

## Equity Research

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## Financials

### Square Inc.

#### Downgrading to Sell with PT of \$30; Bitcoin Trial Makes It Hip to Be SQ, But Stock's Rally Overdone

**We are downgrading Square Inc. (SQ) to Sell (from Neutral) with a price target of \$30** based on 20x our FY20E adjusted EBITDA of \$610mm. Shares of SQ have rallied by 259% this year thanks to a series of beat-and-raise quarters and, more recently, the buzz created by the company's launch of a trial that enables some users of the Square Cash app to buy and sell Bitcoin. However, we believe SQ's valuation already reflects emphatic and unimpeded growth while failing to factor in competitive, credit-related and macro risks that did not go away when some investors suddenly viewed its shares as a play on a trendy cryptocurrency.

**SQ** **\$48.86**

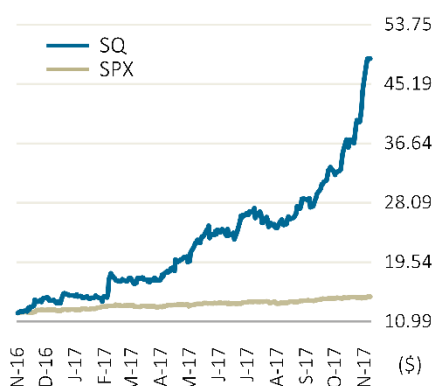
12 month target \$30.00

### SELL

52 week range \$12.43 - \$48.86

Market Cap (m) \$18,760

#### Price Performance



Source: IDC

- ▶ While we have been impressed by the growth that SQ has generated during the past few quarters in terms of both adjusted revenue and gross payment volume (GPV), we believe substantial growth is already baked into its share price and that it is difficult to justify its valuation at 28.1x FY20E adjusted EBITDA.
- ▶ We believe this is particularly the case when SQ's 3Q17 GPV growth of 31% to \$17.4bn is stacked up against the GPV growth of 75% that First Data Corporation's (FDC, Buy, \$23 PT) Clover and Clover Go point-of-sale devices posted in 2Q17 to bring their annualized GPV to \$45bn. (FDC did not disclose the year-over-year growth rate of Clover and Clover Go during 3Q17, but management stated that GPV from the devices should approach \$50bn annualized by YE17.) In contrast to SQ, FDC trades at just 9.2x FY20E adjusted EBITDA.
- ▶ Indeed, as SQ ramps up its efforts to promote growth among midmarket sellers – those with more than \$500K in annual GPV – we believe it will face an increasing competition from FDC's Clover and Clover Go as well as others such as Vantiv (VNTV, Not Rated) fighting for larger slices of the middle-market payments pie. While Square Register's combination of hardware, software and managed payments gives SQ an attractive offering to compete for these larger merchants, we do not view it as providing anything like an economic moat.
- ▶ **Valuation:** Our \$30 price target for SQ is based on 20x our FY20E adjusted EBITDA of \$610mm. The multiple we use reflects our anticipation of the company's continued rapid growth.

## Estimates

	1Q16 A	2Q16 A	3Q16 A	4Q16 A	FY16 A	1Q17 A	2Q17 A	3Q17 A	4Q17 E	FY17 E	FY18 E
Sales	379	439	439	452	1,709	462	552	585	598	2,196	2,795
EBITDA (Adj.)	(8)	13	12	30	46	27	36	34	36	134	234

Source: BTIG Estimates and Company Documents (\$ in millions, except per share amount)

*Please Read: Important disclosures and analyst's certification appear in Appendix*

