Outlook for FY18-19 corporate earnings

Quarterly Update

30 November 2018

Contents

Summary and major assumptions3
Contributions to recurring profit growth by sector5
Revisions to recurring profit estimates (versus old estimates)7
Revision index for the Russell/Nomura Large Cap Index9
Reference
Russell/Nomura Large Cap Index: earnings indicators10
Recurring profits by sector12
Percentage change in quarterly sales and profits13
Valuation indicators14
What are the Russell/Nomura Japan Equity Indexes?15

Summary and major assumptions

Overview of the FY18 corporate earnings outlook

In this report, we collate and analyze earnings forecast data issued by our analysts.

For FY18, our analysts forecast sales growth of 6.7% y-y and recurring profit growth of 8.9% for companies in the Russell/Nomura Large Cap Index (ex financials).

These forecasts represent downward revisions of 0.1ppt for sales growth and 2.4ppt for recurring profit growth versus our previous forecasts issued in September 2018 (based on data collated on 27 August 2018). Our forex assumptions for FY18 are USD/JPY of 110.7 (previously 110.5) and EUR/JPY of 129.0 (previously 130.0).

In FY18 Q2, recurring profits at companies in the Russell/Nomura Large Cap Index (ex financials) rose 9.8% y-y on a 7.4% increase in sales. This brought FY18 H1 recurring profit growth to 14.2%, well above our previous forecast of 8.1% growth.

After excluding accounting factors and temporary factors as far as possible, in order to bring the figures closer to the underlying picture, we calculate FY18 Q2 results as sales growth of around 4% and recurring profit growth of around 6%. On the same adjusted basis, we calculate FY18 Q1 results as sales growth of just over 5% and recurring profit growth of just under 13%, which indicates that recurring profit growth slowed rather more than sales growth in FY18 Q2.

Recurring profits rose in 15 out of 19 sectors and fell in the remaining 4. The number of sectors that saw recurring profit growth thus increased from 11 in Q1 to 15 in Q2. However, in Q2 8 sectors saw recurring profit growth of 5% or less.

We have lowered our FY18 H2 recurring profit growth forecast to 3.3% versus 14.7% previously.

Overview of the FY19 corporate earnings outlook

For FY19, our analysts look for sales growth of 3.0% y-y and recurring profit growth of 9.7% for companies in the Russell/Nomura Large Cap Index (ex financials). Our forex assumptions for FY19 are USD/JPY of 111.0 (previously 111.0) and EUR/JPY of 128.0 (previously 130.0).

The current forecasts represent downward revisions of 0.2ppt for sales growth and 0.2ppt for recurring profit growth, compared with our previous forecasts. The downward revision of ¥1,154.7bn for FY19 is slightly larger than the downward revision of ¥973.1bn for FY18.

The average ROE for Russell/Nomura Large Cap index stocks was 10.3% in FY17, and we forecast a decline to 9.8%in FY18 and 9.7% n FY19.

Fig. 1: Overview of consolidated earnings forecasts for the Russell/Nomura Large Cap Index

(% y-y, except where noted)

		No.	New				(70)	Old	cre noted
		of cos	FY15	FY16	FY17	FY18E	FY19E	FY18E	FY19E
	Russell/Nomura Large Cap (ex financials)	303	-0.4	-3.3	8.2	6.7	3.0	6.8	3.2
	Manufacturing	181	0.2	-4.3	9.3	3.9	3.2	4.4	3.8
Sales	Basic materials	41	-9.0	-5.6	17.1	8.9	0.3	9.2	1.1
Sales	Processing	84	3.1	-4.4	7.9	2.6	3.7	3.2	4.2
	Nonmanufacturing (ex financials)	122	-1.2	-1.8	6.7	10.8	2.7	10.5	2.5
	Russell/Nomura Small Cap (ex financials)	1,133	1.8	-0.5	6.1	5.1	3.8	5.3	3.6
	Russell/Nomura Large Cap (ex financials)	303	8.7	2.9	16.3	6.4	7.8	9.1	7.5
	Manufacturing	181	2.9	-0.5	17.8	8.5	8.4	11.4	9.5
Operating profits	Basic materials	41	8.6	9.4	34.9	10.4	3.1	12.1	3.8
Operating profits	Processing	84	-2.0	-3.6	15.9	8.5	10.3	12.6	11.0
	Nonmanufacturing (ex financials)	122	18.6	7.5	14.3	3.6	7.0	6.1	4.6
	Russell/Nomura Small Cap (ex financials)	1,133	10.5	7.2	6.8	4.9	10.8	9.3	8.4
	Russell/Nomura Large Cap	334	-0.6	1.4	15.3	7.6	9.1	9.9	9.0
	Russell/Nomura Large Cap (ex financials)	303	1.5	3.6	17.5	8.9	9.7	11.3	9.9
	Manufacturing	181	-1.9	0.2	21.6	9.7	7.1	12.3	8.5
	Basic materials	41	-7.4	12.1	43.6	12.5	2.2	13.8	3.8
Recurring profits	Processing	84	-4.2	-3.1	19.6	9.7	9.0	13.4	9.9
	Nonmanufacturing	153	0.6	2.5	9.7	5.5	11.1	7.4	9.6
	Nonmanufacturing (ex financials)	122	7.1	8.4	12.2	7.8	13.5	9.8	11.9
	Russell/Nomura Small Cap	1,227	3.7	5.8	9.0	4.3	8.8	8.1	6.9
	Russell/Nomura Small Cap (ex financials)	1,133	4.1	8.8	8.4	6.1	9.3	10.0	7.3
	Russell/Nomura Large Cap	334	-3.9	8.5	32.2	1.9	5.4	4.1	5.5
	Russell/Nomura Large Cap (ex financials)	303	-4.7	10.8	38.5	3.1	5.3	5.2	5.8
	Manufacturing	181	-4.8	-1.5	53.1	4.9	0.0	7.1	1.8
	Basic materials	41	-27.1	58.4	49.6	12.3	-2.1	13.2	0.5
Net profits	Processing	84	-3.0	-14.0	68.5	3.6	-0.4	6.8	0.8
	Nonmanufacturing	153	-3.0	18.2	15.1	-1.4	11.7	0.9	9.8
	Nonmanufacturing (ex financials)	122	-4.6	30.9	20.4	0.2	14.2	2.3	12.5
	Russell/Nomura Small Cap	1,227	1.9	17.3	14.5	7.3	6.6	12.6	3.5
	Russell/Nomura Small Cap (ex financials)	1,133	0.0	21.7	10.1	10.4	9.3	17.0	5.1

Note: Latest estimates as of 26 November 2018; previous estimates as of 27 August 2018.

Source: Nomura

Fig. 2: Major assumptions

As of 18 October 2018

-0.0

1.0

Industrial

		production 2010 base year	rate (FY-end)	WTI	Exchange rate (av	
		% y-y	%	\$/bbl	USD/JPY	EUR/JPY
FY17		4.1	-0.1	53.7	110.8	129.7
FY18E		-0.1	-0.1	69.3	110.7	129.0
FY19E		0.5	-0.1	70.0	111.0	128.0
FY17	H1	4.8	-0.1	48.2	111.0	126.3
FY17	H2	3.4	-0.1	59.1	110.6	133.0
FY18	H1	Estimate 0.7	-0.1	68.7	110.3	129.9
FY18E	H2	-0.8	-0.1	70.0	111.0	128.0

-0.1

-0.1

70.0

70.0

As of 19 July 2018

AS OF 19 July 2010							
Industrial production 2010 base year	Policy rate (FY-end)	WTI	Exchange rate (av				
% y-y	%	\$/bbl	USD/JPY	EUR/JPY			
4.1	-0.1	53.7	110.8	129.7			
1.6	-0.1	69.5	110.5	130.0			
1.2	-0.1	70.0	111.0	130.0			
4.8	-0.1	48.2	111.0	126.3			
3.4	-0.1	59.1	110.6	133.0			
1.8	-0.1	68.9	110.1	130.0			
1.4	-0.1	70.0	111.0	130.0			
1.2	-0.1	70.0	111.0	130.0			
1.2	-0.1	70.0	111.0	130.0			

Note: WTI is the term-average WTI crude oil futures price. The above assumptions are not Nomura forecasts but the assumptions on which Nomura analysts base their earnings

128.0

128.0

111.0

111.0

Source: Nomura

FY19E

FY19E

H1

H2

Contributions to recurring profit growth by sector

Overview of the FY18 corporate earnings outlook

For FY18, we project that recurring profits will increase in 13 of the 19 sectors and decrease in 6.

The sectors from which we expect particularly large contributions to overall profit growth are electrical machinery & precision equipment, telecommunications, chemicals, and trading companies.

In the electrical machinery & precision equipment sector, growth in demand for products for automotive applications (reflecting the shift to electric powertrains, autonomous driving, and connected cars) has been driving earnings. Other factors include growth in the SPE market, expansion of content-related businesses in the consumer electronics field, and the dropout of restructuring costs. In the chemicals sector, we expect improvements in petroleum product margins and higher crude oil prices to result in profit growth in the oil subsector. In addition, semiconductor silicon businesses are performing well, supported by firm demand for semiconductor devices, needle coke and graphite electrode prices are improving because of tighter environmental regulations in China, and acrylic resin raw materials prices are also buoyant, supported by strong demand for paints, for example. In the trading companies sector, prices of coking coal and crude oil have remained high, and we think profits are likely to grow in resources businesses in particular.

