

# Bill.com

## \$50 Bill

### WHY READ?

Following a successful IPO, we are initiating coverage of Bill.com with an Outperform rating and \$50 price target (31% upside). We believe the revenue growth opportunity for Bill.com is significant and remains underappreciated. The company has gained market share in each of the last 10 years but still has less than 1.5% market share today. Additionally, we believe the company can grow transaction revenue at a ~50% CAGR over the next four years, driven by a shift to higher-yield transactions, specifically virtual cards and cross-border transactions.

- Mix to drive transaction revenue growth.** We believe Bill.com's mix of TPV will continue to shift to higher-yielding transactions, specifically virtual-card and cross-border payments (in non-USD). We estimate the yields on these transactions are ~1.2% and ~0.5%, respectively, well above Bill.com's current transaction yield of 0.05%. This shift in mix should increase Bill.com's transaction yield (we estimate to ~0.07% in FY23), leading to a ~50% CAGR in transaction revenue from FY19-FY23.
- Growth can continue – large TAM with low penetration.** We estimate Bill.com has less than 1.5% market share of SMB employer firms in the US. The company has increased its market share by ~25bps per year during the last four years. Given the low penetration and its reinvestment in the business, we believe Bill.com can grow its customer base at a 17% CAGR over the next four years.
- Risk around shift from check to ACH overblown.** Investors have expressed concerns about the potential revenue headwind from the mix of transactions shifting from check to ACH. We estimate ~40% of Bill.com's transactions are check and the remaining 60% are ACH. While the shift might present a headwind to revenue per transaction, we estimate the impact to EBIT/txn is almost neutral, as checks likely have much higher costs to process.
- Valuation.** We believe Bill.com can grow its sales ex interest income at a ~35% CAGR over the next four years. Fast forward to the end of FY21 (18 months from today), and we believe that the stock will trade at ~16x FY22 sales, leading to our \$50 PT (or 31% upside from current levels).

Key valuation data (\$)	FY2018	FY2019	FY2020E	FY2021E	FY2022E
Sales	64.9	108.4	152.8	198.5	255.5
Sales ex interest income	57.0	86.0	129.8	173.1	226.4
EV/Sales	41.9x	25.0x	17.8x	13.7x	10.6x
EV/Sales ex interest income	47.7x	31.6x	20.9x	15.7x	12.0x

Source: Autonomous Research, Bloomberg

## Equity: Outperform

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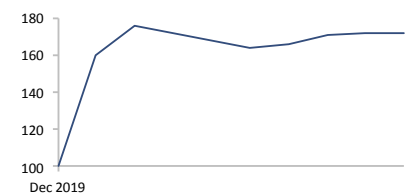
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### Equity metrics (BILL US)

Price (\$)	38.2
Index value (S&P Financials)	510
Price target (\$)	50.0
52 week range (\$)	22.0-39.0
Market Value (\$bn)	2.75
Financial Year end	Dec

### Price performance rel. to S&P Financials



### Credit metrics

Rating: Moody's/S&P/Fitch NA/NA/NA

### Summary of Key Data (\$mn)

P&L (adjusted except where stated)	2018	2019	2020E	2021E	2022E
Total revenues	65	108	153	199	255
Total operating expenses	73	118	177	220	273
Other Income/(Expense)	0.6	2.3	4.1	5.4	5.2
Pre-tax Income	(7)	(7)	(20)	(16)	(13)
Net income	(7)	(7)	(20)	(16)	(13)
Adjusting Items	-	-	-	-	-
Reported net income	(7)	(7)	(20)	(16)	(13)
EPS	(0.12)	(0.13)	(0.26)	(0.20)	(0.14)
Reported EPS	(0.12)	(0.13)	(0.26)	(0.20)	(0.14)
Operating Margin	(12.1)%	(9.0)%	(15.7)%	(11.0)%	(7.0)%

BALANCE SHEET AND CAPITAL	2018	2019	2020E	2021E	2022E
Cash & Equivalents	22	90	274	259	247
Total assets	1,029	1,526	2,358	3,006	3,643
Total Debt	10	-	-	-	-
Common shareholders' equity	-	-	-	-	-
Tangible common shareholders' equity	(102)	(103)	363	357	357
Debt / Total Capital	1.0	-	-	-	-
Dividend payout ratio	-	-	-	-	-
Share Repurchases	0.0%	0.0%	0.0%	0.0%	0.0%
Total payout ratio	-	-	-	-	-

KEY METRICS	2018	2019	2020E	2021E	2022E
Revenue	65	108	153	199	255
# of customers - 000s (EOP)	64	77	95	113	129
TPV	49,592	71,282	101,823	137,013	172,342

KEY GROWTH RATES	2018	2019	2020E	2021E	2022E
Revenues	%	67.0%	41.0%	29.9%	28.7%
Pre-tax profit	%	(4.0)%	(165.6)%	17.3%	22.8%
Net income	%	(1.7)%	(172.0)%	17.6%	22.8%
Adjusted EPS Growth	%	(1.7)%	(107.1)%	25.6%	26.3%

Source: Company data, Autonomous estimates

# Thesis overview

Below we outline the thesis for our Outperform rating on Bill.com. We believe the revenue growth opportunity for Bill.com is significant and underappreciated. The company has gained market share in each of the last 10 years and has less than 1.5% market share today. Additionally, we believe the company can grow transaction revenue at a ~50% CAGR over the next four years, driven by a shift to higher-yield transactions, specifically virtual cards and cross-border transactions in foreign currencies. Fast forward to the end of FY21 (18 months from today), and we believe that the stock will trade at ~16x FY22 sales, leading to our \$50 PT (31% upside from current levels). For an overview of Bill.com, the business model, and the revenue drivers, please see pages 15-47 or our pre-IPO Primer ([click here](#)).

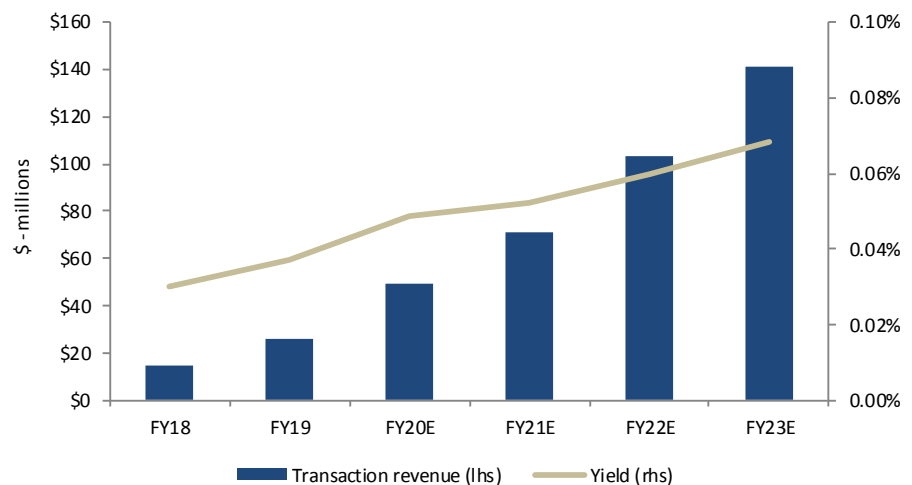
## Upside to transaction revenue

We believe Bill.com’s mix of Total Payment Volume (TPV) will continue to shift to higher-yielding transactions, specifically virtual-card and cross-border payments in foreign currencies. We estimate the yields on these transactions are ~1.2% and ~0.5%, respectively, well above Bill.com’s current transaction yield of 0.05%. This shift in mix should increase Bill.com’s transaction yield over time (we estimate to ~0.07% in FY23), leading to a ~50% CAGR in transaction revenue from FY19-FY23.

Generating more revenue from transaction fees is an important part of Bill.com’s story, as transaction fees increased from 23% of revenue in FY18 to ~30% in F1Q20. We believe higher-yielding transactions, specifically virtual card and cross-border payments (in foreign currencies), will drive the company’s transaction yield higher.

We estimate transaction revenue will grow at a ~50% CAGR between FY19 and FY23. Our thesis depends on virtual cards contributing a larger percentage of TPV in the coming years. We estimate virtual-card transactions have a 1.2% net yield, while cross-border transactions (in non-USD) carry a 0.5% yield. These yields are well above the 0.05% transaction yield that Bill.com achieved in F1Q20, which should push the overall transaction revenue take rate higher.

**Chart 1: We believe a higher transaction yield will drive a 50% CAGR in transaction revenue from FY19-FY23**



Source: Company data, Autonomous Estimates

To arrive at our yield and transaction revenue estimates, we do a bottom-up build of Bill.com's transaction types, assuming different percentages of TPV, transactions and yields for each. Our analysis assumes virtual-card transactions increase from 0.5% of TPV in FY19 to ~2.5% in FY23 while cross-border transactions (in foreign currencies) achieve a similar mix shift.

Bill.com derives a portion of its transaction revenue from a fixed fee per transaction, while it earns a variable rate on virtual card and cross-border transactions in foreign currencies. The revenue derived from these variable-rate transactions drives most of the revenue growth in the coming years, so we focus our analysis here.

