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## Momo Inc. | Asia Pacific

## Live Streaming Business Threatened; Downgrade to EW

✓ Stock Rating | ◉ Industry View | ◎ Price Target  
 Equal-weight | In-Line | US\$30.00

We downgrade Momo to EW and cut our PT by 50%, assuming lower multiple (vs. Macau Gaming and cross-checked with SOP), and our EPS estimates to reflect impact of 1) slowing economic growth on top customers and 2) competition that Tantan/VAS are not big enough to offset.

WHAT'S CHANGED	Momo Inc. (MOMO.O)	From	To
	Rating		Overweight
Price Target		US\$61.00	<b>US\$30.00</b>
Non-GAAP net profit, 2019e and 2020e			<b>-26% and -31%</b>

**Live streaming – cyclicity and competition are our concerns:** Slowing economic growth in China could hurt top users' spending, although the better G20 outcome relieves some of this concern (our strategists have upgraded China to overweight). 4Q18 revenue guidance missed consensus by 3%, and it implies flattish QoQ growth for live streaming (4Q17: +8% QoQ). Competition remains intense. Some short-video platforms' live stream revenues are now closer to Momo's and YY's. In 1Q19, coupled with weaker seasonality, Momo's live streaming revenue growth could fall to single digits (3Q18: 34% YoY).

**Mass market focus is long-term positive but not big enough for now:** We think mid-segment live broadcasters/paying users, along with Tantan and VAS, should bring more sustainable growth and less volatility. However, their contribution is not big enough to offset weakness in live streaming. Tantan's iOS grossing showed its first MoM decline (8%) in November.

**We cut our target EV/EBITDA to 8x (from 13.5x) and non-GAAP net profit estimates by 26% for 2019 and 31% for 2020,** on 13% and 16% lower revenue forecasts and 3ppt lower gross margins.

**What's new in this report: 1) We compare live streaming with Macau:** We see fundamental similarities: 1) high revenue concentration in top users, 2) rich cash positions, and 3) reliance on junkets/talent agencies. We also note differences: 1) capital intensity, and 2) Momo's solid VAS and Tantan businesses (growing +100% YoY). We refer to Macau's EV/EBITDA excluding gross PPE of 8-9x. Live streaming may trade lower in view of higher EPS uncertainty amid competition, lack of dividends, and shorter track record vs. >40 years for casinos globally, **2) SOP yields US\$30/share:** We apply 7x EV/EBITDA for live streaming, 2.5x P/GP for VAS (similar to iQiyi), and 5x P/S for Tantan (the same as for Match Group) on our 2020 estimate and discounted back by WACC of 14%.

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## Momo Inc. (MOMO.O, MOMO.US)

China Internet and Other Services / China

Stock Rating	Equal-weight
Industry View	In-Line
Price target	US\$30.00
Up/downside to price target (%)	(5)
Shr price, close (Dec 4, 2018)	US\$31.69
52-Week Range	US\$54.24-22.49
Sh out, dil, curr (mn)	217
Mkt cap, curr (mn)	US\$6,865
EV, curr (mn)	US\$5,761
Avg daily trading value (mn)	US\$174

Fiscal Year Ending	12/17	12/18e	12/19e	12/20e
ModelWare EPS (US\$)	1.53	1.98	2.04	2.36
Prior ModelWare EPS (US\$)	-	2.19	2.95	3.70
EPS (US\$)**	1.79	2.35	2.46	2.83
Consensus EPS (US\$)§	1.46	2.46	3.11	3.81
Revenue, net (US\$ mn)	1,318	1,999	2,353	2,758
Net income (US\$ mn)**	373	509	558	657
ModelWare net inc (US\$ mn)	319	429	464	546
P/E**	13.6	13.5	12.9	11.2
P/BV	9.8	8.9	6.9	5.3
FCF yld ratio (%)	6.7	(2.1)	6.8	7.7

Unless otherwise noted, all metrics are based on Morgan Stanley ModelWare framework

\*\* = Based on consensus methodology

§ = Consensus data is provided by Thomson Reuters Estimates

e = Morgan Stanley Research estimates

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**Risk-Reward**

Revenue growth driven by VAS and Tantan, but macro slowdown could pose downside risks



Source: Thomson Reuters, Morgan Stanley Research estimates. Current stock price as of December 5, 2018.

**Price Target US\$30**

Base case, target EV/EBITDA valuation, as of December 31, 2019

**Bull US\$48**

10x bull case 2020E non-GAAP EPS

**Stronger monetization from synergies with Tantan:** 2017-20E revenue CAGR of 47%, driven by 22% growth in MAU, thanks to better-than-expected product upgrade and higher-than-expected user stickiness. We expect the non-GAAP operating margin will be 6ppt above our base case in 2020, primarily due to operating leverage and better cost control. Target EV/EBITDA of 13x.

**Base US\$30**

11x base case 2020E non-GAAP EPS

**Sustained growth driven by successful product innovation:** 2017-20E revenue CAGR of 25%, driven by 13% growth in MAU. We assume Momo's large user base enables greater monetization. Non-GAAP operating margin reaches 25% in 2020E. Target EV/EBITDA of 8x.

**Bear US\$18**

11x bear case 2020E non-GAAP EPS

**Top-line deceleration and higher costs amid competition:** 2017-20E revenue CAGR of 14% driven by 8% growth in MAU. We expect the non-GAAP operating margin will be 6ppt below our base case in 2020, due to higher-than-expected sales and marketing expenses to maintain market share. Target EV/EBITDA of 5x.

**Why Equal-weight**

■ Momo is the leading mobile social networking platform in China, featuring interactive live broadcasting, short video, online dating and a community ecosystem. MAU reached over 100mn as of September 30, 2018.

■ However, Momo has high revenue concentration among top paying users, who are vulnerable to macro slowdown. In addition, competition in live streaming business is intensifying.

■ Although Tantan and VAS are mass-market-focused, have big addressable market and are fast-growing, we think they are not big enough (<25% of total revenue in 3Q18) to offset potential live-streaming weakness. Thus, the re-rating story based on Match Group's success could be remote.

■ Momo is trading at 11x P/E on our 2019 EPS estimate (+10% growth), over one SD below its LT average since early 2016, when the company started its live streaming business.

**Key Value Drivers**

- ARPPU (average revenue per paying user), MAU and paying user growth
- Corporate activities like the acquisition of Tantan in early 2018

**Potential Catalysts**

- Stronger-than-expected MAU growth
- Quarterly revenue guidance
- Product upgrades

**Risks to Achieving Price Target**

■ **Upside:** 1) Better than expected revenue growth and guidance, or margins; 2) market share gain if competition tapers off; 3) launch of new products; 4) corporate activities.

■ **Downside:** 1) Weaker-than-expected revenue and margin; 2) top paying users spend less due to macro slowdown; 3) escalation of competition by peers via more aggressive marketing, or better products.