Sectors from which we expect particularly large negative contributions to profit growth are utilities and services.

In the utilities sector, sales volumes at electric power companies are likely to decrease as customers switch to other providers as a result of the deregulation of electric power. Meanwhile, a major factor behind our forecast for a drop in profits in the services sector is the expected profit decline at Japan Post Holdings [6178], which has banking and life insurance subsidiaries. Excluding Japan Post Holdings, however, we forecast profit growth in the services sector, supported by human resource-related services and theme park businesses.

Overview of the FY19 corporate earnings outlook

For FY19, we project that recurring profits will increase in all 19 sectors. We expect profit growth to accelerate from FY18 to FY19 in the six sectors of telecommunications, automobiles, financials, software, transportation, and steel & nonferrous metals, and forecast a switch from profit declines to profit growth in the six sectors of utilities, services, housing & real estate, food, construction, and media.

The sectors that we expect to make particularly large contributions to profit growth are telecommunications, electrical machinery & precision equipment, and automobiles. In the electrical machinery & precision equipment sector, we expect profit growth to continue to be driven mainly by growth in automotive demand. We also expect merger effects and the dropout of restructuring costs to boost profits. In the automobiles sector, we expect profits to grow on the back of margin improvements resulting from efforts to reduce COGS, for example, and also expect the dropout of quality-related costs recorded in FY18 to have an impact. We expect global auto sales growth to slow from 0.8% in 2018 to 0.6% in 2019, reflecting a deterioration in the Chinese market, but Japanese auto manufacturers' Chinese businesses are performing relatively well, with substantial growth in sales of SUVs.

Fig. 3: Contributions to recurring profit growth by sector for the Russell/Nomura Large Cap Index

		FY18
Increase	in	profits

Increase in profits (%)						
	Growth	Contribution	Contribution			
13 sectors			(ex financials)			
Electrical machinery, precision						
equipment	17.8	25.1	25.2			
Telecommunications	21.5	20.4	20.5			
Chemicals	15.4	16.7	16.7			
Trading companies	19.2	15.0	15.1			
Machinery	13.2	8.7	8.7			
Automobiles	3.0	6.1	6.1			
Retailing	10.6	4.2	4.2			
Pharmaceuticals, healthcare	9.5	4.2	4.2			
Software	22.6	3.3	3.3			
Household goods	13.1	2.8	2.8			
Transportation	3.2	2.1	2.1			
Steel, nonferrous metals	2.0	0.6	0.6			
Financials	0.2	0.4	-			

Decrease in profits

Decrease in profits (%)						
	Growth	Contribution				
6 sectors			(ex financials)			
Food	-0.2	-0.1	-0.1			
Construction	-2.6	-0.5	-0.5			
Housing, real estate	-1.7	-1.0	-1.0			
Media	-10.3	-1.0	-1.0			
Services	-4.7	-2.1	-2.2			
Utilities	-15.6	-4.9	-4.9			

Source: Nomura

FY19E

Increase in profits (%)							
19 sectors	Growth	Contribution	Contribution (ex financials)				
Telecommunications	30.3	27.2	29.6				
Electrical machinery, precision equipment	11.1	14.4	15.7				
Automobiles	7.4	12.1	13.1				
Financials	5.2	7.9	-				
Utilities	25.8	5.3	5.8				
Machinery	8.7	5.0	5.5				
Services	10.3	3.5	3.8				
Software	24.5	3.4	3.7				
Retailing	9.4	3.2	3.5				
Housing, real estate	6.9	3.1	3.3				
Transportation	5.7	3.1	3.3				
Pharmaceuticals, healthcare	6.2	2.3	2.5				
Trading companies	2.7	2.0	2.2				
Household goods	10.5	2.0	2.1				
Chemicals	1.9	1.8	2.0				
Food	4.5	1.6	1.8				
Steel, nonferrous metals	3.7	0.9	1.0				
Construction	4.6	0.7	0.7				
Media	7.1	0.5	0.5				

Revisions to recurring profit estimates (versus old estimates)

Overview of the FY18 corporate earnings outlook

We have raised our FY18 recurring profit forecasts for 5 of the 19 sectors and lowered them for 13.

Sectors with particularly large upward revisions, in terms of absolute profits, were chemicals and pharmaceuticals & healthcare.

In chemicals, our upward revision for the oil subsector, reflecting buoyant crude oil prices, accounted for most of the upward revision. Our forecasts also factored in an increase in merger synergies and growth in sales at equity-method projects. In pharmaceuticals & healthcare, both overseas and domestic sales have been strong overall and R&D costs have been lower than expected. In media, the upward revision was small in absolute terms but large in percentage terms. We expect profit margins to improve on the back of cost reductions in broadcasting businesses.

Sectors for which we have made large downward revisions include electrical machinery & precision equipment, automobiles, telecommunications, and steel & nonferrous metals.

In the electrical machinery & precision equipment sector, earnings should have probably been supported by strong demand related to the three key pillars of data centers, automotive products, and industrial machinery, but the environment in non-automotive areas has deteriorated. We have lowered our estimates for SPE to reflect investment freezes and cancellations by major memory manufacturers. In addition, the slowdown in FA, mainly in China, has resulted in downward revisions to our forecasts for industrial machinery businesses. In addition, profits in precision/films businesses have been hit by weak sales of interchangeable lens cameras, restructuring costs, and natural disasters. In the automobiles sector, we have lowered our estimates to reflect major quality issues, higher input prices and weaker emerging economy currencies, and a slowdown in sales in emerging markets. The steel & nonferrous metals sector, meanwhile, has been affected by a fall in metal prices and production difficulties resulting from damage caused by natural disasters.

Overview of the FY19 corporate earnings outlook

We have raised our FY19 recurring profit forecasts for 4 of the 19 sectors and lowered them for 14.

We have made particularly large upward revisions to our recurring profit forecasts for the trading companies sector. In the trading companies sector, we have raised our forecasts to reflect changes to our assumptions for the price of coking coal and other resources.

Sectors for which we have made large downward revisions include automobiles, electrical machinery & precision equipment, housing & real estate, and steel & nonferrous metals.

In the automobiles sector, we have lowered our forecasts for FY19 to reflect a rise in input costs and a weakening of emerging economy currencies, and a slowdown in sales in emerging markets, as was also the case with our downward revisions for FY18. For the electrical machinery & precision equipment sector too, the reasons for our downward revisions for FY19 are also not that different to those for FY18, but our downward revisions for FY19 are smaller than those for FY18 because we expect restructuring costs to be lower. In housing & real estate, we have factored in the negative impact on housing equipment from higher input prices, and the negative impact on apartment construction businesses from a tightening of lending criteria. In steel & nonferrous metals, as well as the impact of lower metals prices and production difficulties, we have also factored in the impact of slowdowns in auto production, machinery demand, and high-spec smartphone sales.

Fig. 4: Revisions to recurring profit estimates (versus old estimates) for the Russell/Nomura Large Cap Index

FY18E								
[Upward revisions]	5 sector	rs						
	New	Old	Revision	Change				
	¥bn	¥bn	¥bn	%				
Chemicals	4,550	4,489	60	1.3				
Pharmaceuticals, healthcare	1,749	1,708	41	2.4				
Trading companies	3,400	3,372	29	0.8				
Media	313	294	19	6.4				
Services	1 503	1 501	2	0.2				

1 1 101	-			
[Upward revisions]	4 se	ctors		
	New	Old	Revision	Change
	¥bn	¥bn	¥bn	%
Trading companies	3,493	3,424	70	2.0
Telecommunications	5,476	5,434	43	0.8
Utilities	1,208	1,179	29	2.5
Media	335	322	13	4.0

FY19E

[Downward revisions] 13 sectors				
	New	Old	Revision	Change
	¥bn	¥bn	¥bn	%
Household goods	875	886	-11	-1.3
Software	652	670	-18	-2.7
Retailing	1,602	1,623	-22	-1.3
Food	1,687	1,720	-33	-1.9
Transportation	2,499	2,533	-34	-1.4
Machinery	2,719	2,765	-46	-1.7
Utilities	960	1,018	-59	-5.7
Housing, real estate	2,077	2,180	-103	-4.7
Financials	7,130	7,244	-114	-1.6
Steel, nonferrous metals	1,129	1,257	-128	-10.2
Telecommunications	4,203	4,354	-151	-3.5
Automobiles	7,680	7,873	-193	-2.5
Electrical machinery, precision equipment	6,068	6,393	-325	-5.1

[Downward revisions]	ons] 14 sectors				
	New	Old	Revision	Change	
	¥bn	¥bn	¥bn	%	
Software	812	821	-9	-1.1	
Household goods	967	979	-12	-1.3	
Financials	7,500	7,521	-22	-0.3	
Services	1,757	1,787	-30	-1.7	
Retailing	1,752	1,793	-40	-2.2	
Pharmaceuticals, healthcare	1,856	1,899	-43	-2.2	
Transportation	2,642	2,689	-47	-1.8	
Chemicals	4,634	4,688	-54	-1.1	
Machinery	2,954	3,018	-64	-2.1	
Food	1,764	1,847	-84	-4.5	
Steel, nonferrous metals	1,170	1,276	-106	-8.3	
Housing, real estate	2,220	2,333	-114	-4.9	
Electrical machinery, precision equipment	6,741	7,020	-279	-4.0	
Automobiles	8,245	8,672	-427	-4.9	

Note: Latest estimates as of 26 November 2018; previous estimates as of 27 August 2018. For the construction sector, we have made no changes to our recurring profit estimates for FY18 or FY19.

