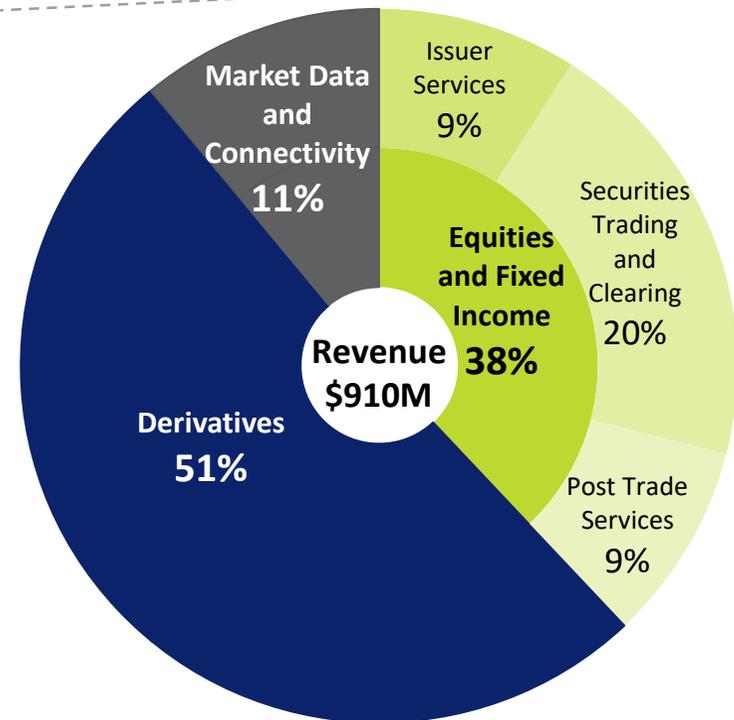
# Successfully achieved growth in revenues