- ▶ One of the keys to SQ's ability to maintain pricing and transaction margins and to reduce churn, particularly as it moves up market to serve larger merchants, is its suite of ancillary products and services whose contribution is recorded on the subscription and services-based revenue line item. A significant amount of the ancillary product and service revenue has been generated by Square Capital, which provides loans to merchants who use SQ's payment processing services.
- ▶ While SQ believes its access to sales and other data from the small businesses to which Square Capital lends should help it to minimize losses, such businesses are much more vulnerable to setbacks than larger firms. We were concerned about the \$3.4mm charge related to loan losses that SQ took during 3Q17 versus no such charges in the prior year period, an increase that management attributed to "the growth and increasing maturity of our Square Capital loan portfolio, and continued refinement of inputs to our loan loss estimation methodology."
- ▶ The charge was concerning to us for a couple of reasons. One is that if the \$3.4mm in loan losses were annualized it would be \$13.6mm, an amount that represents 25% of the \$54.2mm in average customer loans held for sale. Moreover, management had not previously cited the seasoning of its loan portfolio as a consideration in their approach to reserving. While SQ only retains a small portion of the loans it originates and therefore has limited exposure to direct loan losses, such losses nevertheless have an impact on Square Capital's operating model. Indeed, we believe investors should be asking whether the loan losses had anything to do with the sequential slowdown in the dollar volume of Square Capital's loan originations during 3Q17 and, if it did, what that implies for the unit's future as a driver of growth and customer retention.
- ▶ Some observers cheered SQ's September 6 announcement that the company would seek an industrial loan charter (ILC) that would provide an inexpensive source of funding for Square Capital's loans and facilitate the unit's expansion into other financial products. We had a different take on the announcement: it heralded an expansion of credit risk as an element of the SQ story.
- ▶ At a time when PayPal Holdings (PYPL, Buy, \$81 PT) positioned itself to reduce the potential for earnings volatility and to improve its credit risk profile by selling its U.S. consumer credit receivables portfolio to Synchrony Financial (SYF, Buy, \$36 PT), SQ is seeking to increase its dependence on credit as a driver of growth. Just as we suggested that PYPL's move to reduce credit risk should be supportive of its stock multiple, we believe SQ's expanding foray into credit likely will weigh on its multiple. Moreover, we believe that if SQ is successful in its application for an ILC that the additional complexity and regulatory scrutiny that it would bring would significantly reduce the number of companies that would be willing to target it for acquisition. That is, if SQ's expensive valuation was not already a deterrent.

- ▶ Another factor that could weigh on SQ's multiple is any pause in the current Bitcoin mania insofar as the company's announcement of a trial that is allowing a small number of Square Cash users to buy and sell the cryptocurrency appears to have provided the latest leg up for the stock. We believe Bitcoin could provide a marginal contribution to SQ's revenues if the trial succeeds, it becomes a permanent feature for all Square Cash users, and the company starts to charge a fee for trades. However, we also believe it is not optimal from a risk standpoint for SQ to have its fortunes tied to those of a cryptocurrency that has frequently displayed extreme volatility.
- ▶ Another factor to consider while assessing SQ's risk/reward at this point is the fact that the stock's rally has occurred during a period when the operating environment for the small businesses it serves has been benign. We recall the significant underperformance in SQ shares in early 2016 when U.S. recession fears emerged and investors were acutely aware that smaller businesses are particularly vulnerable during an economic downturn.
- ▶ We also believe SQ has been identified by investors as a company that would benefit from the enactment of U.S. tax reform given the boost such legislation could provide to small businesses. The flip side is that if tax reform efforts stall, the stock could be particularly vulnerable as the market upsurge driven in part by hopes for such reform unwinds, in our view.