# Financial Summary

Exhibit 1: Momo: Financial Summary

(US\$ mn)	FY17	FY18E	FY19E	FY20E	1Q18	2Q18	3Q18	4Q18E
Income statement	Dec-17	Dec-18	Dec-19	Dec-20	Mar-18	Jun-18	Sep-18	Dec-18
Live video service	1,103	1,589	1,693	1,817	371	411	407	399
Value added service	103	282	558	836	37	55	84	106
Momo	103	216	388	565	29	50	60	77
Tantan	-	66	170	272	8	5	24	29
Mobile marketing (Adv)	76	78	80	82	19	22	17	20
Mobile games	36	20	15	15	7	5	4	4
Other services	1	30	7	8	1	0	24	4
<b>Net revenue</b>	<b>1,318</b>	<b>1,999</b>	<b>2,353</b>	<b>2,758</b>	<b>435</b>	<b>494</b>	<b>536</b>	<b>534</b>
Cost of revenue	(649)	(1,071)	(1,296)	(1,519)	(210)	(270)	(299)	(293)
<b>Gross profit</b>	<b>669</b>	<b>928</b>	<b>1,057</b>	<b>1,239</b>	<b>226</b>	<b>225</b>	<b>237</b>	<b>241</b>
Research and development	(51)	(118)	(174)	(215)	(18)	(25)	(36)	(39)
Sales and marketing	(217)	(265)	(301)	(352)	(44)	(55)	(83)	(84)
General and administrative	(63)	(88)	(111)	(128)	(17)	(20)	(25)	(26)
Other operating income	23	35	34	35	1	16	1	17
<b>Operating profit</b>	<b>361</b>	<b>492</b>	<b>507</b>	<b>579</b>	<b>148</b>	<b>141</b>	<b>95</b>	<b>109</b>
Interest income	22	42	61	80	8	8	12	14
Interest expenses	-	(7)	(9)	(9)	-	(2)	(4)	(1)
Other income	(4)	-	-	-	-	-	-	-
<b>Pretax profit</b>	<b>378</b>	<b>527</b>	<b>558</b>	<b>650</b>	<b>155</b>	<b>147</b>	<b>103</b>	<b>121</b>
Income tax	(66)	(104)	(101)	(111)	(27)	(31)	(22)	(25)
Share of income on equity investment	6	6	6	6	1	2	2	0
<b>Profit after tax</b>	<b>318</b>	<b>428</b>	<b>464</b>	<b>546</b>	<b>129</b>	<b>117</b>	<b>84</b>	<b>97</b>
Deemed dividend to preferred share	1	1	1	1	0	0	1	(1)
<b>Net income</b>	<b>319</b>	<b>429</b>	<b>464</b>	<b>546</b>	<b>130</b>	<b>118</b>	<b>85</b>	<b>96</b>
<b>Per share (US\$)</b>								
EPADS	1.61	2.11	2.22	2.57	0.65	0.58	0.42	0.46
Diluted EPADS	1.53	1.98	2.04	2.36	0.63	0.56	0.38	0.43
Non-GAAP EPADS	1.89	2.50	2.68	3.08	0.71	0.69	0.56	0.57
Non-GAAP Diluted EPADS	1.79	2.35	2.46	2.83	0.69	0.66	0.51	0.52
<b>Key drivers</b>								
Revenue YoY growth	138%	52%	18%	17%	64%	58%	51%	38%
Operating Profit (non-GAAP) YoY growth	133%	39%	5%	15%	59%	86%	21%	9%
Net Profit (non-GAAP) YoY growth	104%	36%	10%	18%	57%	79%	22%	7%
<b>Non-GAAP measures</b>								
Net income	373	509	558	657	142	140	114	117
EBITDA	423	611	648	746	165	169	131	146
Gross margin	51%	46%	45%	45%	52%	45%	44%	45%
Operating margin	31%	29%	26%	25%	37%	33%	23%	24%
Net margin	28%	25%	24%	24%	33%	28%	21%	22%
EBITDA margin	32%	31%	28%	27%	38%	34%	24%	27%
S&M as % of revenue	16%	12%	12%	12%	9%	10%	14%	15%
R&D as % of revenue	3%	5%	6%	7%	3%	4%	5%	6%
G&A as % of revenue	3%	3%	3%	3%	3%	2%	3%	3%
<b>User metrics</b>	<b>FY17</b>	<b>FY18E</b>	<b>FY19E</b>	<b>FY20E</b>	<b>1Q18</b>	<b>2Q18</b>	<b>3Q18E</b>	<b>4Q18E</b>
MAU (mn, period end)	99	115	130	144	103	108	111	115
<b>Total paying users incl. overlap (mn)</b>	<b>8.8</b>	<b>13.8</b>	<b>16.6</b>	<b>19.6</b>	<b>11.3</b>	<b>13.0</b>	<b>13.9</b>	<b>14.6</b>
Live streaming paying user (mn)	4.2	4.7	5.4	5.9	4.4	4.6	4.9	5.0
Momo VAS paying user (mn)	4.7	5.4	6.1	6.9	5.1	5.3	5.5	5.6
Tantan paying user (mn)	-	3.7	5.1	6.8	1.8	3.1	3.6	4.0
<b>ARPPU</b>								
Live streaming quarterly (Rmb)	448	567	547	526	563	570	571	549
Momo VAS monthly (Rmb)	12.5	22.7	36.5	47.0	15.4	20.2	25.0	28.4
Tantan monthly (Rmb)	-	17.2	19.1	22.7	9.9	9.9	15.2	16.5
<b>Balance sheet</b>								
Cash and cash equivalents	686	993	1,584	2,268	320	306		
Term deposit	375	375	375	375	579	416		
Others	127	505	516	528	184	461		
<b>Current assets</b>	<b>1,189</b>	<b>1,873</b>	<b>2,475</b>	<b>3,172</b>	<b>1,083</b>	<b>1,184</b>		
Property and equipment	40	59	75	94	45	48		
Long term investments	44	50	56	62	50	62		
Others	29	629	629	629	266	809		
<b>Total assets</b>	<b>1,302</b>	<b>2,612</b>	<b>3,235</b>	<b>3,957</b>	<b>1,445</b>	<b>2,103</b>		
Accounts payable	75	123	149	174	83	87		
Deferred revenue	65	69	81	95	62	60		
Accrual & other liabilities	88	112	139	166	64	102		
Others	33	33	33	33	23	93		
<b>Current liabilities</b>	<b>260</b>	<b>337</b>	<b>402</b>	<b>468</b>	<b>232</b>	<b>342</b>		
Others	4	729	729	729	6	345		
<b>Total liabilities</b>	<b>264</b>	<b>1,066</b>	<b>1,131</b>	<b>1,197</b>	<b>238</b>	<b>686</b>		
Additional paid-in capital	714	794	888	998	726	747		
Accumulated profit (deficit)	370	798	1,262	1,807	499	617		
Others	(46)	(46)	(46)	(46)	(19)	53		
<b>Total equity</b>	<b>1,038</b>	<b>1,546</b>	<b>2,104</b>	<b>2,760</b>	<b>1,207</b>	<b>1,417</b>		
<b>Cash flow statement</b>								
Cash from operations	428	598	654	760	130	156		
Cash from investing	(27)	(659)	(63)	(76)	(444)	(155)		
Cash from financing	0	725	-	-	(1)	300		
Effect of exchange rate changes	28	-	-	-	19	(28)		
<b>Change in cash balance</b>	<b>428</b>	<b>664</b>	<b>591</b>	<b>684</b>	<b>(295)</b>	<b>273</b>		

Source: Company data, Morgan Stanley Research estimates

# 3Q18 Results

**3Q18 summary:** While 3Q18 revenue of US\$536mn (+51% YoY; +8% QoQ) and non-GAAP operating profit of US\$125mn (-23% YoY; +21% QoQ) are in line, 4Q18 revenue guidance missed consensus by 3%, and it implies flattish QoQ growth for live streaming, weaker than +8% QoQ in 4Q17 and YY Live's +7% QoQ in 4Q18e. The combined revenues of VAS and Tantan remained strong (+221% YOY and 53% QOQ) with Tantan paying users growing to 3.6mn in 3Q18 (+16% QoQ, implying 15% paying ratio). Gross margin fell 150bps QoQ, with 100bps due to higher revenue share with guilds/hosts.