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**

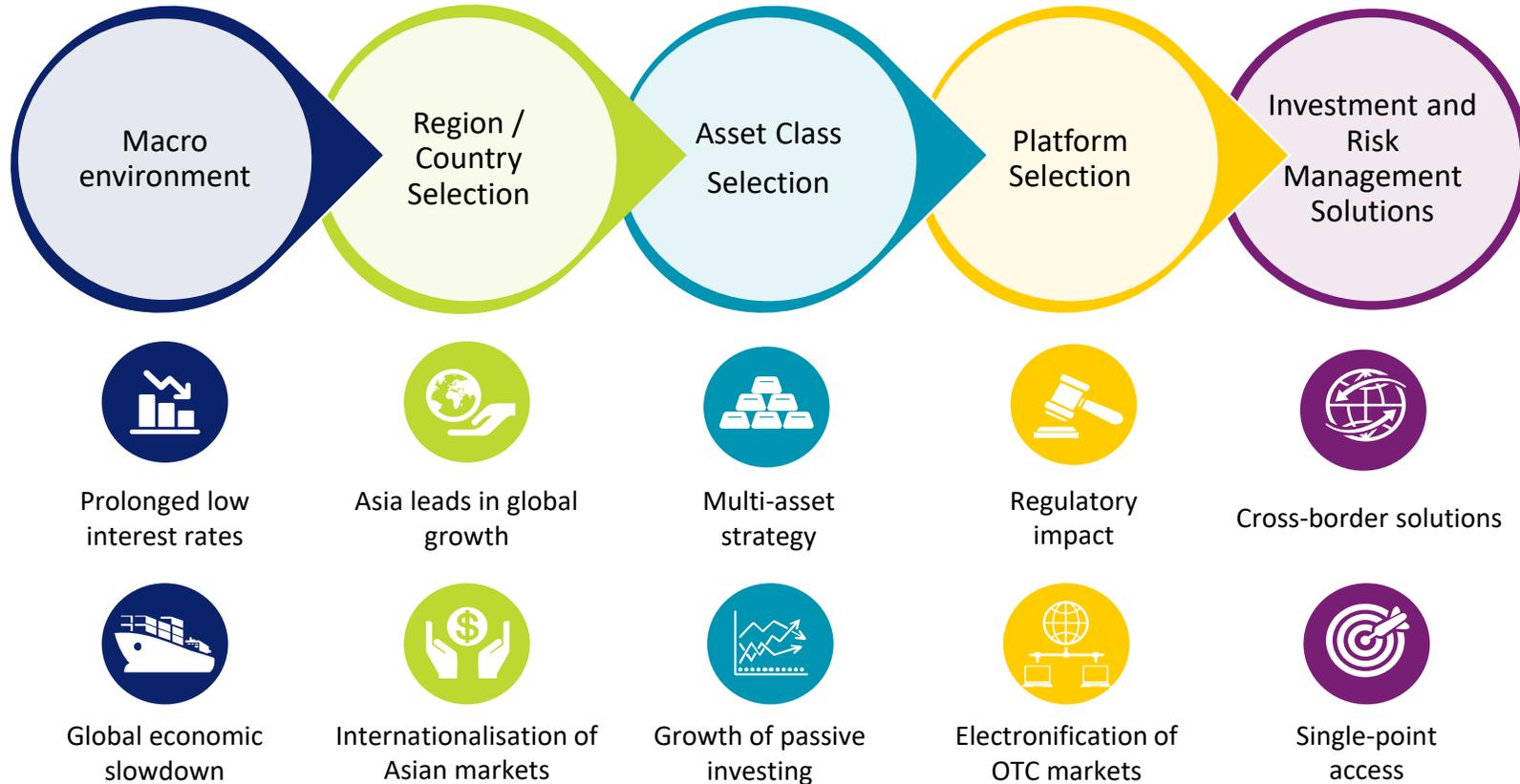


**Net Profit: \$320 million**

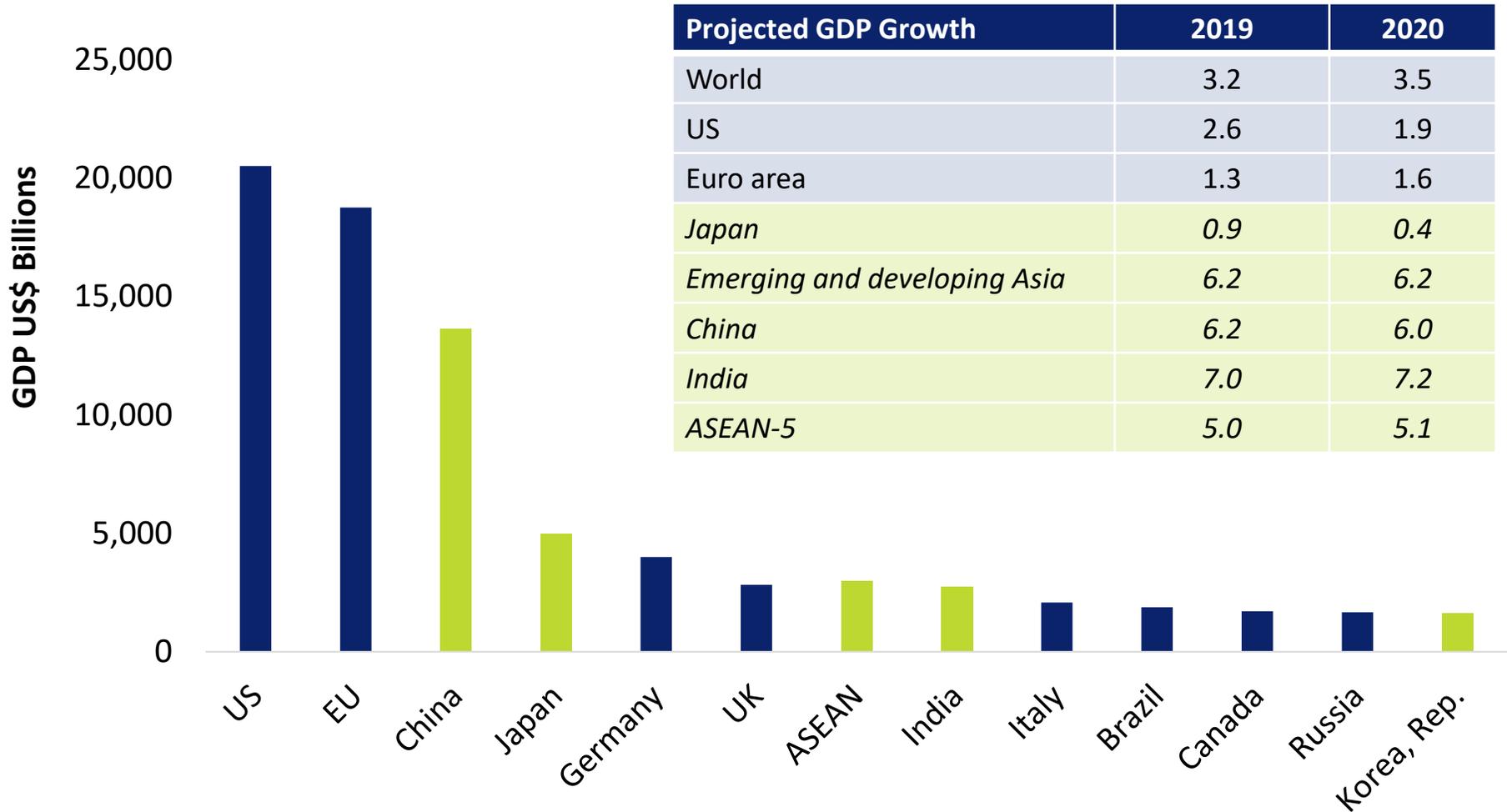
**Net Profit: \$391 million**

Note: Numbers may be subject to rounding  
Source: SGX

# Macro and investor trends shaping markets today

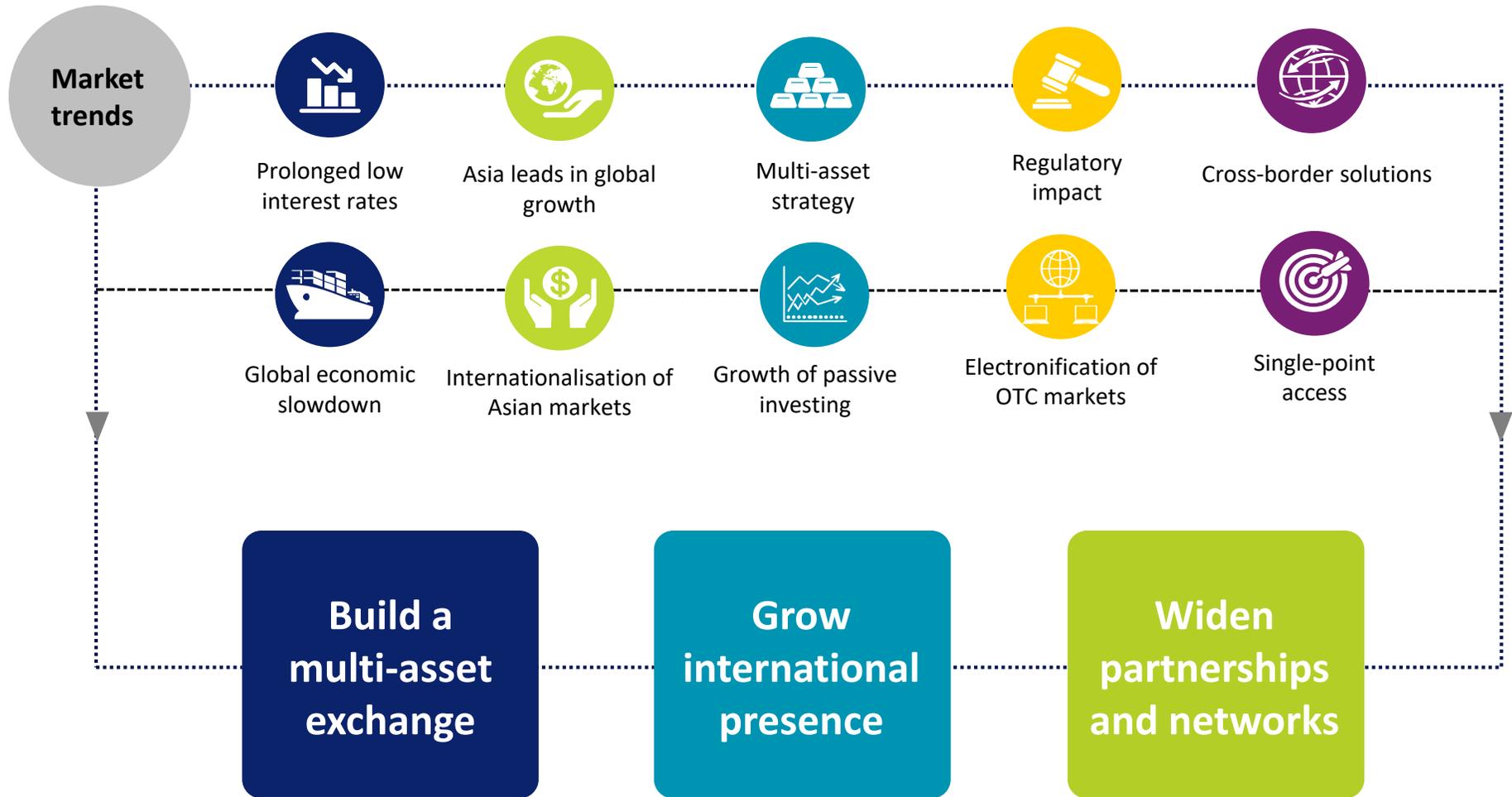


# Investors seek access to Asia



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



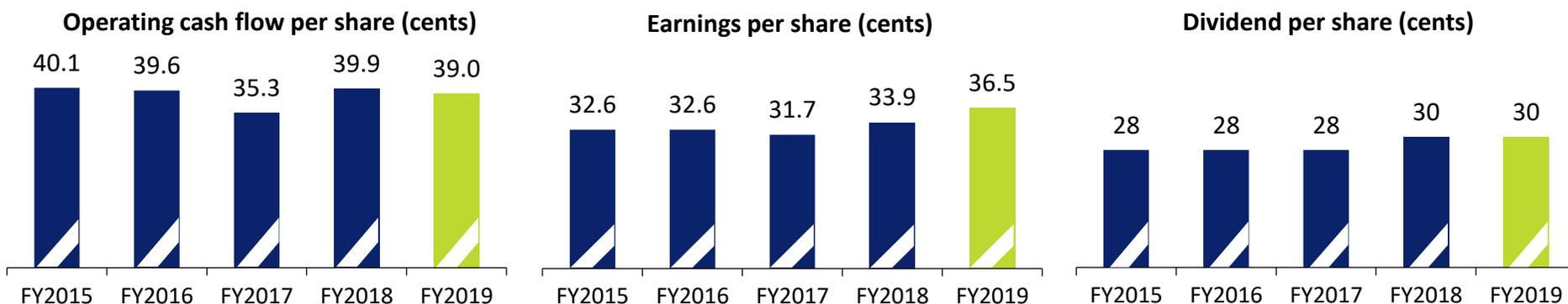
# Our strengths as a multi-asset marketplace



# 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 <sup>1</sup>
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

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

## 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\$6.6 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

## Singapore

- US\$640 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
- >80% market share in USD/CNH and > 60% 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**

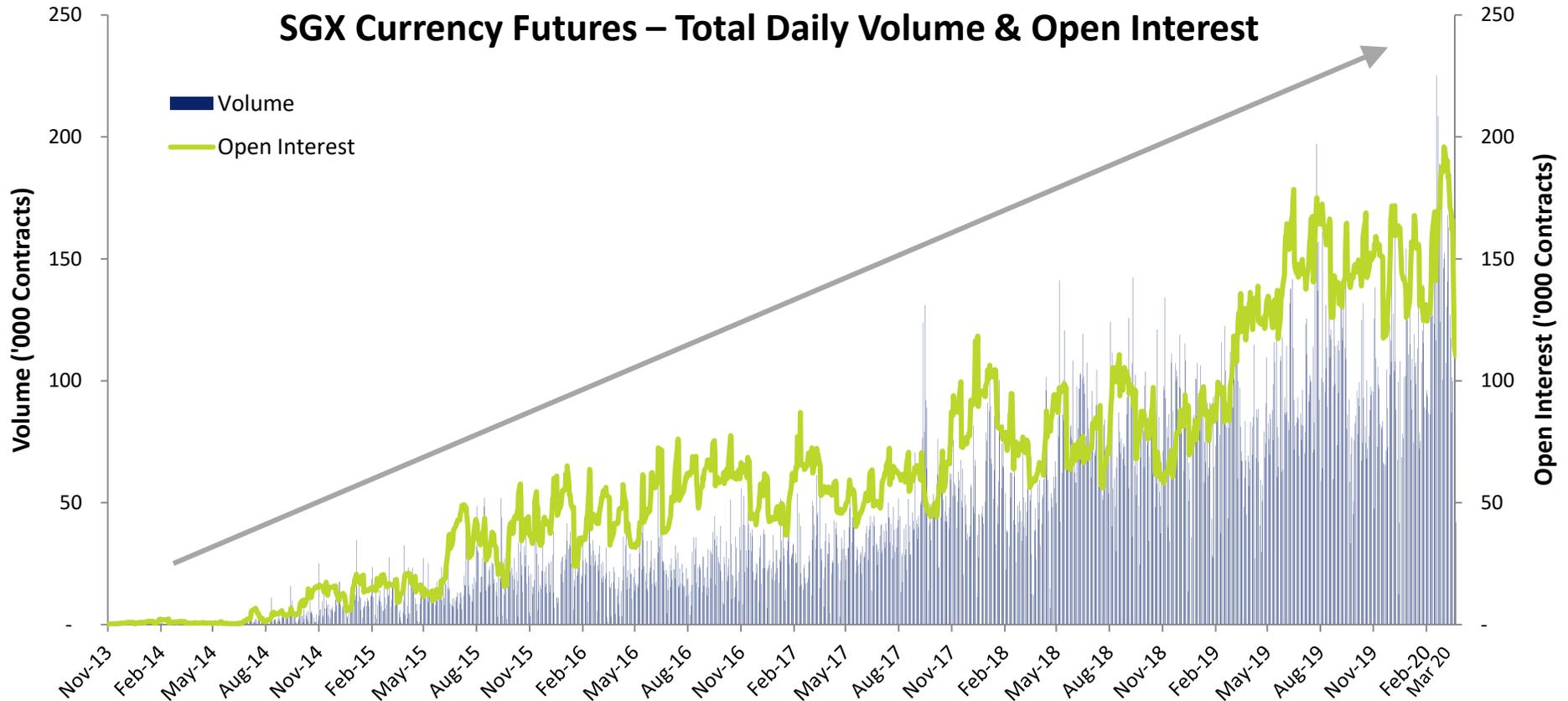
Notional value traded in  
2019  
up 44% y-o-y



Expanding Network

# Currency Futures as a growth driver

144% volume CAGR since November 2013



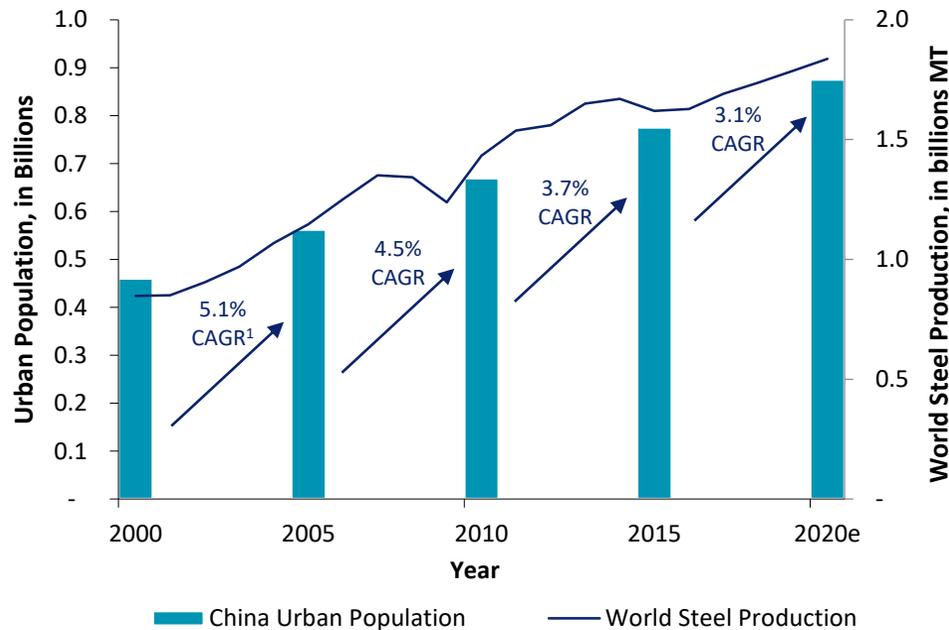
■ Asia's Best FX Exchange & Clearing House – by FX Week (2018 and 2019)

