

2015 to be much worse than 2014

- Cutting 2015E GGR (new forecast: -7%); more junket closures to come and premium mass structurally affected by transit visas
- Expect significant negative operating leverage against rising costs in a market contraction; cutting 2015E sector EBITDA by 29%
- Revising down TPs and all but one rating; SJM (Outperform) and MGM (downgraded to Outperform) are our new top picks

Macau Gaming Sector

- Positive
- Neutral (from Positive)
- Negative



Jamie Soo (852) 2773 8529 jamie.soo@hk.daiwacm.com

Adrian Chan

(852) 2848 4427 adrian.chan@hk.daiwacm.com

■ What's new

The latest Macau gaming data point to the slowdown lasting longer than expected, with softness across all major operating segments. We cut our 2015E GGR forecast to -7% YoY (from +11%). In the face of 20% wage inflation and other rising fixed costs, negative operating leverage is likely. Today's "build it and they will come" mantra is unlikely to hold up in 2015. Operators with aggressive capacity expansion amid an expected overall market contraction are likely to be the most negatively affected. Our new 2015E sector EBITDA is 27% below consensus, and we expect further cuts to the market's forecasts.

■ What's the impact

VIP – big picture worsens. We continue to see weakening supply/demand amid a tight credit environment. Some small/mid-sized junkets are dipping below minimum rolling levels, and the big ones have difficulty maintaining minimum volumes. We believe a loosening of credit (and revenue growth) is unlikely in the near term due to the

sharp rise in bad debts. Sustained anti-graft efforts into 2015 are also expected to depress VIP growth, and we forecast GGR for the segment to fall by 19% in 2015. Signals to watch for: 1) potential table rolling minimums/junket commission revisions, 2) VIP table reductions per junket, and 3) further junket consolidation, would give colour on what is in store for 2015.

Mass – worrisome trends. We cut 2015E mass GGR growth to 11% YoY (from 20%). For premium mass, we highlight 2 negative trends: 1) a fall in visit frequency, especially higherbetting clients, and 2) a 20% fall in average gaming spend per customer vs. 6 months ago. For **grind mass**, while overall visitors set monthly highs, mass revenue growth has gone from 36% YoY for 1H14 to 16% for 3Q14. Recent tourist growth and mix has been shifting to lower-spending tour groups. We think sustainably high tourist growth will thus be needed to drive gaming revenue as a higher proportion of this segment is priced out by current minimum bet levels. The divergence between mass revenue growth (falling) and tourist growth (rising) is a key factor in the cut to our GGR growth forecast.

2015E: negative operating leverage, sequential EBITDA decline. We expect wage inflation, increased capacity, declining table yield, pre-opening staff hiring, and increasing promotional/fixed costs to eat into margins. Most at risk, in our opinion, are operators with new property openings amid a potential

market contraction in 2015, especially those with small bases. We now forecast a 1pp contraction in the sector's EBITDA margin for 2015 (30bps expansion previously), and cut our company-level EBITDA forecasts by 22-38% (the biggest cuts for operators with new openings in 2015).

■ What we recommend

We now prefer operators with more defensive cost profiles. Our top picks are SJM (last new Cotai property opening, limited negative operating leverage from satellite casino revenue sharing) and MGM (solid operating trend, small operating base, and second-to-last new property opening). We would steer clear of operators with earlier openings (Galaxy, Melco, and Sands), which will likely bear the brunt of the squeeze next year. The key risk to our sector call: a largerthan-expected swing in China's economic fundamentals.

■ How we differ

While the market seems to favour supply-side driven growth, our stock picks are based on cost defensiveness.

Key stock calls

	New	Prev.
SJM Holdings (8	380 HK)	
Rating	Outperform	Outperform
Target	16.70	21.00
Upside	9.3%	
MGM China Hole	dings (2282 HK)	
Rating	Outperform	Buy
Target	23.80	32.10
Upside	▲ 5.8%	

Source: Daiwa forecasts.



Sector stocks: key indicators

EPS (local curr.) Rating FY1 FY2 Share Target price (local curr.) % chg **Company Name** Stock code Price New Prev. New Prev. % chg New Prev. % chg New Prev. Galaxy Entertainment Group 27 HK 47.15 Hold Buy 45.00 74.00 (39.2%) 2.600 2.987 (13.0%) 2.131 3.721 (42.7%) Melco Crown Entertainment MPEL US 25.89 Underperform Buy 23.00 34.00 (32.4%) 1.133 1.437 (21.2%) 0.555 1.729 (67.9%) MGM China Holdings 2282 HK 22.50 Outperform Buy 23.80 32.10 (25.9%) 1.477 1.626 (9.2%) 1.328 1.825 (27.2%) Sands China 1928 HK 42.15 Hold 40.00 60.20 (33.6%) 0.276 0.360 (23.4%) 0.253 0.423 (40.1%) Buy SJM Holdings 880 HK 15.28 Outperform Outperform 16.70 21.00 (20.5%) 1.238 1.388 (10.8%) 1.033 1.437 (28.2%) Wynn Macau 1128 HK 25.45 Underperform Outperform 22.60 33.00 (31.5%) 1.294 1.490 (13.1%) 0.841 1.598 (47.4%)

 $Source: Daiwa\ forecasts$

Macau Gaming Sector 10 October 2014

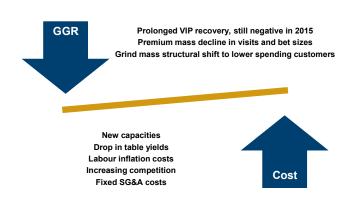


Contents

Revising down GGR growth forecasts	6
New GGR forecasts	
VIP: consolidation far from over	
Mass: shift in tourist mix not conducive to GGR growth	
China's macro environment also unlikely to help Macau	
Negative operating leverage; EBITDA to fall in 2015	
Margins should contract in 2H14	
Sector cost pressures	
Earnings, stock pecking order and valuation	14
Investment thesis	
Valuation	•

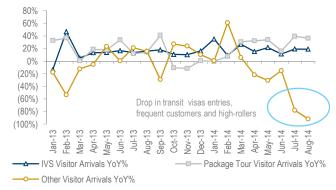


■ Macau Gaming Sector: 2015E operating deleverage



Source: Daiwa

■ Macau: monthly tourist arrivals by segment



Source: DSEC

■ Macau Gaming Sector: simplified analysis of 2015 forecasts

	2014		
	(rebased to 100)	2015E	YoY
GGR			
VIP	60.0	48.9	-19%
Mass	40.0	44.6	11%
Total	100.0	93.5	-7%
EBITDA			
VIP (10% margin)	6.0	4.9	-19%
Mass (35% margin)	14.0	15.6	11%
Total	20.0	20.5	2%
Cost Inflation			
Wage inflation*	8.5	11.5	35%
Advertising and promo **	3.0	3.7	25%
SG&A	22.0	22.7	3%
EBITDA (cost inflation adjusted)	17.5	16.1	-8%

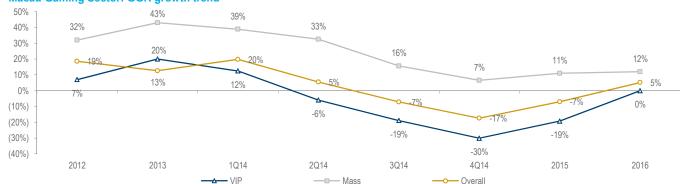
Source: Daiwa

■ Galaxy, Melco, Sands: capacity increases by 2015E new openings



Source: Daiwa

■ Macau Gaming Sector: GGR growth trend



Source: Daiwa

■ Macau Gaming Sector: summary of earnings and rating changes

		• • • • • • • • • • • • • • • • • • • •				9	900										
	Share price (Oct 8)	Recom	nmendation		Targe	t Price I	mplied Upside	Ne	w EBITDA	(HKDm)		Id EBITDA	(HKDm)		EBITDA change		
Operator		New	Old	Currency	New	Old		2H14E	2015E	2016E	2H14E	2015E	2016E	2H14E	2015E	2016E	
SJM	15.5	Outperform	Outperform	HKD	16.7	21	8%	3,778	7,484	6,490	4,527	9,616	10,714	-17%	-22%	-39%	
MGM	22.5	Outperform	Buy	HKD	23.8	32.1	6%	3,152	6,249	6,558	4,225	8,026	9,372	-25%	-22%	-30%	
Sands	42.2	Hold	Buy	HKD	40	60.2	-5%	11,197	23,547	25,748	14,264	31,832	40,027	-22%	-26%	-36%	
Galaxy	47.2	Hold	Buy	HKD	45.0	74	-5%	6,346	11,357	14,259	7,747	18,308	22,374	-18%	-38%	-36%	
Wynn	25.5	Underperform	Outperform	HKD	22.6	33	-11%	3,517	6,966	8,633	4,527	10,317	14,106	-22%	-32%	-39%	
Melco	25.9	Underperform	Buv	USD	23.0	34	-11%	3.621	9.309	9.701	5.337	12.783	16.755	-32%	-27%	-42%	

Source: Daiwa, Bloomberg

^{* 7-10%} of GGR in 2014, 20% YoY increase + incremental hiring for new property in 2015 ** from 3% of GGR to 4% of GGR