**Table 1: We believe virtual cards and cross border wires in foreign currencies will be the biggest drivers of transaction revenue growth**

Yield Analysis (\$mn unless noted)	FY18	FY19	FY20E	FY21E	FY22E	FY23E
Total Payment Volume (TPV)	\$49,592	\$71,282	\$101,823	\$137,013	\$172,342	\$207,000
y/y growth		44%	43%	35%	26%	20%
<b>% of TPV:</b>						
ACH, Check, X Border in USD	100.0%	99.0%	98.0%	97.0%	96.0%	95.0%
Virtual Card	0.00%	0.50%	1.00%	1.50%	2.00%	2.50%
FX X Border Wire	0.00%	0.50%	1.00%	1.50%	2.00%	2.50%
<b>TPV (\$mn):</b>						
ACH, Check, X Border in USD	\$49,592	\$70,569	\$99,786	\$132,902	\$165,449	\$196,650
Virtual Card	\$0	\$356	\$1,018	\$2,055	\$3,447	\$5,175
FX X Border Wire	\$0	\$356	\$1,018	\$2,055	\$3,447	\$5,175
<b>Take Rate (%):</b>						
ACH, Check, X Border in USD	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Virtual Card	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%
FX X Border Wire	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
<b>Revenue (\$mn):</b>						
ACH, Check, X Border in USD	-	-	-	-	-	-
Virtual Card	-	4.3	12.2	24.7	41.4	62.1
FX X Border Wire	-	1.8	5.1	10.3	17.2	25.9
<b>Total Volume-based Txn Fees</b>	-	<b>6.1</b>	<b>17.3</b>	<b>34.9</b>	<b>58.6</b>	<b>88.0</b>
<b>Total Flat Rev/Txn Fees (\$mn)*</b>	<b>15.1</b>	<b>21.3</b>	<b>27.6</b>	<b>36.1</b>	<b>44.7</b>	<b>52.8</b>
Total Txn Fees (Calculated)	15.1	27.3	44.9	71.1	103.3	140.7
<b>Total Txn Fees (Autono model)</b>	<b>15.0</b>	<b>26.4</b>	<b>49.7</b>	<b>71.4</b>	<b>103.3</b>	<b>141.0</b>
<b>Txn Yield (Autono model)</b>	<b>0.030%</b>	<b>0.037%</b>	<b>0.049%</b>	<b>0.052%</b>	<b>0.060%</b>	<b>0.068%</b>

Source: Company data, Autonomous Research; \*Flat rev/txn fees include revenue from ACH (\$0.49 per txn), check (\$1.69 per txn), and cross-border transactions in USD (\$9.99 per txn). In FY20, we assume 59.5% of transactions are ACH, 39.9% are check, and 0.6% are cross-border transactions in USD.

**Sensitivity analysis suggests significant upside to revenue estimates if virtual card penetration increases**

In the table above, we estimate total transaction revenue of ~\$141mn in FY23, which drives our estimate of total sales ex interest income of \$286mn in FY23. The tables below illustrate the significant upside to revenue estimates if virtual-card penetration increases just a few percentage points.

For example, if virtual card penetration increases to 4.5% by FY23 (vs. our assumption of 2.5% in FY23) and the yield on those transactions is 1.2%, we estimate total-company revenue ex interest income would be ~17% higher than our model (\$335mn vs. \$286mn).

Even assuming a lower penetration rate of virtual cards (i.e. 1.5% instead of the 2.5% in our model) and a lower yield (i.e. 1.0% instead of our 1.2% assumption) leads to total sales ex

interest income of \$255mn in FY23, a ~30% CAGR from FY19. At that level of sales, the stock would be trading at ~10.7xEV/FY23.

**Table 2: Upside to total revenue (ex int. income) in FY23 if virtual card penetration increases**

		% of TPV from Virtual Cards (FY23)				
		0.5%	1.5%	2.5%	3.5%	4.5%
Yield on Virtual Cards	0.8%	232	248	265	282	298
	1.0%	234	255	275	296	317
	1.2%	236	261	<b>286</b>	311	335
	1.4%	238	267	296	325	354
	1.6%	240	273	306	340	373

Source: Company data, Autonomous Estimates; Output shows total-company revenue ex interest income in FY23

**Table 3: Implied EV/FY23 Sales (ex int. income) at different virtual card penetration rates & yields**

		% of TPV from Virtual Cards (FY23)				
		0.5%	1.5%	2.5%	3.5%	4.5%
Yield on Virtual Cards	0.8%	11.7x	10.9x	10.2x	9.6x	9.1x
	1.0%	11.6x	10.7x	9.9x	9.2x	8.6x
	1.2%	11.5x	10.4x	9.5x	8.7x	8.1x
	1.4%	11.4x	10.2x	9.2x	8.3x	7.7x
	1.6%	11.3x	9.9x	8.9x	8.0x	7.3x

Source: Company data, Autonomous Estimates; Output shows implied EV/revenue ex interest income in FY23

We perform a similar analysis for cross-border payments in foreign currencies, where Bill.com charges a variable rate on TPV (estimated at ~0.5%). Our FY23 revenue estimates are sensitive to the penetration rate and yield on cross-border payments (in non-USD), but the penetration rate for cross-border payments has less of an impact on FY23 revenue compared to virtual cards, as the estimated yield on cross-border payments is lower than virtual cards (~0.5% vs. 1.2%).

**Table 4: Upside to total revenue (ex int. income) in FY23 if cross-border penetration increases**

		% of TPV from Cross-border in FX (FY23)				
		0.5%	1.5%	2.5%	3.5%	4.5%
Yield on Cross-border in FX	0.1%	261	263	265	267	269
	0.3%	263	269	275	282	288
	0.5%	265	275	<b>286</b>	296	306
	0.7%	267	282	296	311	325
	0.9%	269	288	306	325	344

Source: Company data, Autonomous Estimates; Output shows total-company revenue ex interest income in FY23

**Table 5: Implied EV/FY23 Sales (ex int. income) at different cross-border penetration rates & yields**

		% of TPV from Cross-border in FX (FY23)				
		0.5%	1.5%	2.5%	3.5%	4.5%
Yield on Cross-border in FX	0.1%	10.4x	10.3x	10.2x	10.2x	10.1x
	0.3%	10.3x	10.1x	9.9x	9.6x	9.4x
	0.5%	10.2x	9.9x	9.5x	9.2x	8.9x
	0.7%	10.2x	9.6x	9.2x	8.7x	8.3x
	0.9%	10.1x	9.4x	8.9x	8.3x	7.9x

Source: Company data, Autonomous Estimates; Output shows implied EV/revenue ex interest income in FY23

**Virtual card and cross border payments are likely a low percentage of TPV today**

We believe virtual card and cross-border transfers are a low percentage of TPV today, suggesting that Bill.com has a significant opportunity to benefit from TPV shifting to higher-yielding transactions.

Bill.com stated in its S-1 that since introducing cross-border payments, it has disbursed “over \$500 million for our customers”. Assuming the company introduced cross-border payments in the middle of 2018 (supported by the timeline below), we estimate the \$500mn equates to ~0.5% of total TPV, so the penetration is low and likely increasing, which is supported by the increase in transaction yield in F1Q20.

There is no mention in the S-1 of virtual-card penetration as a percentage of TPV, but it’s likely below 1-2%, as the company partnered with FleetCor (OP) just one year ago (Dec. 2018) and with Mastercard (FOP) in April 2019.

Below are the key steps that Bill.com took in recent years to begin offering higher take-rate transactions to its customer base:

- **2018:** Bill.com partners with FleetCor’s Cambridge business to introduce cross-border payments. While Bill.com does not currently have any customers outside of the U.S., its U.S. customers can make payments to non-U.S. entities via cross-border wire transfers in over 130 countries. Cross-border wire transfers in USD are priced at \$9.99 per transaction while non-USD transactions command an even higher price and have variable rates (this compares to Bill.com’s average revenue per transaction of \$1-2).

- **Dec. 2018:** Bill.com announces a partnership with FleetCor's Comdata. Comdata acts as the program manager and card issuer processor for Bill.com's virtual card program. We believe virtual-card payments can carry take rates as high as 3.0% (paid by the supplier receiving the payment in order to compensate for efficiency gained in back-end operations and a quicker payment).
- **April 2019:** Bill.com announces a partnership with Mastercard, which will integrate its virtual card technology into the Bill.com platform, enabling businesses to pay their invoices via virtual card.

### What's the ultimate penetration rate of virtual cards and cross-border payments? How quickly will the mix shift?

We believe virtual card will continue to gain share over other payment methods, reaching 5-10% of Bill.com's TPV over time. AvidXchange has mentioned that its highest-cardable customer can have ~30% of TPV on virtual cards. We believe FleetCor's highest customer is ~20% cardable and Bottomline's (NR) card target is ~10%. 33% of respondents in a 2018 Mastercard study said that usage of virtual cards would increase over the next three years, with just 7% stating that usage would decrease.