Note: Data as at 31 March 2020

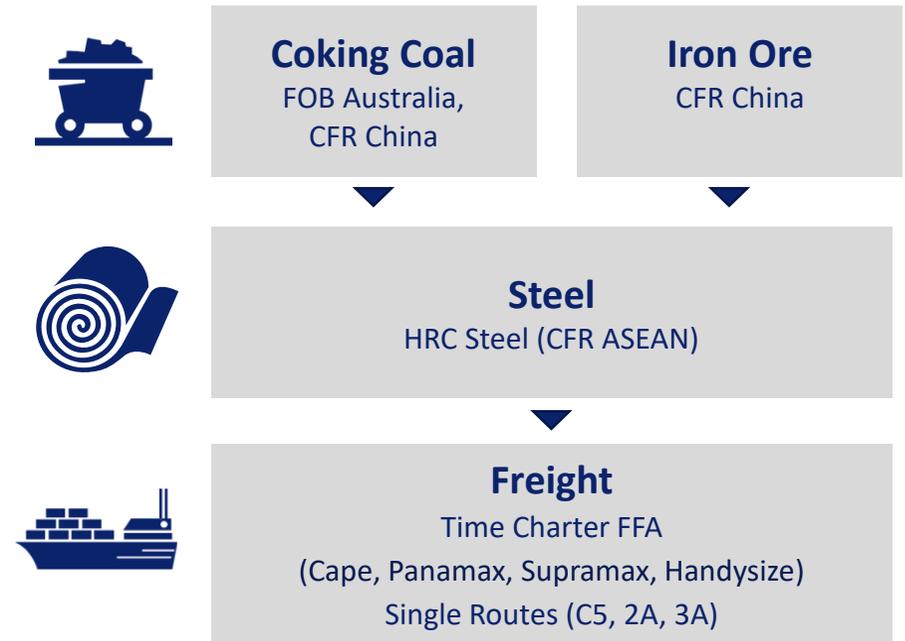
# Extensive Suite Of Commodities Products

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

**Urbanisation and Steel Production**



## Price-Discovery Centre For The Steel Value Chain



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

<sup>1</sup> CAGR in chart relates to growth of China's Urban Population

# The leading offshore Iron Ore risk management hub

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

**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

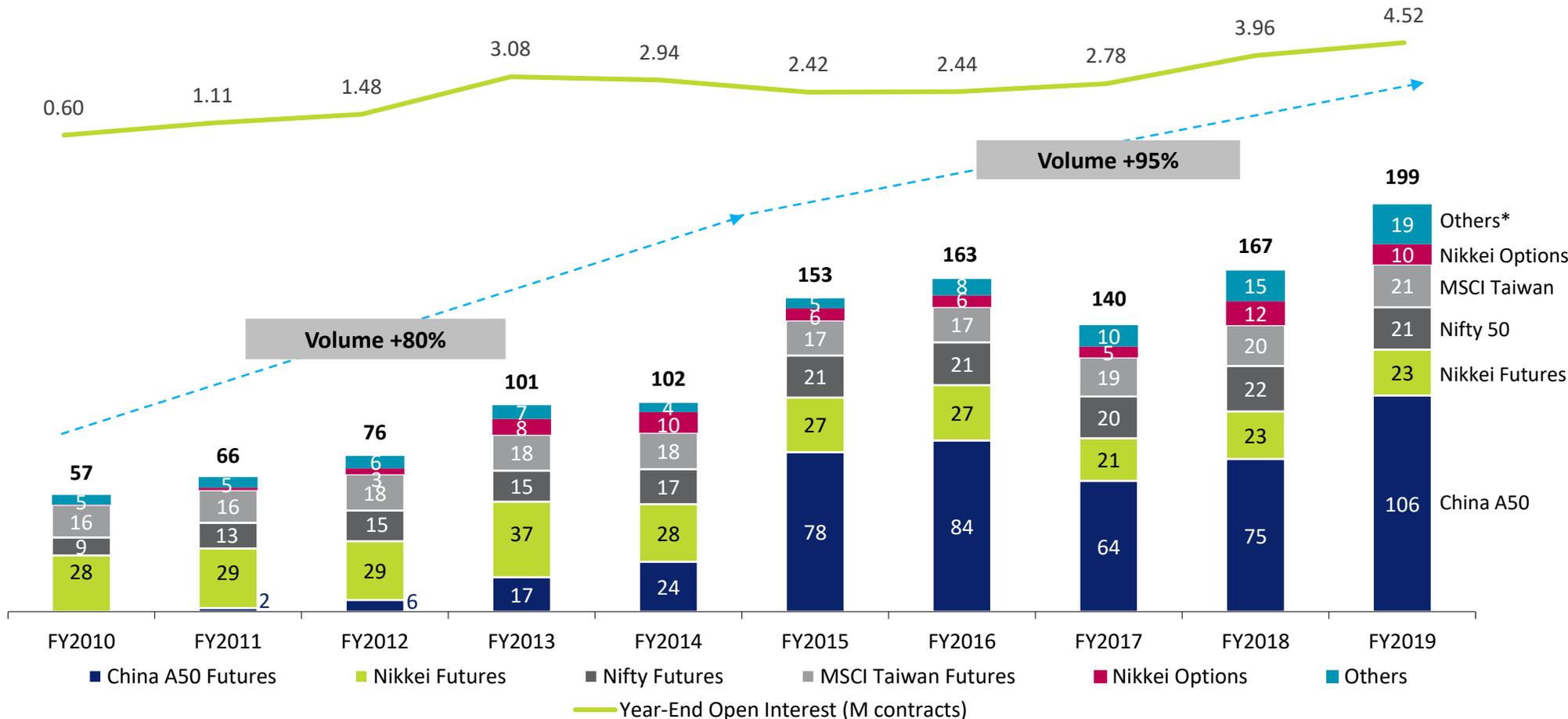
**Potential to grow**

# 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

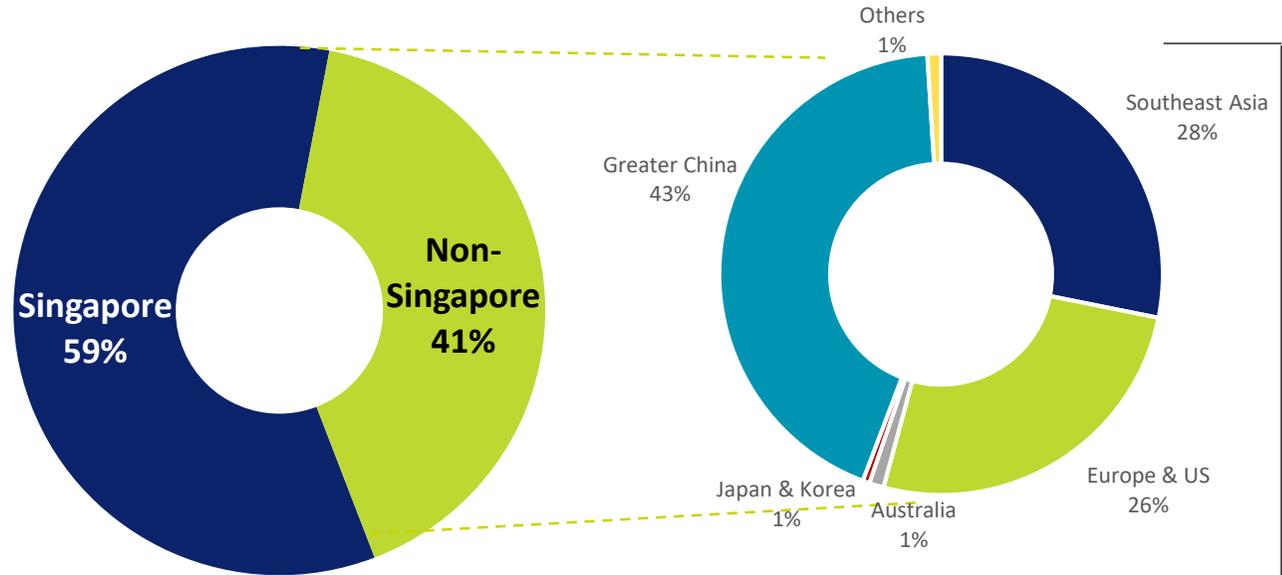
### Volumes and open interest, in millions



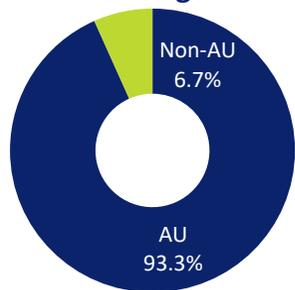
# SGX is the Most International Exchange

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

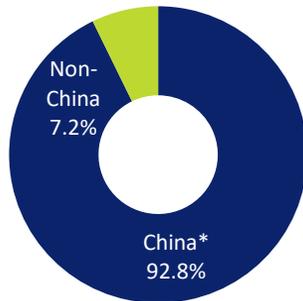
**Singapore Exchange**  
716 Listed Companies  
Market Capitalization  
US\$537 billion