■ Macau Gaming Sector: issues, concerns, and implications

Issue	Ke	ey concerns	lm	plications
GGR/EBITDA revisions		2014/15 GGR growth forecast: -1 and -7% YoY (from +6% and +11%, respectively) 2014/15 VIP revenue forecast: -10% YoY and -19% YoY (from -	1)	11 5
		2% and +6% YoY, respectively) 2014/15 mass revenue forecast: +21% YoY and +11% YoY (from +25% and +20% YoY, respectively)	3)	expansion previously) Our 2015E sector EBITDA is 27% below consensus; we expect further downward consensus revisions in coming months
VIP	1)	Small/mid-sized junkets unable to meet table-betting volume minimums and larger junkets seeing difficulties in maintaining betting volumes; limited response casino operators can take to mitigate risk		More junket closures and consolidation to come Potential downward revisions of: a) guaranteed monthly table VIP roll volumes, and b) junket commission structure, may give a sense of new norms for 2015
	2)	substantial room closures and consolidation of operations	3)	Current segment rolling volumes suggest a further 10-15% table allocation from VIP to mass in order to maintain junkets'
Mass	3) 1) 2)	20% decline in average betting activity among high rollers		guaranteed minimums Mass table has already achieved critical mass, with table yields peaking in 1Q14E Further table reallocations from VIP to mass unlikely to drive growth
	3)4)	Despite YTD highs in visits, witnessing structural shift in tourist mix towards lower income segment which is not as conducive for GGR growth Recent months' record-high tourist arrivals driven by tour	3)	Potential reallocation of gaming tables from VIP to mass further lower table yields and margin erosion
		groups, a higher proportion of whom are priced out by minimum bets		
Anti-corruption	1)	Our chief economist, Kevin Lai, expects to see a shift to a more entrenched and systematic fight against graft to be announced in the upcoming Fourth Plenum		Current sentiment extending into 2015 is already the best-case scenario Further heightening of anti-corruption campaign in China a real possibility; may prompt a further sector de-rating
Labour Costs		SJM, Wynn, MGM: staff costs to increase by at least 20% YoY in 2015E driven by staff bonuses and wage inflation Galaxy, Sands, Melco: aggressive staff hiring 3-6 months ahead of opening on top of existing staff cost increases; expect a 40-60% YoY wage costs hike	1) 2)	
SG&A	·	A number of services (eg, hotel security, trash collection, casino cleaning) are outsourced and not categorized as staff costs Operators with 3rd party managed hotels have limited room for cost adjustments	1)	Staff costs hikes may lead to rises in the number of outsourced staff
Player Reinvestment Costs	1)		1)	Estimated player reinvestment cost to increase from 3% of GGR in 2014 to 4% in 2015 based on our forecasts; still lower compared to Las Vegas
Table Productivity	1)	Slowing GGR growth, increased table counts (from new openings) and rising opex point to potentially lower table productivity in 2015	1)	We forecast the sector net win per table to fall by 14% to HKD142k/day in 2015
Smoking Ban	1)	Total ban on mass floor (including premium mass) effective October 6		Short-term disruption of gaming floor should affect business Ban in premium mass areas is affecting frequent visitors and their gaming habits
				or our discussion on this, see our memo <u>click here</u>
October/Golden Week numbers	1) 2)	Operators unable to price up hotel rooms Sands imposed no special complimentary hotel room policy typical of peak seasons	1)	Lacklustre October; we now forecast negative GGR growth of 20-25% YoY
		Occupy Central movement in HK continued throughout Golden Week, likely affecting around 20% of Mainland visitors to Macau		or our discussion on October and Golden Week expectations ease see our memo click here
	4)	Major renovations among peak-season properties may cause further disruptions		

Source: Daiwa



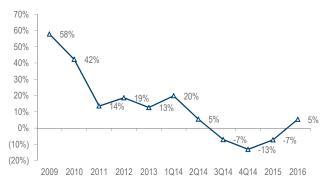
Revising down GGR growth forecasts

New GGR forecasts

Lowering 2014-15E GGR. We are revising down our GGR forecasts for 2014-15 in light of: 1) recent run rates, 2) much slower-than-expected recovery in VIP, 3) a structural shift in tourists and a structural decline in premium mass/high-rollers, 4) expected sustained anti-graft efforts and depressed sentiment in 2015, 5) negative operating leverage, and 6) new capacity.

We now forecast GGR to decline by 1% in 2014 and 7% in 2015. A VIP recovery may be more prolonged than previously expected, and as such, we now forecast VIP GGR to fall by 19% YoY in 2015. We also look for mass GGR growth to slow from 21% in 2014 to 11% in 2015.

■ Macau Gaming Sector: revised GGR growth forecasts



Source: DICJ, Daiwa

■ Macau Gaming Sector: Daiwa GGR growth forecast revisions

		Nev	w forecast	s	Previ	ious fore	casts
	2013	2014E	2015E	2016E	2014E	2015E	2016E
VIP	13%	-10%	-19%	0%	-2%	6%	8%
Mass	35%	21%	11%	12%	25%	20%	26%
Overall	19%	-1%	-7%	5%	6%	11%	16%

 $Source: DICJ, Daiwa \, forecasts$

VIP: consolidation far from over

Recovery likely to be more prolonged than previously expected

Junkets unable to meet monthly table betting volume minimums. The average per table rolling volume minimum in Macau is set at HKD200-250m per month. This volume is usually negotiated (on a base-by-case basis) between junket operators and casino operators.

In recent months, a number of small and mid-sized junkets have been facing difficulties in maintaining betting volumes and have dipped below their respective contractual minimums in some months.

On the other hand, the larger junkets, with substantial table number commitments and a broader casino presence, have been able to maintain their average per table rolling volumes and continue to capture additional market share. However, they are struggling to maintain the necessary levels of table yields.

This is likely a combination of current demand weaknesses and continued liquidity constraints within the VIP system. Our checks indicate that while the VIP liquidity environment has improved since June, it continues to be tight for many of the small and midsized junkets.

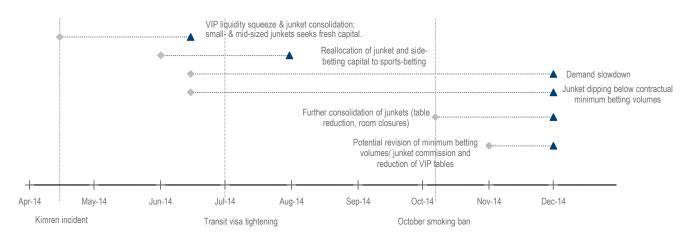
Planning room closures and consolidation.

Based on our checks, a number of junkets are planning to reorganise and consolidate their operations. This includes: 1) closing their own junket rooms, 2) lowering table counts within their own rooms, and 3) closing self-run junket rooms and setting up counters (subjunket operations) in other junkets to share the burden of table minimums.

As an example, Heng Sheng, a mid-sized junket with around a 5% market share, has been experiencing a severe liquidity crunch and plans to consolidate its businesses. The junket plans to close at least 5 of its 11 junket rooms over the next few months, including those in Galaxy Macau, The Venetian, Sands Cotai Central, and Wynn Macau.



■ Macau Gaming Sector: VIP timeline of events



Source: Daiwa

Escalating bad debts worrisome; junkets unlikely to loosen credit provisions. We have tracked the number of instances and amount of bad debt posted on Beautiful World (www.99world.net), a website which regularly publishes bad-debt information on VIP players in Macau.

We analysed Macau's bad debts as a percentage of 1-month trailing VIP revenue (assuming an average collection period of between 2 and 4 weeks) YTD. We note that while VIP revenue has continued to decline on a YoY base over the past 4 months, the proportion of bad debt has seen a notable increase from pre-Kimren levels in April (when a junket agent absconded with HKD8bn). More of a concern is that bad debts (percentage of 1-month trailing VIP GGR) in October to-date have already exceeded the September level.

We believe this trend suggests: 1) the overall quality of players may be declining, and 2) gaming debts are increasingly difficult to collect. Junket operators will likely respond to this by tightening the provision of credit to customers, which would put downward pressure on the segment's fundamentals as a whole.

■ Bad debt as percentage of 1-month trailing VIP GGR



Source: Beautiful World, Daiwa

Note: *Excludes the approximate HKD8bn relating to the Kimren incident in April 2014
**bad debt up to October 10th, 2014

What to watch for in 2015

Limited action could be taken by casinos in response. Historically when a junket underperforms, the typical strategy among the casino operators is to reduce their table allocation or remove these junkets from the casinos entirely. The tables might either be allocated to other better performing junkets or to the mass floor. However, this strategy may not be as practical in a market contraction since: 1) slowing VIP means less demand for additional tables by other junkets, and 2) mass table yield likely has already peaked in 1Q14 and further table allocation to the mass floor may not translate into tangible growth.

In our view, there are 3 strategies casino operators can take in response to this dog-eat-dog market contraction; however, we think all would be negative in terms of profitability: 1) Increase junket commissions to attract junkets, 2) potential table reduction at a per junket level, and 3) decrease the rolling minimum required for junkets.



Casino operators could use higher junket commissions and specials comps to attract business. Against declining segment GGR growth, we also expect casino operators to become increasingly aggressive in chasing market share, or the incremental gaming dollar above and beyond rolling minimums.

Casino operators have already begun to offer special incentives to attract junket businesses, including special hotel room deals and special junket commission incentives. We believe any sustained spending of these incremental costs would be margin-dilutive for the segment in the long run.

Potential table reduction or downward revisions to minimum monthly betting volumes

in 2015. Due to the prolonged challenges expected to be faced by the junkets, in the coming months we may also see: 1) downward adjustments to guaranteed roll per table as negotiated between junket and casino operators, and/or 2) junkets lowering their total table counts as a means of lowering aggregate minimum bets. The magnitude of these adjustments could give a sense of the new norm we should be expecting for 2015.

We may see 10-15% gaming table reallocation to mass in order for the casinos to maintain guaranteed minimums at current run rates.

Based on our forecasted VIP GGR for 2015, our analysis suggests that between 200 and 250 VIP tables (10-15% of existing total) need to be shifted to mass areas in order for the segment as whole to maintain current per table minimums.

Mass: shift in tourist mix not conducive to GGR growth

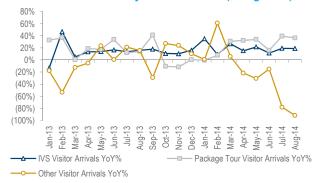
Lacking fundamental drivers for a pick-up in growth

Despite record-high visits, the shift in the tourist mix is not conducive to GGR growth.

Chinese tourists travelling to Macau reached 2.1m in August, marking another record-breaking month in Macau's history. However, 2 worrisome trends can be observed when examining the details of this number: 1) a substantial pick-up in growth in tour group arrivals (up 36% YoY in August vs. up 20% for 1H14), and 2) a clear decline in the "other" category (down 92% YoY for August after a decline of just 6% YoY for 1H14).

The "other" category is particularly important, as it includes travellers who visit Macau on transit visas and business visas, both of which are frequently used by higher-betting quality rated premium mass players.

