

# Singapore Exchange (SGXL.SI)

## Down to Sell on four pressure points

Sell

<b>SGXL.SI</b>	12m Price Target: <b>\$S6.60</b>	Price: <b>\$S7.89</b>	Downside: <b>16.3%</b>
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We downgrade SGX to Sell from Buy as we cut our 12-month target price to \$S6.6 from \$S8.7, implying 16% potential downside. India exchanges' decision to cut off data access to foreign exchanges for derivatives products is likely, in our view, to cause the following four pressure points for the stock: (1) Nifty F&O and INR futures revenue loss, (2) lower market data revenues, (3) collateral damage for other derivatives and (4) multiple compression. We lower our EPS estimates by up to 11% for FY18-20E, reflecting the first two of these (leaving other derivative revenues unchanged for now), while lower forecast growth means our DDM-derived target multiple declines to 19X CY18E P/E (prior 24X CY18E P/E).

**Exhibit 1: We see risks of multiple compression as the derivatives business has been the only growth engine for SGX over the last few years**

	PE (min)	PE (average)	EPS growth (%)	NPAT margin (%)	Cash ADT growth (%)	DDAV growth (%)
FY2001	14.4X	19.1X	-55%	22.6%	-60%	-48%
FY2002	16.7X	38.0X	-6%	26.6%	-10%	12%
FY2003	10.5X	17.9X	-74%	7.3%	-23%	10%
FY2004	13.6X	15.3X	714%	42.0%	102%	-1%
FY2005	11.6X	13.8X	-23%	38.0%	-16%	-34%
FY2006	8.2X	12.1X	78%	46.0%	55%	50%
FY2007	10.5X	21.4X	123%	73.2%	56%	10%
FY2008	15.0X	24.1X	13%	62.2%	34%	43%
FY2009	13.7X	23.8X	-36%	51.4%	-43%	9%
FY2010	25.7X	28.7X	5%	49.9%	23%	-2%
FY2011	22.6X	26.3X	-8%	44.6%	4%	15%
FY2012	19.6X	22.4X	-1%	45.0%	-19%	17%
FY2013	21.3X	24.3X	15%	47.0%	11%	33%
FY2014	19.7X	22.2X	-5%	46.7%	-22%	2%
FY2015	21.6X	23.8X	9%	44.8%	-4%	56%
FY2016	21.1X	23.5X	0%	42.7%	0%	14%
FY2017	21.3X	22.1X	-3%	42.4%	2%	-10%
FY2018E	21.2X	22.5X	8%	43.5%	11%	19%
<b>CAGR (FY10-17)</b>			<b>0.8%</b>		<b>-4.7%</b>	<b>16.4%</b>

Source: Company data, Goldman Sachs Global Investment Research

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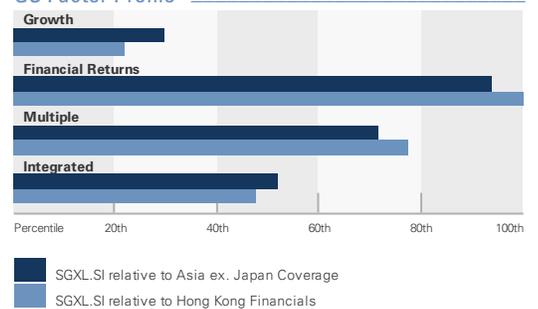
**Key Data**

Market cap: \$S8.5bn / \$6.4bn  
3m ADTV: \$S19.0mn / \$14.3mn  
Singapore  
Hong Kong Financials  
M&A Rank: 3

**GS Forecast**

	6/17	6/18E	6/19E	6/20E
<b>Revenue (\$S mn) New</b>	<b>800.8</b>	<b>844.2</b>	<b>862.8</b>	<b>908.9</b>
Revenue (\$S mn) Old	800.8	852.9	919.9	994.8
<b>EPS (\$S) New</b>	<b>0.32</b>	<b>0.34</b>	<b>0.35</b>	<b>0.38</b>
EPS (\$S) Old	0.32	0.35	0.39	0.43
P/E (X)	23.4	23.0	22.3	20.7
P/B (X)	7.7	7.1	6.6	6.1
ROE (%)	33.6	33.0	30.6	30.6
DPS (\$S)	0.28	0.28	0.29	0.30
Dividend yield (%)	3.8	3.5	3.7	3.8
	<b>12/17</b>	<b>3/18E</b>	<b>6/18E</b>	<b>9/18E</b>
EPS (\$S)	0.08	0.09	0.08	0.09

**GS Factor Profile**



Source: Company data, Goldman Sachs Research estimates. See disclosures for details.