While it's unclear if Bill.com's virtual card percentage will be 5% or 20% of TPV, we're confident that the ultimate percentage will be higher than the current penetration rate (estimated at less than 1% of TPV in FY19). There's a chance that Bill.com's eventual virtual card penetration rate is lower than peers, primarily because Bill.com serves SMB customers that have less bargaining power with suppliers over which payment methods are used. The peers highlighted above serve the mid to upper-mid market where customers are more likely to be able to force their suppliers to accept certain types of payments (i.e. virtual cards, especially if AP customers can earn revenue from virtual cards in the form of rebates from the issuer).

For total cross-border payments (both in USD and non-USD), we believe penetration could reach 5-10% over time. FleetCor stated a few years ago that international payments make up ~15% of companies' accounts payables (AP). When FleetCor acquired Cambridge in 2017, it said that Cambridge's target customer generates \$10-300mn in revenue where international AP makes up 25-45% of total AP. Additionally, the McKinsey Global Payments Maps suggests that ~5% of total payments revenue growth from 2017-2022 will come from cross-border transactions.

We assume virtual cards and cross-border payments (in non-USD) will each gain ~0.5% of TPV share each year for the next four years, with both reaching 2.5% of TPV in FY23. We use a base rate of 50bps per year for each primarily because this is what we estimate penetration rates increased by in FY19. Recall, the company stated in its S-1 that it has executed ~\$500mn of cross-border payments since it launched the capability in 2018 (this \$500mn translates to ~0.5% of TPV).

While the interchange rates for virtual cards are in the 150-300bps range, we believe adoption will continue as virtual card payments offer several benefits to the payee (i.e. the supplier receiving the payment). Specifically, they benefit from improved cash management, control, and security. Virtual card transactions not only enable faster payments to suppliers, but they carry rich data that suppliers can use to easily match incoming payments with open receivables, leading to back-office efficiencies.

**We believe virtual card penetration can reach 5-10% over time**

**Virtual card transactions not only enable faster payments to suppliers, but they carry rich data that suppliers can use to easily match incoming payments with open receivables**

## Customer growth to continue

Our top-down analysis suggests that Bill.com will likely grow its customer count by a 15-20% CAGR during the next three years, driven primarily by continued market share gains, and to a lesser extent, continued growth in the small business market. By our estimates, Bill.com has less than 2% market share in the US today, and the company has gained market share in each of the last 10 years. We believe this base layer of customer growth provides a solid foundation for the company to grow revenue double digits for an extended period.

The U.S. Census Bureau's Statistics of U.S. Businesses sizes the small business market in the US at ~30mn firms. However, that includes ~24mn sole-proprietors. Bill.com focuses on serving the other 6mn employer firms (i.e. any business with less than 500 employees excluding sole proprietorships).

We estimate Bill.com's 77k customers at the end of FY19 represented ~1.3% of the total market. Bill.com's market share has increased by an average of ~25bps per year during the last 4 years.

Assuming the company can continue to gain market share at the same rate over the next three years, Bill.com would have just over 2.0% market share and ~125k customers in FY22, or ~18% CAGR. We assume the market grows just under 1% over this time.

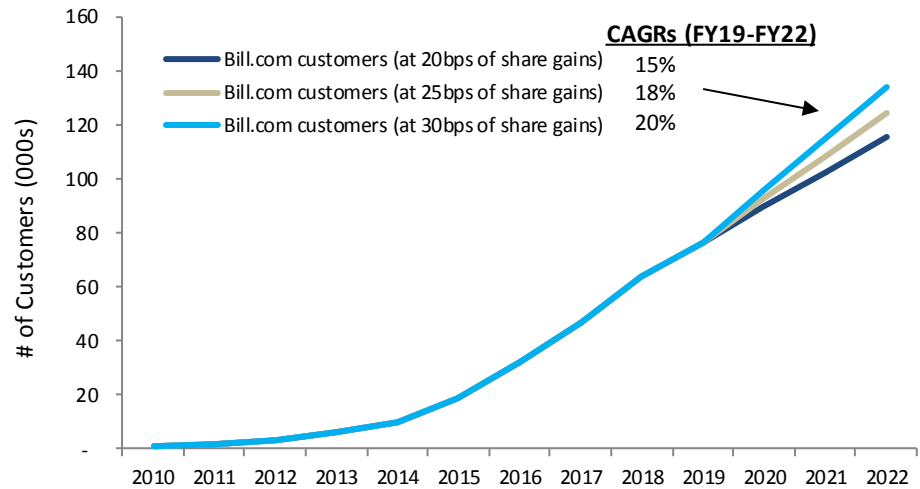
**Table 6: We estimate Bill.com can grow its customer base by a 15-20% CAGR during the next three years**

Market Share Analysis (000s unless noted)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020E	2021E	2022E
US firms <500 employees (000s)	5,717	5,667	5,708	5,756	5,806	5,881	5,935	5,983	6,026	6,069	6,112	6,156	6,200
y/y growth		-0.9%	0.7%	0.8%	0.9%	1.3%	0.9%	0.8%	0.7%	0.7%	0.7%	0.7%	0.7%
Bill.com customers (000s)	1	2	3	6	10	19	32	47	64	77	93	109	125
y/y growth		82%	83%	85%	63%	87%	71%	46%	37%	21%	21%	17%	15%
<b>Bill.com (market share)</b>	<b>0.02%</b>	<b>0.03%</b>	<b>0.06%</b>	<b>0.11%</b>	<b>0.17%</b>	<b>0.32%</b>	<b>0.54%</b>	<b>0.78%</b>	<b>1.06%</b>	<b>1.27%</b>	<b>1.52%</b>	<b>1.77%</b>	<b>2.02%</b>
Bill.com - change in market share (bps)		1	3	5	7	15	22	24	28	21	25	25	25
<b>At 20bps of market share gains:</b>													
Bill.com customers	1	2	3	6	10	19	32	47	64	77	90	103	116
y/y growth		82%	83%	85%	63%	87%	71%	46%	37%	21%	17%	14%	13%
<b>At 30bps of market share gains:</b>													
Bill.com customers	1	2	3	6	10	19	32	47	64	77	96	115	134
y/y growth		82%	83%	85%	63%	87%	71%	46%	37%	21%	25%	20%	17%

Source: Company data, Autonomous Research; U.S. Census Bureau (Statistics of U.S. Businesses - SUSB)

Bill.com has shown significant growth in its customer base from ~1,000 customers in FY10 to ~77,000 customers at the end of FY19. As shown in the chart below, we believe Bill.com can grow its customer base at a CAGR of 15-20% over the next three years, depending on how much market share it gains in each year.

**Chart 2: The trajectory of Bill.com’s customer count will vary depending on the level of market share gains**



Source: Company data, Autonomous estimates for data points that are unavailable; U.S. Census Bureau (Statistics of U.S. Businesses - SUBS)

Bill.com grew its customer base ~37% in FY18, but this stepped down to ~21% in FY19. The stepdown was partially driven by a strategic partner’s decision not to renew its contract in FY19, as it chose to change its business strategy. We believe the strategic partner was Capital One (OP), which we think moved to an in-house solution. Otherwise growth would have been ~31% excluding this loss, a slowdown of ~6ppts.

As shown in the table below, excluding the strategic partner’s customers in the base year increases customer account growth by 8-10ppts. We believe Bill.com will lap this strategic partner loss at some point over the next three quarters, leading to an acceleration in reported customer growth.

**Table 7: Customer growth is ~8-10ppts faster when excluding customers from a strategic partner that did not renew in FY19**

Customer growth analysis	FY18	FY19	F1Q19	F1Q20
Customers - (EOP)	63,653	76,790	67,511	81,374
Customers from strategic partner	5,000	-	4,500	-
<b>Customers excluding strategic partner not renewing (EOP)</b>	<b>58,653</b>	<b>76,790</b>	<b>63,011</b>	<b>81,374</b>
<b>y/y growth:</b>				
Customers (EOP)		21%		21%
<b>Customers excluding strategic partner not renewing (EOP)</b>		<b>31%</b>		<b>29%</b>

Source: Company data, Autonomous Estimates

**Total addressable market is large**

Using Bill.com’s annual revenue per customer of \$1,500, we estimate Bill.com’s revenue opportunity in the US at ~\$9bn. Taking this a step further, Bill.com states in its filing that globally there were ~20mn small and medium enterprises (SMEs) registered in the SME Finance Forum’s 2019 database, which at Bill.com’s \$1,500 revenue per customer, puts the global revenue opportunity at ~\$30bn (\$9bn in the U.S. and \$21bn outside the U.S).

Our estimates of the revenue opportunity could prove conservative if Bill.com is able to continue increasing the average revenue per customer by driving more usage of its platform, which it has experienced in the last few years.