■ Mainland Chinese visits by different means (YoY growth)



Source: The Statistics and Census Service of Macau (DSEC)

Premium mass looking lacklustre: frequency of visits and average betting activity both declined; trend unlikely to reverse in near term. Based on our conversations with premium mass hosts in some of the flagship properties, 2 worrisome

hosts in some of the flagship properties, 2 worrisome trends were noted: 1) average per-player gaming activity has declined by around 20% when compared to 1Q14 levels, and 2) the frequency of visits among high rollers has seen a notable decline.

These trends likely have resulted from the recent restriction of transit visas and the overall depressed sentiment in China due to the anti-graft crackdown. As such, it is unlikely we will see a substantial improvement in frequency of visits by rated players in the near term.

Tour groups: priced out and require substantial visitor growth to drive gaming business. In our view, the strong growth of tour groups to Macau is not as conducive to driving GGR growth. According to local news flow, tourists joining tour groups spend HKD3,000-4,000 per trip, mainly on shopping, dining and sightseeing. These tourists are also more likely to spend money on shopping, since much of the time typically allocated on these tours is for shopping (rather than gaming), whereby tour guides have rebate incentives to encourage purchases. Against minimum bet sizes of HKD500-1,500 on the mass gaming floor, we believe a material portion of the tour groups are also effectively priced out from gaming.

Grind mass is likely the most structurally intact segment in Macau. During this year's Golden Week, Macau witnessed a 17% YoY increase in tourist arrivals. While hotel occupancy continues to be very high, we did witness an average 20-30% decline in average daily rates (ADR) for rooms versus prior peak seasons. In our view, a peak season room rate is a very good indicator of 1) relative demand and 2) the overall quality of customers travelling to Macau. The YoY decline in ADR during peak season is a strong indicator



of the tourist mix shift to those with lower spending power.

A lower gaming budget per customer for tour groups means that there needs to be very high tourist growth in Macau in order for any meaningful mass GGR growth to be seen.

A good indicator of this is The Venetian, a well recognised not-to-be-missed property among Mainland tourists, which has been achieving record-high footfall in Macau. While property visits continue to rise, casino hosts have remarked that casino visits and overall gaming headcount have actually seen notable declines over the past 3 months. On the other hand, during Golden Week when The Venetian saw high foot traffic, its market share in GGR increased by 4pp from that for September.

Mass table productivity has already peaked; set to fall in 2015

Table yields likely already peaked in 1Q14. Mass table productivity has doubled over the past 3 years, likely peaking in 1Q14 with net wins of HKD101k/day. In 2Q14, we saw net wins declining to HKD100k/day, marking a 1% QoQ decline. In 3Q14, wins look set to decline by another 1% QoQ to HKD99k/day.

Table productivity to see 11% decline by 2016E. On an annual basis, we expect mass table yields to post growth of 10% YoY in 2014, largely driven by a relatively stronger 1H.

However, as we head into 2015-16, we look for table yields to drop by 11% to HKD86k/day by 2016, driven by: 1) the expected slowing mass market growth in 2015-16, 2) new gaming table capacity from new casino openings, and 3) likely table shifts from VIP to mass (see page 8).

Margin erosion expected. We look for a decline in table yields and increasing labour costs to drive margin erosion across the sector. We discuss this in detail in the next section.

China's macro environment also unlikely to help Macau

Entrenching anti-graft efforts; sentiment unlikely to abate in 2015 (by Kevin Lai, Daiwa Chief Economist)

Anti-graft efforts began to escalate in February 2014. China's 2-year anti-graft campaign began to escalate in February 2014, and culminated in the downfall of Zhou Yongkang in July 2014, the first member of the Politburo Standing Committee to be prosecuted for graft and potentially other crimes.

Overall anti-graft sentiment has led to reduced demand for any product or services associated with ostentatious displays of wealth. It has dealt a blow to many areas, including the Macau Gaming Sector which has contributed to the negative GGR growth witnessed since June 2014.

A shift to a systematic fight against anti-graft in **2015.** In the upcoming Fourth Plenum later this month, we expect a shift to an entrenched and systematic fight against anti-graft from the ongoing "hitting tigers and flies" campaign. The legal and judicial reforms mean some of these impacts will be more permanent in nature; consequently, the prevailing anti-graft climate is unlikely to abate in **2015.**

Changes target existing government and private sectors alike. The main reforms are centered on structural reforms of the government apparatus and SOEs. However, the contagion impact on private enterprises is also noted, which has resulted in a partial paralysis in many areas of economic growth, especially those previously facilitated through local government endorsement. This is expected to result in much lower opportunities for quick riches and fast wealth creation among private enterprises; and by extension, lower spillover growth to industries such as Macau gaming.



Negative operating leverage; EBITDA to fall in 2015

Increasing labour costs, SG&A, and player investment costs are expected to outpace revenue growth in 2015, resulting in significant margin compression and operating deleveraging.

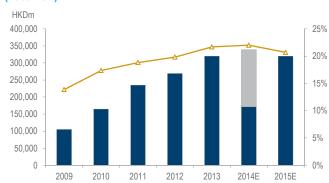
Margins should contract in 2H14

Macau enjoyed multiple years of margin expansion. Macau's average gaming sector EBITDA margin increased from 14% in 2009 to 22% in 1H14, due mainly to: 1) a favourable revenue mix from VIP to mass, and 2) increasing mass table productivity from growth of premium mass segment and rising minimum bets.

Margin contraction expected in 2H14. Against our expected negative GGR growth in 2H14 and 2015, we look for these prevailing trends, resulting in negative operating leverage:

- 1) 20% YoY increase in base wage inflation.
- 2) 40-60% YoY increase in staff costs for operators with new openings due to incremental hiring to fully staff new properties 3-6 months prior to their respective openings.
- 3) SG&A cost pressures, such as outsourced staff costs and fixed hotel operating expenses.
- 4) Increased player investment, promotion, and marketing costs.

■ Macau Gaming Sector: EBITDA and EBITDA margins (2009-15E)



Source: Company, Daiwa

Operators with the biggest incremental new capacities should feel the most pain in 2015. In our view, opening mega-sized resorts atop a relatively smaller existing operating base in a contracting market is a dangerous proposition. Three of the six casino operators in Macau are slated for new property openings in 2015, including Galaxy (mid-2015), Melco (3Q15) and Sands (late 2015). Of the three, Melco stands to see the biggest increase in capacity (in both tables and hotel rooms).

■ Capacity increases following new openings in 2015



Source: Daiwa, company

Cutting 2014-16E EBITDA by 10-42%. Against slower GGR growth and expected deleveraging, we are reducing our 2014-16E EBITDA forecasts by 10-42%; our heaviest cuts are for operators with 2015 openings.

■ Macau Gaming Sector: Daiwa vs. consensus EBITDA forecasts

		Da	aiwa (HKDm)		Con	sensus (HKDm)		Variance			
Operator	Currency	2H14	2015E	2016E	2H14	2015E	2016E	2H14	2015E	2016E	
SJM	HKD	3,778	7,484	6,490	4,532	9,654	9,921	-17%	-22%	-35%	
MGM	HKD	3,152	6,249	6,558	3,555	7,653	9,089	-11%	-18%	-28%	
Sands	USD	11,197	23,547	25,748	12,154	31,051	36,991	-8%	-24%	-30%	
Galaxy	HKD	6,346	11,357	14,259	6,701	17,881	21,243	-5%	-36%	-33%	
Wynn	HKD	3,517	6,966	8,633	4,791	9,709	13,330	-27%	-28%	-35%	
Melco	USD	3,621	9,309	9,701	4,975	12,575	16,801	-27%	-26%	-42%	

Source: Bloomberg, Daiwa



Sector cost pressures

No.1: staff costs pressure largely underestimated by consensus

Since the beginning of the year, casino operators have successively announced staff retention programmes including annual bonus payments ("14th month bonus") and different iterations of multi-year retention programmes (one-off cash bonuses in 2017, vested equity and stock option plans). Despite this, we have seen continued and escalating pushback by labour unions demanding higher wages and bonuses.

Wage inflation pressure unlikely to soften in 2015-16. We see wage inflation continuing to rise, driven by: 1) the structural supply shortage of trained and experienced staff in Macau, and 2) increasing demand for staff following the successive casino openings in 2015-17.

20% YoY increase in base staff costs. We forecast base staff costs to increase by 20% YoY for 2015, driven by: 1) 14th-month bonuses for all existing staff, 2) 8-10% YoY wage inflation, and 3) other staff benefits.

Operators with casino openings should see the highest wage inflation and negative operating leverage in 2015. We estimate that operators with new casino openings (Galaxy, Melco, Sands) will see staff costs increase by 40-60% YoY when they begin to fully staff the new properties 3-6 months ahead of each new casino's respective opening.

Among the 6 operators in Macau, 3 are planning to introduce new capacity (Galaxy: mid-2015, Melco: mid-2015, and Sands late 2015) and are most at risk of negative operating leverage and margin erosion. Wynn is also at risk since the operator would have to begin its

hiring in 3Q14-4Q15 ahead of Wynn Palace's opening, scheduled for Lunar New Year 2016.

Of the 3 operators with new openings scheduled in 2015, Galaxy has the earliest casino opening, Melco has the lowest base, and Sands has the least productive table yields.

SJM faces the least risk. In our view, SJM faces the lowest risk from labour-cost increases. Our argument is premised upon:

- 1) 50% of SJM's revenue is derived from satellite casinos, of which it receives 3-5% of revenue; labour and other cost pressures for these casinos are borne by third parties.
- 2) Its new Cotai property opening is the last among peers (2017); as such, it should bear the least risk in incremental staff costs or rushed hiring.
- Grand Lisboa has high table yields and faces a lower (relative to other operators) risk of negative operating leverage.

Macau's labour constraints poised to worsen.

According to our forecasts, the total number of dealers required to operate all the gaming tables of new casinos opening in 2015-17 would be as high as 16,500.

The unemployment rate in Macau reported as of the end of 2Q14 was 1.7%, which implies that 10,608 Macanese are currently unemployed. Since only Macau residents are permitted to work as dealers and pit bosses, we expect the gap between the labour supply and demand of dealers to widen in Macau in the coming years.