## Income Statement

Square Inc. – Operating Model	Dec-12	Dec-13	Dec-14	Dec-15	Dec-16	Mar-17	Jun-17	Sep-17	Dec-17	Dec-17	Mar-18	Jun-18	Sep-18	Dec-18	Dec-18	Dec-19	Dec-20
\$ millions	2012A	2013A	2014A	2015A	2016A	1Q17A	2Q17A	3Q17A	4Q17E	2017E	1Q18E	2Q18E	3Q18E	4Q18E	2018E	2019E	2020E
Transaction-based revenue	193.98	433.74	707.80	1,050.45	1,456.16	403.48	482.07	510.02	512.22	1,907.79	504.25	610.79	643.24	645.74	2,404.01	2,991.67	3,625.60
Starbucks transaction-based revenue	9.47	114.46	123.02	142.28	78.90	-	-	-	-	-	-	-	-	-	-	-	-
Subscription and services-based revenue	-	-	12.05	58.01	129.35	49.06	59.15	65.05	73.62	246.89	70.93	83.36	87.85	99.34	341.47	453.36	601.47
Hardware revenue	-	4.24	7.32	16.38	44.31	9.02	10.29	10.09	12.28	41.68	10.82	12.35	12.11	14.74	50.01	57.51	63.26
<b>Total net revenue</b>	<b>203.45</b>	<b>552.43</b>	<b>850.19</b>	<b>1,267.12</b>	<b>1,708.72</b>	<b>461.55</b>	<b>551.51</b>	<b>585.16</b>	<b>598.13</b>	<b>2,196.35</b>	<b>585.99</b>	<b>706.49</b>	<b>743.19</b>	<b>759.82</b>	<b>2,795.50</b>	<b>3,502.54</b>	<b>4,290.33</b>
Transaction costs	126.35	277.83	450.86	672.67	943.20	257.78	311.09	328.04	335.60	1,232.51	330.94	401.55	423.62	426.01	1,582.13	1,987.80	2,432.28
Starbucks transaction costs	12.55	139.80	150.96	165.44	69.76	-	-	-	-	-	-	-	-	-	-	-	-
Software and data products cost	-	-	2.97	22.47	43.13	15.88	17.12	18.17	23.38	74.54	21.46	25.22	26.58	30.06	103.33	130.39	166.97
Hardware cost	-	6.01	18.33	30.87	68.56	12.66	14.17	18.78	14.49	60.10	12.55	14.32	14.04	16.95	57.86	66.14	69.59
Amortization of acquired technology	-	-	1.00	5.64	8.03	1.81	1.70	1.56	1.63	6.69	1.72	1.80	1.89	1.99	7.39	8.99	10.92
<b>Total cost of revenue</b>	<b>138.90</b>	<b>423.65</b>	<b>624.12</b>	<b>897.09</b>	<b>1,132.68</b>	<b>288.12</b>	<b>344.08</b>	<b>366.54</b>	<b>375.10</b>	<b>1,373.85</b>	<b>366.67</b>	<b>442.90</b>	<b>466.14</b>	<b>475.00</b>	<b>1,750.72</b>	<b>2,193.32</b>	<b>2,679.76</b>
<b>Gross profit (loss)</b>	<b>64.55</b>	<b>128.79</b>	<b>226.07</b>	<b>370.03</b>	<b>576.04</b>	<b>173.43</b>	<b>207.43</b>	<b>218.62</b>	<b>223.03</b>	<b>822.50</b>	<b>219.33</b>	<b>263.59</b>	<b>277.05</b>	<b>284.82</b>	<b>1,044.78</b>	<b>1,309.22</b>	<b>1,610.57</b>
Product development	46.57	82.86	144.64	199.64	268.54	68.58	78.13	82.55	84.23	313.48	81.05	95.95	99.08	99.40	375.49	435.48	490.59