**Table 8: We estimate the US revenue opportunity at ~\$9bn and the global revenue opportunity at ~\$30bn**

Total Addressable Market Analysis (mn except rev/customer)	2019
SMBs in the US (mn)	30
Sole proprietors (mn)	24
<b>US SMB employer firms (Bill.com addressable market in US) - mn</b>	<b>6</b>
Rev/Customer	\$1,500
<b>Revenue opportunity in the US (\$mn)</b>	<b>\$9,000</b>
Global small and medium enterprises	20
Rev/Customer	\$1,500
<b>Revenue opportunity globally (\$mn)</b>	<b>\$30,000</b>
Non-US small and medium enterprises	14
Rev/Customer	\$1,500
<b>Revenue opportunity outside the US (\$mn)</b>	<b>\$21,000</b>

*Source: Company data, U.S. Census Bureau, Small Business Administration, SME Finance Forum 2019 database, Autonomous Estimates*

## Shift from check to ACH is manageable

Investors have expressed concerns about the potential revenue headwind from the mix of transactions shifting from check to ACH. We estimate ~40% of Bill.com's transactions are check and the remaining 60% are ACH. While the shift might present a headwind to revenue per transaction (rev/txn for check is \$1.69 vs. \$0.49 for ACH), we estimate that the impact to EBIT/txn is almost neutral, as checks likely have a much higher cost to process.

Our analysis suggests that the impact to EBIT as the transaction mix shifts from check to ACH is manageable. Below we present the unit economics for a payment via check vs. ACH.

While Bill.com earns a lower revenue/txn for ACH compared to check, the costs associated with ACH are much lower, by our estimates, leading to an EBIT/transaction that is roughly the same (\$0.45 for ACH vs. \$0.48 for check).

Said another way, assuming a 1ppt shift in transaction mix (from check to ACH) and using our estimates of EBIT/txn for both types of transactions, we believe Bill.com would experience a \$6k EBIT headwind in FY20. This would increase to \$19k assuming a 3ppt shift from check to ACH in FY20. These figures are manageable for a company that we expect to generate over \$150mn in sales in FY20.

**Table 9: While check has a higher rev/txn than ACH, the costs are much higher; we estimate EBIT/txn is about the same across check & ACH**

Unit economics for check/ACH (\$ unless noted)	Check	ACH	Delta	Delta (%)
<b>Revenue/txn</b>	<b>\$1.69</b>	<b>\$0.49</b>	<b>-\$1.20</b>	<b>-71%</b>
<b>Costs/txn:</b>				
Processing	\$0.01	\$0.01	\$0.00	0%
Check	\$0.05	\$0.00	-\$0.05	-100%
Stamp	\$0.39	\$0.00	-\$0.39	-100%
Envelope	\$0.03	\$0.00	-\$0.03	-100%
Personnel/machinery	\$0.75	\$0.03	-\$0.72	-96%
<b>Total cost/txn</b>	<b>\$1.23</b>	<b>\$0.04</b>	<b>-\$1.19</b>	<b>-97%</b>
<b>EBIT/txn (pre float impact)</b>	<b>\$0.47</b>	<b>\$0.45</b>	<b>-\$0.01</b>	<b>-3%</b>
<b>Float Analysis:</b>				
Days of float	5	1	(4)	-80%
% of transactions (FY20)	40%	60%	20%	49%
Avg. Txn	\$3,704	\$3,704		
Avg. Balance (% of TPV)	1.48%	1.48%		
Avg. Balance	\$55	\$55		
Annualized Yield	1.40%	1.40%		
<b>Float earnings (pro-rated for # of days)</b>	<b>\$0.010</b>	<b>\$0.002</b>	<b>-\$0.008</b>	<b>-80%</b>
<b>EBIT/txn (with float earnings)</b>	<b>\$0.48</b>	<b>\$0.45</b>	<b>-\$0.02</b>	<b>-5%</b>
Txns - mn (annual) - FY20E	10.7	16.0		
Revenue - \$mn (annual) - FY20E	\$18.1	\$7.8		
Costs - \$mn (annual) - FY20E	\$13.0	\$0.6		
EBIT - \$mn (annual) - FY20E	\$5.1	\$7.2		
EBIT Margin - FY20E	28%	92%		
<b>Impact to EBIT from 1ppt shift in Check to ACH</b>			<b>-\$6,284</b>	
<b>Impact to EBIT from 3ppt shift in Check to ACH</b>			<b>-\$18,851</b>	

Source: Company data; Autonomous Research

We believe there are several cost items that come with preparing and mailing checks to the suppliers of Bill.com's customers. These costs include the actual printing of the check, stamps to mail the envelope/check (we assume Bill.com receives discounted/bulk rates), the envelope, and personnel/machinery to make sure checks are placed into envelopes and arrive at the post office. The personnel/machinery cost is likely the largest cost line for Bill.com, and we arrive at a \$0.75 estimate by assuming an employee can handle one check every three minutes (20 checks per hour) at an hourly wage of \$15 per hour.

It's unlikely that Bill.com's management would allow this mix shift to become a headwind to EBIT/transaction. In the scenario that EBIT/txn was significantly lower for ACH payments (vs. check), there's a good chance that the company would have raised prices on its small business customers (we heard the company raised pricing on check payments from \$1.49 to \$1.69 within the last few years).

Lastly, it's important to note that while check and ACH make up almost 100% of the transactions, combined they generate less than \$30mn in annual revenue. For perspective, we estimate virtual card and cross-border payments will generate around \$20mn in revenue in FY20, \$38mn in FY21 and \$64mn in FY22. Thus, with most of the revenue growth coming from other transaction types, the potential threat to profitability from transactions shifting from check to ACH appears to be overdone.

# Valuation

## Attractive when adjusting for growth

Given our expectation for continued growth in customer count and the opportunity for sustained transaction revenue growth (from a greater mix of virtual-card and cross-border transactions), we believe Bill.com can grow its sales ex interest income at ~35% over the next four years. Fast forward to the end of FY21 (18 months from today), and we believe the stock will trade at ~16x FY22 Sales, leading to our \$50 PT (or 31% upside from current levels).

Assuming the company achieves \$153mn in sales in FY20 (~41% growth over FY19), the stock would be trading at ~17.8x EV/FY20 Sales. Excluding \$23mn of interest income from sales increases the EV/FY20 Sales multiple by ~3 turns to 20.9x.

Assuming sustained growth trends into FY21 and FY22 (we assume 33% subscription and txn fee revenue growth in FY21 and 31% in FY22), the EV/Sales multiple (ex interest income) declines to 15.7x and 12.0x FY21 and FY22 sales, respectively; so clearly growth is a big part of the story. Given the reinvestment in the business and the lack of earnings, we believe most investors will value Bill.com on an EV/Sales basis.

**Table 10: Bill.com is trading at ~21x FY20E sales (ex interest income); with solid revenue growth, this multiple should decline in FY21-FY23**

Earnings & Multiples	FY2020E	FY2021E	FY2022E	FY2023E
<b><u>Fiscal year estimates:</u></b>				
Sales	153	199	255	317
EBITDA	(20)	(16)	(10)	(0)
EBIT	(24)	(22)	(18)	(10)
Interest on client funds	23	25	29	31
Sales ex interest on client funds	130	173	226	286
<b><u>Fiscal year multiples:</u></b>				
Sales	17.8x	13.7x	10.6x	8.5x
<b>Sales ex interest on client funds</b>	<b>20.9x</b>	<b>15.7x</b>	<b>12.0x</b>	<b>9.5x</b>
EBITDA	N/A	N/A	N/A	N/A
EBIT	N/A	N/A	N/A	N/A
<b><u>Calendar year estimates:</u></b>				
	<b>2020</b>	<b>2021</b>	<b>2022</b>	
Sales	173	225	285	
EBITDA	(17)	(13)	(5)	
EBIT	(22)	(20)	(14)	
Interest on client funds	23	27	30	
Sales ex interest on client funds	150	198	255	
<b><u>Calendar year multiples:</u></b>				
Sales	15.7x	12.1x	9.5x	
Sales ex interest on client funds	18.1x	13.7x	10.6x	
EBITDA	N/A	N/A	N/A	
EBIT	N/A	N/A	N/A	

Source: Company data, Autonomous Estimates

### We derive our \$50 price target by applying a 16x multiple on our FY22 Sales (ex interest income)

Assuming the company can achieve the previously mentioned top-line growth rates, we think Bill.com can generate \$226mn in sales (ex interest income) in FY22, a 38% CAGR from FY19. Fast forward to the end of FY21 (18 months from today), and we believe that the

stock will trade at ~16x FY22 sales, especially since we assume a high probability that the company will be growing its sales ex interest income above 30%. The company is currently trading at ~18x NTM sales ex interest income (i.e. on our calendar year 2020 revenue estimate), so our target multiple assumption is ~11% lower than today's multiple.

We believe Bill.com will still be generating interest income of ~\$30mn annually in FY22, but we don't apply a sales multiple to this earnings stream, giving us an additional margin of safety. Assuming the after-tax interest income is worth 7x earnings, it would add ~\$2 to the PT.

There's a good chance that over time interest income on client funds will face headwinds, particularly from the shift to electronic and faster payment types (i.e. the shift from check to ACH and to fast ACH).

**Table 11: We derive our \$50 price target by applying a 16x multiple on our FY22E sales ex interest income**

Price Target Calculation (\$mn unless noted)	
FY22E Sales ex interest income	226
EV/Sales multiple	16x
<b>Implied Enterprise Value</b>	<b>3,646</b>
Net Cash/(Debt)	354
<b>Market Cap</b>	<b>4,000</b>
Shares Out.	80.4
<b>Implied PT</b>	<b>\$50</b>

Source: Company data, Autonomous Estimates

We believe a multiple of 16x sales is reasonable should top-line growth in FY22 pan out above 30%. In our opinion, Bill.com's closest comps are Shopify (NR), Coupa Software (NR), Square (UP), and Lightspeed (NR), given these companies generate revenue from both payment transactions and software solutions and are growing revenues above 25%. These companies trade at an average sales multiple of ~15-16x.