**Exhibit 2: Momo: 3Q18 Results summary**

Momo (US\$ mn)	1Q17	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	QoQ	YoY	MS		Consensus	
										3Q18E	Vari.	3Q18E	Vari.
<b>Income Statement</b>													
Live broadcasting service	213	259	303	328	371	411	407	-1%	34%	415	-2%		
Membership subscription	23	25	26	29	37	55	84	53%	221%	82	3%		
Momo	23	25	26	29	37	50	60	19%	129%	58	4%		
Tantan	-	-	-	-	8	5	24	402%	NM	25	-4%		
Mobile games	12	9	8	7	7	5	4	-25%	-49%	5	-18%		
Online marketing	18	19	17	22	19	22	17	-23%	-1%	23	-25%		
Other services	0	0	0	0	1	0	24			15			
<b>Net revenue</b>	<b>265</b>	<b>312</b>	<b>354</b>	<b>386</b>	<b>435</b>	<b>494</b>	<b>536</b>	<b>8%</b>	<b>51%</b>	<b>541</b>	<b>-1%</b>	<b>533</b>	<b>1%</b>
Cost of revenue	(120)	(151)	(178)	(200)	(210)	(270)	(299)	11%	68%	(287)	4%		
<b>Gross profit</b>	<b>145</b>	<b>162</b>	<b>176</b>	<b>186</b>	<b>226</b>	<b>225</b>	<b>237</b>	<b>6%</b>	<b>35%</b>	<b>253</b>	<b>-6%</b>	<b>246</b>	<b>-3%</b>
Research and development	(9)	(10)	(14)	(19)	(18)	(25)	(36)	44%	161%	(28)	29%		
Sales and marketing	(34)	(69)	(58)	(57)	(44)	(55)	(83)	52%	43%	(94)	-12%		
General and administrative	(12)	(16)	(17)	(18)	(17)	(20)	(25)	24%	47%	(23)	7%		
<b>Operating expenses</b>	<b>(55)</b>	<b>(95)</b>	<b>(88)</b>	<b>(93)</b>	<b>(79)</b>	<b>(100)</b>	<b>(144)</b>	<b>44%</b>	<b>62%</b>	<b>(144)</b>	<b>0%</b>		
Other operating income	1	8	1	14	1	16	1	-95%	-13%	1	NM		
<b>Operating profit</b>	<b>91</b>	<b>74</b>	<b>89</b>	<b>107</b>	<b>148</b>	<b>141</b>	<b>95</b>	<b>-33%</b>	<b>6%</b>	<b>110</b>	<b>-14%</b>	<b>111</b>	<b>-15%</b>
Interest income	4	5	6	7	8	8	12	48%	102%	9	35%		
Interest expenses	-	-	-	-	-	(2)	(4)			(2)			
Other income	-	(4)	-	-	-	-	-	NM	NM	-	NM		
<b>Pretax profit</b>	<b>95</b>	<b>74</b>	<b>95</b>	<b>114</b>	<b>155</b>	<b>147</b>	<b>103</b>	<b>-30%</b>	<b>9%</b>	<b>116</b>	<b>-11%</b>	<b>113</b>	<b>-9%</b>
Income tax	(16)	(14)	(17)	(19)	(27)	(31)	(22)	-31%	25%	(20)	8%		
Share of equity investments	2	1	1	2	1	2	2	43%	108%	2	21%		
<b>Profit after tax</b>	<b>81</b>	<b>61</b>	<b>79</b>	<b>97</b>	<b>129</b>	<b>117</b>	<b>84</b>	<b>-28%</b>	<b>6%</b>	<b>98</b>	<b>-14%</b>		
Non-controlling interests	0	0	0	0	0	0	1	231%	923%	-	NM		
<b>Net income</b>	<b>81</b>	<b>61</b>	<b>79</b>	<b>98</b>	<b>130</b>	<b>118</b>	<b>85</b>	<b>-28%</b>	<b>8%</b>	<b>98</b>	<b>-13%</b>	<b>91</b>	<b>-7%</b>
Basic EPADS (GAAP)	0.42	0.31	0.40	0.49	0.65	0.58	0.42	-28%	4%	0.48	-13%		
Diluted EPADS (GAAP)	0.40	0.29	0.38	0.47	0.63	0.56	0.38	-31%	1%	0.44	-13%	0.43	-11%
Diluted EPADS (non-GAAP)	0.44	0.38	0.45	0.53	0.69	0.66	0.51	-23%	14%	0.53	-3%	0.53	-2%
<b>Ratio and margins (Non-GAAP)</b>													
<b>Gross profit</b>	<b>145</b>	<b>162</b>	<b>177</b>	<b>187</b>	<b>226</b>	<b>225</b>	<b>235</b>	<b>5%</b>	<b>33%</b>	<b>254</b>	<b>-7%</b>		
Gross margin	54.7%	51.9%	50.0%	48.4%	52.0%	45.5%	43.9%	-1.5%	-6.0%	47.0%	-3.1ppt		
<b>Operating income</b>	<b>101</b>	<b>87</b>	<b>104</b>	<b>120</b>	<b>160</b>	<b>162</b>	<b>125</b>	<b>-23%</b>	<b>21%</b>	<b>130</b>	<b>-4%</b>		
Operating margin	37.9%	27.8%	29.2%	30.9%	36.7%	32.7%	23.3%	-9.4%	-5.9%	24.1%	-0.8ppt		
<b>Net profit</b>	<b>91</b>	<b>78</b>	<b>94</b>	<b>110</b>	<b>142</b>	<b>140</b>	<b>114</b>	<b>-18%</b>	<b>22%</b>	<b>119</b>	<b>-4%</b>	<b>113</b>	<b>1%</b>
Net margin	34.2%	25.0%	26.5%	28.5%	32.7%	28.4%	21.3%	-7.0%	-5.1%	21.9%	-0.6ppt	21.3%	ppt
R&D as % of rev (excl. SBC)	2.7%	2.6%	3.1%	4.2%	3.4%	3.7%	5.4%	1.7%	2.3%	4.1%	1.3ppt		
S&M as % of rev (excl. SBC)	12.0%	21.2%	15.3%	13.8%	9.4%	9.8%	13.8%	4.0%	-1.5%	16.3%	-2.5ppt		
G&A as % of rev (excl. SBC)	2.4%	2.7%	2.5%	3.0%	2.6%	2.5%	2.6%	0.1%	0.0%	2.6%	0.0ppt		
<b>Balance sheet and cash flow</b>													
Net cash	740	846	950	1,061	969	780	785	1%	-17%	948	-17%		
Operating cash flow	95	108	105	120	130	156	51	-67%	-51%	179	-72%		
Deferred revenue	41	44	46	65	62	60	63	4%	35%	66	-5%		
<b>Operating data</b>													
Mobile MAU (period end) (mn)	85	91	94	99	103	108	111	2%	17%	113	-2%		
Total paying users (mn)	8.4	8.6	8.9	9.3	9.5	13.0	13.9	7%	56%	13.5	3%		
Live streaming	4.1	4.1	4.1	4.3	4.4	4.6	4.9	5%	18%	4.7	3%		
Momo subscription	4.3	4.5	4.8	5.0	5.1	5.3	5.5	3%	14%	5.5	-1%		
Tantan subscription	-	-	-	-	1.8	3.1	3.6	16%	NM	3.3	9%		
Total unique paying users (mn)	7.0				8.1	11.6	12.5	8%	NM	12.1	3%		
Overlap	20%				17%	16%	16%	-4%	NM	16%	-0.3ppt		
Quarterly ARPPU - live streaming (Rmb)	385	463	521	539	563	570	571	0%	10%	602	-5%		
Monthly ARPPU - VAS (Rmb)	12.2	12.5	12.2	13.0	15.4	20.2	25.0	24%	106%	23.7	6%		
Monthly ARPPU - Tantan (Rmb)	-	-	-	-	9.9	9.9	15.2	54%	NM	16.8	-10%		

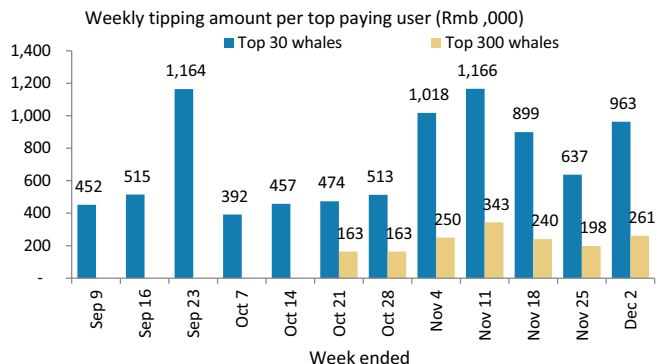
Source: Company data, Morgan Stanley Research estimates

# Live streaming business could be cyclical like Macau gaming

## 1. High revenue concentration in top paying users

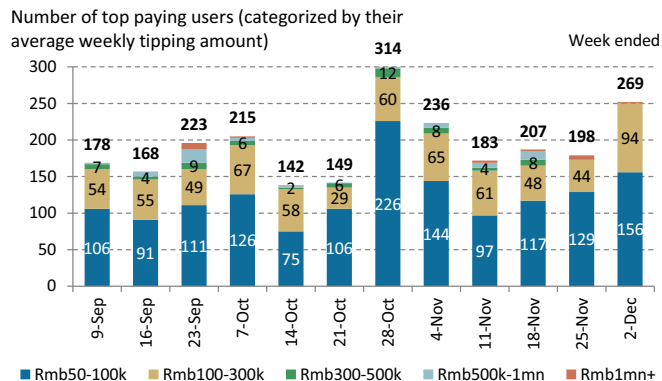
Live streaming platforms generally generate 90% of revenue from the top 10% of paying users, and these top spenders could be subject to macro weakness and a slowdown in consumption growth in China. For instance, the weekly ARPPU (average revenue per paying user) of the top 30 paying users on live streaming platforms in China was as high as Rmb600k+ in November (driven by annual gala and contests), similar to the spending per capita of premium mass customers at Macau casinos. We believe this high revenue concentration is vulnerable to a macro slowdown.