■ Macau Gaming: new capacities and labour cost increases

	Galaxy	Melco*	Sands	Wynn	MGM	SJM
Existing Capacity (June 2014)						
Staff Count	16,000	10,896	25,884	7,366	6,010	21,700
Hotel rooms	2,710	1,601	9,156	1,008	588	413
Gaming Tables	771	615	1,529	465	424	1,771
Staff cost reported (USDm)	319	211	526	185	123	374
New Capacities (est. new openings)	Mid-2015	Mid-2015	Late-2015	Early-2016	Mid-2016	2,017
Staff Count	+40%	+70%	+40%	+90%	+130%	+40%
Hotel rooms	+50%	+100%	+30%	+170%	+270%	+480%
Gaming Tables	+60%	+80%	+30%	+110%	+120%	+40%
Estimated labour cost increase 2015 (YoY%)	48%	66%	46%	39%*	20%	20%

^{*} Staff count excludes City of Dreams Manila

^{**} Increase from hiring for Wynn Palace in 3Q14-4Q15 prior to Wynn Palace's opening in Chinese New Year 2016 Source: Daiwa



■ Dealers in Macau (2H14-2017)

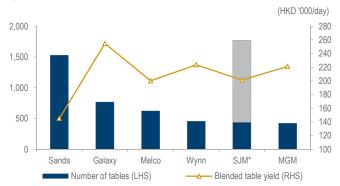


Source: DSEC, DICJ, Daiwa

Sands faces a longer-term structural risk to labour cost increases. Among its peers, we believe Sands faces the highest structural risk of labour-cost increases. Sands currently has: 1) the highest number of self-operated gaming tables among peers, and 2) the lowest per table yield in Macau.

In other words, the operator is incurring the highest commitment of resources (table and labour) to achieve the lowest operating leverage among peers. Its existing cost structure also reflects this, with Sands incurring the highest percentage of labour costs as a percentage of revenue.

Macau Gaming: number of table and blended table yield per operator



Source: Daiwa *SJM table yield based on GLB [Grey = SJM excl. GLB]

No.2: SG&A also at risk of increases and largely overlooked

Outsourced services are also at risk of cost hikes. We see a number of costs that are also at risk of hikes in 2015-16. A number of services, such as hotel security, trash collection, casino cleaning and some non-gaming staffing, has been outsourced to third-

party companies and are not included in staffing costs. Currently, SG&A accounts for around 22% of the Macau Gaming Sector's revenue.

In our view, wage inflation for internal staff among casino operators in Macau's labour-constrained market is likely to increase the costs for these outsourced services, which would consequently be reflected in SG&A.

Rigid hotel operating cost structure, especially for operators with third-party managed hotels.

Against rising costs and declining average daily rates for hotel rooms, we see very little cost maneuverability for casino operators, especially those with hotels that are managed by third parties (Sands, Galaxy, Melco). These 5-star hotel brands must maintain certain service levels, minimum staff experience and quality levels, and amenities that are unlikely to be compromised in the light of slower GGR growth or lower average daily rates. It is difficult to strip out the exact financial implication of this risk based on public information, but we do highlight this as a potential risk for further operating deleverage.



■ Macau Gaming Sector: hotels and room count

Casino Operator	Property	Hotel Brand	Room count
MGM	MGM Macau	Own brand	600
Galaxy	Galaxy Macau	Banyan Tree	250
		Hotel Okura	500
		Galaxy hotel	1,500
	StarWorld	StarWorld	500
Melco Crown	City of Dreams	Crown Towers	290
		Hard Rock	320
		Grand Hyatt	790
	Altira	Own brand	215
Wynn	Wynn Macau	Wynn	1,000
Sands China	Sands Macao	Own brand	290
	Venetian Macao	Own brand	3,000
	Plaza Macao	Four Seasons	360
	Sands Cotai Central	Conrad	600
		Sheraton	3,900
		Holiday Inn	1,200
SJM	Grand Lisboa	Own brand	430

Source: Daiwa

No.3: player investment costs to rise in the face of mounting competition

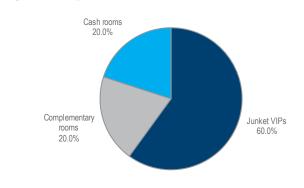
Over the past 2-3 years, each casino operator has been actively building out its customer database and expanding its business through attracting an increasing amount of repeat business from rated players (as opposed to grind mass market players who are more property and operator-agnostic).

Naturally, costs are expected to increase as the need to offer non-gaming complementary services to customers, such as hotel rooms, transportation, and other gaming/non-gaming incentives, rises. We already have seen a progressive increase in promotional allowances from 3.3% of GGR in 2012 to 3.6% by 1H14.

Going forward, all six operators increasing their hotel room supply amid slower growth will likely intensify both competition between casino operators and also against each operator's respective older properties.

Furthermore, with the expected VIP business shrinkage should come a decreasing allocation of hotel rooms to junkets, which would further increase hotel room supply even among existing properties. We estimate that approximately 60% of existing hotel rooms are currently allocated to junkets in Macau. We expect casino operators to be much more aggressive in terms of driving businesses, and by extension, increasing comp-ing activities (which is another way of describing an increase in player reinvestment costs). We forecast promotional costs to increase to around 4% of GGR in 2H15, which is still low compared to 6-7% in Las Vegas.

■ Macau Gaming Sector: average hotel room allocation by the 6 major casino operators



Source: Daiwa

Anecdotally, Sands has already been actively working on this strategy. The operator hired a new hotel management team in 1Q14 to facilitate this.



Earnings, stock pecking order and valuation

Investment thesis

Switching to defensive cost profiles

With the expected lacklustre top-line growth, rising costs, and margin erosion for the industry in 2015, we are shifting our stock preferences to those operators with more defensive cost profiles.

In our view, operators with earlier openings now bear the highest immediate risk of cost increases and the largest potential for negative operating leveraging.

Revised pecking order

Against an expected market contraction, EBITDA decline and margin erosion, we cut our target EV/EBITDA multiples ascribed to existing properties in our SOTP valuation from 7-15x to 7x-11x with the magnitude of cuts depending on the properties' business mix, Peninsula/Cotai exposure, and sensitivity to cost inflation. Our new stock picks are as follows:

■ Macau Gaming Sector: new pecking order

Order	Stock	Rating	j Inv	restment thesis
1 (5)	SJM	OP	1) 2) 3) 4) 5)	Defensive revenue mix; 50% of group revenue from satellite casinos of which SJM takes 3-5% of revenue; opex incurred borne by third parties Should see the least immediate labour-cost pressures, as it will have the last Cotai new property opening (Lisboa Palace in 2017) Cash-rich and likely to be the only operator able to maintain its current dividend policy in this capex cycle (regular and special dividends) Grand Lisboa has one of the highest VIP table yields as it has the highest mix of quality junkets among its peers Cheap valuation; relatively limited downside risk, in our view
2 (2)	MGM	OP	1) 2) 3)	Has the second-to-last new Cotai property opening in early 2016; less labour-cost hike pressure, especially if there are delays in the opening Solid operator with a strong junket mix; mass table yield is also the highest in Macau Small property and small operating base, nimble cost control that is much easier to manage than those of the mega-resorts amid the current market-share contraction
3 (3)	Sands	Hold	1) 2) 3) 4)	Cotai property opening in 2015 faces labour-cost pressure but less so than Galaxy and Melco, given Sands' lower incremental capacity increase from the existing higher base Grind mass-centric and best retail offering is attracting tourist headcount, and by extension, gaming dollars High risk of negative operating leveraging, as it has the lowest table yields among peers Recent aggressive table shift to the mass market was largely unsuccessful; further table shifts to the mass market unlikely to create new demand
4 (1)	Galaxy	Hold	1) 2) 3)	Earliest new property opening (mid-2015), and thus faces high cost pressures Negative operating leverage from new opening, partially offset by strong VIP and market-leading table yields Best junket management programme; we expect its VIP rolling to outperform peers but also likely to see higher-than-peers top-line pressures due to VIP-heavy business mix
5 (6)	Wynn	UP	1) 2) 3) 4) 5)	Likely to see top-line pressure/market-share losses from the expected collapse of the high-end market New Cotai property opening in 2016 (most expensive among peers); less immediate labour cost hike pressure Preopening hiring will also affect the operator in 2015, hit in 3Q14-4Q15 ahead of the opening of Wynn Palace, slated to be at the time of the Lunar New Year in 2016 Most highly geared among peers after current capex cycle Most expensive relative to peers
6 (4)	Melco	UP	1) 2) 3)	Among the highest increase in table/hotel capacity with Studio City's scheduled opening in 3Q15 likely to be a big negative Expect VIP rolling to underperform that of the industry in 2014-15 due to poor junket mix The underperforming Altira may take time to adjust its segment mix

Source: Daiwa

■ Macau Gaming Sector: summary of earnings and rating changes

	Share Price	Recommer	ndation		Targe	t Price I	mplied Upside	New	EBITDA (H	IKDm)	Old I	EBITDA (H	KDm)	EB	ITDA chan	ige
Operator	(8 Oct.)	New	Old	Currency	New	Old		2H14E	2015E	2016E	2H14E	2015E	2016E	2H14E	2015E	2016E
SJM	15.5	Outperform	Outperform	HKD	16.7	21	8%	3,778	7,484	6,490	4,527	9,616	10,714	-17%	-22%	-39%
MGM	22.5	Outperform	Buy	HKD	23.8	32.1	6%	3,152	6,249	6,558	4,225	8,026	9,372	-25%	-22%	-30%
Sands	42.2	Hold	Buy	HKD	40	60.2	-5%	11,197	23,547	25,748	14,264	31,832	40,027	-22%	-26%	-36%
Galaxy	47.2	Hold	Buy	HKD	45.0	74	-5%	6,346	11,357	14,259	7,747	18,308	22,374	-18%	-38%	-36%
Wynn	25.5	Underperform	Outperform	HKD	22.6	33	-11%	3,517	6,966	8,633	4,527	10,317	14,106	-22%	-32%	-39%
Melco	25.9 (Jnderperform	Buy	USD	23.0	34	-11%	3,621	9,309	9,701	5,337	12,783	16,755	-32%	-27%	-42%

Source: Daiwa, Bloomberg



■ Dividend stress test

	Re	gular dividend	Special Dividends operators			
Operator	SJM	MGM	Wynn	Sands (USD)	Galaxy	Melco (USD)
Total operating cash flow (2014-17E)	33,653	27,665	26,988	12,746	56,324	4,027
Total capital expenditures (2014-17E)	(30,000)	(20,310)	(45,336)	(3,054)	(58,639)	(2,151)
Net cash position (end-2013)	25,160	3,823	3,748	(281)	9,717	(8)
Dividend (Regular, 2014-17E)	(12,944)	(7,700)	(23,969)	(8,457)	-	-
Regular dividend payout ratio	50%	35%	100%	80%	-	-
Dividend (Special, 2014-17E)	(5,548)	(15,988)	-	(3,823)	(14,345)	(975)
Special dividend payout ratio	22%	73%	-	36%	29%	30%
Dividend (total regular and special, 2014-17E)	(18,492)	(23,688)	(23,969)	(12,280)	(14,345)	(975)
Total payout ratio	72%	108%	100%	116%	29%	30%
Net cash position (end-2017E, regular div only)	15,869	3,478	(38,569)	954	7,402	1,868
Net cash position (end-2017E, regular & special)	10,321	(12,510)	(38,569)	(2,869)	(6,943)	893
Can free cash flow support current dividend policy in its entirety over next three years?	YES	NO	NO	NO	NO	YES

Source: Daiwa

SJM is likely to be the only candidate to see firm dividend yield support over 2014-17. At current share-price levels, the sector is trading at a 3-7% dividend yield, or 2-5% if we exclude the special dividends.