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Sell

## Singapore Exchange (SGXL.SI)

Rating since Feb 11, 2018

## Ratios &amp; Valuation

	6/17	6/18E	6/19E	6/20E
P/E (X)	23.4	23.0	22.3	20.7
P/B (X)	7.6	7.1	6.6	6.1
Dividend yield (%)	3.8	3.5	3.7	3.8
ROE (%)	33.6	33.0	30.6	30.6
Clearing house funds (\$\$ mn)	-	-	-	-
Margin funds (\$\$ mn)	-	-	-	-
Total client assets (\$\$ mn)	-	-	-	-

## Growth &amp; Margins (%)

	6/17	6/18E	6/19E	6/20E
Total revenue growth	(2.1)	5.4	2.2	5.3
EPS growth	(2.6)	8.0	3.1	7.6
EBITDA margin	57.2	58.0	59.0	60.2
Op. profit margin	50.2	51.1	51.7	52.7
Pre-tax margin	51.1	52.3	52.8	53.9
Net margin	42.4	43.5	43.9	44.9

## Price Performance



	3m	6m	12m
Absolute	2.1%	4.6%	4.9%
Rel. to the FTSE Straits Times Index	3.5%	2.8%	(4.3)%

Source: FactSet. Price as of 9 Feb 2018 close.

## Income Statement (\$\$ mn)

	6/17	6/18E	6/19E	6/20E
Equity trading & clearing fees	205.0	220.1	239.7	260.9
Derivatives trading fees	303.1	339.6	332.0	344.6
Depository services	115.7	101.9	105.1	113.8
Market data	39.9	41.6	40.2	38.2
Listing fees	83.8	85.6	89.2	93.7
Investment income (operating)	0.0	0.0	0.0	0.0
Other revenue	169.0	157.4	161.7	171.5
Total revenue	800.8	844.2	862.8	908.9
Compensation & benefits exp.	(162.3)	(173.4)	(174.7)	(177.7)
Technology & comm. exp.	(123.8)	(127.4)	(132.8)	(138.2)
Depreciation & amortization	(55.9)	(58.1)	(62.9)	(67.8)
Occupancy expense	(26.6)	(29.0)	(29.4)	(29.7)
Other costs	-	-	-	-
Total operating expense	(343.1)	(355.0)	(354.1)	(362.0)
Inv. inc. & other (non-op.)	5.7	9.1	8.3	9.6
Income/(loss) from associates	1.4	1.3	1.3	1.5
Profit/(loss) on disposals	-	-	-	-
Total other net	-	-	-	-
<b>Pre-tax profit</b>	<b>408.9</b>	<b>441.5</b>	<b>455.3</b>	<b>490.1</b>
Provision for taxes	(69.2)	(74.1)	(76.4)	(82.3)
Tax rate (%)	16.9	16.8	16.8	16.8
Minorities, pref div & others	-	-	-	-
<b>Net inc. (post-exceptionals)</b>	<b>339.7</b>	<b>367.4</b>	<b>378.9</b>	<b>407.9</b>
<b>GS net income</b>	--	--	--	--
<b>GS EPS (\$\$)</b>	--	--	--	--
DPS (\$\$)	0.28	0.28	0.29	0.30
Div. payout ratio (%)	88.1	81.7	82.0	78.8
Wtd avg shares out. (basic) (mn)	1,070.4	1,071.6	1,071.6	1,071.6