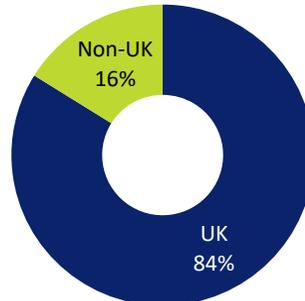
**Australia Securities Exchange**



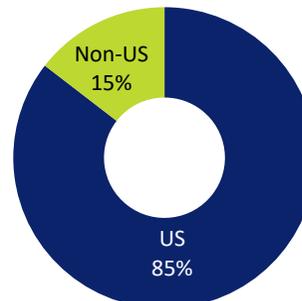
**Hong Kong Stock Exchange**



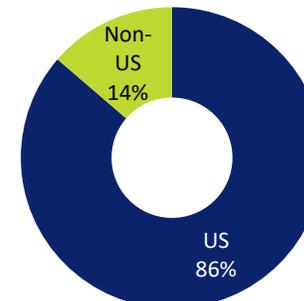
**London Stock Exchange**



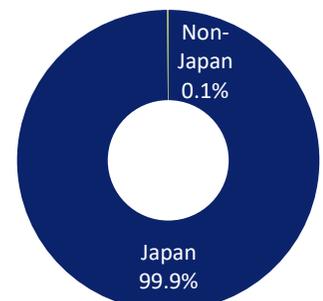
**NASDAQ**



**New York Stock Exchange**



**Tokyo Stock Exchange**



\*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

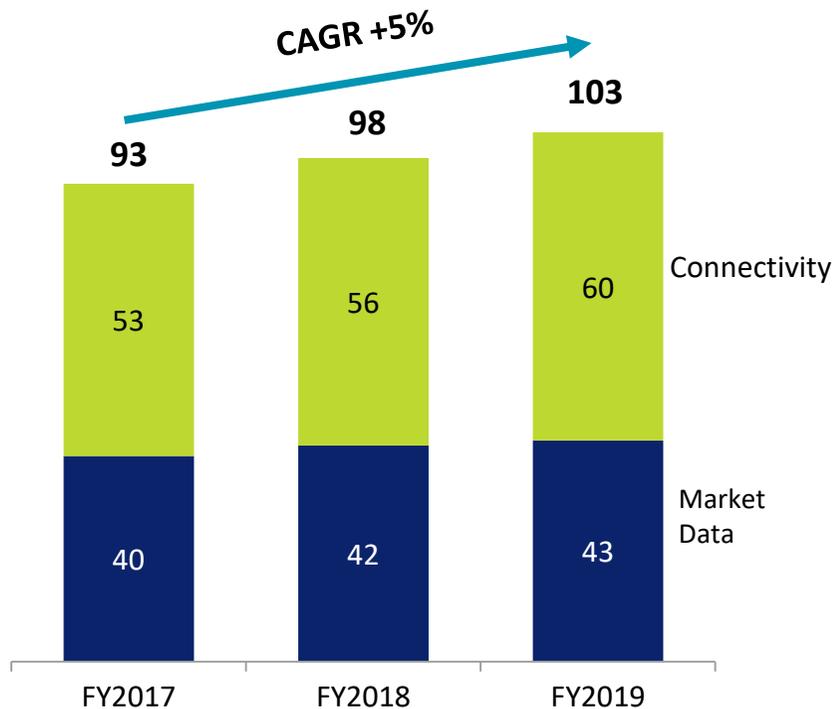
- Asia's broadest range of real estate companies and property trusts covering global real estate assets
- 110 real estate companies and property trusts with market cap of US\$101 billion

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

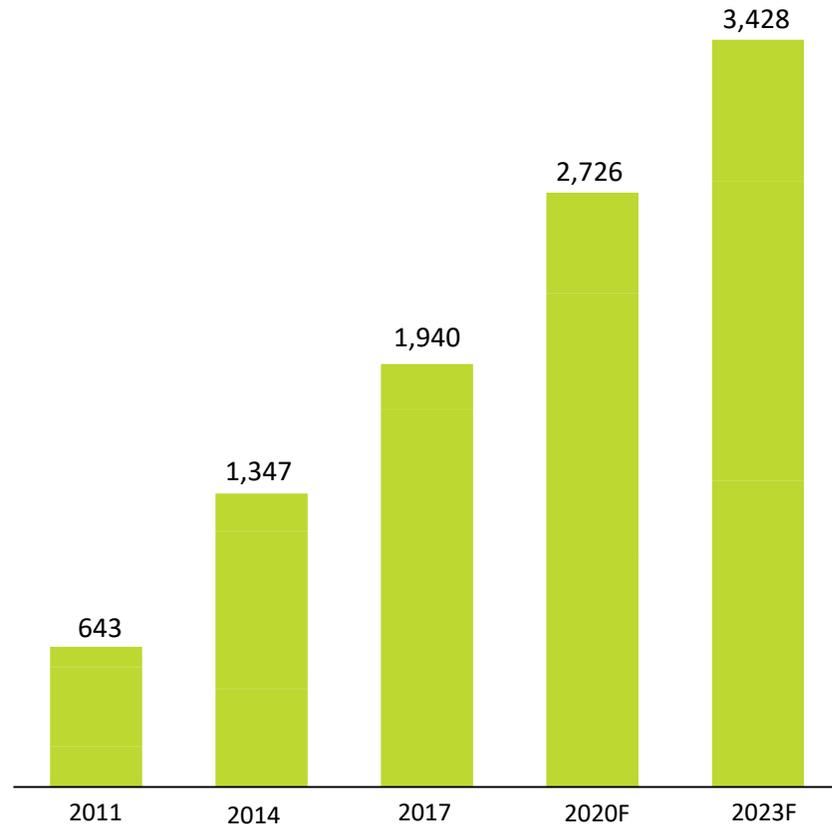
- **SGX iEdge Domestic Indices**
  - SGX Thematic indices e.g. S-REIT 20
  - SGX Sustainability index
- **SGX iEdge Regional Indices**
  - SGX Developed Asia Quality Dividend Index
  - SGX APAC Dividend REIT
- **Smart Beta Indices**
  - Developed by Scientific Beta

# 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<sup>(1)</sup>, and there is further room for growth.



Global Factor & Smart Beta AUM (USD billion)<sup>(1)</sup>



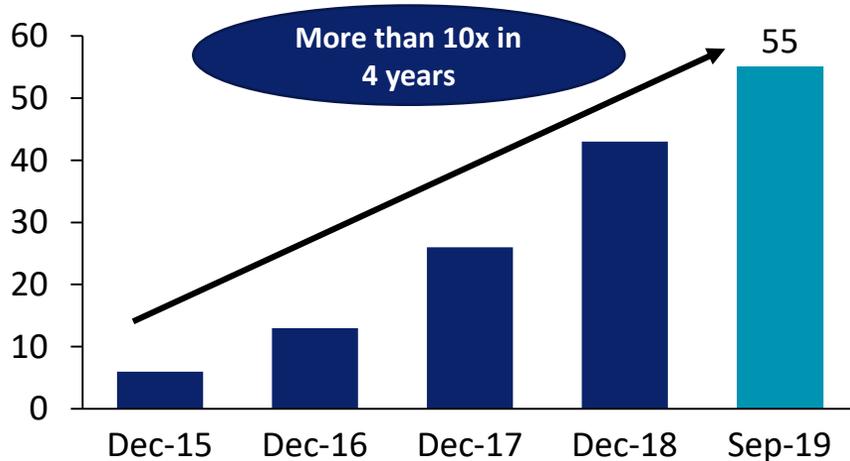
# Recent acquisition of Scientific Beta will broaden SGX's index offering through the fast-growing 'Smart Beta' index space



- 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)**



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# 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

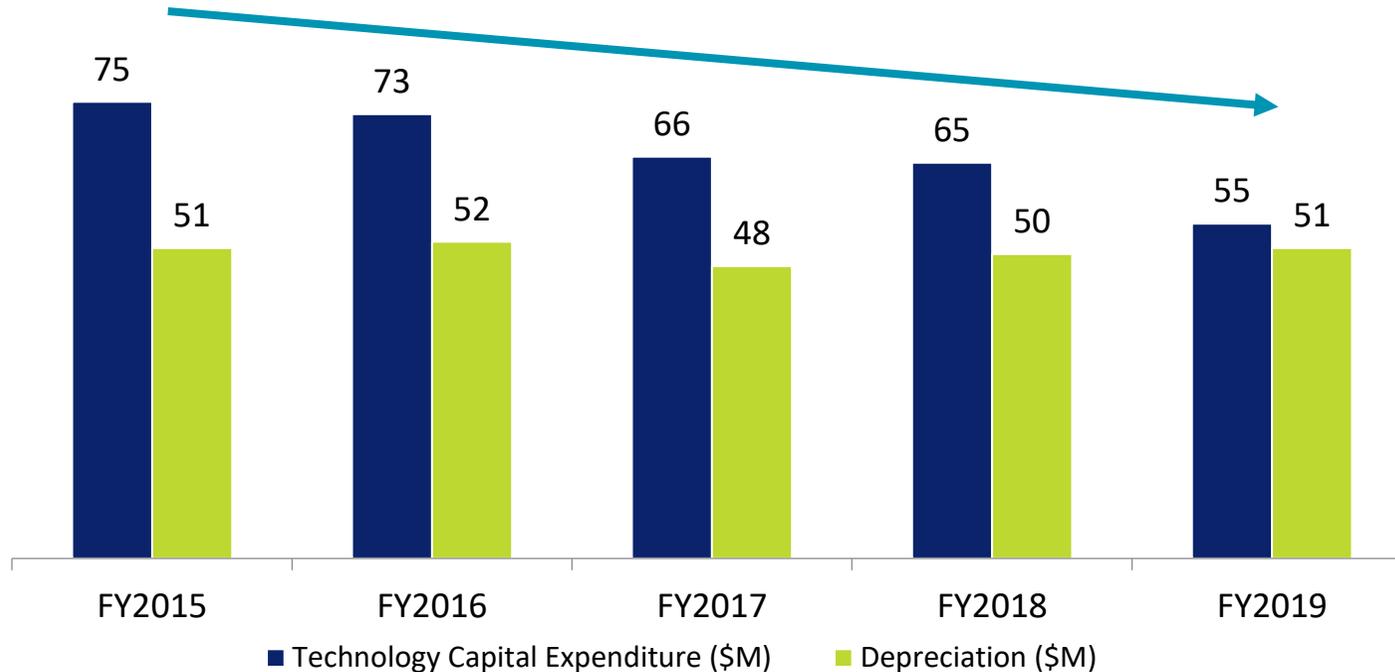
#### Indices



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

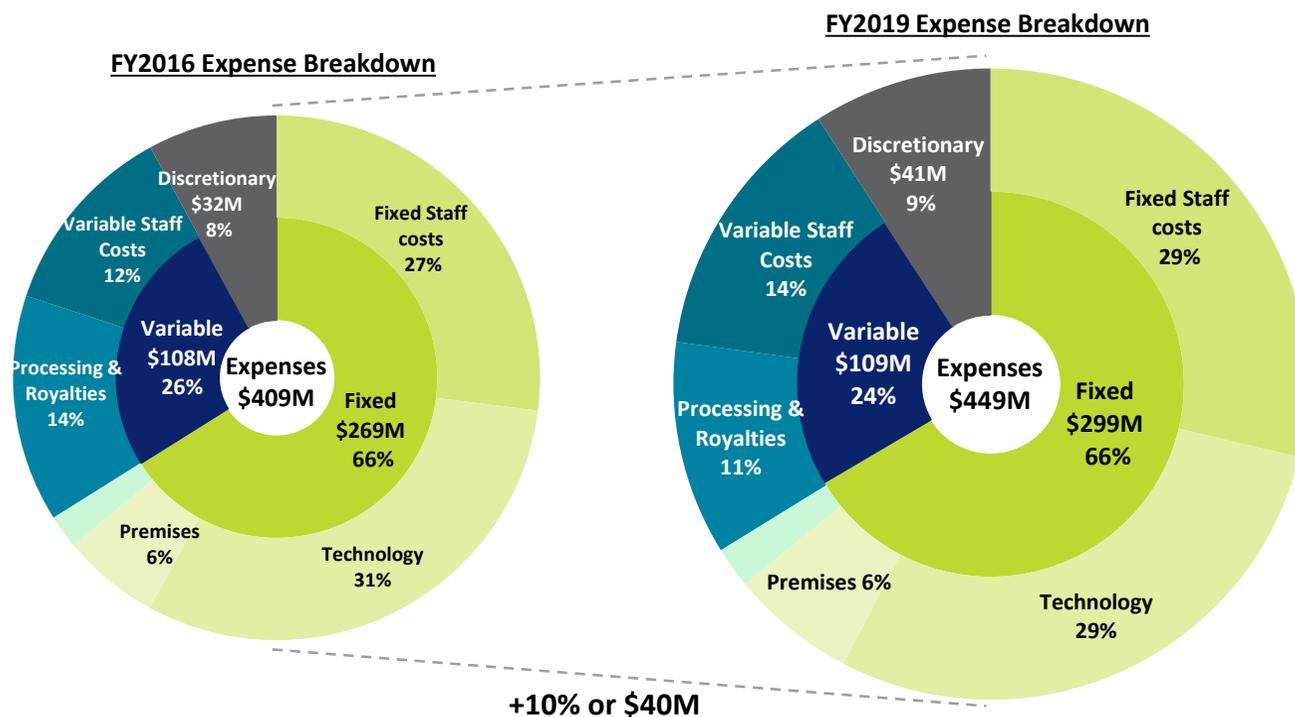
- FY2019 CAPEX of \$55M, below guidance of \$60M to \$65M
- Declining annual CAPEX – FY2020 CAPEX is expected to be between \$45M to \$50M