We believe that the operators with regular dividend policies will see some share-price support (Sands, Wynn, MGM and SJM). That said: 1) investors typically do not buy Macau names for their dividend yields, and 2) operators by and large cannot maintain their current dividend payouts because this is likely to lead to cash burn.

We have performed a simple stress test on each operator's ability to maintain its respective dividend payout by examining each operator's total operating cash flow and capex budgets between 2014 and 2017 (above).

Of the operators with regular dividend policies, we do not believe they will be able to maintain their current payouts in their entirety (both regular and special dividends). The only exception to this is SJM, which is cash rich and has the latest new property opening in 2017 (and the slowest cash burn) among its peers.

It should be pointed out that Galaxy does not have a regular dividend policy and does not have the necessary capital to maintain its current special dividend policy. However, this conclusion may change if the operator alters the capex plan for Galaxy Phases 3 and 4 (currently slated to open in 2016-18).

Valuation

Valuation looks unattractive; share prices likely have not factored in 2015E earnings fall.

For 2015, the consensus still expects: 1) 16% YoY EBITDA growth for the sector, and 2) a 60bps EBITDA margin expansion to 23%. The sector is still trading near historical levels, at 2015E EV/EBITDA multiple of 15x and at 12-month forward PER of 22x.

We argue that the sector may still see a further derating, given that it saw an earnings CAGR of 36% over the 2008-1H14 period, rather than the 8% YoY EBITDA decline that we expect for 2015. Our EBITDA forecast is also 26% below the consensus, as we expect higher increases in labour and promotional costs will lead to negative operating leverage and further cuts to consensus earnings in the coming months, which could drive a potential derating.

■ Macau Gaming Sector: EV/EBITDA multiple



Source: Bloomberg, Daiwa



■ Macau Gaming Sector: weighted-average 12-month forward PER (x)



Source: Bloomberg, Daiwa

Assessing the downside from here. The sector market cap has lost 38% since its peak in January 2014. However, it is still trading at 11x 2015 EV/EBITDA (based on the Bloomberg-consensus forecast), which is higher than the 2012 trough of 7.5x EV/EBITDA. If the sector reverts to this trough multiple (7.5x), this would imply 30% downside to the current market cap.

In our worst-case scenario, if we apply the 7.5x to our 2015 EBITDA forecast for the sector, which is 27% below the consensus, this would imply 49% downside to the current market cap. This would push the sector dividend yield to 11% (market-cap weight among the 4

operators with a regular dividend policy), which is an unlikely scenario.

That said, our analysis suggests that most operators with a regular dividend policy (other than SJM) are unlikely to maintain their current dividend policies in their entirety during the 2015-17 capex cycle amid this contracting market environment (see page 15). As such, any cut in the operators' special dividend policies could drive a derating.

Risks to our sector call. The main upside risk to our Neutral sector call would be if China's economic fundamentals were to improve unexpectedly. A secondary upside risk would be positive investor sentiment over the Hong Kong-Shanghai Stock Connect.

The main downside risk to our sector rating would be if the China government cracks down even further in terms of its anti-graft measures. Secondary risks would be if VIP GGR were to decline by more than we expect, and any further structural shifts in the tourist mix to Macau. Unexpected visa policy changes would also have a negative impact.

■ Target multiples

Operator	Share price Recommendation Currency			TP	New implied 2015E multiples (x)		Prev. implied 2015E multiples (x)		Historical 1-yr fwd EV/EBITDA (x)			Historical 12m fwd PER(x)		
•	(8 Oct)		_	_	EV/EBITDA	PER	EV/EBITDA	PER	Peak	Trough	Average	Peak	Trough	Average
SJM	15.5	Outperform	HKD	16.7	9.8	16.2	9.8	14.6	15.7	3.2	8.1	19.4	8.4	13.6
MGM	22.5	Outperform	HKD	23.8	13.5	17.9	14.2	17.6	17.2	6.0	10.3	21.4	6.4	12.9
Sands	42.2	Hold	HKD	40	12.9	20.3	15.5	18.2	17.2	9.1	12.7	34.3	12.0	20.4
Galaxy	47.2	Hold	HKD	45	14.8	21.1	16.4	19.9	23.0	2.3	9.2	46.8	8.5	19.3
Wynn	25.5	Underperform	HKD	22.6	19.1	26.9	17.9	20.7	17.4	7.5	11.7	24.1	10.4	16.9
Melco	25.9	Underperform	USD	23	13.6	15.8	13.4	7.5	42.5	5.4	11.3	28 4	11.3	19.6

Source: Daiwa



■ Macau and global gaming sector: valuation summary

		Share	Maukat aan		EV/EBIT	DA (v)	EBIT		PER	(v)	2-yr EPS CAGR (%)	Div. yie	Jd (0/)	FCF	(0/)
Company	Ticker	price (local cur.)	Market cap (USDbn)	Rating	2014E	2015E	2014E	2015E	2014E	(x) 2015E	٠,,		2015E		
Macau	TIONOI	(local car.)	(CODDII)	raung	20172	20101	ZUITE	20101	20172	20101	2010-10L	ZVITE	20101	20172	20101
Galaxy	27 HK	47.15	25.6	Hold	13.5	16.6	8.4	(16.7)	18.1	22.1	(5.5)	n.a.	n.a.	1.5	n.a.
Melco Crown	MPEL US	25.10	14.3	Underperform	12.6	12.9	(9.0)	1.9	22.2	45.2	(30.5)	n.a.	n.a.	n.a.	n.a.
MGM China	2282 HK	22.50	11.0	Outperform	12.6	13.8	4.9	(6.4)	15.2	16.9	(2.7)	2.3	2.1	0.3	n.a.
Sands China	1928 HK	42.15	43.6	Hold	13.9	14.8	9.4	(4.9)	19.7	21.5	(4.0)	4.1	3.7	3.8	2.6
SJM	880 HK	15.28	11.1	Outperform	7.5	9.0	(5.2)	(9.0)	12.3	14.8	(13.4)	5.9	4.9	4.9	n.a.
Wynn Macau	1128 HK	25.45	17.0	Underperform	16.9	20.7	(7.5)	(14.4)	19.7	30.3	(24.7)	4.1	2.6	n.a.	n.a.
Macau - market cap weighted avg					13.4	15.2	3.1	(8.4)	18.6	24.5	(10.9)	4.1	3.4	2.2	0.9
Asia															
Paradise Group (KR)	034230 KS	34,650.00	3.2	Outperform	17.3	12.0	11.5	38.9	22.6	18.2	26.9	1.0	1.0	3.7	4.5
Grand Korea Leisure (GKL)	114090 KS	41,550.00	2.6	Outperform	9.6	8.5	8.4	8.4	17.0	14.8	12.3	2.6	2.9	5.2	11.1
Kangwon Land	035250 KS	34,300.00	7.3	Outperform	10.0	8.1	34.8	19.6	17.6	15.1	27.6	2.9	3.4	2.3	5.8
Genting (Malaysia)	GENT MK	9.30	10.6	NR	7.0	6.3	7.3	7.8	18.1	16.1	5.3	0.8	0.8	5.4	7.1
Asia - market cap weighted avg						9.6	7.8	16.5	15.7	18.4	15.9	15.9	1.7	1.9	4.2
US															
Las Vegas Sands	LVS US	61.90	49.8	NR	11.1	10.3	19.2	5.6	17.0	15.5	17.3	3.2	3.5	5.9	6.5
Wynn Resorts	WYNN US	183.29	18.6	NR	13.3	12.9	5.4	4.6	22.2	20.9	7.2	2.7	3.1	(0.5)	1.1
MGM Resorts	MGM US	21.97	10.8	NR	11.1	10.2	17.6	7.2	36.1	32.9	66.8	0.0	0.0	3.8	(0.9)
Caesars Entertainment Corp	CZR US	11.25	1.6	NR	12.9	12.3	265.2	6.7	n.a.	n.a.	41.3	0.0	n.a.	n.a.	n.a.
US - market cap weighted avg						11.6	11.0	20.7	5.6	20.4	18.8	22.1	2.6	2.9	4.0
Australia															
Crown Resorts Ltd	CWN AU	13.55	8.6	NR	14.5	13.7	(2.8)	5.9	14.9	13.0	9.7	2.9	3.1	2.9	2.7
Echo Entertainment Group Ltd	EGP AU	3.31	2.4	NR	7.5	7.2	10.1	4.1	16.3	15.5	6.1	2.9	3.1	4.0	3.2
SKYCITY Entertainment Group Ltd	SKC AU	3.24	1.7	NR	9.1	8.8	16.9	10.4	16.0	14.6	8.3	5.5	5.6	n.a.	n.a.
Australia - market cap weighted avg						12.4	11.8	2.2	6.2	15.3	13.6	8.8	3.2	3.4	2.7

Source: Bloomberg (unrated companies), Daiwa forecasts (rated companies)

Note: based on share prices as of 9 October 2014 (US-listed based on 8 October 2014)