## Balance Sheet (\$\$ mn)

	6/17	6/18E	6/19E	6/20E
Cash & cash equivalents	796.4	773.0	836.7	905.7
Restricted cash	0.0	0.0	-	-
Investments	1.5	1.0	1.1	1.2
Accounts receivable	814.7	948.2	1,048.3	1,167.5
Other current assets	0.0	-	-	-
<b>Total current assets</b>	<b>1,612.5</b>	<b>1,722.2</b>	<b>1,886.1</b>	<b>2,074.4</b>
Net PP&E	80.4	72.0	72.0	72.0
Intangible assets	159.8	159.4	159.4	159.4
Goodwill, net book value	-	-	-	-
Other long-term assets	188.4	187.0	187.0	187.0
<b>Total assets</b>	<b>2,041.2</b>	<b>2,140.5</b>	<b>2,304.5</b>	<b>2,492.8</b>
Accounts payable	891.6	824.9	892.9	966.5
Income tax payable	71.4	77.5	83.9	90.8
Short-term debt	-	-	-	-
Other current liabilities	10.4	10.4	10.4	10.4
<b>Total current liabilities</b>	<b>973.4</b>	<b>912.8</b>	<b>987.2</b>	<b>1,067.7</b>
Deferred revenue	-	-	-	-
Long-term debt	-	-	-	-
Other long-term liabilities	35.3	36.2	36.2	36.2
<b>Total liabilities</b>	<b>1,008.7</b>	<b>949.0</b>	<b>1,023.4</b>	<b>1,103.9</b>
Preferred shares	-	-	-	-
<b>Total common equity</b>	<b>1,032.5</b>	<b>1,191.5</b>	<b>1,281.1</b>	<b>1,388.9</b>
Minority interest	--	--	--	--
<b>Total shareholders' equity</b>	<b>1,032.5</b>	<b>1,191.5</b>	<b>1,281.1</b>	<b>1,388.9</b>
<b>Total liabilities &amp; equity</b>	<b>2,041.2</b>	<b>2,140.5</b>	<b>2,304.5</b>	<b>2,492.8</b>

Source: Company data, Goldman Sachs Research estimates.

## Why downgrade to Sell

We downgrade SGX from Buy to Sell on a negative earnings outlook post the joint announcement made on Friday, February 9, by India exchanges. India exchanges (NSE, BSE and MSE) announced plans for a termination notice of licensing agreements with foreign exchanges, index providers and third-party vendors for market data that had allowed the trading and settlement of index derivative products of India securities such as Nifty 50 futures & options.

We upgraded SGX to Buy (from Neutral) on September 26, 2017, on the thesis of an improving volume and earnings outlook. Since then, SGX's share price has risen 6%, outperforming the STI slightly (by 1pp). However, we believe this investment thesis is now at risk, given the earnings pressure from a potential roll-off of India derivative revenues.

The four key pressure points we see for the stock are:

- 1. Nifty F&O and INR futures revenue loss:** we estimate 10% of SGX's derivatives business revenue comes from Nifty F&O and INR futures, its two key India offerings. The derivatives business revenue contribution to the group's top line is 40%. Hence the loss to revenue could be around 4%. The impact on bottom line could be 2X the top-line impact as SGX runs on ~50% NPAT margin. Hence Nifty product closure and significant reduction in INR futures volumes is likely to shave off ~8% of SGX's EPS. While SGX has said it is currently working closely with NSE to develop viable solutions for international investors into India, we reflect this impact into our estimates as a base case.
- 2. Lower market data revenues:** SGX does not disclose the breakup of its market data revenues, which contribute 5% to its top line. We believe the loss of a key product is likely to reduce data demand and hence revenues in this business by 10-20%.
- 3. Collateral damage for other derivatives:** SGX's edge and key proposition to clients was the ability to invest in multiple Asian derivatives products in one venue. Cross-margining and other benefits have kept client flow sticky and fostered incremental demand. With the loss of the Indian product there could be lower volumes in other derivatives products.
- 4. Multiple compression:** Derivatives business has been the only growth engine for SGX over the last few years with the cash market in steady decline. With a dent to the derivatives story we believe the valuation multiple for SGX could come under pressure. Our DDM-derived target P/E multiple decreases from 23.7x to 18.8x. This is close to where the stock traded seeing no growth in FY12 as well as FY14.

Post our revisions, SGX's target price implies the most downside potential (-16%) within our coverage space. Our coverage space (HK financials) offers an average of 10% upside potential.