Sales and marketing	56.65	64.16	112.58	145.62	173.88	49.90	59.92	66.53	68.01	244.36	65.46	77.50	80.04	80.31	303.31	352.05	396.96
General and administrative	36.18	68.94	94.22	143.47	251.99	56.94	62.99	64.31	66.24	250.48	66.90	67.57	68.25	68.93	271.66	279.19	284.81
Transaction and advance losses	10.51	15.33	24.08	54.01	51.24	11.89	18.40	19.89	20.19	70.38	18.17	22.05	23.26	23.39	86.87	108.86	132.86
Amortization of acquired customer assets	-	-	1.05	1.76	0.85	0.21	0.22	0.22	-	0.65	-	-	-	-	-	-	-
Impairment of intangible assets	-	2.43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total operating expenses</b>	<b>149.91</b>	<b>233.73</b>	<b>376.57</b>	<b>544.49</b>	<b>746.49</b>	<b>187.51</b>	<b>219.65</b>	<b>233.51</b>	<b>238.67</b>	<b>879.34</b>	<b>231.58</b>	<b>263.08</b>	<b>270.63</b>	<b>272.03</b>	<b>1,037.33</b>	<b>1,175.58</b>	<b>1,305.22</b>
<b>Operating income (loss)</b>	<b>(85.36)</b>	<b>(104.94)</b>	<b>(150.49)</b>	<b>(174.46)</b>	<b>(170.45)</b>	<b>(14.08)</b>	<b>(12.22)</b>	<b>(14.89)</b>	<b>(15.64)</b>	<b>(56.84)</b>	<b>(12.26)</b>	<b>0.51</b>	<b>6.42</b>	<b>12.78</b>	<b>7.45</b>	<b>133.64</b>	<b>305.35</b>
<b>EBITDA</b>	<b>(81.78)</b>	<b>(96.67)</b>	<b>(131.91)</b>	<b>(146.83)</b>	<b>(132.71)</b>	<b>(4.64)</b>	<b>(3.10)</b>	<b>(5.81)</b>	<b>(3.68)</b>	<b>(17.23)</b>	<b>(0.54)</b>	<b>14.64</b>	<b>21.28</b>	<b>27.98</b>	<b>63.36</b>	<b>203.69</b>	<b>391.16</b>
<b>Adjusted EBITDA</b>	<b>(70.58)</b>	<b>(51.53)</b>	<b>(67.74)</b>	<b>(41.12)</b>	<b>45.74</b>	<b>27.03</b>	<b>36.50</b>	<b>34.30</b>	<b>35.76</b>	<b>133.58</b>	<b>35.17</b>	<b>57.69</b>	<b>66.57</b>	<b>74.28</b>	<b>233.72</b>	<b>399.62</b>	<b>609.70</b>
Interest (income) and expense	0.01	(0.01)	1.06	1.16	(0.24)	0.50	3.27	1.85	0.50	6.12	0.50	0.50	0.50	0.50	2.00	2.00	2.00
Other (income) and expense	(0.17)	(0.95)	1.10	0.45	(0.54)	-	-	-	-	-	-	-	-	-	-	-	-
<b>Income (loss) before income taxes</b>	<b>(85.20)</b>	<b>(103.98)</b>	<b>(152.65)</b>	<b>(176.07)</b>	<b>(169.67)</b>	<b>(14.58)</b>	<b>(15.49)</b>	<b>(16.74)</b>	<b>(16.14)</b>	<b>(62.96)</b>	<b>(12.76)</b>	<b>0.01</b>	<b>5.92</b>	<b>12.28</b>	<b>5.45</b>	<b>131.64</b>	<b>303.35</b>
Provision for income taxes	-	0.51	1.44	3.75	1.92	0.51	0.47	(0.65)	0.33	0.33	-	-	-	-	-	-	-