**Exhibit 3:** Weekly tipping amount per top paying users for Momo, Volcano, Huajiao, Inke, Yizhibo



Source: Today Internet Celebrity, Morgan Stanley Research

**Exhibit 4:** Momo: Number of top paying users spending more than Rmb50k a week



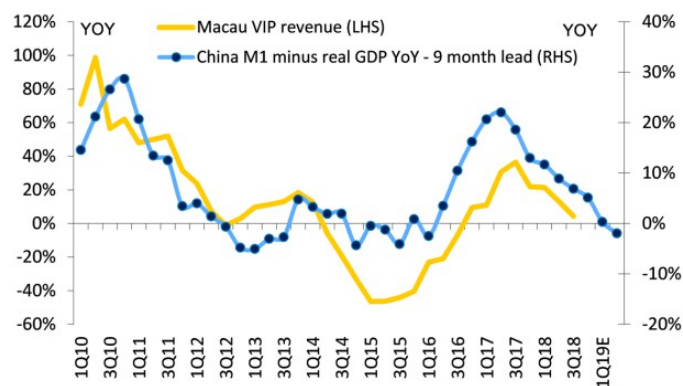
Source: Today Internet Celebrity, Morgan Stanley Research

## 2. Macro indicators

We think the China live streaming business and Macau gaming are fundamentally similar because they 1) are both driven by male high rollers in the China old economy sectors, 2) have similar EBITDA margins of 30%, 3) are cash-rich, 4) generate >80% of revenue from their core businesses (live streaming and gambling), and 5) rely heavily on junkets (Macau) and talent agencies (live streaming) at 40-48% revenue share to bring in the high rollers and top talent, respectively.

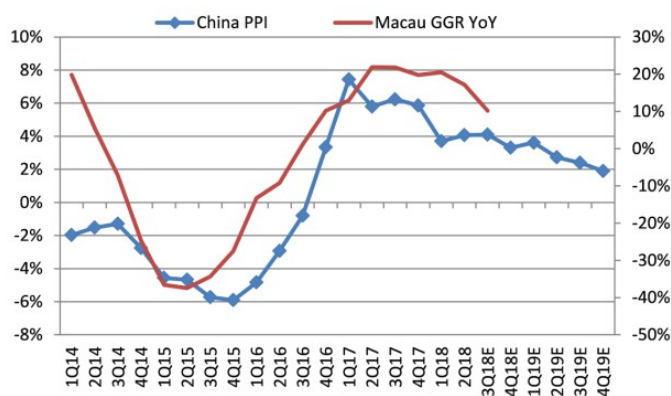
Macau gaming revenue (especially for the VIP gaming segment) is strongly correlated with China macro factors, i.e., GDP growth, consumption demand, retail sales and PPI. China consumption growth has been slowing this year, but our consumer team expects some stabilization in 2019.

**Exhibit 5:** China's M1 minus real GDP is a nine-month leading indicator of Macau VIP revenue growth



Source: CEIC, DICJ, Morgan Stanley Research

**Exhibit 6:** China PPI vs Macau GGR growth



Source: NBS, DICJ, Morgan Stanley Research estimates (E)

## Valuation framework revisited – comparison with Macau and Sum of the Parts

Momo's revenue streams can be broadly segmented into 1) live streaming, 2) Tantan and 3) other value-added services (subscriptions, casual virtual gifting, etc). We consider live streaming more cyclical than the other segments, and thus value it separately.

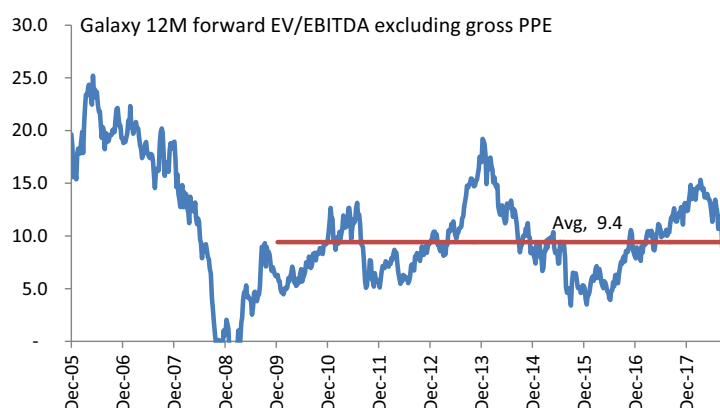
**Live streaming may not trade above 8-9x EV/EBITDA in the long term:** We think China live streaming and Macau gaming are fundamentally similar because of: 1) high revenue concentration in top spenders, 2) EBITDA margin of 30% (Macau has gaming tax of 39-40% on revenue), 3) cash-rich nature of the businesses, and 4) reliance on junkets and guilds at revenue share of 40-48% to bring in the high rollers and top performers, respectively. We reference the EV/EBITDA excluding gross PPE (because live streaming business has no material assets) of four Macau companies (Wynn, Galaxy, MGM and Sands) at 8-9x as shown in Exhibit 7, based on historical PPE (2017) and net debt (cash) (1H18). We think live streaming companies may not trade higher than this in the longer term, due to higher EPS volatility on competition, lack of dividends and shorter track record compared with >40 years for casino gaming in Las Vegas/US.

**Exhibit 7:** Macau EV/EBITDA excluding gross PPE averages 8-9x for the six companies

US\$ mn	Galaxy	Wynn	MGM	Sands	Macau
<b>Market cap</b>	<b>27,811</b>	<b>12,701</b>	<b>6,914</b>	<b>37,170</b>	<b>84,596</b>
Net debt (cash) 1H18	(4,426)	3,201	1,626	3,655	4,056
<b>EV</b>	<b>23,386</b>	<b>15,901</b>	<b>8,540</b>	<b>40,825</b>	<b>88,652</b>
Gross PPE (2017)	6,139	5,705	1,104	11,602	24,550
<b>EV less PPE</b>	<b>17,246</b>	<b>10,196</b>	<b>7,436</b>	<b>29,223</b>	<b>64,102</b>
EBITDA 2019e	2,220	1,314	802	3,297	7,633
<b>EV/EBITDA (less PPE)</b>	<b>7.8</b>	<b>7.8</b>	<b>9.3</b>	<b>8.9</b>	<b>8.4</b>

Source: Company data, Thomson Reuters, Morgan Stanley Research estimates

**Exhibit 8:** Galaxy consensus 12M forward EV/EBITDA excluding gross PPE



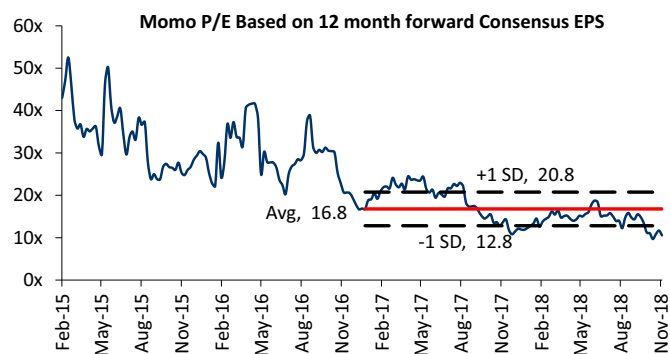
Source: Thomson Reuters, Company data, Morgan Stanley Research estimates