## We estimate a c.4% direct hit on topline

### Direct impact on derivative revenues

SGX's India derivative products suite is a core offering in its offshore derivative franchise. Securities-related derivatives include the Nifty 50 futures and options, Nifty sector futures and most recently single-stock futures (SSFs) on Nifty 50 companies (launched on Feb 5, 2018, per SGX commentary SSFs are currently not affected by the licensing termination). That said, only the SGX Nifty 50 futures & options currently have meaningful volumes traded on SGX.

SGX Nifty 50 futures & options currently contribute ~7% to the derivative topline (CY2017). Based on commentary from the India exchanges, the licensing agreement with SGX will end in 6 months from the time notice is given, wherein SGX would have to end the trading/settlement of its India index derivatives contracts.

Additionally, SGX's INR FX futures (accounting for c.80% of FX futures traded on SGX) will be at risk as well, given that much of the INR volume trading came as a hedging tool when trading Nifty 50 futures & options. FX futures currently account for ~4% of the derivative revenue mix (CY2017).

Thus, collectively, we see 10% of derivative revenues directly at risk from both the Nifty 50 and INR products. Given that derivatives currently account for ~40% of revenues (~25% trading, ~15% collateral management), we see a 4% risk to overall revenues. The impact on bottom line could be 2X the top-line impact as SGX runs on ~50% NPAT margin. Hence Nifty product closure and significant reduction in INR futures volumes is likely to shave off ~8% of SGX's EPS.

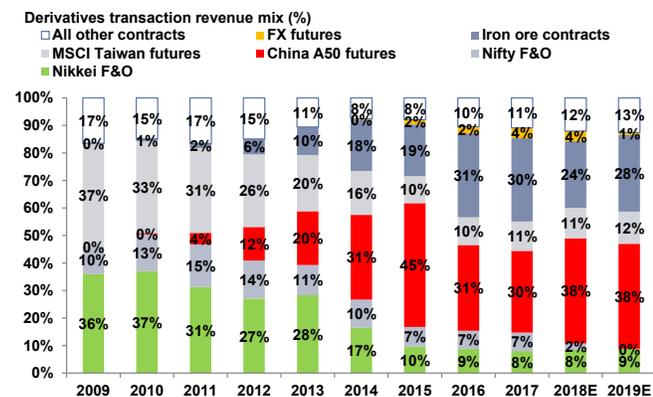
### Indirect impact

We see the indirect impact as a potential loss of market data revenues and collateral damage for other derivatives.

**Lower market data revenues:** SGX does not disclose the breakup of its market data revenues which contribute 5% to its top-line. We believe the loss of a key product is likely to reduce data demand and hence revenues in this business by 10-20%.

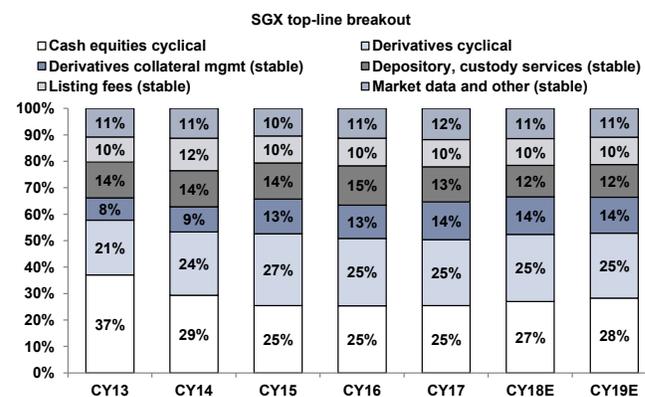
**Collateral damage for other derivatives:** SGX's edge and key proposition to clients was the ability to invest in multiple Asian derivatives products in one venue. Cross-margining and other benefits have kept the client flow sticky and fostered incremental demand. With the loss of the Indian product there could be lower volumes in other derivatives products although we do not reflect this in our estimates at this stage.

**Exhibit 2: We see ~10% of derivative revenues at risk...**



Source: Company data, Goldman Sachs Global Investment Research

**Exhibit 3: ...translating to ~4% of group revenues**



Source: Company data, Goldman Sachs Global Investment Research

## Cut target price on lower EPS and target P/E

We cut EPS estimates to factor in earnings pressure from Nifty F&O/INR futures and market data revenues loss leading to FY18/19/20E revisions of -1%/-8%/-11%. Specifically, we factor in the roll off of Nifty 50 F&O in 6 months, factor a negative impact on INR FX futures volumes from the loss of cross-margin benefits and pencil in a low single digit yoy market data contraction starting 1QFY19. We are on average approximately 6% below Thomson Reuters Consensus estimates on FY19/20 given our bearish view on earnings.