**Table 12: Bill.com's closest comps are growing revenue above 30% and trade at ~16x EV/Sales**

Closest comps	EV/Sales (2020E Cons.)	Sales Growth (2019-2021)	2020 EBITDA Margins
SHOP	20.0	34%	5%
COUP	18.6	28%	12%
SQ	10.6	28%	19%
LSPD	12.9	47%	-7%
<b>Average</b>	<b>15.5</b>	<b>34%</b>	<b>7%</b>
<b>Median</b>	<b>15.8</b>	<b>31%</b>	<b>9%</b>
<b>BILL (ex interest income)*</b>	<b>13.6</b>	<b>36%</b>	<b>-10%</b>

Source: FactSet, Company data, Autonomous Research; Uses calendar year consensus estimates; \*EV/Sales and sales growth calculated using Bill.com sales ex interest income on client funds.

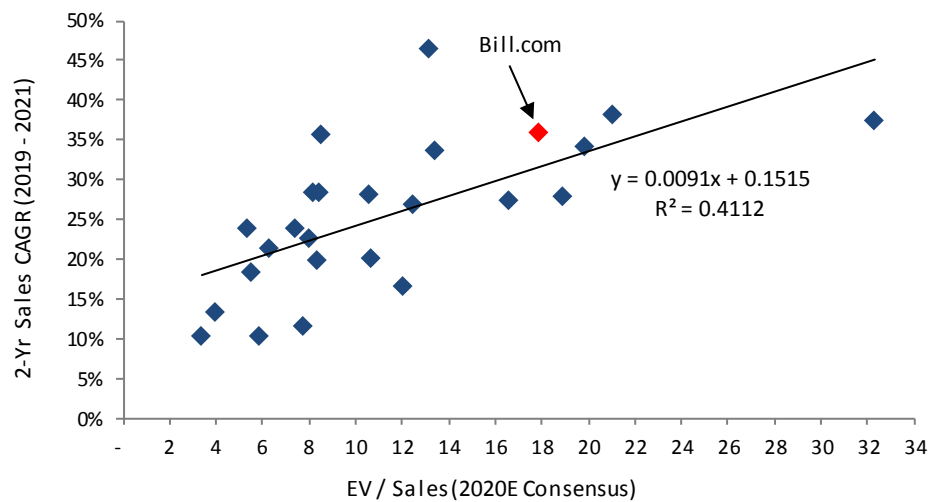
Expanding this group to include additional high-growth payment and software companies with average sales growth of ~25%, we find that the average sales multiple is ~11x forward year sales.

**Table 13: Bill.com is growing faster than other payments/software companies**

Ticker	EV/Sales (2020E Cons.)	Sales Growth (2019-2021)	2020 EBITDA Margins
ADYEN	32.3x	38%	58%
ZM	21.0x	38%	15%
SHOP	20.0x	34%	5%
COUP	18.6x	28%	12%
TEAM	16.3x	27%	25%
STNE	13.5x	34%	57%
LSPD	12.9x	47%	-7%
NOW	12.4x	27%	28%
ADBE	11.9x	17%	46%
ADSK	10.7x	20%	33%
SQ	10.6x	28%	19%
WORK	8.4x	36%	-14%
WDAY	8.4x	20%	19%
TWLO	8.3x	29%	5%
ZEN	8.2x	28%	10%
SPLK	7.9x	23%	18%
MSFT	7.7x	12%	45%
PAGS	7.4x	24%	51%
CRM	6.2x	21%	26%
VMW	5.9x	10%	36%
NEWR	5.5x	18%	15%
RPAY	5.3x	24%	29%
DBX	3.7x	13%	25%
CLDR	3.4x	10%	8%
<b>Average</b>	<b>11.1x</b>	<b>25%</b>	<b>24%</b>
<b>Median</b>	<b>8.4x</b>	<b>25%</b>	<b>22%</b>
<b>BILL (ex interest income)*</b>	<b>13.7x</b>	<b>36%</b>	<b>-10%</b>

Source: FactSet, Company data, Autonomous Research; Uses calendar year consensus estimates; \*EV/Sales and sales growth calculated using Bill.com sales ex interest income on client funds.

**Chart 3: Adjusting for sales growth, Bill.com appears undervalued relative to other payment & software firms (Sales growth vs. EV/Sales)**



Source: FactSet, Company data, Autonomous Estimates; Calendar year figures; EV/Sales and sales growth calculated using Bill.com sales ex interest income on client funds.

### IRR attractive looking out to FY23

Taking another approach, we believe investors can obtain a double-digit IRR in the stock assuming Bill.com achieves our sales estimates and the stock trades at more than 12x Sales at the end of FY22. Our analysis assumes Bill.com generates \$286mn in sales (ex interest income) in FY23. We don't believe a multiple above 12x is unreasonable considering we expect the company to grow sales (ex interest income) at 26% in FY23.

**Table 14: Bill.com can achieve double-digit IRRs if it reaches our sales estimates in FY23 and trades above 12x NTM Sales at end of FY22**

Target NTM EV/Sales (@ end of FY22)	Implied Price at 6/30/2022	IRR
10x	\$40	2%
12x	\$47	9%
<b>14x</b>	<b>\$54</b>	<b>15%</b>
<b>16x</b>	<b>\$61</b>	<b>21%</b>
<b>18x</b>	<b>\$68</b>	<b>26%</b>

Source: FactSet, Company data, Autonomous Research

### Downside scenario

In our downside scenario, we believe Bill.com could trade at \$30 at the end of FY22 if several key performance metrics come in worse than our current model. Specifically, we model the following in our downside scenario:

- **Virtual card yield:** Assume 1% yield in our downside case, below our modeled 1.2%
- **Virtual card penetration:** Bill.com achieves a 1.25% penetration rate for virtual cards in FY23, below our modeled 2.5%.
- **Average transaction size:** Remains unchanged from F1Q20, below the 3% CAGR in our current model (for reference, the average transaction size increased 10% in FY19 and 7% in F1Q20).
- **Market share gains:** Assume Bill.com gains ~20bps of market share per year for the next four years, below our modeled 25bps of share gains annually (the company has averaged annual share gains of ~25bps over the last four years).

Assuming the company misses on all four of these metrics, we believe it can generate ~\$205mn in sales ex interest income in FY23. If the stock trades at 10x NTM sales at the end of FY22, we estimate a share price of ~\$30 in 2.5 years, or a -8% IRR. We believe there is a low probability of this scenario occurring.

**Table 15: Our downside scenario suggests a \$30 PT at the end of FY22, or an -8% IRR**

Target NTM EV/Sales (@ end of FY22)	Implied Price at 6/30/2022	IRR
<b>10x</b>	<b>\$30</b>	<b>-8%</b>
12x	\$35	-3%
14x	\$40	3%
16x	\$45	8%
18x	\$50	12%

Source: FactSet, Company data, Autonomous Research

### Bill.com as an acquisition candidate - additional margin of safety

Given Bill.com's above-average growth rate and its exposure to the B2B segment, we believe demand for the asset could be high. The B2B market is underpenetrated and other payment players might view an acquisition as the best way to enter the space.

Bill.com's small size (EV of less than \$3bn) would make it a digestible asset for some of the larger payment players. Additionally, with Bill.com in the public markets, its financial metrics are now public, and other payments/software players might be more likely to analyze the company in more detail.

# Bill.com Overview

## Business Overview

### Bill.com allows SMBs to streamline their back-office financial operations

Bill.com provides cloud-based software that simplifies and automates complex back-office financial operations for e-com and brick-and-mortar small and mid-size businesses (SMBs). Bill.com's offering allows businesses to streamline their accounts receivable and accounts payable activities, enabling its customers to pay their suppliers and collect payments from their clients.

For example, Bill.com can automatically capture data from supplier invoices, route bills for approval, and execute payments.