Fig. 5: Revision index for the Russell/Nomura Large Cap Index

								(%)
(yy/m)	17/3	17/6	17/9	17/12	18/3	18/6	18/9	18/12
Russell/Nomura Large Cap	26.0	1.5	27.5	23.7	14.4	-11.4	0.9	-17.4
Russell/Nomura Large Cap (ex financials)	25.8	2.0	31.5	25.5	13.2	-12.9	1.7	-19.1
Manufacturing	40.1	-6.8	42.6	24.4	13.3	-23.8	7.2	-26.0
Basic materials	32.5	5.1	56.4	28.2	26.8	-17.1	9.8	-36.6
Processing	61.3	-26.3	53.8	26.3	17.9	-33.3	14.3	-29.8
Nonmanufacturing (ex financials)	5.6	14.3	15.9	27.0	13.1	3.3	-6.6	-9.0



Note: (1) Calculated by Nomura based on revisions to recurring profit forecasts. Excludes consolidated subsidiaries. (2) Revision index = (number of upward revisions - number of downward revisions) ÷ number of constituent companies.

Russell/Nomura Large Cap Index: earnings indicators

Fig. 6: Percentage change in sales by sector

(% v-v. except where noted)

								y-y, except w	
		No. of	FY15	FY16	FY17	FY18E	FY18E	FY19E	FY19E
		cos				Old	New	Old	New
	Russell/Nomura Large Cap (ex financials)	303	-0.4	-3.3	8.2	6.8	6.7	3.2	3.0
Industrial	Manufacturing	181	0.2	-4.3	9.3	4.4	3.9	3.8	3.2
groups	Basic materials	41	-9.0	-5.6	17.1	9.2	8.9	1.1	0.3
	Processing	84	3.1	-4.4	7.9	3.2	2.6	4.2	3.7
	Nonmanufacturing (ex financials)	122	-1.2	-1.8	6.7	10.5	10.8	2.5	2.7
	Materials	41	-9.0	-5.6	17.1	9.2	8.9	1.1	0.3
	Machinery, autos	46	5.7	-3.1	9.0	3.5	3.0	3.7	3.6
Broad sectors	Electronics	38	-0.9	-6.3	6.0	2.7	2.0	5.2	3.9
bioau sectors	Consumer, distribution	95	-1.4	-2.2	6.7	14.4	15.0	3.4	3.6
	Information	23	5.7	0.1	6.3	3.7	3.3	3.4	3.1
	Utilities, infrastructure	60	-1.3	-2.5	6.0	2.3	2.6	2.3	2.6
	Chemicals	31	-9.9	-5.8	18.0	10.0	10.6	0.7	-0.5
	Steel, nonferrous metals	10	-6.8	-5.1	15.0	7.5	5.3	1.8	2.3
	Machinery	26	3.3	-2.9	13.9	4.5	4.2	3.9	3.6
	Autos	20	6.5	-3.2	7.7	3.3	2.7	3.6	3.6
	Electrical machinery, precision equipment	38	-0.9	-6.3	6.0	2.7	2.0	5.2	3.9
	Pharmaceuticals, healthcare	24	5.2	-2.7	3.2	0.9	1.1	9.8	9.6
	Food products	19	1.6	-1.8	6.7	2.5	2.4	2.7	2.0
	Household goods	13	6.0	-4.1	7.5	3.5	3.3	4.7	5.3
Sectors	Trading companies	7	-9.7	-4.6	13.1	41.2	43.1	1.4	1.9
	Retailing	18	7.3	2.2	5.1	5.9	5.9	4.3	4.9
	Services	14	4.1	-2.7	0.7	0.8	1.0	2.1	1.9
	Software	9	-0.1	2.9	20.8	12.8	11.8	10.4	10.5
	Media	5	12.0	-1.3	5.3	4.1	4.7	2.5	2.2
	Telecommunications	9	5.5	0.0	4.7	2.6	2.0	2.6	2.3
	Construction, engineering	6	1.7	0.2	1.9	6.7	6.7	2.3	2.3
	Housing, real estate	19	4.3	5.1	5.1	5.5	5.4	3.8	3.3
	Transportation	24	0.3	-3.1	5.8	-2.1	-1.5	1.8	2.2
	Utilities	11	-7.7	-8.2	8.5	2.8	3.2	1.4	2.4

Note: Figures exclude listed consolidated subsidiaries. Latest estimates as of 26 November 2018; previous estimates as of 27 August 2018. Source: Nomura

Fig. 7: Percentage change in recurring profits by sector

(% y-y, except where noted)

								y-y, except w	
		No. of	FY15	FY16	FY17	FY18E	FY18E	FY19E	FY19E
		cos				Old	New	Old	New
	Russell/Nomura Large Cap	334	-0.6	1.4	15.3	9.9	7.6	9.0	9.1
	Russell/Nomura Large Cap (ex financials)	303	1.5	3.6	17.5	11.3	8.9	9.9	9.7
Industrial	Manufacturing	181	-1.9	0.2	21.6	12.3	9.7	8.5	7.1
groups	Basic materials	41	-7.4	12.1	43.6	13.8	12.5	3.8	2.2
	Processing	84	-4.2	-3.1	19.6	13.4	9.7	9.9	9.0
	Nonmanufacturing	153	0.6	2.5	9.7	7.4	5.5	9.6	11.1
	Nonmanufacturing (ex financials)	122	7.1	8.4	12.2	9.8	7.8	11.9	13.5
	Materials	41	-7.4	12.1	43.6	13.8	12.5	3.8	2.2
	Machinery, autos	46	1.9	-13.0	16.5	7.9	5.5	9.9	7.7
	Electronics	38	-19.7	27.8	26.1	24.1	17.8	9.8	11.1
Broad sectors	Consumer, distribution	95	-7.6	19.8	14.8	8.6	8.7	7.6	6.3
3601013	Information	23	4.3	0.2	6.1	22.6	19.1	23.7	28.2
	Utilities, infrastructure	60	37.3	-3.8	9.6	0.7	-2.4	7.8	9.1
	Financials	31	-8.6	-8.1	4.4	1.8	0.2	3.8	5.2
	Chemicals	31	21.6	16.1	34.2	13.9	15.4	4.4	1.9
	Steel, nonferrous metals	10	-54.6	-5.5	93.4	13.6	2.0	1.6	3.7
	Machinery	26	-6.6	-17.9	29.3	15.1	13.2	9.2	8.7
	Autos	20	4.7	-11.6	12.9	5.6	3.0	10.1	7.4
	Electrical machinery, precision equipment	38	-19.7	27.8	26.1	24.1	17.8	9.8	11.1
	Pharmaceuticals, healthcare	24	39.2	-5.4	5.9	7.0	9.5	11.2	6.2
	Food products	19	-0.5	8.3	4.8	1.7	-0.2	7.4	4.5
	Household goods	13	3.3	5.8	20.8	14.5	13.1	10.5	10.5
	Trading companies	7	-62.2	233.4	31.2	18.2	19.2	1.5	2.7
Sectors	Retailing	18	13.4	-1.4	12.4	12.1	10.6	10.4	9.4
	Services	14	-5.6	-9.6	10.9	-4.8	-4.7	12.4	10.3
	Software	9	-11.4	21.1	44.2	26.1	22.6	22.5	24.5
	Media	5	10.4	-1.0	9.6	-15.7	-10.3	9.5	7.1
	Telecommunications	9	5.6	-1.4	1.4	25.9	21.5	24.8	30.3
	Construction, engineering	6	92.4	30.5	9.8	-2.6	-2.6	4.6	4.6
	Housing, real estate	19	11.3	22.4	9.9	3.2	-1.7	7.0	6.9
	Transportation	24	13.3	-5.2	9.0	4.6	3.2	6.2	5.7
	Utilities	11	146.7	-36.2	10.2	-10.5	-15.6	15.8	25.8
	Financials	31	-8.6	-8.1	4.4	1.8	0.2	3.8	5.2

Note: (1) Figures exclude listed consolidated subsidiaries. Latest estimates as of 26 November 2018; previous estimates as of 27 August 2018.