We had previously forecast Nifty 50 F&O growth of 17%/24%/26% and SGX FX futures growth (SGX INR futures account for c.80% of volumes) of 108%/50%/43% for FY18/19/20E. We had also previously estimated average ~5% yoy growth in market data revenues over the next 3 years.

Our 12-month DDM-derived price target moves to S\$6.6 (prior S\$8.7) on a 19X CY18E P/E (prior 24X CY18E P/E) and implies 16% downside. Our target multiple moves lower given the slower growth outlook. That said, we note that our target multiple falls in line with historical periods of P/E contraction on earnings outlook concerns (see next section for more details).

**Exhibit 4: We are on average about 6% below Thomson Reuters Consensus estimates on FY19/20 given our bearish view on earnings**

EPS	GSe			Thomson Reuters			GSe vs Thomson Reuters consensus		
	2018E	2019E	2020E	2018E	2019E	2020E	2018E	2019E	2020E
SGX (S\$)	0.34	0.35	0.38	0.35	0.38	0.40	-1%	-7%	-5%

Source: Thomson Reuters, Goldman Sachs Global Investment Research

**Exhibit 5: We revise SGX's FY18/19/20E EPS by -1%/-8%/-11% to reflect the earnings pressure**

(S\$ mn) (All in fiscal year with June year-ends)	FY2018E		FY2019E		FY2020E		% change		
	Prior	Revised	Prior	Revised	Prior	Revised	FY18E	FY19E	FY20E
Securities	220.1	220.1	239.7	239.7	260.9	260.9	0	0	0
<i>Securities clearing fees</i>	170.3	170.3	184.9	184.9	200.4	200.4	0	0	0
<i>Access fees</i>	39.8	39.8	43.8	43.8	48.3	48.3	0	0	0
Derivatives	346.7	339.6	382.1	332.0	417.5	344.6	(2)	(13)	(17)
Market data	42.4	41.6	44.5	40.2	46.8	38.2	(2)	(10)	(18)
Member services and connectivity	56.3	55.5	59.1	56.6	62.1	57.7	(1)	(4)	(7)
Depository services	101.9	101.9	105.1	105.1	113.8	113.8	0	0	0
Issuer services	85.6	85.6	89.2	89.2	93.7	93.7	0	0	0
<b>Total operating revenue</b>	<b>852.9</b>	<b>844.2</b>	<b>919.9</b>	<b>862.8</b>	<b>994.8</b>	<b>908.9</b>	<b>(1)</b>	<b>(6)</b>	<b>(9)</b>
<b>Total operating expenses</b>	<b>415.8</b>	<b>413.1</b>	<b>433.1</b>	<b>417.0</b>	<b>455.0</b>	<b>429.8</b>	<b>(1)</b>	<b>(4)</b>	<b>(6)</b>
<b>Operating profit</b>	<b>437.2</b>	<b>431.2</b>	<b>486.8</b>	<b>445.8</b>	<b>539.7</b>	<b>479.1</b>	<b>(1)</b>	<b>(8)</b>	<b>(11)</b>
Pretax profit	447.5	441.5	496.3	455.3	550.8	490.1	(1)	(8)	(11)
<b>Net profit</b>	<b>372.4</b>	<b>367.4</b>	<b>413.0</b>	<b>378.9</b>	<b>458.4</b>	<b>407.9</b>	<b>(1)</b>	<b>(8)</b>	<b>(11)</b>
<b>EPS (S\$), fiscal year</b>	<b>0.35</b>	<b>0.34</b>	<b>0.39</b>	<b>0.35</b>	<b>0.43</b>	<b>0.38</b>	<b>(1)</b>	<b>(8)</b>	<b>(11)</b>
DPS (S\$), fiscal year	0.30	0.28	0.32	0.29	0.35	0.30	(5)	(9)	(13)
BVPS (S\$), fiscal year	1.13	1.11	1.25	1.20	1.38	1.30	(2)	(4)	(6)
<b>Net profit, calendar year</b>	<b>393.8</b>	<b>375.4</b>	<b>435.3</b>	<b>392.5</b>	<b>NA</b>	<b>NA</b>	<b>(5)</b>	<b>(10)</b>	<b>NA</b>
<b>EPS (S\$), calendar year</b>	<b>0.37</b>	<b>0.35</b>	<b>0.41</b>	<b>0.37</b>	<b>NA</b>	<b>NA</b>	<b>(5)</b>	<b>(10)</b>	<b>NA</b>
DPS (S\$), calendar year	0.30	0.28	0.32	0.29	NA	NA	(5)	(9)	NA
BVPS (S\$), calendar year	1.03	1.03	1.11	1.10	NA	NA	(0)	(1)	NA
Average daily stock turnover (S\$ bn, FY)	1.24	1.24	1.37	1.37	1.50	1.50	0	0	0
Derivatives volume (mn contracts, FY)	206	198	239	193	275	207	(3)	(19)	(25)
Average daily stock turnover (S\$ bn, CY)	1.30	1.30	1.43	1.43	NA	NA	0	0	NA
Derivatives volume (mn contracts, CY)	224	197	256	199	NA	NA	(12)	(22)	NA