<b>Net income (loss)</b>	<b>(85.20)</b>	<b>(104.49)</b>	<b>(154.09)</b>	<b>(179.82)</b>	<b>(171.59)</b>	<b>(15.09)</b>	<b>(15.96)</b>	<b>(16.10)</b>	<b>(16.14)</b>	<b>(63.29)</b>	<b>(12.76)</b>	<b>0.01</b>	<b>5.92</b>	<b>12.28</b>	<b>5.45</b>	<b>131.64</b>	<b>303.35</b>
<b>Adjusted EPS - Diluted</b>				<b>(0.39)</b>	<b>0.04</b>	<b>0.05</b>	<b>0.08</b>	<b>0.08</b>	<b>0.06</b>	<b>0.28</b>	<b>0.06</b>	<b>0.11</b>	<b>0.13</b>	<b>0.14</b>	<b>0.45</b>	<b>0.75</b>	<b>1.10</b>
Shares outstanding - diluted				170.50	362.58	366.74	376.36	383.95	391.63	379.67	399.46	407.45	415.60	423.91	411.61	445.54	482.26
<b>Total net revenue</b>	<b>203.45</b>	<b>552.43</b>	<b>850.19</b>	<b>1,267.12</b>	<b>1,708.72</b>	<b>461.55</b>	<b>551.51</b>	<b>585.16</b>	<b>598.13</b>	<b>2,196.35</b>	<b>585.99</b>	<b>706.49</b>	<b>743.19</b>	<b>759.82</b>	<b>2,795.50</b>	<b>3,502.54</b>	<b>4,290.33</b>
Starbucks transaction revenue	9.47	114.46	123.02	142.28	78.90	-	-	-	-	-	-	-	-	-	-	-	-
Transaction costs	126.35	277.83	450.86	672.67	943.20	257.78	311.09	328.04	335.60	1,232.51	330.94	401.55	423.62	426.01	1,582.13	1,987.80	2,432.28
<b>Adjusted revenue</b>	<b>67.63</b>	<b>160.14</b>	<b>276.31</b>	<b>452.17</b>	<b>686.62</b>	<b>203.78</b>	<b>240.41</b>	<b>257.12</b>	<b>262.54</b>	<b>963.84</b>	<b>255.05</b>	<b>304.93</b>	<b>319.57</b>	<b>333.81</b>	<b>1,213.37</b>	<b>1,514.74</b>	<b>1,858.05</b>
<b>Net income (loss)</b>	<b>(85.20)</b>	<b>(104.49)</b>	<b>(154.09)</b>	<b>(179.82)</b>	<b>(171.59)</b>	<b>(15.09)</b>	<b>(15.96)</b>	<b>(16.10)</b>	<b>(16.14)</b>	<b>(63.29)</b>	<b>(12.76)</b>	<b>0.01</b>	<b>5.92</b>	<b>12.28</b>	<b>5.45</b>	<b>131.64</b>	<b>303.35</b>
Starbucks transaction revenue	(9.47)	(114.46)	(123.02)	(142.28)	(78.90)	-	-	-	-	-	-	-	-	-	-	-	-
Starbucks transaction costs	12.55	139.80	150.96	165.44	69.76	-	-	-	-	-	-	-	-	-	-	-	-
Share-based compensation expense	8.11	14.66	36.12	82.29	138.79	31.67	39.59	40.05	39.44	150.75	35.71	43.05	45.29	46.30	170.36	195.93	218.55
Depreciation and amortization	3.58	8.27	18.59	27.63	37.75	9.44	9.13	9.09	11.96	39.61	11.72	14.13	14.86	15.20	55.91	70.05	85.81
Interest (income) expense	0.01	(0.01)	1.06	1.16	(0.24)	0.50	3.27	1.85	0.50	6.12	0.50	0.50	0.50	0.50	2.00	2.00	2.00
Other (income) expense	(0.17)	(0.95)	1.10	0.45	48.32	-	-	-	-	-	-	-	-	-	-	-	-