Fig. 8: Recurring profits by sector

(¥bn, except where noted)

								¥bn, except w	
		No. of	FY15	FY16	FY17	FY18E	FY18E	FY19E	FY19E
		cos				Old	New	Old	New
	Russell/Nomura Large Cap	334	39,670	41,339	47,681	52,655	51,568	57,420	56,243
	Russell/Nomura Large Cap (ex financials)	303	32,151	34,408	40,521	45,411	44,438	49,898	48,744
Industrial	Manufacturing	181	19,524	19,641	23,855	27,091	26,455	29,400	28,332
groups	Basic materials	41	3,177	3,551	4,971	5,746	5,678	5,965	5,804
	Processing	84	12,880	12,524	14,790	17,031	16,466	18,710	17,941
	Nonmanufacturing	153	20,146	21,698	23,826	25,565	25,113	28,020	27,911
	Nonmanufacturing (ex financials)	122	12,627	14,766	16,666	18,321	17,983	20,499	20,412
	Materials	41	3,177	3,551	4,971	5,746	5,678	5,965	5,804
	Machinery, autos	46	9,835	8,528	9,755	10,638	10,399	11,690	11,199
	Electronics	38	3,045	3,996	5,035	6,393	6,068	7,020	6,741
Broad sectors	Consumer, distribution	95	6,048	8,630	10,162	10,899	10,905	11,729	11,589
3601013	Information	23	4,087	3,999	4,317	5,319	5,168	6,577	6,623
	Utilities, infrastructure	60	5,959	5,704	6,280	6,417	6,221	6,918	6,786
	Financials	31	7,519	6,931	7,160	7,244	7,130	7,521	7,500
	Chemicals	31	2,583	3,002	3,911	4,489	4,550	4,688	4,634
	Steel, nonferrous metals	10	594	549	1,061	1,257	1,129	1,276	1,170
	Machinery	26	2,264	1,813	2,336	2,765	2,719	3,018	2,954
	Autos	20	7,571	6,716	7,419	7,873	7,680	8,672	8,245
	Electrical machinery, precision equipment	38	3,045	3,996	5,035	6,393	6,068	7,020	6,741
	Pharmaceuticals, healthcare	24	1,578	1,465	1,616	1,708	1,749	1,899	1,856
	Food products	19	1,383	1,487	1,723	1,720	1,687	1,847	1,764
	Household goods	13	507	613	755	886	875	979	967
	Trading companies	7	657	2,192	2,852	3,372	3,400	3,424	3,493
Sectors	Retailing	18	1,386	1,435	1,545	1,623	1,602	1,793	1,752
	Services	14	538	1,437	1,671	1,591	1,593	1,787	1,757
	Software	9	352	341	564	670	652	821	812
	Media	5	322	318	349	294	313	322	335
	Telecommunications	9	3,414	3,339	3,404	4,354	4,203	5,434	5,476
	Construction, engineering	6	462	617	664	686	686	718	718
	Housing, real estate	19	1,604	1,845	2,054	2,180	2,077	2,333	2,220
	Transportation	24	2,267	2,204	2,450	2,533	2,499	2,689	2,642
	Utilities	11	1,627	1,038	1,112	1,018	960	1,179	1,208
	Financials	31	7,519	6,931	7,160	7,244	7,130	7,521	7,500

Note: Figures exclude listed consolidated subsidiaries. Latest estimates as of 26 November 2018; previous estimates as of 27 August 2018.

Fig. 9: Percentage change in quarterly sales and profits (FY17 Q3-FY18 Q2)

									%	у-у							
			Sal	es		O	Operating profits Recurring profits								Net pr	ofits	
		Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
	Russell/Nomura Large Cap	-	-	-	-	-	-	-	-	19.5	2.3	14.5	6.3	52.0	39.5	22.5	11.4
	Russell/Nomura Large Cap (ex financials)	9.3	5.6	8.3	7.4	26.8	-0.2	11.3	4.8	23.4	0.2	16.9	9.8	65.6	42.0	26.9	15.7
Industrial	Manufacturing	10.1	6.3	6.1	3.9	44.3	-9.6	12.6	4.8	33.8	-8.8	16.7	5.9	93.0	50.1	36.8	16.5
groups	Basic materials	19.0	12.5	11.3	10.5	29.7	11.8	29.7	10.8	27.4	13.5	31.5	14.4	47.8	8.8	40.6	18.9
	Processing	8.0	4.5	5.2	2.2	67.7	-20.5	13.0	2.4	48.7	-20.1	18.8	3.7	142.5	65.6	52.7	16.0
	Nonmanufacturing	-	-	-	-	-	-	-	-	8.3	19.5	12.3	6.6	23.3	26.6	7.8	6.6
	Nonmanufacturing (ex financials)	8.1	4.6	11.6	12.6	9.0	18.5	9.8	4.8	11.6	20.9	17.3	14.9	36.2	27.0	11.4	14.6
	Basic materials	19.0	12.5	11.3	10.5	29.7	11.8	29.7	10.8	27.4	13.5	31.5	14.4	47.8	8.8	40.6	18.9
	Machinery, autos	10.5	4.9	5.6	2.0	28.3	11.7	8.2	-3.4	16.1	8.9	9.4	0.8	74.8	4.9	6.3	7.3
	•	10.0	1.0	0.0	2.0	20.0		0.2	0.1	10.1	0.0	0.1	0.0	5,476.		160.	7.0
Broad	Electronics Consumption,	4.0	4.0	4.4	2.5	304.9	-52.2	23.1	11.2	242.2	-50.0	40.1	8.3	2	384.5	0	32.0
sectors	distribution	7.8	4.4	15.9	16.4	8.7	12.9	7.4	3.7	9.4	13.0	7.7	3.6	27.9	83.8	6.7	10.4
	Information	9.5	3.0	3.0	4.4	6.5	29.2	18.9	21.7	11.5	64.1	46.7	62.0	130.9	-50.9	51.8	63.3
	Utilities, infrastructure	7.5	6.1	2.7	3.9	12.3	25.7	-6.2	-5.9	10.8	27.6	-6.0	-6.0	-7.7		-21.6	-8.0
	Financials	-	-	-	-	-	-	-	-	1.1	16.6	1.6	-14.7	-1.3	25.9	0.7	-13.4
	Chemicals	19.8	13.9	12.2	13.0	24.5	12.8	41.7	13.9	19.8	12.9	45.4	16.7	33.6	25.2	58.4	17.6
	Steel, nonferrous metals	17.0	9.5	9.2	4.8	60.7	8.4	-7.3	-4.2	72.7	15.8	-4.2	3.7	142.7	-43.8	5.1	24.4
	Machinery	17.8	9.6	7.1	4.0	44.9	8.6	16.0	9.4	16.2	1.3	18.5	3.0	21.0	-8.9	15.0	0.9
	Automobiles	8.6	3.5	5.1	1.5	23.5	12.9	5.7	-8.1	16.1	11.4	6.8	0.1	90.4	10.1	3.9	9.5
	Electrical machinery, precision equipment	4.0	4.0	4.4	2.5	304.9	-52.2	23.1	11.2	242.2	-50.0	40.1	8.3	5,476. 2	384.5	160. 0	32.0
	Pharmaceuticals, healthcare	4.5	3.2	2.2	0.2	17.1	72.7	-11.8	9.2	1.6	73.9	-12.7	8.6	29.8	64.9	-9.1	21.4
	Food products	10.1	7.3	2.5	2.5	-1.5	5.6	-6.9	3.1	0.4	11.6	-5.4	-0.2	22.5	18.0	-24.4	-1.3
	Household goods	8.1	7.3	5.3	3.3	22.8	37.1	23.4	2.4	28.3	33.1	24.7	3.5	66.9	42.9	26.9	60.5
Sectors	Trading companies	14.4	5.7	46.6	47.2	3.3	22.6	30.2	3.6	16.7	18.5	27.0	3.9	22.8	4.7	30.8	-3.2
Occiois	Retailing	4.9	4.5	5.4	6.3	10.6	0.2	13.8	-0.5	7.5	-1.2	14.4	2.0	20.4	-7.2	26.3	5.1
	Services	1.1	0.2	0.6	2.9	12.6	-6.5	3.0	3.3	10.7	-7.1	3.2	4.3	32.5	SP	12.6	38.8
	Software	30.1	3.3	1.2	5.8	45.8	18.9	-3.3	1.8	9.6	-2.3	-1.4	4.1	-4.8	44.4	1.1	-12.7
	Media	4.5	3.5	5.2	4.5	13.7	-9.8	29.0	-8.2	22.9	1.8	-7.8	73.8	29.3			113.5
	Telecommunications	7.5	2.9	3.0	4.2	-0.0	36.0	20.4	25.0	10.6	119.3	57.1	68.5	190.8	-58.0	67.0	73.6
	Construction, engineering	4.9	-2.4	2.5	7.7	2.2	13.1	-25.7	3.7	-2.1		-23.0	7.3	-4.1		-21.2	1.7
	Housing, real estate	5.6	8.7	7.1	4.6	3.4	18.3	0.5	6.2	1.2		1.2	7.1	2.5		-0.6	11.0
	Transportation	7.3	4.0	-0.4	-1.7	9.1	-3.2	0.9	-0.3	4.3	-13.0	-2.6	-1.8	7.8	-17.5	-15.8	-4.8
	Utilities	10.7	9.4	2.5	8.3	76.3	1,611. 8	-22.1	29.1	145.0	SP	-15.6	-29.7	-54.9	SP	-50.2	-35.9
	Financials	-	-	-	-	-	-	-	-	1.1	16.6	1.6	-14.7	-1.3	25.9	0.7	-13.4

Note: (1) Q1 = Feb-Apr, Mar-May, or Apr-Jun; Q2 = May-Jul, Jun-Aug, or Jul-Sep; Q3 = Aug-Oct, Sep-Nov, or Oct-Dec; Q4 = Nov-Jan, Dec-Feb, or Jan-Mar. (2) Figures are for companies that had announced results (either full year, Q1, Q2, or Q3) by 26 November 2018. (3) Excludes consolidated subsidiaries. (4) SP = switch to profits; SL = switch to losses; LS = losses shrinking; LI = losses increasing.