Source: Goldman Sachs Global Investment Research

**Exhibit 6: Our target multiple moves down on the slower growth**

	Capital Asset Pricing Model					3-Stage Dividend Discount Model Assumptions										P/E
	Risk-free rate	Mkt. Risk Prem.	Beta	Risk Prem.	Total Disc. Rate	Stage 1		Stage 2			Terminal Stage 3					
						Div. CAGR	No. of Yrs	(a) ROE	(b) Div Payout	Growth =a*(1-b)	No. of Yrs	(a) ROE	(b) Div Payout	Growth =a*(1-b)		
SGX (Old)	3.5%	5.5%	0.9X	5.0%	8.5%	7%	3	36%	76%	8.6%	10	35%	90%	3.7%	24	
SGX (new)	3.5%	5.5%	0.9X	5.0%	8.5%	2%	3	31%	76%	7.4%	10	33%	90%	3.5%	19	

Source: Goldman Sachs Global Investment Research

## Valuation only mid-cycle, but a negative growth outlook could drive a multiple contraction

SGX currently trades at a CY2018E PE of 23X, which is at mid-cycle levels. That said, we think multiples could contract from hereon as earnings outlook turns negative.

Derivatives business was the only growth engine for SGX over the last few years with the cash market in steady decline. With a dent to the derivatives story we believe the valuation multiple for SGX could come under pressure. We lower target P/E multiple from 23.7x to 18.8x. This is close to where the stock traded seeing no growth in FY12 as well as FY14.

Additionally, with our forecast, SGX currently screens as expensive vs. global exchange peers. Adjusting for growth, SGX currently trades at a PEG of 3.9X which is high when compared to HKEx or US exchanges that are currently trading at ~1.5X PEG.