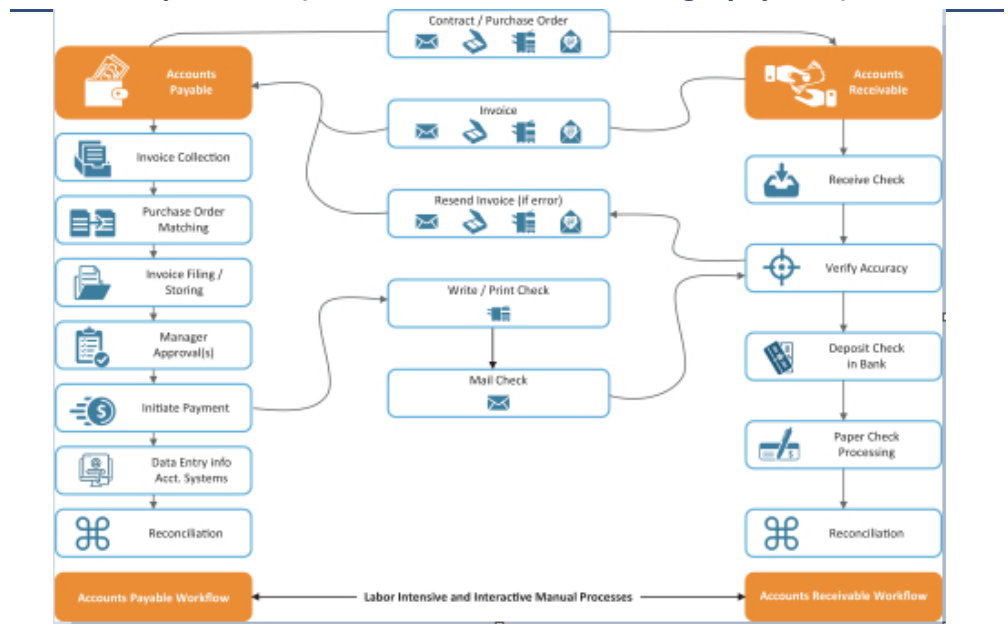
### Why the opportunity exists - SMBs are inefficient at managing their back-office operations

Bill.com has experienced rapid growth in its customer base from ~1,000 customers 10 years ago to over 81,000 customers as of the latest fiscal quarter. We believe growth has been robust primarily due to Bill.com's ability to streamline operations for its SMB customers and create efficiencies, which allows customers to focus on running their business.

Most SMBs still depend on manual accounts payable and accounts receivable processes including mailing invoices, printing paper checks, waiting for payments, and storing paper in filing cabinets. These manual processes are time consuming, inefficient, and costly.

According to a survey by the SMB Technology Adoption Index, in 2016 over 90% of SMBs still relied on paper checks to make and accept B2B payments.

**Chart 4: SMBs suffer from inefficient accounts payable and accounts receivable processes (chart shows flow within a legacy system)**



Source: Company data, Autonomous Research

# Business Model

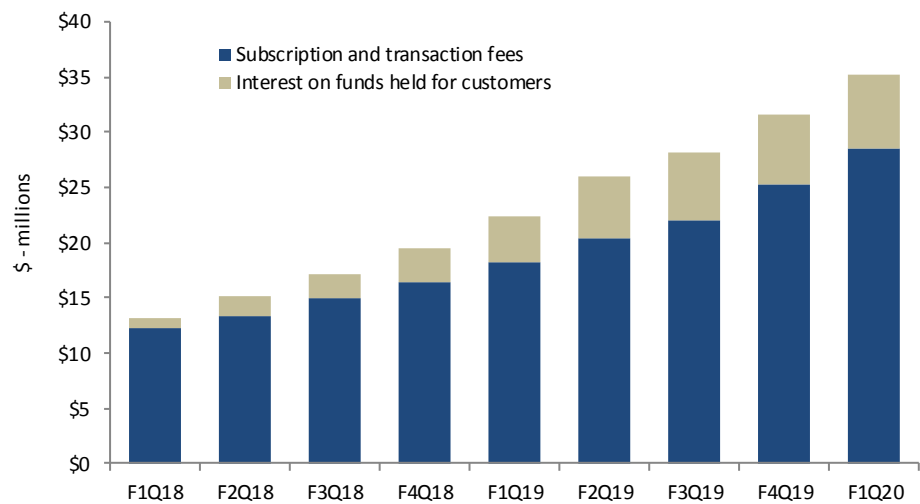
## Bill.com's revenue drivers

**Bill.com generates most of its revenue from subscription revenue, with transaction fees the second-largest revenue driver, and interest on client funds the smallest.**

Bill.com reports two revenue lines, with subscription and transaction fees the largest contributor, making up ~80% of total revenue, while interest on client funds drives the remaining 20%.

The mix of revenue has changed over time, with interest on client funds growing from ~6% of revenue in F1Q18 to ~20% of revenue in F1Q20.

**Chart 5: Bill.com generates ~80% of its revenue from subscription and transaction fees and 20% from interest on client funds**



Source: Company data, Autonomous Research

Below are descriptions of the two revenue lines that Bill.com reports.

- Subscription and transaction fees:** Bill.com charges fixed monthly or annual fees for customers to use its platform. The company prices the product on a per user basis. Transaction fees consist of transaction fees on a fixed or variable rate per transaction and include check issuance, ACH-originated payments, cross-border payments, virtual card issuance, and creation of invoices.
- Interest on funds held for customers:** Bill.com generates revenue from interest earned on funds held on behalf of customers while payment transactions are clearing.

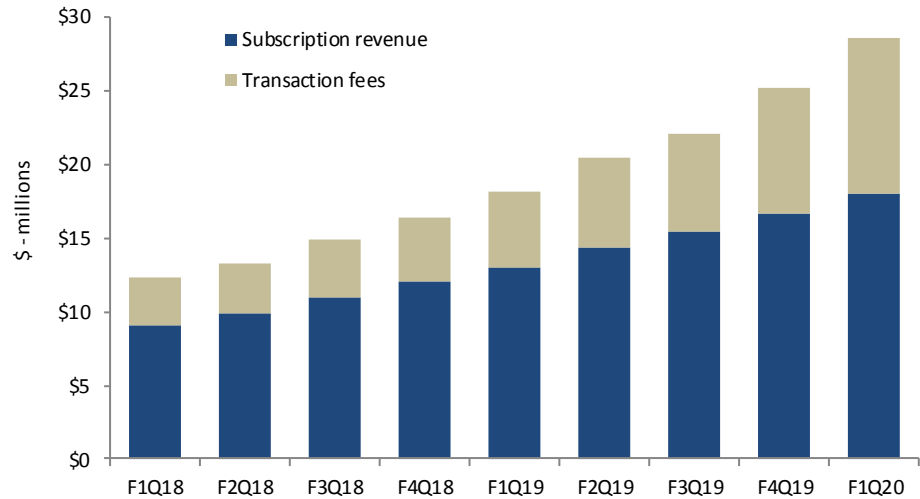
## Subscription and transaction revenue

### Subscription revenue

In the commentary of the S-1, Bill.com provides the breakdown between subscription revenue and transaction fees, which allows us to model these lines separately. This is important because there are different revenue drivers for each, and the mix in this revenue line has shifted more to transaction fees (now 37% of this line's revenue, up from 26% in FY18).

It's not surprising to see this shift from software revenue to transaction revenue as the business scales. AvidXchange, for example, a company that helps streamline accounts-payable processes, was mostly a software company four years ago, but by next year, it will be an ~80% payment business, according to Bain Capital Ventures (an investor in AvidXchange). Similarly, Shopify, which helps small businesses get online and set up e-commerce sites, is generating most of its gross revenue from payments and this percentage is increasing.

**Chart 6: Most of the subscription/transaction fee line comes from subscription fees but transaction revenue is increasing**



Source: Company data, Autonomous Research

Bill.com charges customers a fixed monthly or an annual fee on a per user basis. Most of the company's SMB customers pay their subscriptions on a monthly basis, while some customers enter into annual contracts with upfront payments. Given the usage of the platform, we believe charging on a per user basis makes more sense, as it allows Bill.com to grow as customers use the platform more (i.e. they add more users to handle a larger number of invoices and bill payments). We estimate the average Bill.com customer has 1-2 users. This model is slightly different than Shopify's pricing where the company charges a flat monthly fee for businesses regardless of the number of end users.

Bill.com has a variety of subscription plans with different price points for customers depending on their required features and functionality. Excluding the Enterprise plan, which offers custom pricing, prices range from \$39 per user per month on the Essentials plan, up to \$69 per user per month on the Corporate plan.

**Chart 7: Bill.com offers a variety of subscription plans depending on the customer's needs**

ESSENTIALS	TEAM	MOST POPULAR CORPORATE	ENTERPRISE CUSTOM
\$39 user/month	\$49 user/month	\$69 user/month	CUSTOM
Manage Payables or Receivables	Payables or Receivables Plus Accounting Software Integration	Manage both Payables & Receivables Plus Robust Workflow Options	Custom Pricing & Additional Integration Features
<b>TRY IT</b>	<b>TRY IT</b>	<b>TRY IT</b>	<b>REQUEST A DEMO</b>
Essentials includes:	Includes everything in Essentials, plus:	Includes everything in Team, plus:	Includes everything in Corporate, plus:
Import/Export	Sync with QuickBooks Pro, QuickBooks Premier, QuickBooks Online, & Xero	Invoice automation and payment automation	Sync with NetSuite, Intacct, and QuickBooks Enterprise
Choose from 5 standard user roles	Custom user roles	Discounted "approver-only" users	Multi-entity/location/accounting files
Standard approval workflows		Custom approval limits	API access to Bill.com
Unlimited document storage			
Payment support & positive pay			
Business Payments Network: connect & collaborate with your vendors & customers			

Source: Company data, Autonomous Research

**Drivers of subscription revenue growth**

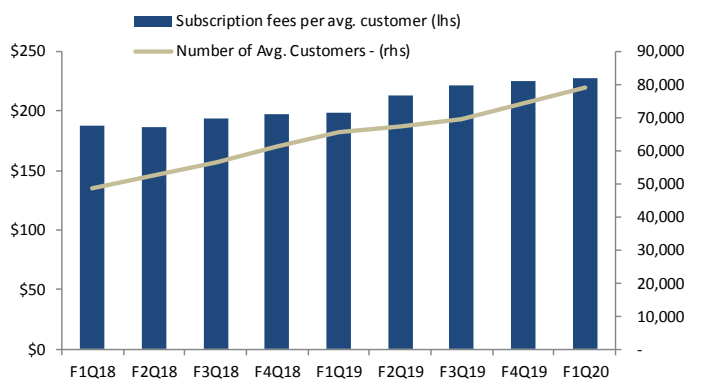
The company defines a customer as any entity that it bills directly or indirectly by charging its strategic partners. The number of customers has increased from 64k in FY18 to 81k in F1Q20

Bill.com's customer base has increased from ~64,000 customers as of June 30, 2018 (end of FY18) to ~81,000 customers as of September 30, 2019 (F1Q20). The company defines a customer as any entity that it bills directly or indirectly by charging its strategic partners (i.e. financial institutions). We model subscription revenue using the customer count and subscription fees per customer.