Fig. 10: Valuation indicators

		P/E P/CF		P/	В	Divi	dend y	/ield		RC	DE					
		FY18	FY19	FY20	FY18	FY19	FY20	FY17	FY18	FY18	FY19	FY20	FY17	FY18	FY19	FY20
		Е	Е	Е	Е	Е	Е	F11/	Е	Е	Е	Е		Е	Е	Е
		Х	Х	Х	Х	Х	Х	Х	Х	%	%	%	%	%	%	%
	Russell/Nomura Large Cap	13.1	12.5	11.6	-	-	-	1.33	1.25	2.33	2.48	2.63	10.3	9.8	9.7	9.8
	Russell/Nomura Large Cap (ex loss-making cos)	13.1	12.5	11.6	1	-	-	1.34	1.25	2.33	2.48	2.63	10.5	9.9	9.7	9.8
	Russell/Nomura Large Cap (ex financials)	13.7	13.0	12.1	7.9	7.5	7.1	1.52	1.41	2.25	2.39	2.55	11.2	10.7	10.5	10.5
Industrial	Manufacturing	13.3	13.3	12.2	8.2	8.0	7.5	1.58	1.48	2.35	2.50	2.68	11.9	11.5	10.7	10.9
groups	Basic materials	9.9	10.1	9.6	5.3	5.2	5.0	1.02	0.96	2.86	2.93	3.11	9.7	10.0	9.2	9.1
	Processing	11.6	11.6	10.6	7.3	7.2	6.7	1.46	1.36	2.50	2.69	2.92	12.8	12.2	11.2	11.5
	Nonmanufacturing	12.9	11.6	11.0	ı	-		1.13	1.05	2.31	2.44	2.57	9.0	8.4	8.8	8.8
	Nonmanufacturing (ex financials)	14.3	12.5	11.9	7.5	6.9	6.6	1.43	1.32	2.09	2.23	2.34	10.2	9.5	10.2	10.0
	Basic materials	9.9	10.1	9.6	5.3	5.2	5.0	1.02	0.96	2.86	2.93	3.11	9.7	10.0	9.2	9.1
	Machinery, autos	11.1	10.3	9.5	7.0	6.6	6.1	1.25	1.18	2.98	3.22	3.49	12.5	11.0	11.0	11.2
	Electronics	12.4	14.0	12.5	7.9	8.4	7.7	1.89	1.69	1.89	2.02	2.17	13.3	14.4	11.6	11.9
Broad sectors	Consumption, distribution	19.0	18.0	16.7	12.4	11.8	11.1	1.87	1.77	1.99	2.11	2.22	9.6	9.6	9.5	9.7
3601013	Information	14.1	10.8	10.4	6.4	5.6	5.4	1.68	1.57	2.22	2.44	2.61	13.3	11.4	13.9	13.1
	Utilities, infrastructure	13.5	12.4	11.7	6.5	6.1	5.9	1.30	1.21	1.87	1.97	2.03	10.1	9.2	9.4	9.3
	Financials	9.6	9.1	8.6	-	-	-	0.64	0.61	3.11	3.22	3.39	7.2	6.5	6.5	6.6
	Chemicals	10.1	10.3	9.7	5.9	5.8	5.5	1.16	1.09	2.75	2.84	3.00	11.0	11.2	10.2	10.1
	Steel, nonferrous metals	9.2	9.7	9.0	3.8	3.8	3.6	0.69	0.66	3.27	3.31	3.52	6.8	7.3	6.6	6.9
	Machinery	15.5	14.2	13.2	9.7	9.1	8.6	1.61	1.52	2.20	2.35	2.49	9.9	10.1	10.4	10.4
	Automobiles	9.6	9.1	8.3	6.1	5.7	5.3	1.12	1.05	3.39	3.67	4.01	13.4	11.3	11.3	11.5
	Electrical machinery, precision equipment	12.4	14.0	12.5	7.9	8.4	7.7	1.89	1.69	1.89	2.02	2.17	13.3	14.4	11.6	11.9
	Pharmaceuticals, healthcare	26.7	26.5	24.4	17.9	17.5	16.6	2.64	2.57	1.66	1.69	1.74	9.6	9.8	9.5	9.8
	Food products	19.6	18.8	17.4	12.1	11.6	11.0	2.16	2.09	2.43	2.66	2.84	13.0	10.9	10.8	11.1
	Household goods	26.8	24.2	22.0	18.8	17.1	15.6	4.16	3.80	1.27	1.41	1.54	14.1	14.8	15.1	15.2
01	Trading companies	6.8	6.6	6.4	4.9	4.7	4.6	0.92	0.82	4.25	4.46	4.68	12.0	12.7	11.9	11.3
Sectors	Retailing	29.2	26.2	22.6	15.4	14.5	13.1	2.68	2.51	1.21	1.31	1.40	8.7	8.9	9.3	10.1
	Services	25.2	22.3	20.3	16.1	14.7	13.5	1.22	1.19	1.77	1.84	1.90	5.2	4.8	5.2	5.5
	Software	23.6	19.2	16.8	19.4	16.4	14.6	3.32	3.19	2.24	2.74	3.13	12.0	14.0	15.9	16.6
	Media	17.3	16.2	14.9	12.0	11.3	10.6	1.15	1.14	1.72	1.69	1.69	7.7	6.6	6.8	7.1
	Telecommunications	12.0	9.0	8.8	4.9	4.3	4.2	1.49	1.38	2.27	2.42	2.53	14.5	11.8	14.6	13.4
	Construction	9.2	8.8	8.5	8.0	7.7	7.5	1.36	1.19	2.67	2.85	2.93	16.8	13.6	13.0	12.3
	Housing, real estate	13.2	12.4	12.1	9.5	9.0	8.7	1.41	1.30	2.37	2.49	2.57	11.1	10.2	10.1	9.7
	Transportation	15.2	14.3	13.2	7.1	6.8	6.5	1.51	1.40	1.28	1.37	1.44	9.6	9.5	9.4	9.5
	Utilities	12.8	10.5	9.8	3.3	3.1	3.0	0.83	0.80	2.12	2.17	2.19	8.2	6.4	7.4	7.5
	Financials	9.6	9.1	8.6	-	-	_	0.64	0.61	3.11	3.22	3.39	7.2	6.5	6.5	6.6
Russell/I	Nomura Small Cap	15.5	14.6	14.1	_		_	1.18	1.14	1.86	1.90	1.95	7.4	7.5	7.6	7.4
Russell/I financial	Nomura Small Cap (ex s)	16.5	15.1	14.6	9.1	8.6	8.4	1.31	1.26	1.77	1.82	1.87	7.6	7.9	8.1	7.9

Note: Share prices and forecasts are as of 26 November 2018.

What are the Russell/Nomura Japan Equity Indexes?

The Russell/Nomura Japan Equity Indexes are Japanese equity indexes developed jointly by FTSE Russell Indexes and the Global Research Division, Financial Engineering & Technology Research Center, Nomura Securities Co., Ltd.

Russell/Nomura Japan Equity Indexes should be useful in:

- Determining investment strategies (strategic asset allocation)
- Determining manager structures
- Devising asset management benchmarks
- · Supporting portfolio management activities
- Evaluating the performance of various investment styles
- Managing risk

Russell/Nomura Japan Equity Indexes have the following characteristics:

- They are share price indexes that are weighted by free-float-adjusted market capitalization and cover the top 98% of all listed stocks in terms of float-adjusted market capitalization, thereby offering broad market coverage
- In addition to stocks listed on the First Section of the Tokyo Stock Exchange (TSE-1), they include stocks listed on other exchanges
- Because the indexes take into consideration the stable shareholding ratio, they reflect the stocks that are actually available for investment
- There are style indexes for large and small companies and for value and growth stocks
- The Prime Index consists of the top 1,000 stocks in the Total Market Index by market cap excluding stable shareholdings
- Stocks are selected quantitatively based on clearly defined criteria
- The composition of each index is reviewed once a year.

Complete details of rules for the Russell/Nomura Japan Equity Index can be found in the Russell/Nomura Japan Equity Index Rulebook.

The intellectual property right and any other rights, in Russell/Nomura Japan Equity Index belong to Nomura Securities Co., Ltd. ("Nomura") and Frank Russell Company ("Russell"). Nomura and Russell do not guarantee accuracy, completeness, reliability, usefulness, marketability, merchantability or fitness of the Index, and do not account for business activities or services that any index user and/or its affiliates undertakes with the use of the Index.

Any Authors named on this report are Research Analysts unless otherwise indicated Important Disclosures

The lists of issuers that are affiliates or subsidiaries of Nomura Holdings Inc., the parent company of Nomura Securities Co., Ltd., issuers that have officers who concurrently serve as officers of Nomura Securities Co., Ltd., issuers in which the Nomura Group holds 1% or more of any class of common equity securities and issuers for which Nomura Securities Co., Ltd. has lead managed a public offering of equity or equity linked securities in the past 12 months are available at https://www.nomuraholdings.com/report/. Please contact the Research Production Operation Dept. of Nomura Securities Co., Ltd. for additional information.

Online availability of research and conflict-of-interest disclosures

Nomura Group research is available on www.nomuranow.com/research, Bloomberg, Capital IQ, Factset, Reuters and ThomsonOne. Important disclosures may be read at http://go.nomuranow.com/research/globalresearchportal/pages/disclosures/disclosures.aspx or requested from Nomura Securities International, Inc., or Instinet, LLC on 1-877-865-5752. If you have any difficulties with the website, please email grpsupport@nomura.com for help.

The analysts responsible for preparing this report have received compensation based upon various factors including the firm's total revenues, a portion of which is generated by Investment Banking activities. Unless otherwise noted, the non-US analysts listed at the front of this report are not registered/qualified as research analysts under FINRA rules, may not be associated persons of NSI or ILLC, and may not be subject to FINRA Rule 2241 restrictions on communications with covered companies, public appearances, and trading securities held by a research analyst account.