Provision (benefit) for income taxes	-	0.51	1.44	3.75	1.92	0.51	0.47	(0.65)	0.33	0.33	-	-	-	-	-	-	-
Loss on sale of property plant and equipment	0.01	2.71	0.11	0.27	(0.05)	-	0.00	0.06	-	0.06	-	-	-	-	-	-	-
Impairment of intangible assets	-	2.43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Adjusted EBITDA</b>	<b>(70.58)</b>	<b>(51.53)</b>	<b>(67.74)</b>	<b>(41.12)</b>	<b>45.74</b>	<b>27.03</b>	<b>36.50</b>	<b>34.30</b>	<b>35.76</b>	<b>133.58</b>	<b>35.17</b>	<b>57.69</b>	<b>66.57</b>	<b>74.28</b>	<b>233.72</b>	<b>399.62</b>	<b>609.70</b>
<b>Tax rate</b>	<b>-</b>	<b>-0.5%</b>	<b>-0.9%</b>	<b>-2.1%</b>	<b>-1.1%</b>	<b>-3.5%</b>	<b>-3.0%</b>	<b>3.9%</b>	<b>0.0%</b>	<b>-0.5%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>
<b>Adjusted revenue growth</b>	<b>-</b>	<b>136.8%</b>	<b>72.5%</b>	<b>63.6%</b>	<b>51.9%</b>	<b>39.4%</b>	<b>40.7%</b>	<b>44.6%</b>	<b>36.8%</b>	<b>40.4%</b>	<b>25.2%</b>	<b>26.8%</b>	<b>24.3%</b>	<b>27.1%</b>	<b>25.9%</b>	<b>24.8%</b>	<b>22.7%</b>
<b>Transaction revenue growth</b>	<b>-</b>	<b>123.6%</b>	<b>63.2%</b>	<b>48.4%</b>	<b>38.6%</b>	<b>34.3%</b>	<b>32.1%</b>	<b>31.3%</b>	<b>27.3%</b>	<b>31.0%</b>	<b>25.0%</b>	<b>26.7%</b>	<b>26.1%</b>	<b>26.1%</b>	<b>26.0%</b>	<b>24.4%</b>	<b>21.2%</b>
<b>Software and data product growth</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>381.6%</b>	<b>123.0%</b>	<b>106.2%</b>	<b>99.0%</b>	<b>84.2%</b>	<b>81.7%</b>	<b>90.9%</b>	<b>44.6%</b>	<b>40.9%</b>	<b>35.0%</b>	<b>34.9%</b>	<b>38.3%</b>	<b>32.8%</b>	<b>32.7%</b>
<b>Hardware revenue growth</b>	<b>-</b>	<b>-</b>	<b>72.7%</b>	<b>123.6%</b>	<b>170.5%</b>	<b>-44.3%</b>	<b>-7.2%</b>	<b>23.5%</b>	<b>38.5%</b>	<b>-5.9%</b>	<b>20.0%</b>	<b>20.0%</b>	<b>20.0%</b>	<b>20.0%</b>	<b>20.0%</b>	<b>15.0%</b>	<b>10.0%</b>
<b>Adjusted EBITDA growth</b>	<b>-</b>	<b>-27.0%</b>	<b>31.5%</b>	<b>-39.3%</b>	<b>-21.3%</b>	<b>-428.5%</b>	<b>190.7%</b>	<b>195.1%</b>	<b>20.0%</b>	<b>192.0%</b>	<b>30.1%</b>	<b>58.1%</b>	<b>94.1%</b>	<b>107.7%</b>	<b>75.0%</b>	<b>71.0%</b>	<b>52.6%</b>
<b>Adjusted EBITDA margin</b>	<b>-104.4%</b>	<b>-32.2%</b>	<b>-24.5%</b>	<b>-9.1%</b>	<b>6.7%</b>	<b>13.3%</b>	<b>15.2%</b>	<b>13.3%</b>	<b>13.6%</b>	<b>13.9%</b>	<b>13.8%</b>	<b>18.9%</b>	<b>20.8%</b>	<b>22.3%</b>	<b>19.3%</b>	<b>26.4%</b>	<b>32.8%</b>