**Exhibit 9: China Live Streaming vs. Macau Gaming**

	China Live Streaming	Macau VIP and Premium Mass Gaming
<b>Similarities</b>		
Demographics	For Momo and YY, about 10% of top paying customers contribute 90% of revenue. In Macau, VIP and premium mass customers contribute 70% or more of total gross gaming revenue. Thus, both of these are more cyclical.	
Margin	China live streaming and Macau gaming companies have similar EBITDA margins of 25-30% (Macau has gaming tax of 39-40% on revenue).	
Revenue sharing with agencies	They both rely on agencies to bring in top performers (guilds for live streaming) and top paying customers (junkets for Macau gaming), and provide revenue share to these agencies (40-48% for live streaming, 45% for Macau gaming).	
Cash-rich	Momo and YY have total cash of ~US\$1-1.5bn at end of 3Q18, and generate US\$500-600mn of FCF in 2018.	
<b>Differences</b>		
Capacity constraints	Content and users can access Momo platform anytime anywhere through their mobile phones. There are about 802mn internet users and more than 425mn live streaming users in China as of end-June 2018.	<p><b>Overnight visitors</b> - This is limited by the total number of hotel rooms and other accommodation of 35-40k rooms</p> <p><b>Mainland Chinese visiting frequency</b> - Up to 8 visits per year for both individual visit scheme and package tour</p> <p><b>Gaming capacity</b> - No of gaming tables and casinos</p> <p><b>License</b> - The first term of the licenses will expire during 2020-2022 subject to renewal by the Macau government.</p>
Competition	There are over 100 live streaming platforms in China, and short-video platforms have joined the competition over the last 1-2 years by introducing live streaming features.	Companies are protected by licenses. Only 3 concessionaires and 3 sub-concessionaires.
Dividends	Not paying	All Macau gaming companies pay dividends with payout ratios from 30% to above 100% in certain years, implying as high as 6% dividend yield.
Assets	Asset-light with PPE equaling 3% of total equity at the end of 2Q18	Asset-heavy, as the companies build casinos, hotel rooms and other amenities. For instance, Galaxy had PPE balance of over US\$4bn at the end of 2017 (or US\$6bn on gross basis) vs. current market cap of US\$28bn.

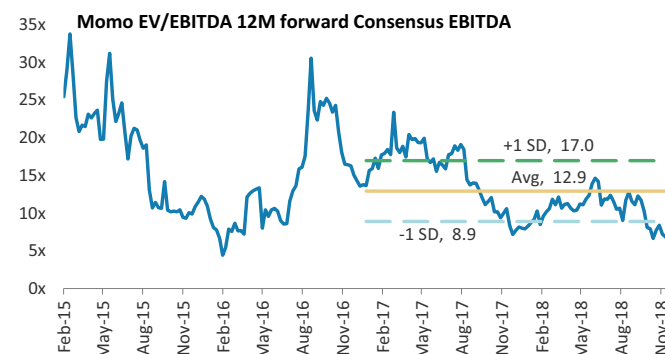
Source: Morgan Stanley Research

**Exhibit 10: Momo: consensus forward P/E**



Source: Thomson Reute, Morgan Stanley Research

**Exhibit 11: Momo: consensus forward EV/EBITDA**



Source: Thomson Reuters, Morgan Stanley Research



## Cross-check with sum of the parts also yields US\$30/share

We value Momo's three segments separately, namely:

- 1. Live streaming – 7x 2020e EV/EBITDA:** As mentioned in previous sections, we think the core live streaming business may not trade above 8-9x one-year forward EV/EBITDA in the long term.
- 2. VAS (casual tipping, subscription) – 2.5x 2020e P/GP:** This is similar to iQiyi (not covered), based on consensus estimates because iQiyi monetizes through users' subscriptions.
- 3. Tantan – 5x 2020e P/S:** This is similar to Match Group at 5x for 2020, based on consensus estimate because Tantan's business model is similar to Match Group's core asset, Tinder.
- 4.** Discount back one year by WACC of 14%

VAS and Tantan are not subject to macro risks, in our view, thus we did not discount their multiples.

**Exhibit 12:** Sum of parts valuation of Momo

US\$ mn	FY18E	FY19E	FY20E
<b>Live streaming and others</b>			
Revenue	1,717	1,795	1,922
Growth YoY	41%	5%	7%
EBITDA	429	449	480
<b>EBITDA margin (vs. 32% in 2017)</b>			<b>25%</b>
<b>Target EV/EBITDA</b>			<b>7.0</b>
<b>Enterprise Value</b>	<b>3,004</b>	<b>3,142</b>	<b>3,363</b>
<b>VAS</b>			
Revenue	282	558	836
Cost of revenue (40% of revenue)	(113)	(223)	(334)
<b>Gross Profit</b>	<b>169</b>	<b>335</b>	<b>502</b>
<b>Target P/GP (same as iQIYI P/S 2020)</b>			<b>2.5</b>
<b>Equity Value</b>	<b>423</b>	<b>837</b>	<b>1,254</b>
<b>Tantan</b>			
<b>Revenue</b>	<b>66</b>	<b>170</b>	<b>272</b>
<b>Target P/S (same as Match Group 2020)</b>			<b>5.0</b>
<b>Equity Value</b>	<b>331</b>	<b>851</b>	<b>1,358</b>
<b>Enterprise Value</b>			<b>5,976</b>
<b>Discounted Enterprise Value at 14% for 1 year</b>			<b>5,242</b>
Net cash (2019)			1,592
<b>Equity Value</b>			<b>6,834</b>
No of diluted ADS (2019)			227
<b>Equity value per ADS (US\$)</b>			<b>30.0</b>

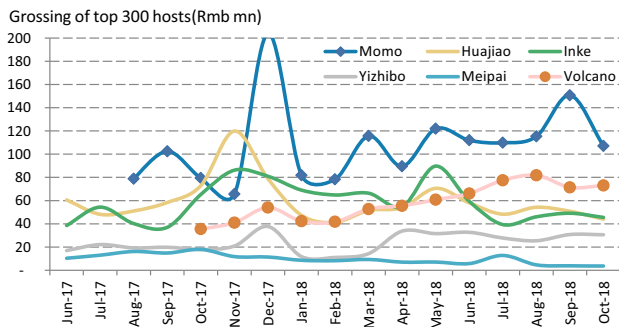
Source: Morgan Stanley Research estimates

# Competition continues ...

## Live streaming

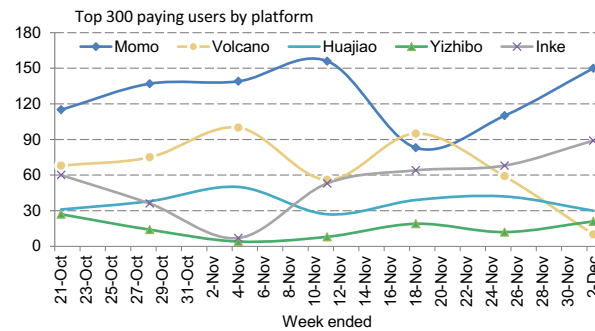
Revenue from Volcano's top 300 hosts reached ~Rmb80mn in October 2018, similar to Momo's slightly above Rmb100mn. We think Kuaishou's live streaming revenue has also ramped up and become similar to Momo's.

**Exhibit 13: Monthly grossings from each platform's top 300 hosts**



Source: Internet Celebrity, Morgan Stanley Research

**Exhibit 14: Distribution of top 300 paying users across Momo, Volcano, Huajiao, Yizhibo and Inke**



Source: Internet Celebrity, Morgan Stanley Research

## Short video

Cannibalization of user time spent by short-video platforms remained strong in 3Q18. Total user time spent on the four key short-video platforms (Kuaishou, Douyin, Volcano, Watermelon) grew 23% QoQ (292% YoY) in 3Q18, similar to the 26% QoQ growth seen in 2Q18. For live streaming, the total time spent on Momo remained healthy in 3Q18, up 8% QoQ, similar to 9% QoQ growth in 2Q18. However, total user time spent on YY Live declined 5% QoQ in 3Q18 after growing 11% QoQ in 2Q18.