Nomura Global Financial Products Inc. ("NGFP") Nomura Derivative Products Inc. ("NDPI") and Nomura International plc. ("NIPIc") are registered with the Commodities Futures Trading Commission and the National Futures Association (NFA) as swap dealers. NGFP, NDPI, and NIPIc are generally engaged in the trading of swaps and other derivative products, any of which may be the subject of this report.

Distribution of ratings (Nomura Group)

The distribution of all ratings published by Nomura Group Global Equity Research is as follows:

51% have been assigned a Buy rating which, for purposes of mandatory disclosures, are classified as a Buy rating; 42% of companies with this rating are investment banking clients of the Nomura Group*. 0% of companies (which are admitted to trading on a regulated market in the EEA) with this rating were supplied material services** by the Nomura Group.

43% have been assigned a Neutral rating which, for purposes of mandatory disclosures, is classified as a Hold rating; 54% of companies with this rating are investment banking clients of the Nomura Group*. 0% of companies (which are admitted to trading on a regulated market in the EEA) with this rating were supplied material services by the Nomura Group

6% have been assigned a Reduce rating which, for purposes of mandatory disclosures, are classified as a Sell rating; 13% of companies with this rating are investment banking clients of the Nomura Group*. 0% of companies (which are admitted to trading on a regulated market in the EEA) with this rating were supplied material services by the Nomura Group.

As at 30 September 2018.

*The Nomura Group as defined in the Disclaimer section at the end of this report.

** As defined by the EU Market Abuse Regulation

Distribution of ratings (Instinet, LLC)

The distribution of all ratings published by Instinet, LLC Equity Research is as follows:

56% have been assigned a Buy rating which, for purposes of mandatory disclosures, are classified as a Buy rating; Instinet LLC has provided investment banking services to 0% of companies with this rating within the previous 12 months.

41% have been assigned a Neutral rating which, for purposes of mandatory disclosures, is classified as a Hold rating; Instinet LLC has provided investment banking services to 0% of companies with this rating within the previous 12 months.

3% have been assigned a Reduce rating which, for purposes of mandatory disclosures, are classified as a Sell rating; Instinet LLC has provided investment banking services to 0% of companies with this rating within the previous 12 months.

Definition of Nomura Group's equity research rating system and sectors

The rating system is a relative system, indicating expected performance against a specific benchmark identified for each individual stock, subject to limited management discretion. An analyst's target price is an assessment of the current intrinsic fair value of the stock based on an appropriate valuation methodology determined by the analyst. Valuation methodologies include, but are not limited to, discounted cash flow analysis, expected return on equity and multiple analysis. Analysts may also indicate expected absolute upside/downside relative to the stated target price, defined as (target price - current price)/current price.

STOCKS

A rating of 'Buy', indicates that the analyst expects the stock to outperform the Benchmark over the next 12 months. A rating of 'Neutral', indicates that the analyst expects the stock to perform in line with the Benchmark over the next 12 months. A rating of 'Reduce', indicates that the analyst expects the stock to underperform the Benchmark over the next 12 months. A rating of 'Suspended', indicates that the rating, target price and estimates have been suspended temporarily to comply with applicable regulations and/or firm policies. Securities and/or companies that are labelled as 'Not rated' or shown as 'No rating' are not in regular research coverage. Investors should not expect continuing or additional information from Nomura relating to such securities and/or companies. Benchmarks are as follows: United States/Europe/Asia ex-Japan: please see valuation methodologies for explanations of relevant benchmarks for stocks, which can be accessed at: http://go.nomuranow.com/research/globalresearchportal/pages/disclosures/disclosures.aspx; Global Emerging Markets (ex-Asia): MSCI Emerging Markets ex-Asia, unless otherwise stated in the valuation methodology; Japan: Russell/Nomura Large Cap.

SECTORS

A 'Bullish' stance, indicates that the analyst expects the sector to outperform the Benchmark during the next 12 months. A 'Neutral' stance, indicates that the analyst expects the sector to perform in line with the Benchmark during the next 12 months. A 'Bearish' stance, indicates that the analyst expects the sector to underperform the Benchmark during the next 12 months. Sectors that are labelled as 'Not rated' or shown as 'N/A' are not assigned ratings. Benchmarks are as follows: United States: S&P 500; Europe: Dow Jones STOXX 600; Global Emerging Markets (ex-Asia): MSCI Emerging Markets ex-Asia. Japan/Asia ex-Japan: Sector ratings are not assigned.

Target Price

A Target Price, if discussed, indicates the analyst's forecast for the share price with a 12-month time horizon, reflecting in part the analyst's estimates for the company's earnings. The achievement of any target price may be impeded by general market and macroeconomic trends, and by other risks related to the company or the market, and may not occur if the company's earnings differ from estimates.

Disclaimers

This publication contains material that has been prepared by the Nomura Group entity identified on page 1 and, if applicable, with the contributions of one or more Nomura Group entities whose employees and their respective affiliations are specified on page 1 or identified elsewhere in the publication. The term "Nomura Group" used herein refers to Nomura Holdings, Inc. and its affiliates and subsidiaries including: Nomura Securities Co., Ltd. ('NSC') Tokyo, Japan; Nomura International plc ('NIplc'), UK; Nomura Securities International, Inc. ('NSI'), New York, US; Instinet, LLC ('ILLC'); Nomura International (Hong Kong) Ltd. ('NIHK'), Hong Kong; Nomura Financial Investment (Korea) Co., Ltd. ('NFIK'), Korea (Information on Nomura analysts registered with the Korea Financial Investment Association ('KOFIA') can be found on the KOFIA Intranet at http://dis.kofia.or.kr); Nomura Singapore Ltd. ('NSL'), Singapore (Registration number 197201440E, regulated by the Monetary Authority of Singapore); Nomura Australia Ltd. ('NAL'), Australia (ABN 48 003 032 513), regulated by the Australian Securities and Investment Commission ('ASIC') and holder of an Australian financial services licence number 246412, PT Nomura Sekuritas Indonesia ('PTNSI'); Nomura Securities Malaysia Sdn. Bhd. ('NSM'), Malaysia; NIHK, Taipei Branch ('NITB'), Taiwan; Nomura Financial Advisory and Securities (India) Private Limited ('NFASL'), Mumbai, India (Registered Address: Ceejay House, Level 11, Plot F, Shivsagar Estate, Dr. Annie Besant Road, Worli, Mumbai- 400 018, India; Tel: +91 22 4037 4037, Fax: +91 22 4037 4111; CIN No: U74140MH2007PTC169116, SEBI Registration No. for Stock Broking activities: BSE INB011299030, NSE INB231299034, INF231299034, INE 231299034, MCX: INE261299034; SEBI Registration No. for Merchant Banking: INM000011419; SEBI Registration No. for Research: INH000001014 and NIplc, Madrid Branch ('NIplc, Madrid'). 'CNS Thailand' next to an analyst's name on the front page of a research report indicates that the analyst is employed by Capital Nomura Securities Public Company Limited ('CNS') to provide research assistance services to NSL under an agreement between CNS and NSL. 'NSFSPL' next to an employee's name on the front page of a research report indicates that the individual is employed by Nomura Structured Finance Services Private Limited to provide assistance to certain Nomura entities under inter-company agreements. The "BDO-NS" (which stands for "BDO Nomura Securities, Inc.") placed next to an analyst's name on the front page of a research report indicates that the analyst is employed by BDO Unibank Inc. ("BDO Unibank") who has been seconded to BDO-NS, to provide research assistance services to NSL under an agreement between BDO Unibank, NSL and BDO-NS. BDO-NS is a Philippines securities dealer, which is a joint venture between BDO Unibank and the Nomura Group.

THIS MATERIAL IS: (I) FOR YOUR PRIVATE INFORMATION, AND WE ARE NOT SOLICITING ANY ACTION BASED UPON IT; (II) NOT TO BE CONSTRUED AS AN OFFER TO SELL OR A SOLICITATION OF AN OFFER TO BUY ANY SECURITY IN ANY JURISDICTION WHERE SUCH OFFER OR SOLICITATION WOULD BE ILLEGAL; AND (III) OTHER THAN DISCLOSURES RELATING TO THE NOMURA GROUP, BASED UPON INFORMATION FROM SOURCES THAT WE CONSIDER RELIABLE, BUT HAS NOT BEEN INDEPENDENTLY VERIFIED BY NOMURA GROUP.

Other than disclosures relating to the Nomura Group, the Nomura Group does not warrant or represent that the document is accurate, complete, reliable, fit for any particular purpose or merchantable and does not accept liability for any act (or decision not to act) resulting from use of this document and related data. To the maximum extent permissible all warranties and other assurances by the Nomura Group are hereby excluded and the Nomura Group shall have no liability for the use, misuse, or distribution of this information.

Opinions or estimates expressed are current opinions as of the original publication date appearing on this material and the information, including the opinions and estimates contained herein, are subject to change without notice. The Nomura Group is under no duty to update this document. Any comments or statements made herein are those of the author(s) and may differ from views held by other parties within Nomura Group. Clients should consider whether any advice or recommendation in this report is suitable for their particular circumstances and, if appropriate, seek professional advice, including tax advice. The Nomura Group does not provide tax advice.

The Nomura Group, and/or its officers, directors and employees, may, to the extent permitted by applicable law and/or regulation, deal as principal, agent, or otherwise, or have long or short positions in, or buy or sell, the securities, commodities or instruments, or options or other derivative instruments based thereon, of issuers or securities mentioned herein. The Nomura Group companies may also act as market maker or liquidity provider (within the meaning of applicable regulations in the UK) in the financial instruments of the issuer. Where the activity of market maker is carried out in accordance with the definition given to it by specific laws and regulations of the US or other jurisdictions, this will be separately disclosed within the specific issuer disclosures.