■ Galaxy: EV/EBITDA



Source: Daiwa, Bloomberg

■ MGM China: EV/EBITDA



Source: Daiwa, Bloomberg

■ Melco: EV/EBITDA



Source: Daiwa, Bloomberg

■ Galaxy: 12-month forward rolling PER (x)



Source: Daiwa, Bloomberg

■ MGM China: 12-month forward rolling PER (x)



Source: Daiwa, Bloomberg

■ Melco:12-month forward rolling PER (x)



Source: Daiwa, Bloomberg



■ Sands China: EV/EBITDA



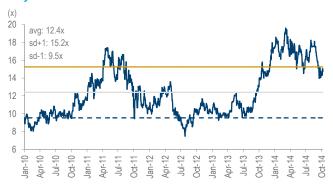
Source: Daiwa, Bloomberg

■ SJM: EV/EBITDA



Source: Daiwa, Bloomberg

■ Wynn: EV/EBITDA



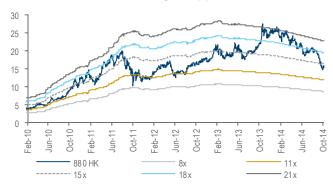
Source: Daiwa, Bloomberg

■ Sands China: 12-month forward rolling PER (x)



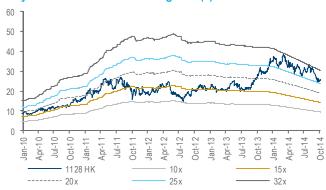
Source: Daiwa, Bloomberg

■ SJM: 12-month forward rolling PER (x)



Source: Daiwa, Bloomberg

■ Wynn: 12-month forward rolling PER (x)



Source: Daiwa, Bloomberg



Utilities and Energy

Daiwa's Asia Pacific Research Directory

HONG KONG		
Hiroaki KATO	(852) 2532 4121	hiroaki.kato@hk.daiwacm.com
Regional Research Head		
Kosuke MIZUNO	(852) 2848 4949 / (852) 2773 8273	kosuke.mizuno@hk.daiwacm.com
Regional Research Co-he	ad	
John HETHERINGTON	(852) 2773 8787	john.hetherington@hk.daiwacm.com
Regional Deputy Head of	Asia Pacific Researc	h
Rohan DALZIELL	(852) 2848 4938	rohan.dalziell@hk.daiwacm.com
Regional Head of Produc	t Management	
Kevin LAI	(852) 2848 4926	kevin.lai@hk.daiwacm.com
Chief Economist for Asia	ex-Japan; Macro Eco	onomics (Regional)
Christie CHIEN	(852) 2848 4482	christie.chien@hk.daiwacm.com
Macro Economics (Regio	nal)	
Junjie TANG	(852) 2773 8736	junjie.tang@hk.daiwacm.com
Macro Economics (China))	-
Jonas KAN	(852) 2848 4439	jonas.kan@hk.daiwacm.com
Head of Hong Kong and	China Property	
Leon QI	(852) 2532 4381	leon.qi@hk.daiwacm.com
Banking (Hong Kong, Ch	ina); Broker (China)	
Anson CHAN	(852) 2532 4350	anson.chan@hk.daiwacm.com
Consumer (Hong Kong/C	hina)	
Jamie SOO	(852) 2773 8529	jamie.soo@hk.daiwacm.com
Gaming and Leisure (Hor	ng Kong/China)	
Lynn CHENG	(852) 2773 8822	lynn.cheng@hk.daiwacm.com
IT/Electronics (Semicond	uctor) (Greater Chin	a)
Dennis IP	(852) 2848 4068	dennis.ip@hk.daiwacm.com
Power; Utilities; Renewa	bles and Environmen	nt (Hong Kong/China)
John CHOI	(852) 2773 8730	john.choi@hk.daiwacm.com
Regional Head of Small/I	Mid Cap; Head of Mu	llti-Industries (Hong Kong/China)
Joey CHEN	(852) 2848 4483	joey.chen@hk.daiwacm.com
Steel (China)		
Kelvin LAU	(852) 2848 4467	kelvin.lau@hk.daiwacm.com
Head of Transportation (Hong Kong/China);	Transportation (Regional)
Carrie YEUNG	(852) 2773 8243	carrie.yeung@hk.daiwacm.com
Transportation (Hong Ko	ng/China)	
Jibo MA	(852) 2848 4489	jibo.ma@hk.daiwacm.com
Head of Custom Products		
Thomas HO	(852) 2773 8716	thomas.ho@hk.daiwacm.com
Custom Products Group		-
•		
PHILIPPINES		
Bianca SOLEMA	(63) 2 737 3023	bianca.solema@dbpdaiwacm.com.ph
Utilities and Energy	(-0) = /0/ 0-40	

Chang H LEE	(82) 2 787 9177	chlee@kr.daiwacm.com
Head of Korea Researc		
Sung Yop CHUNG	(82) 2 787 9157	sychung@kr.daiwacm.com
Pan-Asia Co-head/Reg Shipbuilding; Steel	ional Head of Automo	biles and Components; Automobiles;
Mike OH	(82) 2 787 9179	mike.oh@kr.daiwacm.com
Capital Goods (Constru	ction and Machinery)
Sang Hee PARK	(82) 2 787 9165	sanghee.park@kr.daiwacm.com
Consumer/Retail		
Jun Yong BANG	(82) 2 787 9168	junyong.bang@kr.daiwacm.com
Oil; Chemicals; Tyres		
Thomas Y KWON	(82) 2 787 9181	yskwon@kr.daiwacm.com
		ns; Software – Internet/On-line Game

TAIWAN		
Mark CHANG Head of Taiwan Resea	. , , ,	mark.chang@daiwacm-cathay.com.tw
Rick HSU Head of Regional IT/E		rick.hsu@daiwacm-cathay.com.tw cor/IC Design (Regional)
Steven TSENG	(886) 2 8758 6252	steven.tseng@daiwacm-cathay.com.tw
IT/Technology Hardw	are (PC Hardware)	
Christine WANG IT/Technology Hardw		christine.wang@daiwacm-cathay.com.tw maceuticals and Healthcare; Consumer
Kylie HUANG IT/Technology Hardw	(886) 2 8758 6248 are (Handsets and Com	kylie.huang@daiwacm-cathay.com.tw

(91) 22 6622 1013	punit.srivastava@in.daiwacm.com
Strategy; Banking/Fi	inance
(91) 22 6622 1009	saurabh.mehta@in.daiwacm.com
	Strategy; Banking/Fi

SINGAPORE		
Adrian LOH	(65) 6499 6548	adrian.loh@sg.daiwacm.com
Head of Singapore Resear	rch, Regional Head o	f Oil and Gas; Capital Goods (Singapore)
Royston TAN	(65) 6321 3086	royston.tan@sg.daiwacm.com
Oil and Gas (ASEAN/Chin	a); Capital Goods (S	ingapore)
David LUM	(65) 6329 2102	david.lum@sg.daiwacm.com
Property and REITs		
Evon TAN	(65) 6499 6546	evon.tan@sg.daiwacm.com
Property and REITs		
Ramakrishna MARUVADA	(65) 6499 6543	ramakrishna.maruvada@sg.daiwacm.com
Telecommunications (Chi	na/ASEAN/India)	
Jame OSMAN	(65) 6321 3092	jame.osman@sg.daiwacm.com
Telecommunications (ASE (Singapore)	AN/India); Pharma	ceuticals and Healthcare; Consumer