**Exhibit 15: User time spent on major short-video platforms grew 23% QoQ and 292% YoY in 3Q18**

Category of online platforms	Total time spent (bn hours)											QoQ	YoY
	1Q16	2Q16	3Q16	4Q16	1Q17	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18		
Online games	12.9	14.7	16.9	17.6	19.8	21.0	23.5	22.4	25.8	25.0	27.9	12%	19%
Online music	6.9	8.4	9.7	10.3	9.8	10.5	10.7	10.4	11.0	12.2	12.7	4%	19%
e-commerce	4.3	6.2	6.9	7.7	6.8	7.6	8.2	9.3	8.4	10.2	10.5	4%	29%
Online news	14.2	18.3	22.9	27.5	28.6	31.6	33.0	33.1	35.7	37.9	39.0	3%	18%
Online reading	2.1	2.6	3.3	3.3	3.3	3.4	3.8	3.5	3.8	3.8	4.1	7%	6%
Online videos	16.4	20.5	25.9	27.9	28.2	31.5	34.1	31.6	31.9	34.8	39.8	14%	17%
Short videos	1.4	1.9	2.5	3.3	3.8	5.3	9.4	15.3	23.7	30.0	36.8	23%	292%
- Kuaishou	1.2	1.6	2.1	2.6	2.9	3.8	5.9	8.0	8.9	8.6	10.3	20%	75%
- Watermelon			0.1	0.4	0.6	1.0	1.8	3.1	5.6	6.7	8.0	20%	338%
- Volcano						0.2	1.1	2.8	5.1	5.2	5.3	2%	395%
- Douyin						0.1	0.3	1.1	3.8	9.4	13.1	39%	4183%
Live streaming	3.0	3.5	3.9	4.0	3.9	4.3	4.8	4.7	4.7	5.1	5.3	4%	9%
- Momo	0.9	1.3	1.3	1.4	1.5	1.9	2.0	1.9	2.1	2.3	2.4	6%	24%
- YY Live	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.3	-5%	25%
Social	99.3	111.3	122.4	123.7	125.1	125.0	123.3	118.3	128.1	138.9	144.7	4%	17%
<b>Total</b>	<b>160.5</b>	<b>187.4</b>	<b>214.4</b>	<b>225.2</b>	<b>229.4</b>	<b>240.2</b>	<b>250.8</b>	<b>248.5</b>	<b>273.1</b>	<b>297.9</b>	<b>320.8</b>	<b>8%</b>	<b>28%</b>
<b>Total ex social</b>	<b>61.2</b>	<b>76.1</b>	<b>92.0</b>	<b>101.5</b>	<b>104.2</b>	<b>115.2</b>	<b>127.5</b>	<b>130.2</b>	<b>144.9</b>	<b>159.0</b>	<b>176.1</b>	<b>11%</b>	<b>38%</b>
<b>Total ex short-video &amp; social</b>	<b>59.8</b>	<b>74.2</b>	<b>89.5</b>	<b>98.2</b>	<b>100.4</b>	<b>109.9</b>	<b>118.1</b>	<b>114.9</b>	<b>121.3</b>	<b>129.0</b>	<b>139.3</b>	<b>8%</b>	<b>18%</b>
<b>Market share ex social</b>													
Online games	21%	19%	18%	17%	19%	18%	18%	17%	18%	16%	16%	0.1%	-2.5%
Online music	11%	11%	11%	10%	9%	9%	8%	8%	8%	8%	7%	-0.5%	-1.2%
e-commerce	7%	8%	8%	8%	6%	7%	6%	7%	6%	6%	6%	-0.4%	-0.4%
Online news	23%	24%	25%	27%	27%	27%	26%	25%	25%	24%	22%	-1.7%	-3.8%
Online reading	3%	3%	4%	3%	3%	3%	3%	3%	3%	2%	2%	-0.1%	-0.7%
Online videos	27%	27%	28%	27%	27%	27%	27%	24%	22%	22%	23%	0.7%	-4.2%
Short videos	2%	2%	3%	3%	4%	5%	7%	12%	16%	19%	21%	2.0%	13.5%
Live streaming	5%	5%	4%	4%	4%	4%	4%	4%	3%	3%	3%	-0.2%	-0.8%

Source: In our estimates, we add the top 10-15 apps of each online entertainment category to calculate time spent market share. Source: QuestMobile, Morgan Stanley Research.

## Earnings estimate changes

We lower our revenue forecasts by 13% in 2019 and 16% in 2020, as we are concerned about the high revenue concentration among "whales," who are vulnerable to a macro slowdown. As a result, we reduce our non-GAAP EPS forecasts by 27% in 2019 and 32% in 2020.

**Exhibit 16: Momo: What's changed**

Momo Income Statement (US\$ mn)	New			Old			Change		
	2018E	2019E	2020E	2018E	2019E	2020E	2018E	2019E	2020E
Net revenue	1,999	2,353	2,758	2,050	2,702	3,293	-2%	-13%	-16%
Gross profit	928	1,057	1,239	982	1,295	1,578	-5%	-18%	-21%
Operating profit	492	507	579	537	751	955	-8%	-32%	-39%
Net profit	429	464	546	475	665	852	-10%	-30%	-36%
Net profit (non-GAAP)	509	558	657	552	757	958	-8%	-26%	-31%
EPADS, diluted (GAAP) (US\$)	1.98	2.04	2.36	2.19	2.95	3.70	-10%	-31%	-36%
EPPADS, diluted (non-GAAP) (US\$)	2.35	2.46	2.83	2.55	3.36	4.17	-8%	-27%	-32%

Source: Morgan Stanley Research estimates

**Exhibit 17: Morgan Stanley vs. Consensus**

Momo Income Statement (US\$ mn)	Mse			Consensus			Variance		
	FY18E	FY19E	FY20E	FY18E	FY19E	FY20E	FY18E	FY19E	FY20E
Revenue	1,999	2,353	2,758	2,009	2,600	3,124	0%	-9%	-12%
Operating profit	492	507	579	525	692	871	-6%	-27%	-33%
Net profit	429	464	546	450	591	731	-5%	-21%	-25%
Net profit (non-GAAP)	509	558	657	520	677	838	-2%	-17%	-22%
Diluted EPS	1.98	2.04	2.36	2.14	2.73	3.33	-7%	-25%	-29%
Diluted EPS (non-GAAP)	2.35	2.46	2.83	2.41	3.08	3.88	-2%	-20%	-27%

Source: Bloomberg, Morgan Stanley Research estimates

## Valuation methodology

**Our price target (base case scenario value) is lowered from US\$61 to US\$30:** We apply a target EV/EBITDA multiple of 8x (13.5x previously) to our 2019 non-GAAP EBITDA and net cash estimates. We use this multiple on the basis of our Macau gaming comparison in the previous section. The reduction also reflects the cut in our earnings estimates.

**Our bull case scenario value is lowered from US\$77 to US\$48:** We apply a target EV/EBITDA multiple of 13x (13.5x previously). We also reduce our 2017-20 revenue CAGR estimate from 48% to 47%, which is milder than the change in the base case (from 36% to 28%), assuming top-line growth is not affected by macro slowdown.

**Our bear case scenario value is lowered from US\$34 to US\$18:** We apply a target EV/EBITDA multiple of 5x (13.5x previously), as we use 4x for YY Live. We also reduce our 2017-20 revenue CAGR estimate from 18% to 14%, assuming further growth deceleration as competition intensifies.