**Exhibit 7: SGX currently trades at a CY2018E PE of 23X**

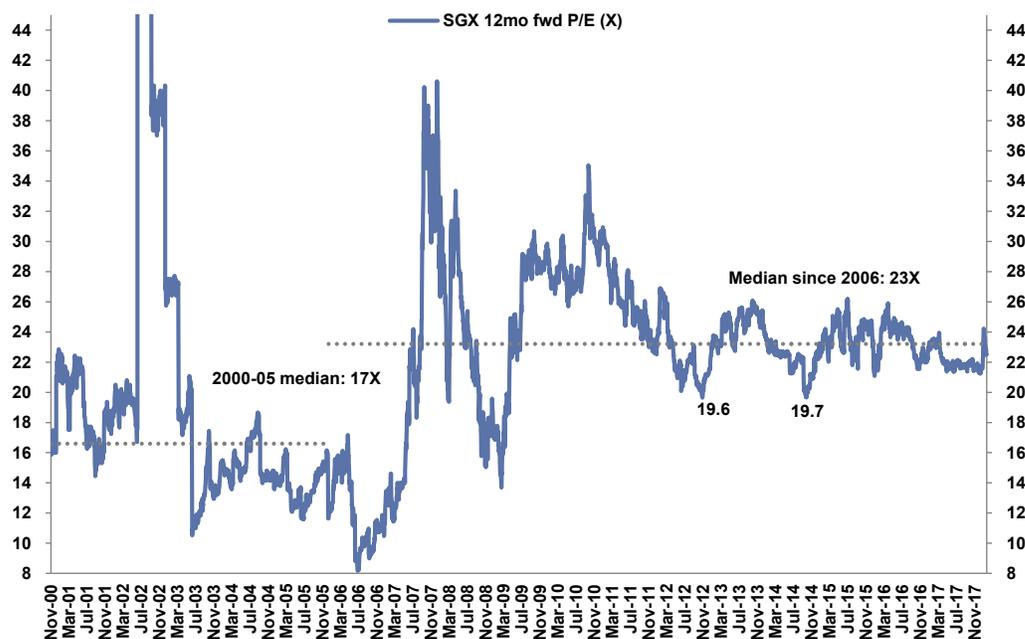
CY18 EPS (in S\$) for SGX under different cash equity and FTSE China A50 volume scenarios										
Cash equity ADT (S\$bn)	FTSE China A50 futures DDAV ('000 contracts)									
	50	100	150	200	250	351=Base	350	400	450	500
1.00	0.22	0.23	0.24	0.25	0.27	0.29	0.29	0.30	0.31	0.33
1.05	0.23	0.24	0.25	0.26	0.28	0.30	0.30	0.31	0.32	0.34
1.10	0.24	0.25	0.26	0.27	0.29	0.31	0.31	0.32	0.33	0.35
1.15	0.25	0.26	0.27	0.28	0.30	0.32	0.32	0.33	0.34	0.36
1.20	0.26	0.27	0.28	0.29	0.31	0.33	0.33	0.34	0.35	0.37
1.30=Base	0.28	0.29	0.30	0.31	0.33	0.35	0.35	0.36	0.37	0.39
1.25	0.27	0.28	0.29	0.30	0.32	0.34	0.34	0.35	0.36	0.38
1.30	0.28	0.29	0.30	0.31	0.33	0.35	0.35	0.36	0.37	0.39
1.35	0.29	0.30	0.31	0.32	0.34	0.36	0.36	0.37	0.38	0.40
1.40	0.30	0.31	0.32	0.33	0.35	0.37	0.37	0.38	0.39	0.41

Current CY18 P/E on SGX under different cash equity and FTSE China A50 volume scenarios										
Cash equity ADT (S\$bn)	FTSE China A50 futures DDAV ('000 contracts)									
	50	100	150	200	250	351=Base	350	400	450	500
1.00	36X	34X	33X	31X	30X	27X	27X	26X	25X	24X
1.05	35X	33X	31X	30X	29X	26X	26X	25X	24X	23X
1.10	33X	32X	30X	29X	28X	25X	25X	24X	24X	23X
1.15	32X	30X	29X	28X	27X	25X	25X	24X	23X	22X
1.20	31X	29X	28X	27X	26X	24X	24X	23X	22X	22X
1.30=Base	28X	27X	26X	25X	24X	23X	23X	22X	21X	20X
1.25	30X	28X	27X	26X	25X	23X	23X	22X	22X	21X
1.30	28X	27X	26X	25X	24X	23X	23X	22X	21X	20X
1.35	28X	26X	25X	24X	24X	22X	22X	21X	21X	20X
1.40	27X	26X	25X	24X	23X	21X	21X	21X	20X	19X

Source: Datastream, Goldman Sachs Global Investment Research

**Exhibit 8: We think multiples could contract from here on as earnings outlook turns negative**



Source: Datastream, Goldman Sachs Global Investment Research

**Exhibit 9: SGX currently trades at a PEG of 3.9X which is high when compared to HKEx or US exchanges that are currently trading at ~1.5X PEG**