Daiwa's Offices

Daiwa's Offices			
Office / Branch / Affiliate	Address	Tel	Fax
DAIWA SECURITIES GROUP INC			
HEAD OFFICE	Gran Tokyo North Tower, 1-9-1, Marunouchi, Chiyoda-ku, Tokyo, 100-6753	(81) 3 5555 3111	(81) 3 5555 0661
Daiwa Securities Trust Company	One Evertrust Plaza, Jersey City, NJ 07302, U.S.A.	(1) 201 333 7300	(1) 201 333 7726
Daiwa Securities Trust and Banking (Europe) PLC (Head Office)	5 King William Street, London EC4N 7JB, United Kingdom	(44) 207 320 8000	(44) 207 410 0129
Daiwa Europe Trustees (Ireland) Ltd	Level 3, Block 5, Harcourt Centre, Harcourt Road, Dublin 2, Ireland	(353) 1 603 9900	(353) 1 478 3469
Daiwa Capital Markets America Inc	Financial Square, 32 Old Slip, New York, NY10005, U.S.A.	(1) 212 612 7000	(1) 212 612 7100
Daiwa Capital Markets America Inc. San Francisco Branch	555 California Street, Suite 3360, San Francisco, CA 94104, U.S.A.	(1) 415 955 8100	(1) 415 956 1935
Daiwa Capital Markets Europe Limited	5 King William Street, London EC4N 7AX, United Kingdom	(44) 20 7597 8000	(44) 20 7597 8600
Daiwa Capital Markets Europe Limited, Frankfurt Branch	Trianon Building, Mainzer Landstrasse 16, 60325 Frankfurt am Main, Federal Republic of Germany	(49) 69 717 080	(49) 69 723 340
Daiwa Capital Markets Europe Limited, Paris Representative Office	36, rue de Naples, 75008 Paris, France	(33) 1 56 262 200	(33) 1 47 550 808
Daiwa Capital Markets Europe Limited, Geneva Branch	50 rue du Rhône, P.O.Box 3198, 1211 Geneva 3, Switzerland	(41) 22 818 7400	(41) 22 818 7441
Daiwa Capital Markets Europe Limited, Moscow Representative Office	Midland Plaza 7th Floor, 10 Arbat Street, Moscow 119002, Russian Federation	(7) 495 641 3416	(7) 495 775 6238
Daiwa Capital Markets Europe Limited, Bahrain Branch	7th Floor, The Tower, Bahrain Commercial Complex, P.O. Box 30069, Manama, Bahrain	(973) 17 534 452	(973) 17 535 113
Daiwa Capital Markets Hong Kong Limited	Level 28, One Pacific Place, 88 Queensway, Hong Kong	(852) 2525 0121	(852) 2845 1621
Daiwa Capital Markets Singapore Limited	6 Shenton Way #26-08, DBS Building Tower Two, Singapore 068809, Republic of Singapore	(65) 6220 3666	(65) 6223 6198
Daiwa Capital Markets Australia Limited	Level 34, Rialto North Tower, 525 Collins Street, Melbourne, Victoria 3000, Australia	(61) 3 9916 1300	(61) 3 9916 1330
DBP-Daiwa Capital Markets Philippines, Inc	18th Floor, Citibank Tower, 8741 Paseo de Roxas, Salcedo Village, Makati City, Republic of the Philippines	(632) 813 7344	(632) 848 0105
Daiwa-Cathay Capital Markets Co Ltd	14/F, 200, Keelung Road, Sec 1, Taipei, Taiwan, R.O.C.	(886) 2 2723 9698	(886) 2 2345 3638
Daiwa Securities Capital Markets Korea Co., Ltd.	One IFC, 10 Gukjegeumyung-Ro, Yeouido-dong, Yeongdeungpo-gu, Seoul, 150-876, Korea	(82) 2 787 9100	(82) 2 787 9191
Daiwa Securities Capital Markets Co Ltd, Beijing Representative Office	Room 301/302,Kerry Center, 1 Guanghua Road,Chaoyang District, Beijing 100020, People's Republic of China	(86) 10 6500 6688	(86) 10 6500 3594
Daiwa SSC Securities Co Ltd	45/F, Hang Seng Tower, 1000 Lujiazui Ring Road, Pudong, Shanghai 200120, People's Republic of China	(86) 21 3858 2000	(86) 21 3858 2111
Daiwa Securities Capital Markets Co. Ltd, Bangkok Representative Office	18 th Floor, M Thai Tower, All Seasons Place, 87 Wireless Road, Lumpini, Pathumwan, Bangkok 10330, Thailand	(66) 2 252 5650	(66) 2 252 5665
Daiwa Capital Markets India Private Ltd	10th Floor, 3 North Avenue, Maker Maxity, Bandra Kurla Complex, Bandra East, Mumbai – 400051, India	(91) 22 6622 1000	(91) 22 6622 1019
Daiwa Securities Capital Markets Co. Ltd, Hanoi Representative Office	Suite 405, Pacific Palace Building, 83B, Ly Thuong Kiet Street, Hoan Kiem Dist. Hanoi, Vietnam	(84) 4 3946 0460	(84) 4 3946 0461
DAIWA INSTITUTE OF RESEARCH LTD			
HEAD OFFICE	15-6, Fuyuki, Koto-ku, Tokyo, 135-8460, Japan	(81) 3 5620 5100	(81) 3 5620 5603
MARUNOUCHI OFFICE	Gran Tokyo North Tower, 1-9-1, Marunouchi, Chiyoda-ku, Tokyo, 100-6756	(81) 3 5555 7011	(81) 3 5202 2021
New York Research Center	11th Floor, Financial Square, 32 Old Slip, NY, NY 10005-3504, U.S.A.	(1) 212 612 6100	(1) 212 612 8417
London Research Centre	3/F, 5 King William Street, London, EC4N 7AX, United Kingdom	(44) 207 597 8000	(44) 207 597 8550





Disclaimer

This publication is produced by Daiwa Securities Group Inc. and/or its non-U.S. affiliates, except to the extent expressly provided herein. This publication and the contents hereof are intended for information purposes only, and may be subject to change without further notice. Any use, disclosure, distribution, dissemination, copying, printing or reliance on this publication for any other purpose without our prior consent or approval is strictly prohibited. Neither Daiwa Securities Group Inc. nor any of its respective parent, holding, subsidiaries or affiliates, nor any of its respective directors, officers, servants and employees, represent nor warrant the accuracy or completeness of the information contained herein or as to the existence of other facts which might be significant, and will not accept any responsibility or liability whatsoever for any use of or reliance upon this publication or any of the contents hereof. Neither this publication, nor any content hereof, constitute, or are to be construed as, an offer or solicitation of an offer to buy or sell any of the securities or investment opinion or advice. Any view recommendation or investment opinion or advice. Any view recommendation securities or investments mentioned herein in any country or jurisdiction nor, unless expressly provided, any recommendation or investment opinion or advice. Any view, recommendation, opinion or advice expressed in this publication may not necessarily reflect those of Daiwa Securities Capital Markets Co. Ltd., and/or its affiliates nor any of its respective directors, officers, servants and employees except where the publication states otherwise. This research report is not to be relied upon by any person in making any investment decision or otherwise advising with respect to, or dealing in, the securities mentioned, as it does not take into account the specific investment objectives, financial situation and particular needs of any person.

Daiwa Securities Group Inc., its subsidiaries or affiliates, or its or their respective directors, officers and employees from time to time have trades as principals, or have positions in, or have other interests in the securities of the company under research including derivatives in respect of such securities or may have also performed investment banking and other services for the issuer of such securities. The following are additional disclosures.

Daiwa Securities Co. Ltd. and Daiwa Securities Group Inc.
Daiwa Securities Co. Ltd. is a subsidiary of Daiwa Securities Group Inc.
Investment Banking Relationship

Within the preceding 12 months, The subsidiaries and/or affiliates of Daiwa Securities Group Inc. * has lead-managed public offerings and/or secondary offerings (excluding straight bonds) of the securities of the following companies: Modern Land (China) Co. Ltd (1107 HK); China Everbright Bank Company Limited (6818 HK); econtext Asia Ltd (1390 HK); Lotte Shopping Co (023530 KS); Rexlot Holdings Ltd (555 HK); Neo Solar Power Corp (3576_TT); Accordia Golf Trust (AGT SP).

*Subsidiaries of Daiwa Securities Group Inc. for the purposes of this section shall mean any one or more of: Daiwa Capital Markets Hong Kong Limited (大和資本市場香港有限公司), Daiwa Capital Markets Singapore Limited, Daiwa Capital Markets Singapore Limited, Daiwa Capital Markets India Private Limited, Daiwa-Cathay Capital Markets Co., Ltd., Daiwa Securities Capital Markets Korea Co., Ltd.

This research is distributed in Hong Kong by Daiwa Capital Markets Hong Kong Limited (大和資本市場香港有限公司) ("DHK") which is regulated by the Hong Kong Securities and Futures Commission. Recipients of this research in Hong Kong may contact DHK in respect of any matter arising from or in connection with this research. Ownership of Securities

For "Ownership of Securities" information, please visit BlueMatrix disclosure Link at https://daiwa3.bluematrix.com/sellside/Disclosures_Investment Banking Relationship

For "Investment Banking Relationship", please visit BlueMatrix disclosure Link at https://daiwa3.bluematrix.com/sellside/Disclosures.action.Relevant Relationship (DHK) DHK may from time to time have an individual employed by or associated with it serves as an officer of any of the companies under its research coverage.

DHK market making

DHK may from time to time make a market in securities covered by this research.

Singapore
This research is distributed in Singapore by Daiwa Capital Markets Singapore Limited and it may only be distributed in Singapore to accredited investors, expert investors and institutional investors as defined in the Financial Advisers Regulations and the Securities and Futures Act (Chapter 289), as amended from time to time. By virtue of distribution to these category of investors, Daiwa Capital Markets Singapore Limited and its representatives are not required to comply with Section 36 of the Financial Advisers Act (Chapter 110) (Section 36 relates to disclosure of Daiwa Capital Markets Singapore Limited's interest and/or its representative's interest in securities). Recipients of this research in Singapore may contact Daiwa Capital Markets Singapore Limited in respect of any matter arising from or in connection with the research.

This research is distributed in Australia by Daiwa Capital Markets Stockbroking Limited and it may only be distributed in Australia to wholesale investors within the meaning of the Corporations Act. Recipients of this research in Australia may contact Daiwa Capital Markets Stockbroking Limited in respect of any matter arising from or in connection with the research.

For "Ownership of Securities" information, please visit BlueMatrix disclosure Link at https://daiwa3.bluematrix.com/sellside/Disclosures.action.

This research is distributed by Daiwa Capital Markets India Private Limited (DAIWA) which is an intermediary registered with Securities & Exchange Board of India. This report is not to be Inis research is distributed by Dalwa Capital Markets India Private Limited (DALWA) which is an intermediary registered with securities & Exchange Board of India. Inis report is not to be considered as an offer or solicitation for any dealings in securities. While the information in this report has been compiled by DAIWA in good faith from sources believed to be reliable, no representation or warranty, express of implied, is made or given as to its accuracy, completeness or correctness. DAIWA its officers, employees, representatives and agents accept no liability whatsoever for any loss or damage whether direct, indirect, consequential or otherwise howsoever arising (whether in negligence or otherwise) out of or in connection with or from any use of or reliance on the contents of and/or omissions from this document. Consequently DAIWA expressly disclaims any and all liability for, or based on or relating to any such information contained reduced to the contents of any of onissions in this document. Consequency DAWA explains any and an inability of, of based of the reduced and should rely solely on your own judgment, review and analysis, in evaluating the information in this document. The data contained in this document is subject to change without any prior notice DAIWA reserves its right to modify this report as maybe required from time to time. DAIWA is committed to providing independent recommendations to its Clients and would be happy to provide any information in response to any query from its Clients. This report is strictly confidential and is being furnished to you solely for your information. The information contained in this document should not be reproduced (in whole or in part) or redistributed in any form to any other person. We and our group companies, affiliates, officers, directors and employees may from time to time, have long or short positions, in and buy sell or redistributed in any form to any other person. We and our group companies, affiliates, officers, directors and employees may from time to time, have long or short positions, in and buy self the securities thereof, of company(ies) mentioned herein or be engaged in any other transactions involving such securities and earn brokerage or other compensation or act as advisor or have the potential conflict of interest with respect to any recommendation and related information or opinion. DAIWA prohibits its analyst and their family members from maintaining a financial interest in the securities or derivatives of any companies that the analyst cover. This report is not intended or directed for distribution to, or use by any person, citizen or entity which is resident or located in any state or country or jurisdiction where such publication, distribution or use would be contrary to any statutory legislation, or regulation which would require DAIWA and its affiliates/group companies to any registration or licensing requirements. The views expressed in the report accurately reflect the analyst's personal views about the securities and issuers that are subject of the Report, and that no part of the analyst's compensation was, is or will be directly or indirectly, related to the recommendations or views expressed in the Report. This report does not recommend to US recipients the use of Daiwa Capital Markets India Private Limited or any of its non — US affiliates to effect trades in any securities and is not supplied with any understantial private Limited or any of its non — US affiliates to effect trades in any securities and is not supplied with any understanding that US recipients will direct commission business to Daiwa Capital Markets India Private Limited.