This document may contain information obtained from third parties, including ratings from credit ratings agencies such as Standard & Poor's. Reproduction and distribution of third-party content in any form is prohibited except with the prior written permission of the related third-party. Third-party content providers do not guarantee the accuracy, completeness, timeliness or availability of any information, including ratings, and are not responsible for any errors or omissions (negligent or otherwise), regardless of the cause, or for the results obtained from the use of such content. Third-party content providers give no express or implied warranties, including, but not limited to, any warranties of merchantability or fitness for a particular purpose or use. Third-party content providers shall not be liable for any direct, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including lost income or profits and opportunity costs) in connection with any use of their content, including ratings. Credit ratings are statements of opinions and are not statements of fact or recommendations to purchase hold or sell securities. They do not address the suitability of securities or the suitability of securities for investment purposes, and should not be relied on as investment advice.

Any MSCI sourced information in this document is the exclusive property of MSCI Inc. ('MSCI'). Without prior written permission of MSCI, this information and any other MSCI intellectual property may not be reproduced, re-disseminated or used to create any financial products, including any indices. This information is provided on an "as is" basis. The user assumes the entire risk of any use made of this information. MSCI, its affiliates and any third party involved in, or related to, computing or compiling the information hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to any of this information. Without limiting any of the foregoing, in no event shall MSCI, any of its affiliates or any third party involved in, or related to, computing or compiling the information have any liability for any damages of any kind. MSCI and the MSCI indexes are services marks of MSCI and its affiliates.

The intellectual property rights and any other rights, in Russell/Nomura Japan Equity Index belong to Nomura Securities Co., Ltd. ("Nomura") and Frank Russell Company ("Russell"). Nomura and Russell do not guarantee accuracy, completeness, reliability, usefulness, marketability, merchantability or fitness of the Index, and do not account for business activities or services that any index user and/or its affiliates undertakes with the use of the Index.

Investors should consider this document as only a single factor in making their investment decision and, as such, the report should not be viewed as identifying or suggesting all risks, direct or indirect, that may be associated with any investment decision. Nomura Group produces a number of different types of research product including, among others, fundamental analysis and quantitative analysis; recommendations contained in one type of research product may differ from recommendations contained in other types of research product, whether as a result of differing time horizons, methodologies or otherwise. The Nomura Group publishes research product in a number of different ways including the

posting of product on the Nomura Group portals and/or distribution directly to clients. Different groups of clients may receive different products and services from the research department depending on their individual requirements.

Figures presented herein may refer to past performance or simulations based on past performance which are not reliable indicators of future performance. Where the information contains an indication of future performance, such forecasts may not be a reliable indicator of future performance. Moreover, simulations are based on models and simplifying assumptions which may oversimplify and not reflect the future distribution of returns. Any figure, strategy or index created and published for illustrative purposes within this document is not intended for "use" as a "benchmark" as defined by the European Benchmark Regulation.

Certain securities are subject to fluctuations in exchange rates that could have an adverse effect on the value or price of, or income derived from, the investment.

With respect to Fixed Income Research: Recommendations fall into two categories: tactical, which typically last up to three months; or strategic, which typically last from 6-12 months. However, trade recommendations may be reviewed at any time as circumstances change. 'Stop loss' levels for trades are also provided; which, if hit, closes the trade recommendation automatically. Prices and yields shown in recommendations are taken at the time of submission for publication and are based on either indicative Bloomberg, Reuters or Nomura prices and yields at that time. The prices and yields shown are not necessarily those at which the trade recommendation can be implemented.

The securities described herein may not have been registered under the US Securities Act of 1933 (the '1933 Act'), and, in such case, may not be offered or sold in the US or to US persons unless they have been registered under the 1933 Act, or except in compliance with an exemption from the registration requirements of the 1933 Act. Unless governing law permits otherwise, any transaction should be executed via a Nomura entity in your home jurisdiction.

This document has been approved for distribution in the UK and European Economic Area as investment research by NIplc. NIplc is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority. NIplc is a member of the London Stock Exchange. This document does not constitute a personal recommendation within the meaning of applicable regulations in the UK, or take into account the particular investment objectives, financial situations, or needs of individual investors. This document is intended only for investors who are 'eligible counterparties' or 'professional clients' for the purposes of applicable regulations in the UK, and may not, therefore, be redistributed to persons who are 'retail clients' for such purposes. This document has been approved by NIHK, which is regulated by the Hong Kong Securities and Futures Commission, for distribution in Hong Kong by NIHK. This document has been approved for distribution in Australia by NAL, which is authorized and regulated in Australia by the ASIC. This document has also been approved for distribution in Malaysia by NSM. In Singapore, this document has been distributed by NSL. NSL accepts legal responsibility for the content of this document, where it concerns securities, futures and foreign exchange, issued by their foreign affiliates in respect of recipients who are not accredited, expert or institutional investors as defined by the Securities and Futures Act (Chapter 289). Recipients of this document in Singapore should contact NSL in respect of matters arising from, or in connection with, this document. Unless prohibited by the provisions of Regulation S of the 1933 Act, this material is distributed in the US, by NSI, a US-registered broker-dealer, which accepts responsibility for its contents in accordance with the provisions of Rule 15a-6, under the US Securities Exchange Act of 1934. The entity that prepared this document permits its separately operated affiliates within the Nomura Group to make copies of such documents available to their clients. This document has not been approved for distribution to persons other than 'Authorised Persons', 'Exempt Persons' or 'Institutions' (as defined by the Capital Markets Authority) in the Kingdom of Saudi Arabia ('Saudi Arabia') or 'professional clients' (as defined by the Dubai Financial Services Authority) in the United Arab Emirates ('UAE') or a 'Market Counterparty' or 'Business Customers' (as defined by the Qatar Financial Centre Regulatory Authority) in the State of Qatar ('Qatar') by Nomura Saudi Arabia, NIplc or any other member of the Nomura Group, as the case may be. Neither this document nor any copy thereof may be taken or transmitted or distributed, directly or indirectly, by any person other than those authorised to do so into Saudi Arabia or in the UAE or in Qatar or to any person other than 'Authorised Persons', 'Exempt Persons' or 'Institutions' located in Saudi Arabia or 'professional clients' in the UAE or a 'Market Counterparty' or 'Business Customers' in Qatar . By accepting to receive this document, you represent that you are not located in Saudi Arabia or that you are an 'Authorised Person', an 'Exempt Person' or an 'Institution' in Saudi Arabia or that you are a 'professional client' in the UAE or a 'Market Counterparty' or 'Business Customers' in Qatar and agree to comply with these restrictions. Any failure to comply with these restrictions may constitute a violation of the laws of the UAE or Saudi Arabia or Qatar.

For Canadian Investors: This research report was approved for distribution to Canadian investors by Instinet Canada Limited ("ICL"), member of the Investment Industry Regulatory Organization of Canada ("IROC") and member of the Canadian Investor Protection Fund. An affiliate of ICL prepared the research report (an "Affiliate Research Report") in accordance with the regulatory requirements applicable to research in the affiliate's local jurisdiction, which include conflict of interest disclosure. ICL reviewed this Affiliate Research Report for the purpose of ensuring Canadian disclosures required by IIROC are included. ICL does not receive compensation in respect of the distribution of Affiliate Research Reports. Pursuant to ICL's policies and procedures regarding the dissemination of research, ICL makes available Affiliate Research Reports to ICL clients and prospective clients only, in electronic and/or in printed form. ICL endeavours to make available and/or distribute Affiliate Research Reports to all intended recipients at the same time. This Affiliate Research Report is not a recommendation and does not take into account the investment objectives, financial situation or particular needs of any particular account.

For report with reference of TAIWAN public companies or authored by Taiwan based research analyst:

THIS DOCUMENT IS SOLELY FOR REFERENCE ONLY. You should independently evaluate the investment risks and are solely responsible for your investment decisions. NO PORTION OF THE REPORT MAY BE REPRODUCED OR QUOTED BY THE PRESS OR ANY OTHER PERSON WITHOUT WRITTEN AUTHORIZATION FROM NOMURA GROUP. Pursuant to Operational Regulations Governing Securities Firms Recommending Trades in Securities to Customers and/or other applicable laws or regulations in Taiwan, you are prohibited to provide the reports to others (including but not limited to related parties, affiliated companies and any other third parties) or engage in any activities in connection with the reports which may involve conflicts of interests. INFORMATION ON SECURITIES / INSTRUMENTS NOT EXECUTABLE BY NOMURA INTERNATIONAL (HONG KONG) LTD., TAIPEI BRANCH IS FOR INFORMATIONAL PURPOSES ONLY AND IS NOT BE CONSTRUED AS A RECOMMENDATION OR A SOLICITATION TO TRADE IN SUCH SECURITIES / INSTRUMENTS.

NO PART OF THIS MATERIAL MAY BE (I) COPIED, PHOTOCOPIED, OR DUPLICATED IN ANY FORM, BY ANY MEANS; OR (II) REDISTRIBUTED WITHOUT THE PRIOR WRITTEN CONSENT OF A MEMBER OF THE NOMURA GROUP. If this document has been distributed by electronic transmission, such as e-mail, then such transmission cannot be guaranteed to be secure or error-free as information could be intercepted, corrupted, lost, destroyed, arrive late or incomplete, or contain viruses. The sender therefore does not accept liability for any errors or omissions in the contents of this document, which may arise as a result of electronic transmission. If verification is required, please request a hard-copy version.