Subscription fees per customer have increased since FY18, which is likely driven by existing customers adding users, price increases, and a greater mix of customers selecting higher-priced subscription plans (see chart above). Additionally, as customers need more functionality within the Bill.com platform, they are likely upgrading to more costly subscriptions that give them the features they require.

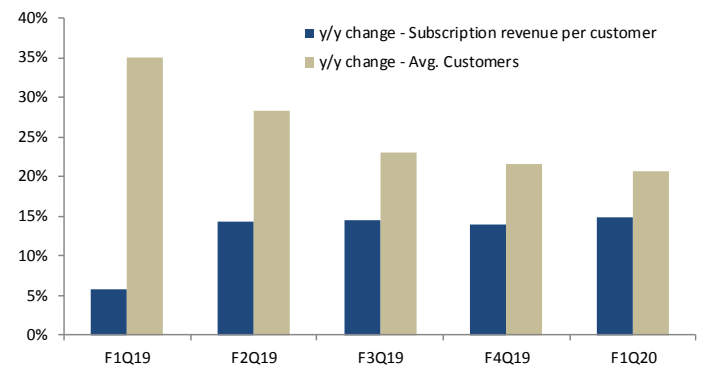
As shown in the right-hand chart below, Bill.com's customer base is growing at a faster rate than subscription revenue per customer.

**Chart 8: Growth in number of customers and subscription fees per customer are driving subscription revenue growth**



Source: Company data, Autonomous Research

**Chart 9: The number of customers is increasing at a faster rate than subscription rev per customer**



Source: Company data, Autonomous Research

As shown in the table below, growth in the number of customers drove ~70% of the subscription revenue growth in FY19 (27ppts of growth) and ~60% of the revenue growth in F1Q20 (21ppts of growth).

**Table 16: Increases in the number of customers is driving most of the subscription revenue growth**

Subscription Revenue Growth Build (YoY growth rates)	FY19	F1Q20
Number of Customers - 000s (avg. during period)	27%	21%
Subscription fees per avg. customer	12%	15%
<b>Subscription Revenue</b>	<b>42%</b>	<b>38%</b>

Source: Company data, Autonomous Research

Bill.com disclosed in its filing that the June 30, 2018 and September 30, 2018 customer counts included 5,000 and 4,500 customers from a strategic partner that did not renew its contract in FY19. Based on conversations with industry experts and investors, we believe the strategic partner was Capital One (OP). Management says in the S-1 that the partner had a “change in business strategy”, and comments on online blogs suggest that Capital One is pulling back on offering bill pay services for online Spark Business Checking accounts.

Said another way, Bill.com’s growth in customers on a YoY basis is still experiencing headwinds from the discontinuation of this partnership. As shown in the table below, excluding these customers in the base year increases customer account growth by 8-10ppts.

Bill.com acquires its customers across two channels – 1) Direct to SMBs and 2) Indirect through accounting firms and strategic partners. Strategic partners include large financial institutions such as Bank of America (OP), JPMorgan Chase (N), American Express (OP), and others. Bill.com integrates its offering into these large banks, allowing their customers to leverage Bill.com’s platform and solutions.

We believe Bill.com will lap this strategic partner loss at some point over the next three quarters, leading to an acceleration in reported customer growth. We model customer count on a QoQ basis, so our estimates are not impacted by YoY comparability issues.

**Table 17: Customer growth is 8-10ppts faster when excluding customers from a strategic partner that did not renew in FY19**

Customer growth analysis	FY18	FY19	F1Q19	F1Q20
Customers - (EOP)	63,653	76,790	67,511	81,374
Customers from strategic partner	5,000	-	4,500	-
<b>Customers excluding strategic partner not renewing (EOP)</b>	<b>58,653</b>	<b>76,790</b>	<b>63,011</b>	<b>81,374</b>
y/y growth:				
<b>Customers (EOP)</b>		<b>21%</b>		<b>21%</b>
<b>Customers excluding strategic partner not renewing (EOP)</b>		<b>31%</b>		<b>29%</b>

Source: Company data, Autonomous Research

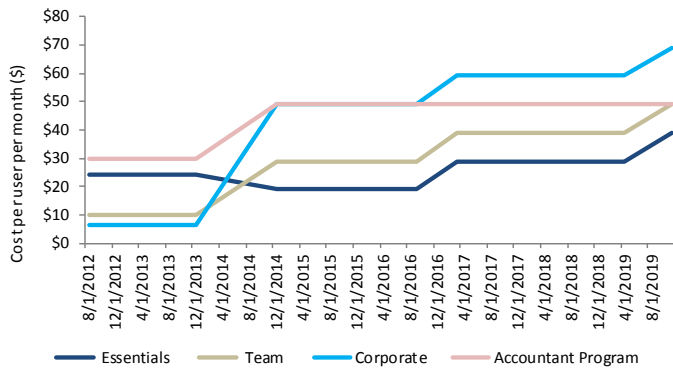
### Price increases help subscription revenue growth

Roughly 12-15ppts of subscription revenue growth (~30-40% of that line’s growth) is being driven by increases in subscription fees per customer. We believe this figure has the potential to increase over time, as a result of price increases combined with increased usage of Bill.com’s platform (i.e. customers adding more users).

Based on our analysis of Bill.com’s historical pricing, we believe the company has raised pricing by double-digit rates since 2012. The company offers several subscription plans, so we evaluate the price of each plan on a per user per month basis.



**Chart 10: Bill.com has raised prices on several subscription plans since 2012 (per user per month)**



Source: Company data, Wayback Machine (web.archive.org), Autonomous Estimates

**Table 18: Bill.com has increased some subscription plan prices by double-digit rates**

Price per user per month (\$ unless noted)	Essentials	Team	Corporate	Accountant Program
<b>Price per user per month</b>				
Aug. 2012	\$24	\$10	\$7	\$30
Dec. 2014	\$19	\$29	\$49	\$49
Dec. 2016	\$19	\$29	\$49	\$49
Nov. 2019	\$39	\$49	\$69	\$49
7-Year CAGR	7%	25%	38%	7%
5-Year CAGR	16%	11%	7%	0%
3-Year CAGR	25%	18%	11%	0%

Source: Company data, Wayback Machine (web.archive.org), Autonomous Estimates

Historical price increases suggest that Bill.com has pricing power over its customers. We believe small businesses that rely on Bill.com are largely price takers, and they are reluctant to switch, especially when users become accustomed to the software and operating on the platform.

We also believe the price increases reflect the value that Bill.com is adding to its customer base. We estimate that customers still receive most of the efficiency gains when switching from a paper system to a cloud-based AR/AP system like Bill.com. Given this significant value add, we believe it's likely that Bill.com can continue to raise price on its products, although it's unclear if the magnitude of future increases will be in line with those achieved historically.

Bill.com has added additional functionality to its platform over time, and the company charges customers for these enhancements (i.e. Bill.com charging for the value it's adding to its customers). Given the significant investment in R&D (~\$50mn on an annualized basis or ~33% of revenues), we think Bill.com can continue to roll out new products and enhance existing products, increasing the probability that it can raise pricing in the future.

Lastly, it's likely that customers are adding users to their subscription plans as they scale their business, and with Bill.com charging on a per user basis, we believe subscription revenue per customer can continue to increase.

**Transaction fees**

Bill.com generates transaction revenue from processing transactions for its customers. Transaction fees are either a fixed or variable rate per transaction. Examples of transactions include check issuance, ACH-originated payments, cross-border payments, virtual card issuance, and the creation of invoices.

Roughly 80% of total payment volume and processed transactions in every month in FY19 were payments to suppliers/from clients that had also been paid/received by those same customers in the preceding three months, suggesting that the business is resilient once customers are using the platform.