Source: BTIG Estimates and Company Reports

## BTIG Covered Companies Mentioned in this Report

SQUARE INC. (SQ, Sell, \$30.00 PT; Current Price: \$48.86; Analyst: Mark.Palmer)

FIRST DATA CORPORATION (FDC, Buy, \$23.00 PT; Current Price: \$16.80; Analyst: Mark.Palmer)

PAYPAL HOLDINGS, INC. (PYPL, Buy, \$81.00 PT; Current Price: \$78.57; Analyst: Mark.Palmer)

## Appendix: Analyst Certification and Other Important Disclosures

### Analyst Certification

I, Mark Palmer, hereby certify that the views about the companies and securities discussed in this report are accurately expressed and that I have not received and will not receive direct or indirect compensation in exchange for expressing specific recommendations or views in this report.

I, Giuliano Bologna, hereby certify that the views about the companies and securities discussed in this report are accurately expressed and that I have not received and will not receive direct or indirect compensation in exchange for expressing specific recommendations or views in this report.

### Regulatory Disclosures

#### Ratings Definitions

**BTIG LLC's ("BTIG") ratings, effective June 12, 2017, are defined as follows:**

**BUY** – A security which is expected to produce a positive total return of 15% or greater over the 12 months following the recommendation. The BUY rating may be maintained as long as it is deemed appropriate, notwithstanding price fluctuations that would cause the target to fall outside of the 15% return.

**SELL** – A security which is expected to produce a negative total return of 15% or greater over the next 12 months following the recommendation. The SELL rating may be maintained as long as it is deemed appropriate, notwithstanding price fluctuations that would cause the target to fall outside of the 15% return.

**NEUTRAL** – A security which is not expected to appreciate or depreciate meaningfully over the next 12 months.

**NOT RATED** – A security which is not rated or covered by BTIG.

**UNDER REVIEW** – Effective immediately, coverage of the following securities is Under Review. Ratings, price targets, disclosures, and estimates for the companies listed below are suspended and should no longer be relied upon.

#### Distribution of Ratings and Investment Banking Clients

BTIG must disclose in each research report the percentage of all securities rated by the member to which the member would assign a "buy", "neutral" or "sell" rating. The said ratings are updated on a quarterly basis. BTIG must also disclose the percentage of subject companies within each of these three categories for whom the member has provided investment banking services within the previous twelve months. **Stocks under coverage as of the end of the most recent calendar quarter (September 30, 2017): 272**

**Distribution of BTIG's Research Recommendations (as of September 30, 2017):**

**BUY: 56.8%; NEUTRAL: 39.1%; SELL: 4.1%**

**Distribution of BTIG's Investment Banking Services (as of September 30, 2017):**

**BUY: 20.8%; NEUTRAL: 5.7%; SELL: 0.0%**

For purposes of FINRA ratings distribution rules, BTIG's stock ratings of Buy, Neutral and Sell fall into Buy, Hold and Sell categories, respectively.

### Company Valuation and Risk Disclosures

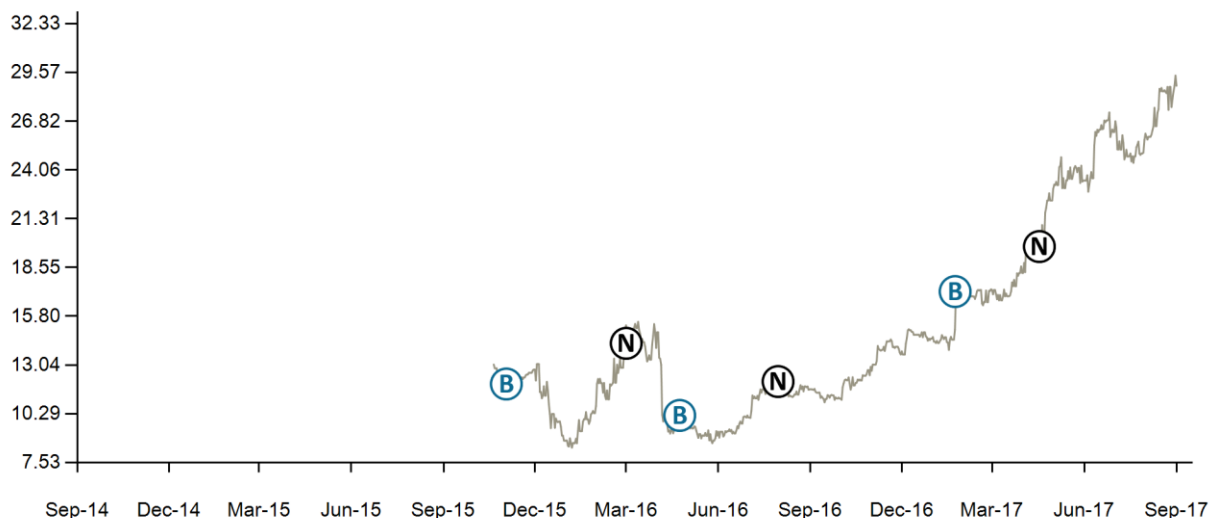
#### Square Inc. (SQ, Sell, \$30.00 PT)