**Exhibit 18:** Target EV/EBITDA valuation

US\$ mn	FY17	FY18E	FY19E	FY20E
EBITDA (non-GAAP)	423	611	648	746
Target EV/EBITDA			8.0	
<b>Enterprise value</b>	<b>3,384</b>	<b>4,891</b>	<b>5,187</b>	<b>5,968</b>
Net cash	1,061	1,000	1,592	2,276
<b>Equity value</b>	<b>4,445</b>	<b>5,892</b>	<b>6,779</b>	<b>8,244</b>
No of diluted ADS	208	217	227	232
<b>Equity value per ADS (US\$)</b>	<b>21.4</b>	<b>27.2</b>	<b>29.8</b>	<b>35.6</b>
Time factor		-	1.00	
<b>Price Target (US\$)</b>			<b>30.0</b>	
Price Target date				31-Dec-19

Source: Morgan Stanley Research estimates

## Where we could be wrong

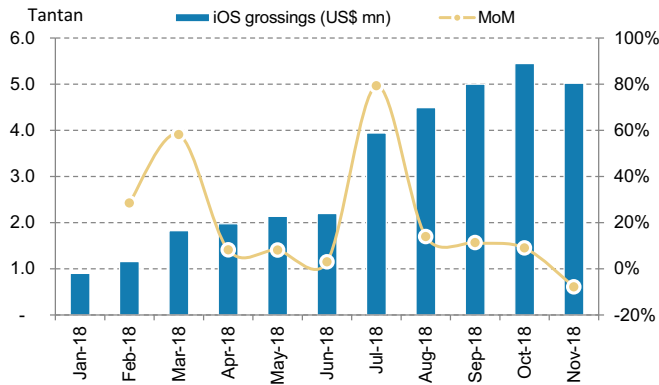
### 1. Tinder is a clear roadmap for Tantan's success

Momo's total addressable market (TAM) includes the population of generation Z (328mn in 2016), millennials (400mn in 2017, 5x the size of that in the US), singles (200mn in 2017) and live streaming users (425mn in 1H18) in China. We think Momo and Tantan dominate the online dating space with over 80% share in user traffic in that segment.

**Tinder sets a clear roadmap for Tantan's success:** Tantan's grossing jumped by >80% MoM in July after the launch of new VIP membership (similar to Tinder Gold) on July 16 with two new features: 1) "See Who Liked Me" – allows users to match instantly with those who liked them; 2) "Super Step-Up" – gives users 10x exposure and brings more matches. Paying users increased 16% QoQ to 3.6mn in 3Q18 (15% paying ratio). We see further upside potential for Tantan, given Tinder Gold's success (Tinder subscribers have increased 49% since new VIP was launched in 3Q17) and the larger addressable market for Tantan in China. Asia's singles population accounts for 75% of the world's total singles population. According to a survey conducted by Momo of Chinese university students (27.5mn new students in 2017), the three most commonly used app categories are games, video and social networking. The Momo survey found that **75% of Chinese university students say they use Momo, Tantan to meet new friends**, 25% use Weibo, and 23% use WeChat's "Shake Shake". **About 60% of them indicate spending <Rmb500 monthly on social networking**, 14% spend between Rmb500 and Rmb1,000, 10% spend between Rmb1,000 and Rmb2,000, and 15% spend more than Rmb2,000. Thus, we think Tantan's monthly subscription prices of Rmb12 for basic VIP and Rmb60 for super VIP are quite affordable for the TAM.

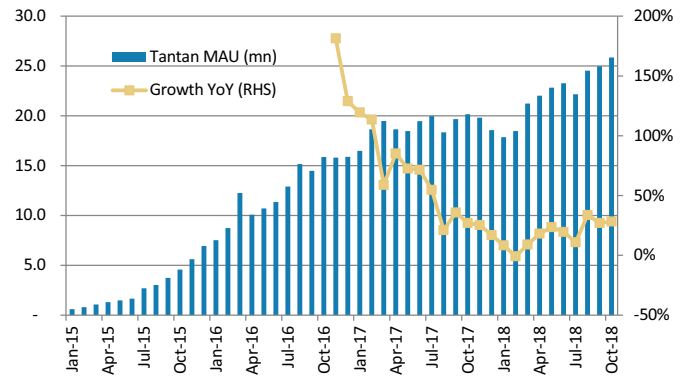
**Accelerating VAS monetization:** Revenue growth has been accelerating, from 45% QoQ in 3Q17 to 49% QoQ in 2Q18 and >50% QoQ in 3Q18, outpacing live streaming growth. We believe the initiatives of introducing more social use cases (audio chat room, karaoke, Momo Radio, Quick Chat, etc.), improving the recommendation algorithm, and more payment features will drive higher engagement and monetization.

Exhibit 19: Tantan: Monthly iOS grossing



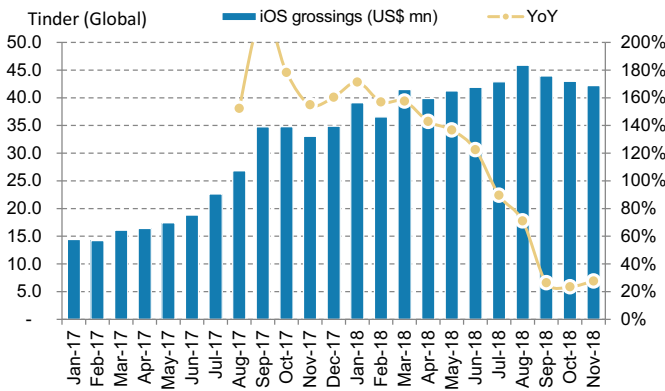
Source: SensorTower, Morgan Stanley Research

Exhibit 20: Tantan: MAU growth



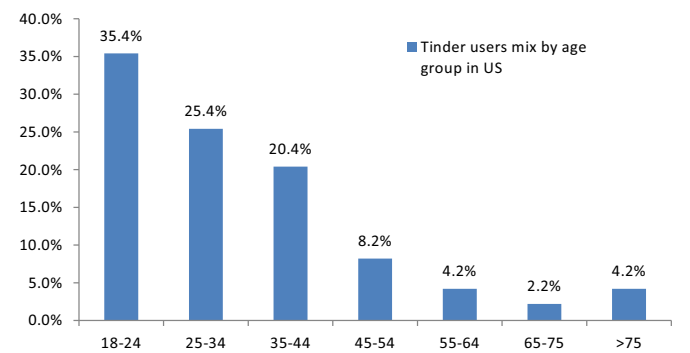
Source: QuestMobile, Morgan Stanley Research

Exhibit 21: Tinder: Monthly iOS grossings globally



Source: SensorTower, Morgan Stanley Research

Exhibit 22: 60% of Tinder users in US are aged 18-34



Source: Statista, Morgan Stanley Research

Exhibit 23: Momo vs Match Group

	Momo MOMO.O				Match Group MTCH.O			
<b>Market cap (US\$)</b>	<b>6,865</b>				<b>10,684</b>			
<b>Operating profit CAGR 17-20</b>	<b>17%</b>				<b>33%</b>			
<b>US\$ mn</b>	<b>FY17</b>	<b>FY18E</b>	<b>FY19E</b>	<b>FY20E</b>	<b>FY17</b>	<b>FY18E</b>	<b>FY19E</b>	<b>FY20E</b>
<b>Revenue</b>	<b>1,318</b>	<b>1,999</b>	<b>2,353</b>	<b>2,758</b>	<b>1,331</b>	<b>1,721</b>	<b>1,991</b>	<b>2,292</b>
Growth YoY (%)	138%	52%	18%	17%	19%	29%	16%	15%
Tantan / Tinder	-	66	170	272	399			
Non-Tantan / Non-Tinder	1,318	1,933	2,183	2,486	931			
<b>EBITDA</b>	<b>373</b>	<b>531</b>	<b>554</b>	<b>636</b>	<b>469</b>	<b>648</b>	<b>756</b>	<b>905</b>
Growth YoY (%)	144%	42%	4%	15%	16%	38%	17%	20%
Margin (%)	28.3%	26.6%	23.6%	23.0%	35.2%	37.6%	38.0%	39.5%
<b>Operating income</b>	<b>361</b>	<b>492</b>	<b>507</b>	<b>579</b>	<b>361</b>	<b>540</b>	<b>686</b>	<b>848</b>
Growth YoY (%)	150%	36%	3%	14%	14%	50%	27%	24%
Margin (%)	27.4%	24.6%	21.5%	21.0%	27.1%	31.4%	34.5%	37.0%
<b>Net profit</b>	<b>319</b>	<b>429</b>	<b>464</b>	<b>546</b>	<b>194</b>	<b>440</b>	<b>515</b>	<b>637</b>
Growth YoY (%)	119%	35%	8%	18%	-11%	127%	17%	24%
Margin (%)	24.2%	21.4%	19.7%	19.8%	14.6%	25.6%	25.9%	27.8%