Ticker	Mkt cap (US\$bn)	Price, LCY	12m TP, LCY	Ccy	Potential GS up/ (down) rating	side	P/E (X)			PEG (X) 17E P/E	EPS growth			NPAT margin (%)			Div. yield (%)			
							2017E	2018E	2019E		2017E	2018E	2019E	2017E	2018E	2019E	2017E	2018E	2019E	
<b>Asia Pacific</b>																				
SGX	SGXL.SI	6.4	7.89	6.60	SGD	Sell	-16%	24	23	22	3.9	3	8	5	42	44	44	3.5	3.5	3.7
HKEx	0388.HK	40.1	258.2	350.0	HKD	Buy*	36%	43	30	26	1.5	27	44	16	57	63	64	2.1	3.0	3.5
ASX	ASX.AX	8.2	54.2	45.1	AUD	Sell	-17%	23	22	21	4.1	3	6	6	56	57	57	3.8	4.1	4.3
JPX	8697.T	9.3	1,840	2,190	JPY	Neutral	19%	21	20	20	6.0	15	5	2	41	40	39	2.7	3.1	3.0
<b>EMEA</b>																				
Dubai Financial Market	DFM.DU	2.4	1.08	1.23	AED	Neutral	14%	38	20	17	0.8	(11)	88	17	53	67	70	2.8	4.6	5.6
<b>Americas</b>																				
CME	CME	53.1	156.9	180.0	USD	Buy	15%	33	23	22	1.4	5	42	7	45	55	56	1.6	2.0	2.0
ICE	ICE	41.1	68.5	83.0	USD	Buy*	21%	23	18	16	1.2	6	25	13	38	43	45	1.2	1.4	1.5
NASDAQ	NDAQ	12.9	76.1	86.0	USD	Neutral	12%	18	16	15	1.6	14	16	8	29	32	32	2.0	2.2	2.3
CBOE Holdings, Inc.	CBOE	12.0	107.1	115.0	USD	Neutral	7%	31	23	21	1.4	42	36	10	37	46	47	1.0	1.1	1.2
B3 S.A. - Brasil, Bolsa, Balcão	BVMF3.SA	14.8	24.0	29.0	BRL	Buy	21%	30	25	21	1.6	(40)	19	19	40	44	48	1.2	2.8	3.7

Note: Showing CY basis for SGX and JPX, end-Jun'18 for ASX for 2017E. \* indicates that stock is on Conviction List.

Source: Datastream, Goldman Sachs Global Investment Research

### What could make us more positive?

Our Sell thesis is premised on the negative earnings outlook resulting from the potential loss in revenue from SGX's India derivatives franchise. Based on SGX's commentary, the company is currently working closely with NSE to develop viable solutions for international investors into India. We would turn more positive on the company if any new agreement allows for a meaningful participation from SGX in the India capital markets.

Additionally, SGX's business is diversified across product lines, where the loss in earnings from its India business could be offset from growth from other segments. However, we believe the additional volume growth across other products (i.e. cash equity/other derivative products like the FTSE China A50 futures) needed to offset these earnings pressures would be a major challenge, in our view. That said, we remain watchful on this front for signs of faster acceleration in growth along the other SGX products.

### Three key upside risks to our thesis:

- Higher derivative volumes:** Higher than expected derivative volumes offsetting revenue loss from India derivatives, given a volatile market environment.
- Cash equity volumes:** A roll-out of dual class shares targeted around CY1H18 could drive new listings on SGX and lead to higher volumes on the cash market.
- Cost control:** A loss in revenues could lead to tighter cost control which could buffer the earnings pressures.

# Disclosure Appendix

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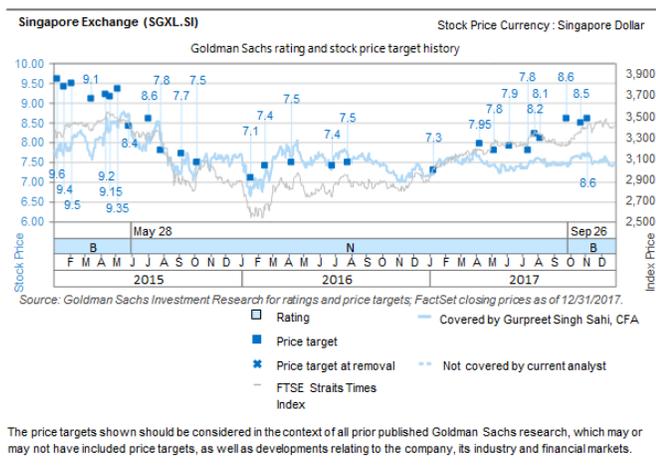
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