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

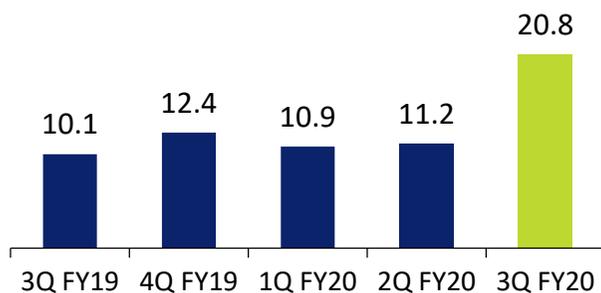
Note: Numbers may be subject to rounding.

# Key Financial Indicators (Recent quarters)

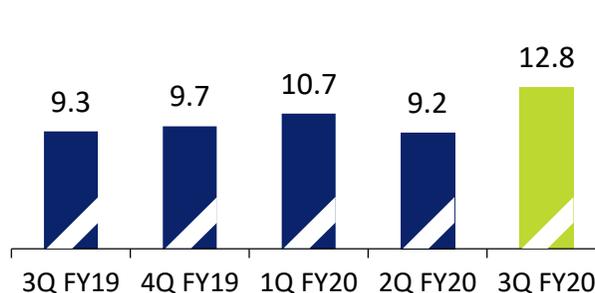
- High operating profit margin, EBITDA margin, and ROE of 55%, 63%, and 44% respectively
- Quarterly dividend per share of 7.5 cents per share
- From FY2021, SGX will report half-yearly financial results; Dividends will continue to be paid quarterly

	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% <sup>1</sup>	61% <sup>1</sup>	63% <sup>1</sup>
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%

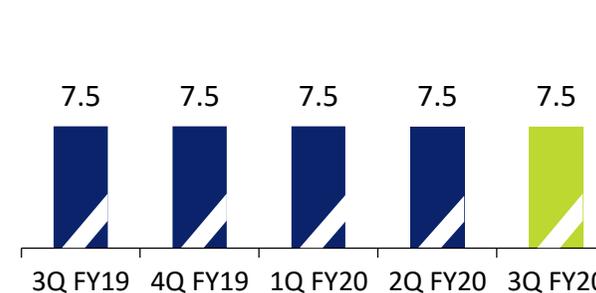
Operating cash flow per share (cents)



Earnings per share (cents)



Dividend per share (cents)



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

# Appendix

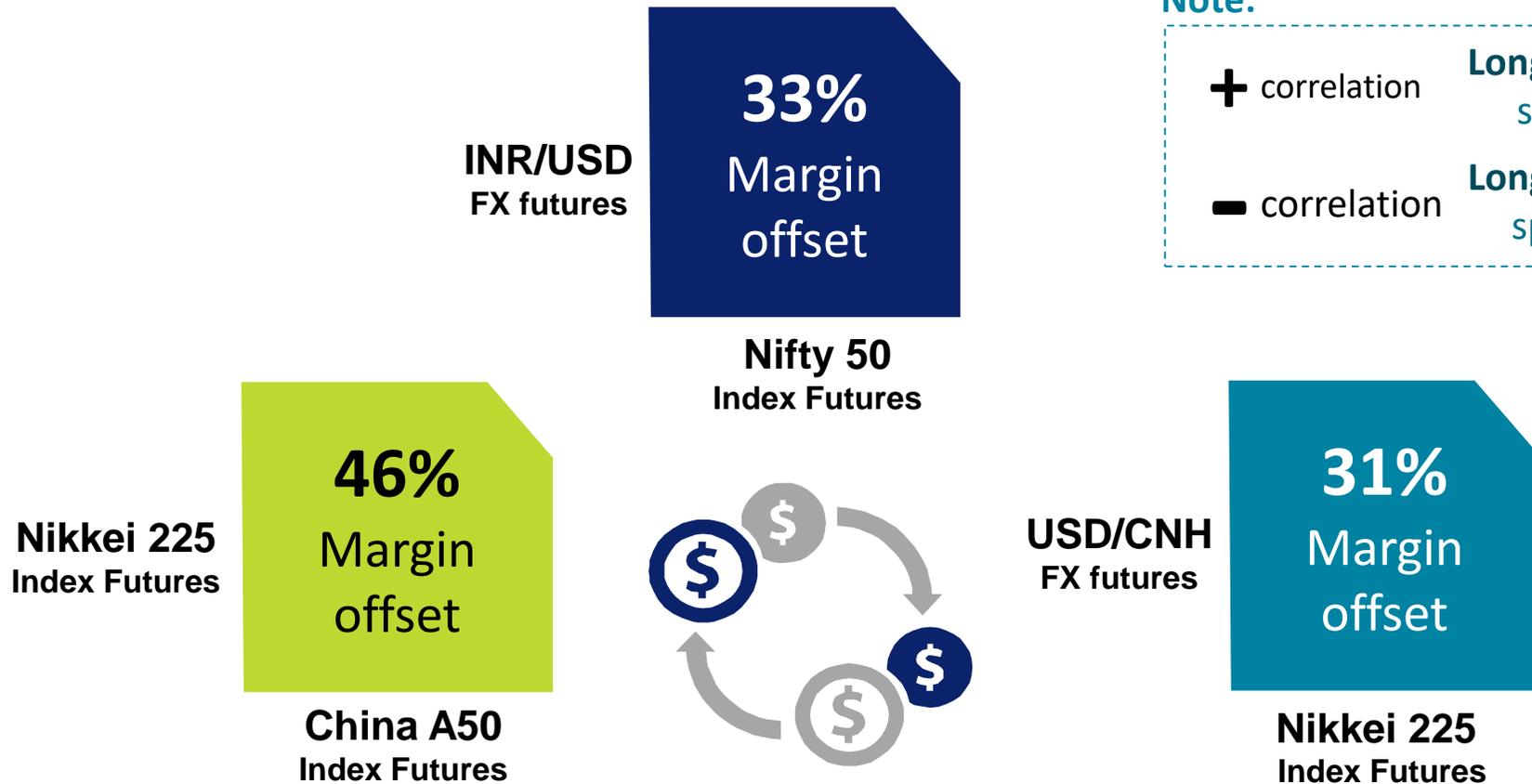
- Cross margining example
- Shareholder profile
- Dividend history
- 3Q FY2020 Performance

# Cross margining efficiencies

Correlated products, margin netting efficiencies

Note:

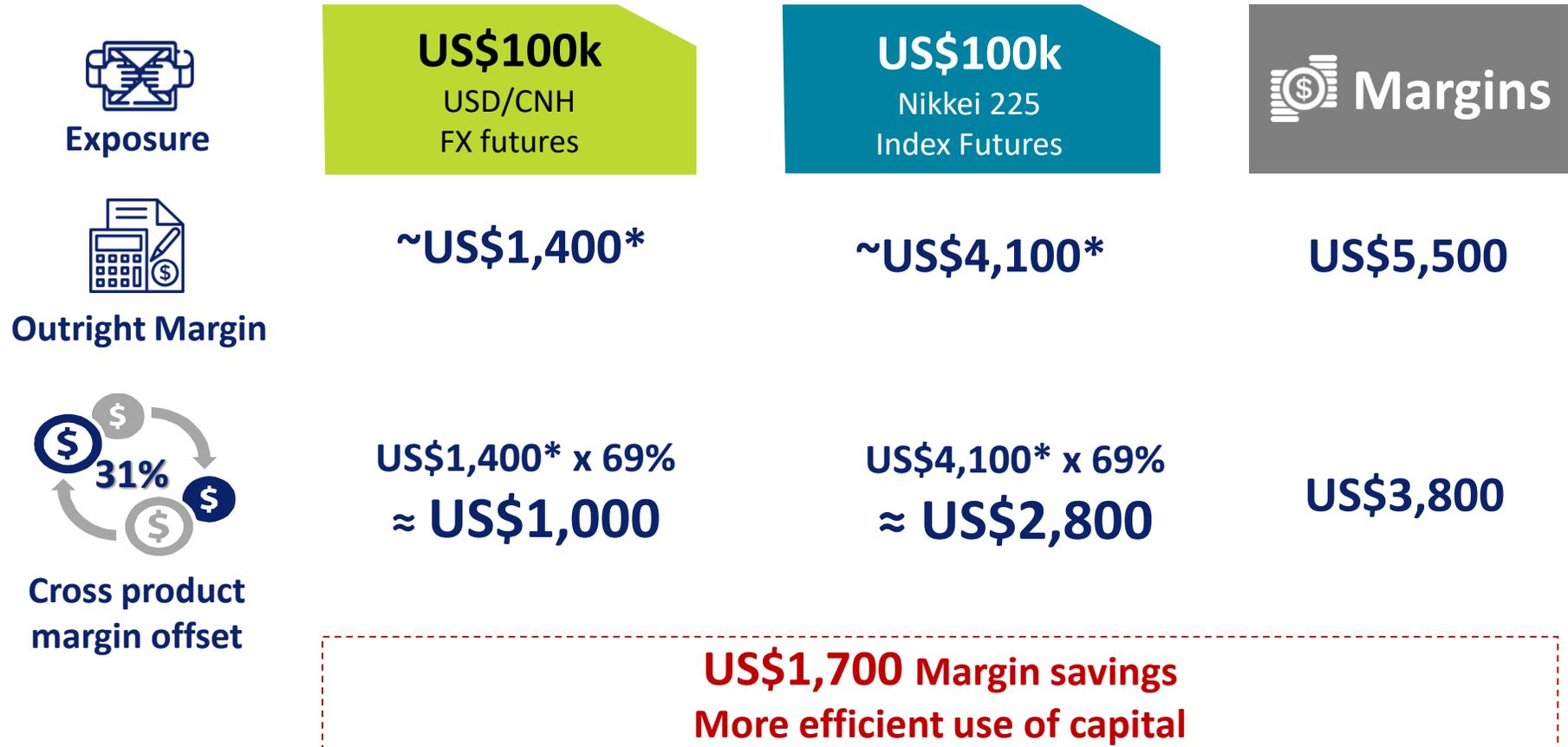
+ correlation Long – Short spread  
- correlation Long – Long spread