Disclaimers required in Japan

Credit ratings in the text that are marked with an asterisk (*) are issued by a rating agency not registered under Japan's Financial Instruments and Exchange Act ("Unregistered Ratings"). For details on Unregistered Ratings, please contact the Research Product Management Dept. of Nomura Securities Co., Ltd.

Investors in the financial products offered by Nomura Securities may incur fees and commissions specific to those products (for example, transactions involving Japanese equities are subject to a sales commission (all figures on a tax-inclusive basis) of up to 1.404% of the transaction amount or a commission of ¥2,808 for transactions of ¥200,000 or less, while transactions involving investment trusts are subject to various fees, such as commissions at the time of purchase and asset management fees (trust fees), specific to each investment trust). In

addition, all products carry the risk of losses owing to price fluctuations or other factors. Fees and risks vary by product. Please thoroughly read the written materials provided, such as documents delivered before making a contract, listed securities documents, or prospectuses.

Transactions involving Japanese equities (including Japanese REITs, Japanese ETFs, and Japanese ETNs) are subject to a sales commission of up to 1.404% of the transaction amount (or a commission of ¥2,808 for transactions of ¥200,000 or less). When Japanese equities are purchased via OTC transactions (including offerings), only the purchase price shall be paid, with no sales commission charged. However, Nomura Securities may charge a separate fee for OTC transactions, as agreed with the customer. Japanese equities carry the risk of losses owing to price fluctuations. Japanese REITs carry the risk of losses owing to fluctuations in price and/or earnings of underlying real estate. Japanese ETFs carry the risk of losses owing to fluctuations in the underlying indexes or other benchmarks.

Transactions involving foreign equities are subject to a domestic sales commission of up to 1.026% of the transaction amount (which equals the local transaction amount plus local fees and taxes in the case of a purchase or the local transaction amount minus local fees and taxes in the case of a sale) (for transaction amounts of ¥750,000 and below, maximum domestic sales commission is ¥7,668). Local fees and taxes in foreign financial instruments markets vary by country/territory. When foreign equities are purchased via OTC transactions (including offerings), only the purchase price shall be paid, with no sales commission charged. However, Nomura Securities may charge a separate fee for OTC transactions, as agreed with the customer. Foreign equities carry the risk of losses owing to factors such as price fluctuations and foreign exchange rate fluctuations.

Margin transactions are subject to a sales commission of up to 1.404% of the transaction amount (or a commission of ¥2,808 for transactions of ¥200,000 or less), as well as management fees and rights handling fees. In addition, long margin transactions are subject to interest on the purchase amount, while short margin transactions are subject to fees for the lending of the shares borrowed. A margin equal to at least 30% of the transaction amount (at least 33% for online transactions) and at least ¥300,000 is required. With margin transactions, an amount up to roughly 3.3x the margin (roughly 3x for online transactions) may be traded. Margin transactions therefore carry the risk of losses in excess of the margin owing to share price fluctuations. For details, please thoroughly read the written materials provided, such as listed securities documents or documents delivered before making a contract.

Transactions involving convertible bonds are subject to a sales commission of up to 1.08% of the transaction amount (or a commission of ¥4,320 if this would be less than ¥4,320). When convertible bonds are purchased via OTC transactions (including offerings), only the purchase price shall be paid, with no sales commission charged. However, Nomura Securities may charge a separate fee for OTC transactions, as agreed with the customer. Convertible bonds carry the risk of losses owing to factors such as interest rate fluctuations and price fluctuations in the underlying stock. In addition, convertible bonds denominated in foreign currencies also carry the risk of losses owing to factors such as foreign exchange rate fluctuations.

When bonds are purchased via public offerings, secondary distributions, or other OTC transactions with Nomura Securities, only the purchase price shall be paid, with no sales commission charged. Bonds carry the risk of losses, as prices fluctuate in line with changes in market interest rates. Bond prices may also fall below the invested principal as a result of such factors as changes in the management and financial circumstances of the issuer, or changes in third-party valuations of the bond in question. In addition, foreign currency-denominated bonds also carry the risk of losses owing to factors such as foreign exchange rate fluctuations.

When Japanese government bonds (JGBs) for individual investors are purchased via public offerings, only the purchase price shall be paid, with no sales commission charged. As a rule, JGBs for individual investors may not be sold in the first 12 months after issuance. When JGBs for individual investors are sold before maturity, an amount calculated via the following formula will be subtracted from the par value of the bond plus accrued interest: (1) for 10-year variable rate bonds, an amount equal to the two preceding coupon payments (before tax) x 0.79685 will be used, (2) for 5-year and 3-year fixed rate bonds, an amount equal to the two preceding coupon payments (before tax) x 0.79685 will be used When inflation-indexed JGBs are purchased via public offerings, secondary distributions (uridashi deals), or other OTC transactions with Nomura Securities, only the purchase price shall be paid, with no sales commission charged. Inflation-indexed JGBs carry the risk of losses, as prices fluctuate in line with changes in market interest rates and fluctuations in the nationwide consumer price index. The notional principal of inflation-indexed JGBs changes in line with the rate of change in nationwide CPI inflation from the time of its issuance. The amount of the coupon payment is calculated by multiplying the coupon rate by the notional principal at the time of payment. The maturity value is the amount of the notional principal when the issue becomes due. For JI17 and subsequent issues, the maturity value shall not undercut the face amount. Purchases of investment trusts (and sales of some investment trusts) are subject to a purchase or sales fee of up to 5.4% of the transaction amount. Also, a direct cost that may be incurred when selling investment trusts is a fee of up to 2.0% of the unit price at the time of redemption. Indirect costs that may be incurred during the course of holding investment trusts include, for domestic investment trusts, an asset management fee (trust fee) of up to 5.4% (annualized basis) of the net assets in trust, as well as fees based on investment performance. Other indirect costs may also be incurred. For foreign investment trusts, indirect fees may be incurred during the course of holding such as investment company compensation.

Investment trusts invest mainly in securities such as Japanese and foreign equities and bonds, whose prices fluctuate. Investment trust unit prices fluctuate owing to price fluctuations in the underlying assets and to foreign exchange rate fluctuations. As such, investment trusts carry the risk of losses. Fees and risks vary by investment trust. Maximum applicable fees are subject to change; please thoroughly read the written materials provided, such as prospectuses or documents delivered before making a contract.

In interest rate swap transactions and USD/JPY basis swap transactions ("interest rate swap transactions, etc."), only the agreed transaction payments shall be made on the settlement dates. Some interest rate swap transactions, etc. may require pledging of margin collateral. In some of these cases, transaction payments may exceed the amount of collateral. There shall be no advance notification of required collateral value or collateral ratios as they vary depending on the transaction. Interest rate swap transactions, etc. carry the risk of losses owing to fluctuations in market prices in the interest rate, currency and other markets, as well as reference indices. Losses incurred as such may exceed the value of margin collateral, in which case margin calls may be triggered. In the event that both parties agree to enter a replacement (or termination) transaction, the interest rates received (paid) under the new arrangement may differ from those in the original arrangement, even if terms other than the interest rates are identical to those in the original transaction. Risks vary by transaction. Please thoroughly read the written materials provided, such as documents delivered before making a contract and disclosure statements.

In OTC transactions of credit default swaps (CDS), no sales commission will be charged. When entering into CDS transactions, the protection buyer will be required to pledge or entrust an agreed amount of margin collateral. In some of these cases, the transaction payments may exceed the amount of margin collateral. There shall be no advance notification of required collateral value or collateral ratios as they vary depending on the financial position of the protection buyer. CDS transactions carry the risk of losses owing to changes in the credit position of some or all of the referenced entities, and/or fluctuations of the interest rate market. The amount the protection buyer receives in the event that the CDS is triggered by a credit event may undercut the total amount of premiums that he/she has paid in the course of the transaction. Similarly, the amount the protection seller pays in the event of a credit event may exceed the total amount of premiums that he/she has received in the transaction. All other conditions being equal, the amount of premiums that the protection buyer pays and that received by the protection seller shall differ. In principle, CDS transactions will be limited to financial instruments business operators and qualified institutional investors. No account fee will be charged for marketable securities or monies deposited. Transfers of equities to another securities company via the Japan Securities Depository Center are subject to a transfer fee of up to ¥10,800 per issue transferred depending on volume.

Nomura Securities Co., Ltd.

Financial instruments firm registered with the Kanto Local Finance Bureau (registration No. 142)

Member associations: Japan Securities Dealers Association; Japan Investment Advisers Association; The Financial Futures Association of Japan; and Type II Financial Instruments Firms Association.

The Nomura Group manages conflicts with respect to the production of research through its compliance policies and procedures (including, but not limited to, Conflicts of Interest, Chinese Wall and Confidentiality policies) as well as through the maintenance of Chinese Walls and employee training.

Additional information regarding the methodologies or models used in the production of any investment recommendations contained within this document is available upon request by contacting the Research Analysts listed on the front page. Disclosures information is available upon request and disclosure information is available at the Nomura Disclosure web page:

http://go.nomuranow.com/research/globalresearchportal/pages/disclosures/disclosures/aspx

Copyright © 2018 Nomura Securities Co., Ltd. All rights reserved.