This research is distributed in Taiwan by Daiwa-Cathay Capital Markets Co., Ltd and it may only be distributed in Taiwan to institutional investors or specific investors who have signed recommendation contracts with Daiwa-Cathay Capital Markets Co., Ltd in accordance with the Operational Regulations Governing Securities Firms Recommending Trades in Securities to Customers. Recipients of this research in Taiwan may contact Daiwa-Cathay Capital Markets Co., Ltd in respect of any matter arising from or in connection with the research.

This research is distributed in the Philippines by DBP-Daiwa Capital Markets Philippines, Inc. which is regulated by the Philippines Securities and Exchange Commission and the Philippines Stock Exchange, Inc. Recipients of this research in the Philippines and extra planta Markets Philippines, Inc. in respect of any matter arising from or in connection with the research. DBP-Daiwa Capital Markets Philippines, Inc. recommends that investors independently assess, with a professional advisor, the specific financial risks as well as the legal, regulatory, tax, accounting, and other consequences of a proposed transaction. DBP-Daiwa Capital Markets Philippines, Inc. may have positions or may be materially interested in the securities in any of the markets mentioned in the publication or may have performed other services for the issuers of such securities.

For relevant securities and trading rules please visit SEC and PSE Link at http://www.pse.com.ph/ respectively.

United Kingdom
This research report is produced by Daiwa Capital Markets Europe Limited and/or its affiliates and is distributed in the European Union, Iceland, Liechtenstein, Norway and Switzerland. Daiwa Capital Markets Europe Limited is authorised and regulated by The Financial Conduct Authority ("FCA") and is a member of the London Stock Exchange, Eurex and NYSE Liffe. Daiwa Capital Markets Europe Limited and/or its affiliates may, from time to time, to the extent permitted by law, participate or invest in other financing transactions with the issuers of the securities referred to herein (the "Securities"), perform services for or solicit business from such issuers, and/or have a position or effect transactions in the Securities or options thereof and/or may have acted as an underwriter during the past twelve months for the issuer of such securities. In addition, employees of Daiwa Capital Markets Europe Limited and/or its affiliates may have positions and effect transactions in such securities or options and may serve as Directors of such issuers. Daiwa Capital Markets Europe Limited may, to the extent permitted by applicable UK law and other applicable law or regulation, effect transactions in the Securities before this material is published to recipients.



10 October 2014



This publication is intended for investors who are not Retail Clients in the United Kingdom within the meaning of the Rules of the FCA and should not therefore be distributed to such Retail Clients in the United Kingdom. Should you enter into investment business with Daiwa Capital Markets Europe's affiliates outside the United Kingdom, we are obliged to advise that the protection afforded by the United Kingdom regulatory system may not apply; in particular, the benefits of the Financial Services Compensation Scheme may not be available.

Daiwa Capital Markets Europe Limited has in place organisational arrangements for the prevention and avoidance of conflicts of interest. Our conflict management policy is available at http://www.uk.daiwacm.com/about-us/corporate-governance-regulatory. Regulatory disclosures of investment banking relationships are available at https://daiwa3.bluematrix.com/sellside/Disclosures.action.

Germany

This document is distributed in Germany by Daiwa Capital Markets Europe Limited, Niederlassung Frankfurt which is regulated by BaFin (Bundesanstalt fuer Finanzdienstleistungsaufsicht) for the conduct of business in Germany.

This research material is distributed by Daiwa Capital Markets Europe Limited, Bahrain Branch, regulated by The Central Bank of Bahrain and holds Investment Business Firm – Category 2 license and having its official place of business at the Bahrain World Trade Centre, South Tower, 7th floor, P.O. Box 30069, Manama, Kingdom of Bahrain. Tel No. +973 17534452 Fax No. +973

This material is provided as a reference for making investment decisions and is not intended to be a solicitation for investment. Investment decisions should be made at your own discretion and risk. Accordingly, no representation or warranty, express or implied, is made as to and no reliance should be placed on the fairness, accuracy, completeness or correctness of the information and opinions contained in this document, Content herein is based on information available at the time the research material was prepared and may be amended or otherwise changed in the future without notice. All information is intended for the private use of the person to whom it is provided without any liability whatsoever on the part of Daiwa Capital Markets Europe Limited, Bahrain Branch, any associated company or the employees thereof. If you are in doubt about the suitability of the product or the research material itself, please consult your own financial adviser. Daiwa Capital Markets Europe Limited, Bahrain Branch retains all rights related to the content of this material, which may not be redistributed or otherwise transmitted

United States

United States

This report is distributed in the U.S. by Daiwa Capital Markets America Inc. (DCMA). It may not be accurate or complete and should not be relied upon as such. It reflects the preparer's views at the time of its preparation, but may not reflect events occurring after its preparation; nor does it reflect DCMA's views at any time. Neither DCMA nor the preparer has any obligation to update this report or to continue to prepare research on this subject. This report is not an offer to sell or the solicitation of any offer to buy securities. Unless this report says otherwise, any recommendation it makes is risky and appropriate only for sophisticated speculative investors able to incur significant losses. Readers should consult their financial advisors to determine whether any such recommendation is consistent with their own investment objectives, financial situation and needs. This report does not recommend to U.S. recipients the use of any of DCMA's non-U.S. affiliates to effect trades in any security and is not supplied with any understanding that U.S. recipients of this report will direct commission business to such non-U.S. entities. Unless applicable law permits otherwise, non-U.S. customers wishing to effect a transaction in any securities referenced in this material should contact a Daiwa entity in their local jurisdiction. Most countries throughout the world have their own laws regulating the types of securities and other investment products which may be offered to their residents, as well as a process for doing so. As a result, the securities discussed in this report may not be eligible for sales in some jurisdictions. Customers wishing to obtain further information about this report should contact DCMA: Daiwa Capital Markets America Inc., Financial Square, 32 Old Slip, New York, New York 10005 (telephone 212-612-7000).

Ownership of Securities

For "Ownership of Securities" information please visit BlueMatrix disclosure Link at https://daiwa3.bluematrix.com/sellside/Disclosures.action.

Investment Banking Relationships

For "Investment Banking Relationships" please visit BlueMatrix disclosure link at https://daiwag.bluematrix.com/sellside/Disclosures.action.

 $\frac{DCMA\ Market\ Making}{For\ "DCMA\ Market\ Making"}\ please\ visit\ BlueMatrix\ disclosure\ link\ at\ \underline{https://daiwa3.bluematrix.com/sellside/Disclosures.action.}$

Research Analyst Conflicts

For updates on "Research Analyst Conflicts" please visit BlueMatrix disclosure link at https://daiwa3.bluematrix.com/sellside/Disclosures.action. The principal research analysts who prepared this report have no financial interest in securities of the issuers covered in the report, are not (nor are any members of their household) an officer, director or advisory board member of the issuer(s) covered in the report, and are not aware of any material relevant conflict of interest involving the analyst or DCMA, and did not receive any compensation from the issuer during the past 12 months except as noted: no exceptions.

Research Analyst Certification

For updates on "Research Analyst Certification" and "Rating System" please visit BlueMatrix disclosure link at https://daiwa3.bluematrix.com/sellside/Disclosures.action. The views about any and all of the subject securities and issuers expressed in this Research Report accurately reflect the personal views of the research analyst(s) primarily responsible for this report (or the views of the research analyst). the firm producing the report if no individual analysts[s] is named on the report); and no part of the compensation of such analysts(s) (or no part of the compensation of the firm if no individual analysts[s] is named on the report) was, is, or will be directly or indirectly related to the specific recommendations or views contained in this Research Report.

The following explains the rating system in the report as compared to relevant local indices, based on the beliefs of the author of the report. "1": the security could outperform the local index by more than 15% over the next six months.
"2": the security is expected to outperform the local index by 5-15% over the next six months.
"3": the security is expected to perform within 5% of the local index (better or worse) over the next six months.
"4": the security is expected to underperform the local index by 5-15% over the next six months.

- "5": the security could underperform the local index by more than 15% over the next six months.

Additional information may be available upon request.

Japan - additional notification items pursuant to Article 37 of the Financial Instruments and Exchange Law (This Notification is only applicable where report is distributed by Daiwa Securities Co. Ltd.)

you decide to enter into a business arrangement with us based on the information described in materials presented along with this document, we ask you to pay close attention to the

- In addition to the purchase price of a financial instrument, we will collect a trading commission* for each transaction as agreed beforehand with you. Since commissions may be included in the purchase price or may not be charged for certain transactions, we recommend that you confirm the commission for each transaction.
- In some cases, we may also charge a maximum of ¥ 2 million (including tax) per year as a standing proxy fee for our deposit of your securities, if you are a non-resident of Japan.
- For derivative and margin transactions etc., we may require collateral or margin requirements in accordance with an agreement made beforehand with you. Ordinarily in such cases, the amount of the transaction will be in excess of the required collateral or margin requirements.
- There is a risk that you will incur losses on your transactions due to changes in the market price of financial instruments based on fluctuations in interest rates, exchange rates, stock prices, real estate prices, commodity prices, and others. In addition, depending on the content of the transaction, the loss could exceed the amount of the collateral or margin requirements.
- There may be a difference between bid price etc. and ask price etc. of OTC derivatives handled by us.

 Before engaging in any trading, please thoroughly confirm accounting and tax treatments regarding your trading in financial instruments with such experts as certified public accountants.

 *The amount of the trading commission cannot be stated here in advance because it will be determined between our company and you based on current market conditions and the content of each transaction etc.

When making an actual transaction, please be sure to carefully read the materials presented to you prior to the execution of agreement, and to take responsibility for your own decisions regarding the signing of the agreement with us.

Corporate Name: Daiwa Securities Co. Ltd.
Financial instruments firm: chief of Kanto Local Finance Bureau (Kin-sho) No.108
Memberships: Japan Securities Dealers Association, The Financial Futures Association of Japan

Japan Securities Investment Advisers Association Type II Financial Instruments Firms Association