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



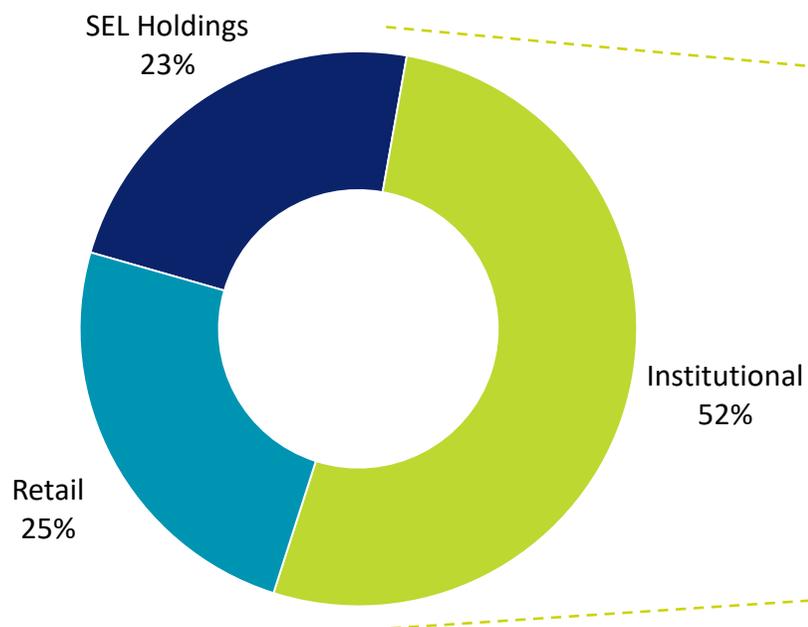
Note: Based on exchange rate as of 3 February 2020

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

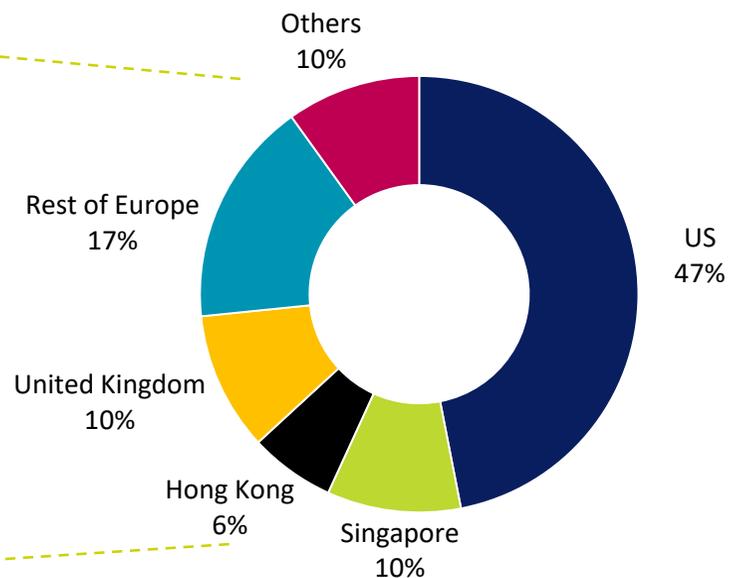
# SGX shareholders' profile

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

**SGX Shareholder Composition<sup>1</sup>**



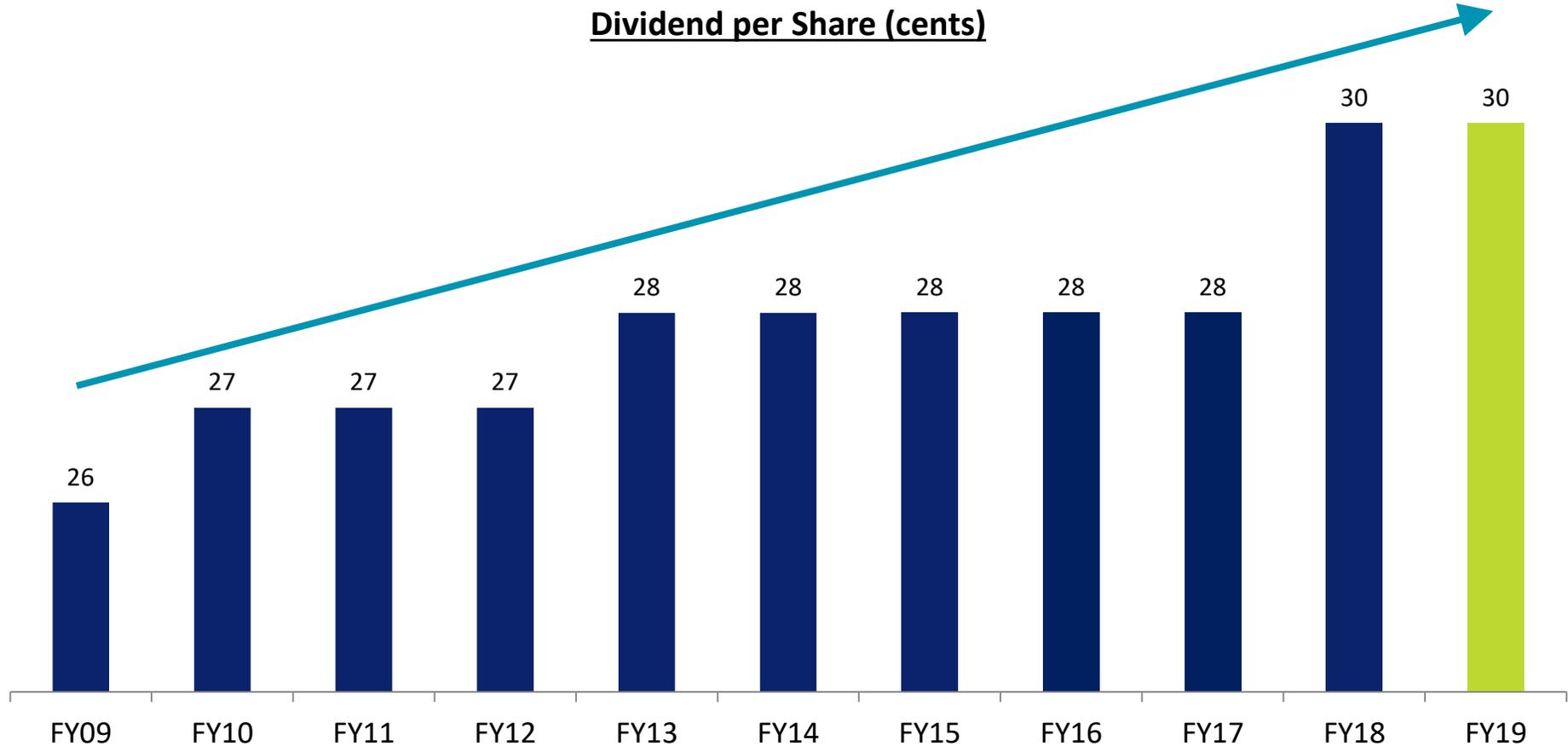
**Institutional Shareholding by Geography**



Note: Numbers may be subject to rounding.  
<sup>1</sup>As at 31 March 2020

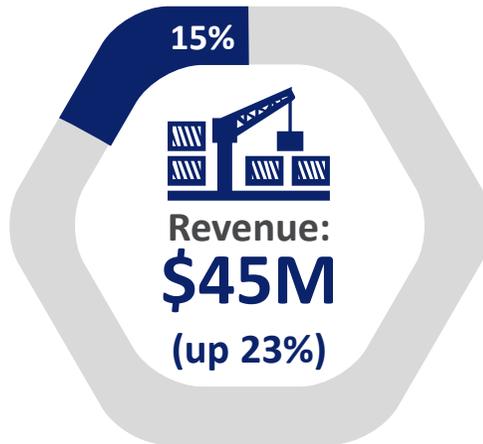
# 10-Year dividend history

Committed to returning value to our shareholders

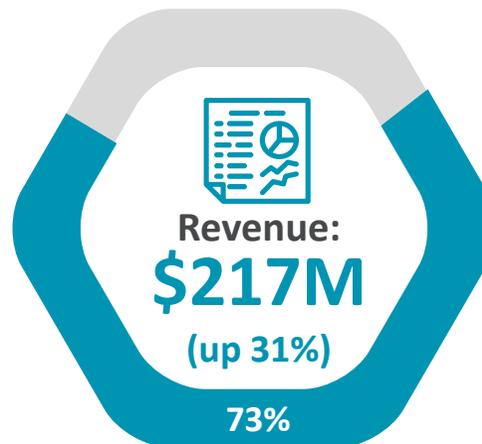


# 3Q FY2020 Performance

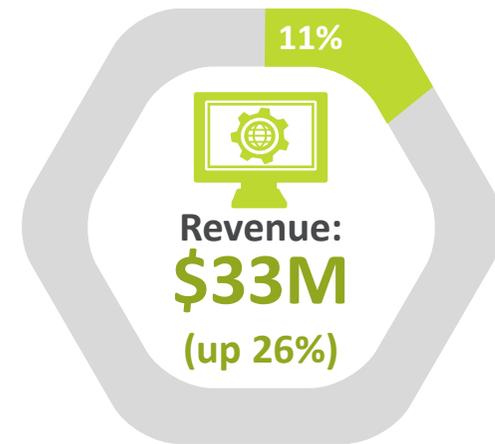
## Fixed Income, Currencies & Commodities (FICC)