**Valuation:** Our \$30 price target for SQ is based on 20x our FY20E adjusted EBITDA of \$610mm. The multiple we use reflects our anticipation of the company's continued rapid growth.

**Risks:** The primary Upside risks include, better than anticipated performance by the company, rapid growth, continued multiple expansion, Square's ability to launch new lines of business, the company's ability to expand into additional countries to continue their rapid growth and an acquisition of the company.

# Square Inc. (SQ)

(\$)



*Note: Closing Price and Target Price have been adjusted for corporate actions.*

Date	Closing Price (\$)	Target Price (\$)	Analyst	Rating
02-Dec-15	11.92	15	Mark Palmer	Buy
31-Mar-16	14.22	NA	Mark Palmer	Neutral
23-May-16	10.14	12	Mark Palmer	Buy
29-Aug-16	12.07	NA	Mark Palmer	Neutral
22-Feb-17	17.15	20	Mark Palmer	Buy
17-May-17	19.68	NA	Mark Palmer	Neutral

## First Data Corporation (FDC, Buy, \$23.00 PT)

**Valuation:** Our price target of \$23 for FDC is based on 11.5x our FY18E adjusted EBITDA of \$3,269mm. We believe the multiple we employ is appropriate as it represents a modest discount to FDC's faster-growing, less indebted peers in the payments space.

**Risks:** The primary risks to our thesis include: Competition, significant leverage and interest rate risks, the overhang associated with majority ownership, chargeback liability, security breaches, foreign exchange risks and consolidation of card-issuing banks.

# First Data Corporation (FDC)



*Note: Closing Price and Target Price have been adjusted for corporate actions.*

Date	Closing Price (\$)	Target Price (\$)	Analyst	Rating
17-Nov-15	16.88	NA	Mark Palmer	Neutral
10-Feb-16	8.67	13	Mark Palmer	Buy
07-Mar-16	13.27	NA	Mark Palmer	Neutral
01-Aug-16	13.08	15	Mark Palmer	Buy
17-Nov-16	15.48	18	Mark Palmer	Buy
19-Jun-17	18.28	23	Mark Palmer	Buy

## PayPal Holdings, Inc. (PYPL, Buy, \$81.00 PT)

**Valuation:** Our \$81 price target for PYPL is based on 16x our FY20E EBITDA of \$5.099bn. Our multiple reflects our anticipation of the company's continued rapid growth.

**Risks:** The primary risks to PayPal include: competition from mobile wallet offerings and others, pressure on take rates, security risks, regulatory risks, regulatory risks and reliance on third-party banks for credit-product issuance.



# PayPal Holdings, Inc. (PYPL)



*Note: Closing Price and Target Price have been adjusted for corporate actions.*

Date	Closing Price (\$)	Target Price (\$)	Analyst	Rating
20-Jul-15	39.35	48	Mark Palmer	Buy
27-Apr-17	47.72	53	Mark Palmer	Buy
26-Jun-17	52.73	63	Mark Palmer	Buy
06-Sep-17	62	70	Mark Palmer	Buy
20-Oct-17	69.80	81	Mark Palmer	Buy

## Other Disclosures

Additional Information Available Upon Request

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