Source: Company data, Thomson Reuters, Morgan Stanley Research estimates

## 2. Turnaround of China economy in 2019

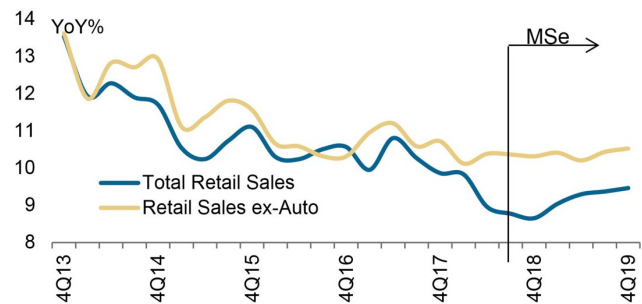
Our equity strategists upgraded China to OW after the better-than-expected outcome at the recent G20 meeting. A rebound in macro indicators could presage live streaming revenue growth. Our China consumer team expects moderation in China consumption (mainly due to cyclical headwinds) through year-end, with some stabilization likely in 2019. We expect that potential policy measures to boost consumption and a still healthy job market with robust service industries could offset the risks from China-US tensions and increases in tariffs. We expect pro-consumption measures, including a cut in the mandatory social insurance payment ratio, a cut in value-added tax, and more generous deduction measures for personal income tax. For details, please refer to [Global Consumer: Global 'China Plays': What to Ride Amid China Slowdown \(14 Oct 2018\)](#) and [China/Hong Kong Consumer: Near-Term Road Still Bumpy; Inflection for Rotation More Likely in 2019 \(27 Sep 2018\)](#).

**Exhibit 24:** Top 100 Chinese retailers' sales leading indicator shows a deceleration in growth through 4Q18 and stabilization in 1Q19



Source: CEIC, company data, Morgan Stanley Research estimates

**Exhibit 25:** Cyclical drags on retail sales growth likely to fade in 2019



Source: CEIC, company data, Morgan Stanley Research estimates

### 3. Spending on live streaming could be just pocket money for high rollers

Although the top 50 paying users on live streaming platforms across China tipped as much as Rmb20mn per capita in 2017, the majority of live streaming business should be less cyclical than other discretionary spending industries, because: 1) the monthly ARPPU is about ~US\$1,500 (assuming 1% of paying users out of 4-5mn, contributing 50% of revenue), less than that for luxury goods or Macau gambling, and 2) user stickiness is higher (interactive) and more accessible (mobile).

According to Hurun, discretionary spending by high net worth individuals in China extends across different assets, entertainment and consumer products, ranging from yachts and flights (average price of Rmb300mn) to alcohol/cigarettes/tea (average price of Rmb21,000).

**Exhibit 26:** Average price per customer across various forms of entertainment for high rollers

High roller consumption	Rmb ,000
Average unit price of yacht and flight	300,606
Average unit price of property	35,407
Average unit price of car	3,191
Average clubhouse membership	1,531
Annual education spending (CEO)	1,280
Annual healthcare spending (body check-up, beauty, house keeper, security guard)	934
Annual education spending (EMBA)	629
Travel spending per trip	581
Wedding	484
Annual education spending (Children)	250
Average unit price of luxurious watches and jewellery	121
Average unit price of luxurious bags and accessories	61
Average unit price of alcohol, cigarettes and tea	21
Monthly tipping amount to live streaming hosts by top 1% of Momo 4-5mn paying users	10
Annual tipping amount to live streaming hosts by top 50 whales in China (2017)	21,234



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STOCK RATING CATEGORY	COVERAGE UNIVERSE		INVESTMENT BANKING CLIENTS (IBC)			OTHER MATERIAL INVESTMENT SERVICES CLIENTS (MISC)	
	COUNT	% OF TOTAL	COUNT	% OF TOTAL IBC	% OF RATING CATEGORY	COUNT	% OF TOTAL OTHER MISC
<b>Overweight/Buy</b>	<b>1156</b>	<b>37%</b>	<b>295</b>	<b>40%</b>	<b>26%</b>	<b>541</b>	<b>38%</b>
<b>Equal-weight/Hold</b>	<b>1405</b>	<b>44%</b>	<b>342</b>	<b>47%</b>	<b>24%</b>	<b>641</b>	<b>45%</b>
<b>Not-Rated/Hold</b>	<b>46</b>	<b>1%</b>	<b>7</b>	<b>1%</b>	<b>15%</b>	<b>7</b>	<b>0%</b>
<b>Underweight/Sell</b>	<b>555</b>	<b>18%</b>	<b>85</b>	<b>12%</b>	<b>15%</b>	<b>226</b>	<b>16%</b>
<b>TOTAL</b>	<b>3,162</b>		<b>729</b>			<b>1415</b>	

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Momo Inc. (MOMO.O) - As of 12/5/18 in USD  
Industry : China Internet and Other Services



Stock Rating History: 12/1/15 : E/I; 12/17/15 : U/I; 9/6/16 : E/I; 10/19/16 : O/I; 5/25/17 : NA/I; 3/28/18 : O/I

Price Target History: 9/24/15 : 18.9; 12/17/15 : 13; 1/18/16 : 12.7; 9/6/16 : 28; 10/19/16 : 32; 11/10/16 : 34; 3/8/17 : 40; 5/25/17 : NA; 3/28/18 : 51; 5/11/18 : 53; 6/4/18 : 64; 7/9/18 : 61

Source: Morgan Stanley Research Date Format : MM/DD/YY Price Target -- No Price Target Assigned (NA)  
 Stock Price (Not Covered by Current Analyst) — Stock Price (Covered by Current Analyst) ■  
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## INDUSTRY COVERAGE: China Internet and Other Services

COMPANY (TICKER)	RATING (AS OF)	PRICE* (12/06/2018)
<b>Alex Poon</b>		
Bilibili Inc (BILI.O)	E (09/24/2018)	US\$14.68
Changyou.Com Ltd (CYOU.O)	U (03/28/2018)	US\$19.12
Kingsoft Corp Ltd (3888.HK)	E (08/03/2018)	HK\$12.78
Momo Inc. (MOMO.O)	E (12/06/2018)	US\$27.05
NetEase, Inc (NTES.O)	O (12/06/2018)	US\$238.47
Sohu.Com Inc (SOHU.O)	U (03/28/2018)	US\$21.94
Wise Talent Information Technology (6100.HK)	O (08/02/2018)	HK\$28.80
YY Inc. (YY.O)	E (03/28/2018)	US\$64.72
<b>Eddy Wang, CFA</b>		
Autohome Inc (ATHMN)	O (12/13/2017)	US\$86.95
Bitauto Holdings Ltd (BITAN)	O (12/13/2017)	US\$18.26
<b>Grace Chen</b>		
Alibaba Group Holding (BABA.N)	O (12/08/2016)	US\$155.83
Baidu Inc (BIDU.O)	O (02/15/2018)	US\$180.70
China Literature Ltd (0772.HK)	E (12/12/2017)	HK\$41.35
Ctrip.Com International Ltd (CTRP.O)	E (01/05/2018)	US\$28.98
JD.com, Inc. (JD.O)	E (11/14/2017)	US\$21.23
Meituan Dianping (3690.HK)	O (10/24/2018)	HK\$54.00
Tencent Holdings Ltd. (0700.HK)	O (01/09/2017)	HK\$304.20
Weibo Corp (WB.O)	O (01/05/2018)	US\$62.58
Xiaomi Corp (1810.HK)	O (08/09/2018)	HK\$14.00

Stock Ratings are subject to change. Please see latest research for each company.

\* Historical prices are not split adjusted.