## Equities



## Data, Connectivity & Indices (DCI)



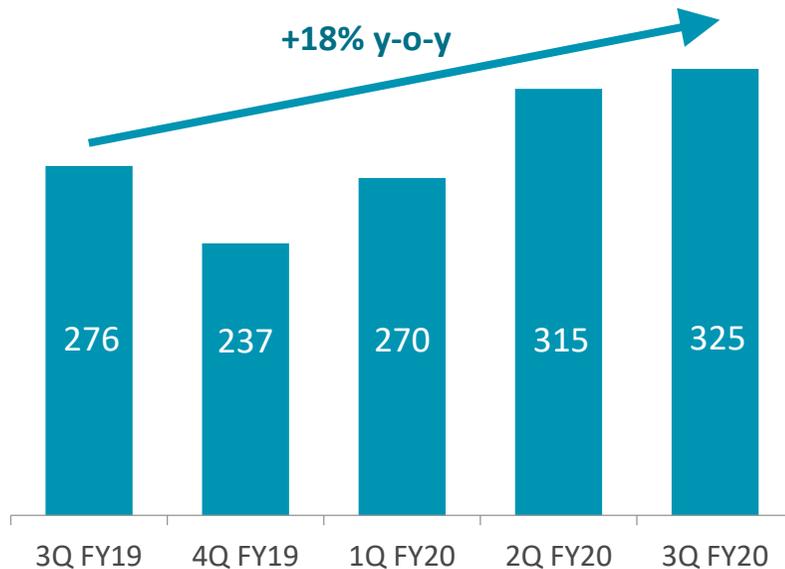
- Uncertainty surrounding the impact from COVID-19 led to higher trading activity on our markets
- SGX's multi-asset solution allowed investors to manage the risks of their Asian equities, currencies, and commodities portfolios
- Our international expansion led to higher T+1 session activity, contributing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

# FICC – Fixed Income

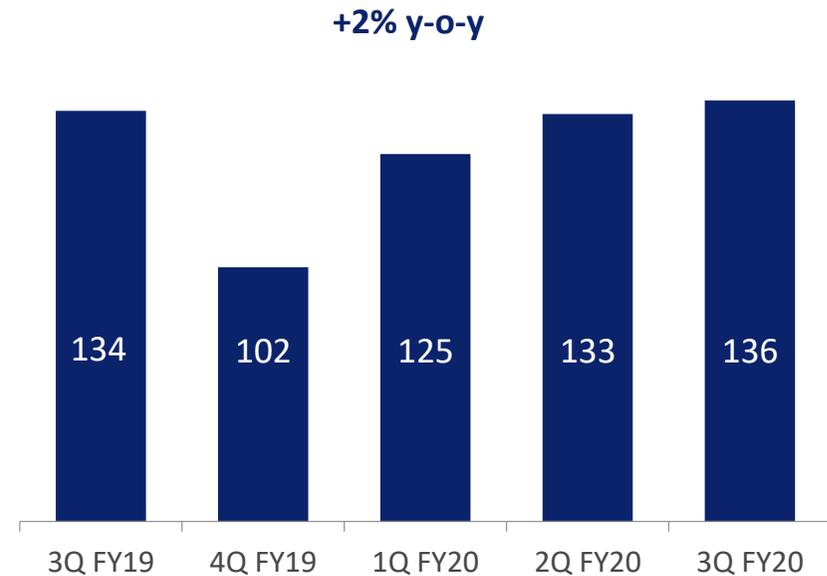
FICC  
\$45M ↑ 23% y-o-y

- 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)



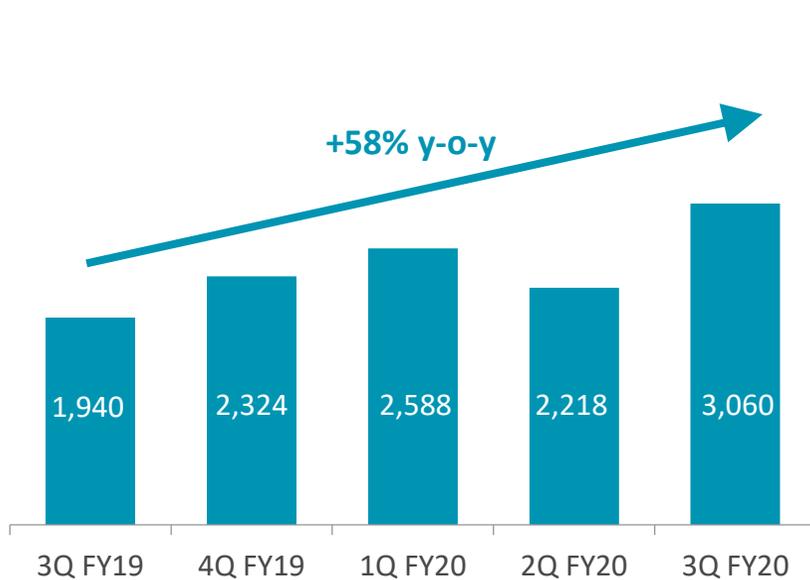
Note: All figures in \$ millions unless otherwise stated and may be subject to rounding

# FICC – Currencies

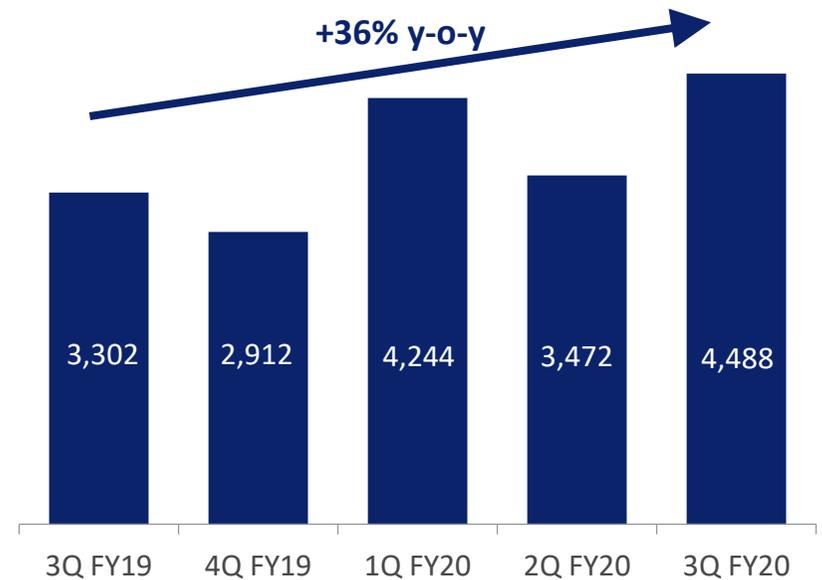
**FICC**  
**\$45M ↑ 23% y-o-y**

- 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)



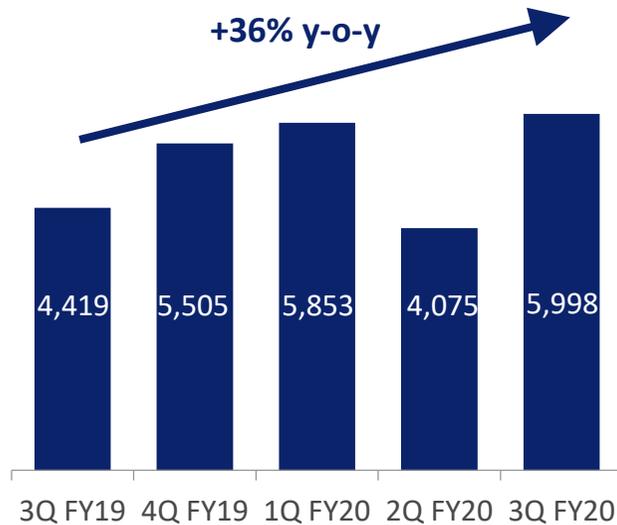
Note: All figures in \$ millions unless otherwise stated and may be subject to rounding

# FICC – Commodities

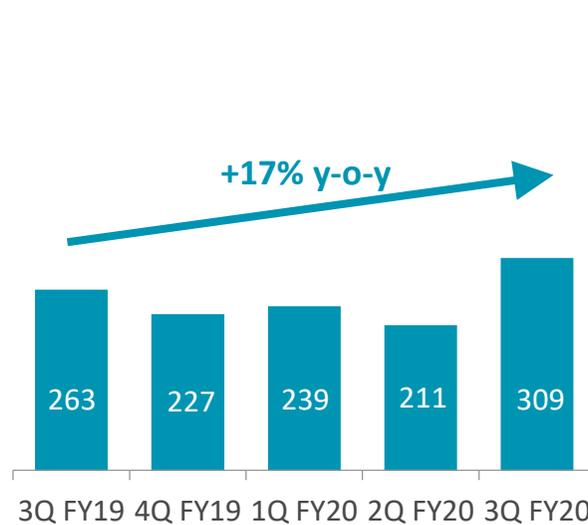
**FICC**  
**\$45M ↑ 23% y-o-y**

- 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

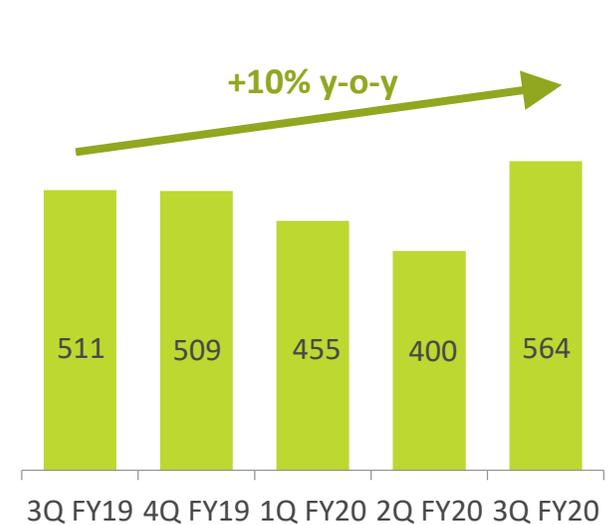
**Iron Ore Derivatives Volume**  
 ('000 contracts)



**Freight Derivatives Volume**  
 ('000 contracts)



**Rubber Futures Volume**  
 ('000 contracts)



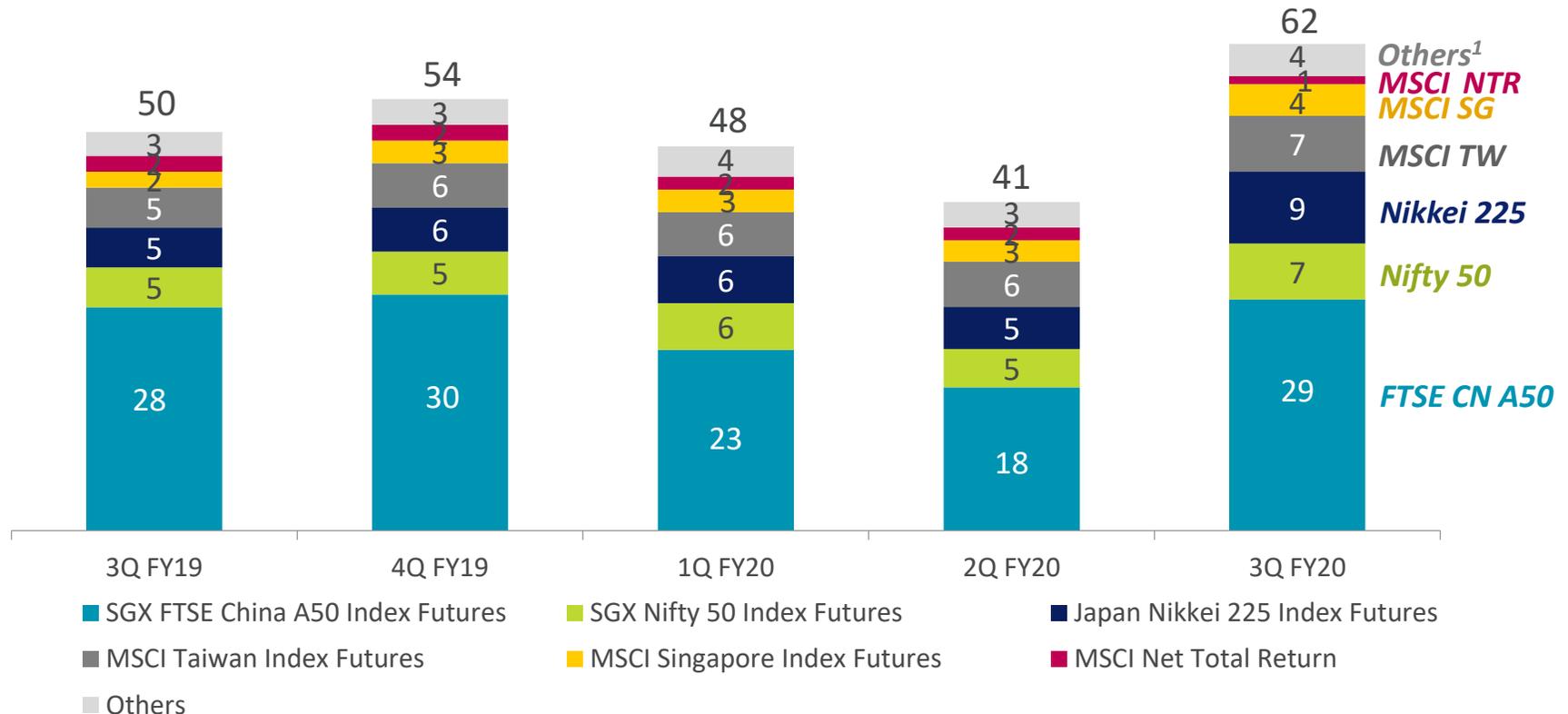
Note: All figures in \$ millions unless otherwise stated and may be subject to rounding

# 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)**

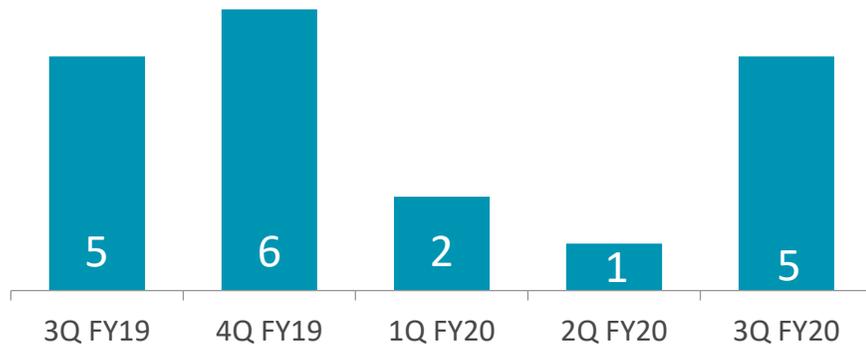


# Equities – Cash Equities Listings

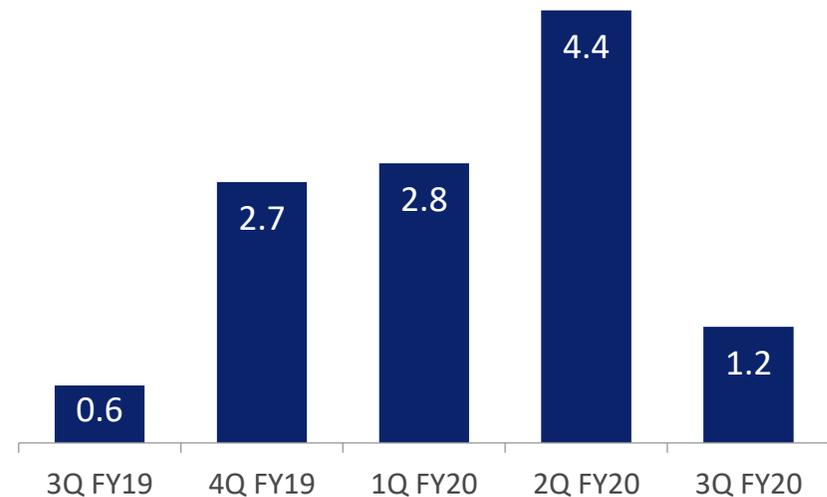
**Equities**  
**\$217M, up 31% y-o-y**

- 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

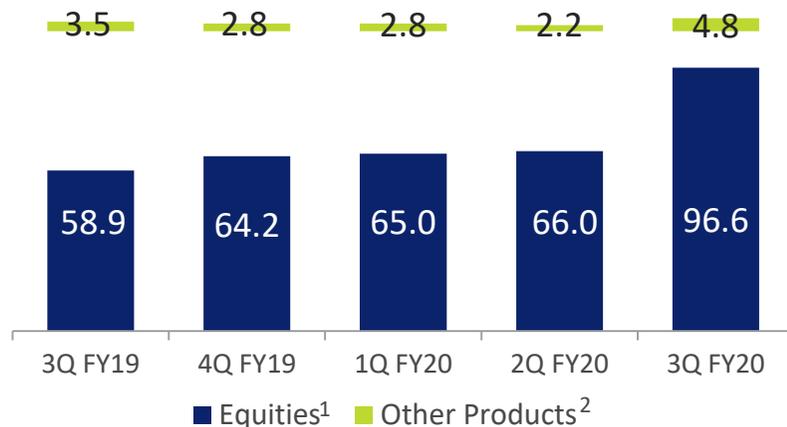
# Equities – Cash Equities Trading & Clearing

**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

<sup>1</sup> Equities include ordinary shares, real-estate investment trusts and business trusts

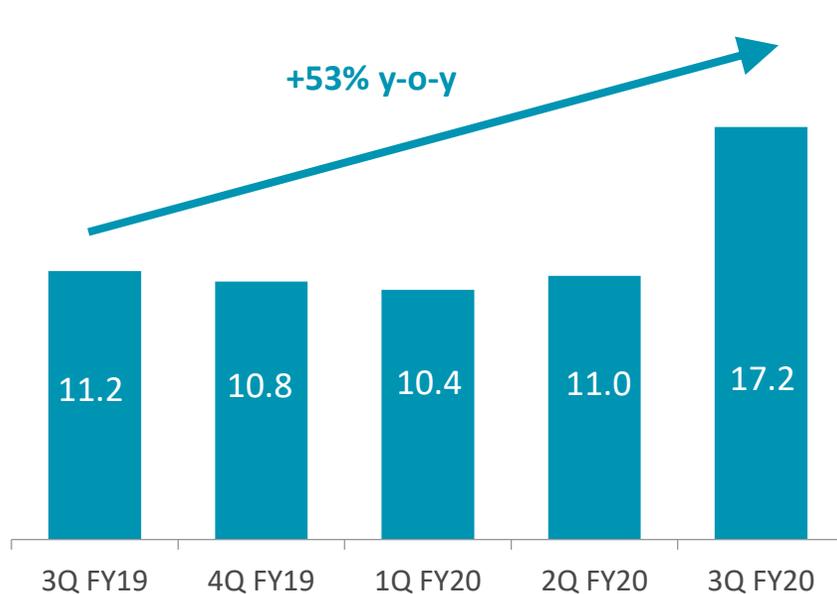
<sup>2</sup> Other products include structured warrants, exchange-traded funds, daily leverage certificates, debt securities, and American depository receipts

# Data, Connectivity & Indices

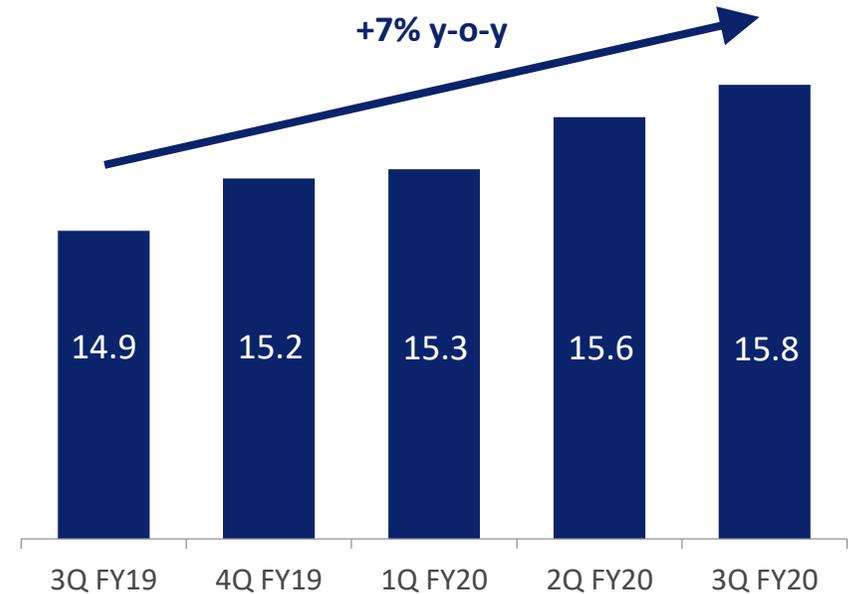
**Data, Connectivity & Indices**  
**\$33M ↑ 26% y-o-y**

- 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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