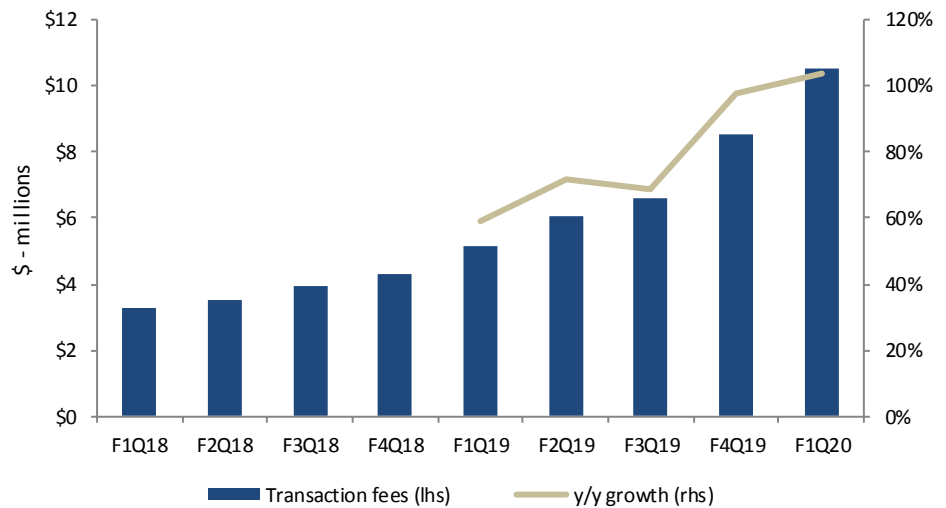
As shown in the table below, Bill.com's revenue per transaction varies depending on the type of transaction.

**Table 19: Rev/transaction varies by transaction method/type**

Transaction Types/Fees	Prices
ePayment/ACH Processing	\$0.49 / send and receive
Checks or Invoices Mailed	\$1.69 / check payment or invoice
When Bill.com completes Payables data entry (optional)	\$0.49 / bill
Virtual Card Payments	Variable based upon transaction size
Get paid via credit card payment	Merchant fees (level 3 processing rates available)
Cross-Border Wire Transfers—U.S. Dollars	\$9.99 / transaction
Cross-Border Wire Transfers—Foreign Exchange	Variable based upon transaction size and currency

Source: Company data, Autonomous Research

**Chart 11: Transactions fees grew 105% YoY last quarter, up from ~75% in FY19**

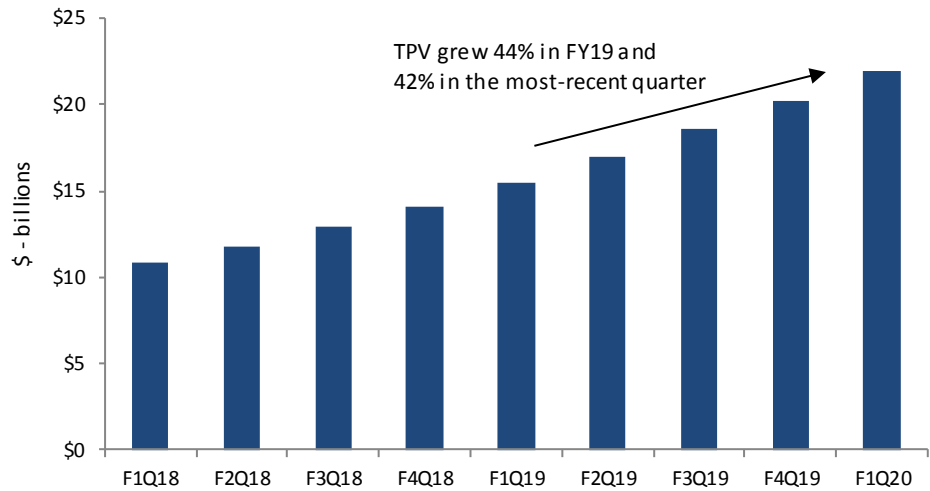


Source: Company data, Autonomous Research

The company provides Total Payment Volume (TPV) and Transactions Processed as key performance indicators, and we believe it's best to model transaction revenue using these metrics. Bill.com defines TPV as the value of customer transactions that it processes on its platform in a period. Similarly, it defines transactions processed as the number of customer payment transactions, such as checks, ACH items, wire transfers, and virtual cards, initiated and processed through its platform.

Of the two, we prefer to model transaction fee revenue using TPV to account for the variable rates that Bill.com charges on some transactions. Virtual-card transactions and cross-border (non-USD) transactions are the two types of payments that have variable rates. TPV grew ~44% in FY19 and ~42% in F1Q20.

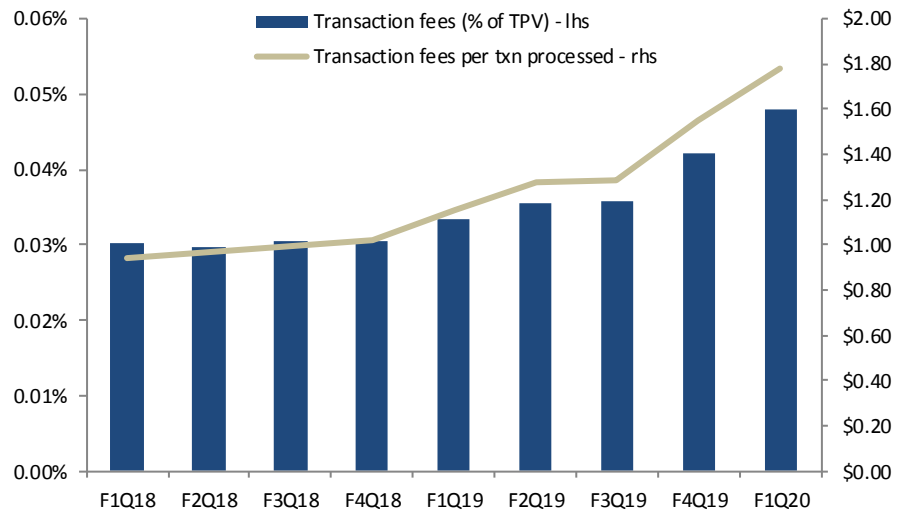
**Chart 12: Total Payment Volume grew ~44% in FY19 and ~42% in F1Q20**



Source: Company data, Autonomous Research

Yields on the business, measured by revenue per volume or revenue per transaction, have improved over time. We believe Bill.com's customers are processing more high-yielding transactions such as virtual cards and cross-border wire transfers (both ramping in 2019).

**Chart 13: Take rate (txn fees/volume) and transaction revenue per txn processed have increased**



Source: Company data, Autonomous Research

With the average fee per transaction in the \$1-2 range, large average transaction sizes of \$3,500-4,000 drive a low transaction yield at just 4-5bps of TPV (see table below).

**Table 20: High average transaction size drives a low transaction yield**

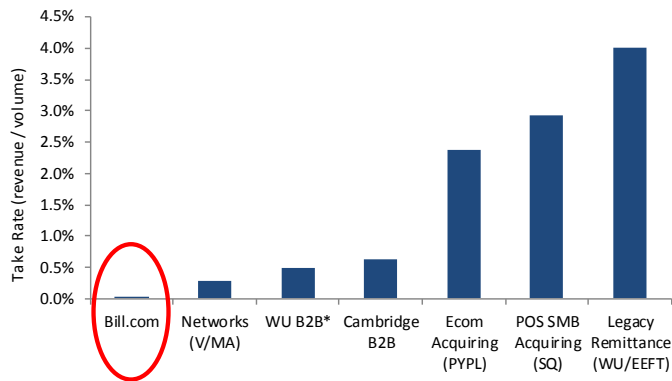
Transaction Yield Calc:	FY18	FY19	F1Q20
Average transaction fee per processed txn	\$0.98	\$1.33	\$1.78
Average ticket (TPV/processed txns)	\$3,251	\$3,589	\$3,704
<b>Yield</b>	<b>0.030%</b>	<b>0.037%</b>	<b>0.048%</b>

Source: Company data, Autonomous Research

Bill.com's transaction yield is one of the lowest in the payments sector, likely driven by the company's focus on domestic B2B payments. We believe other B2B businesses like Western Union (FUP) and FleetCor's (OP) Cambridge generate higher yields (~50bps and ~60bps, respectively) as a result of their focus on cross-border payments and their ability to mark up FX rates.

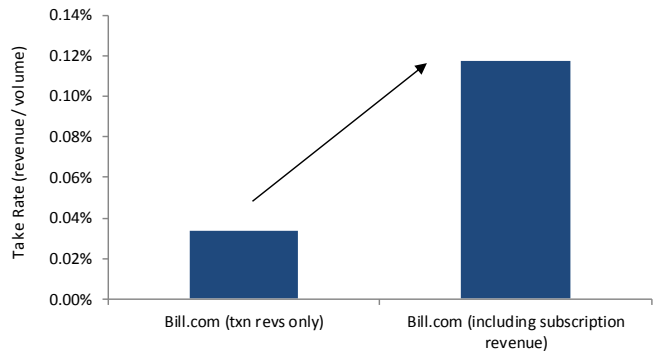
Taking the yield calculation a step further, adding Bill.com's subscription revenue to the numerator of the take-rate calculation (i.e. looking at the all-in cost to the customer to process payments), the yield increases to ~12bps, so higher than the standalone transaction yield but still below peers.

**Chart 14: Bill.com's transaction take rate is well below other payment company yields...**



Source: Company data, Autonomous Research; \*Estimate for WU's B2B business using disclosure from 2016. Uses purchase volume for networks

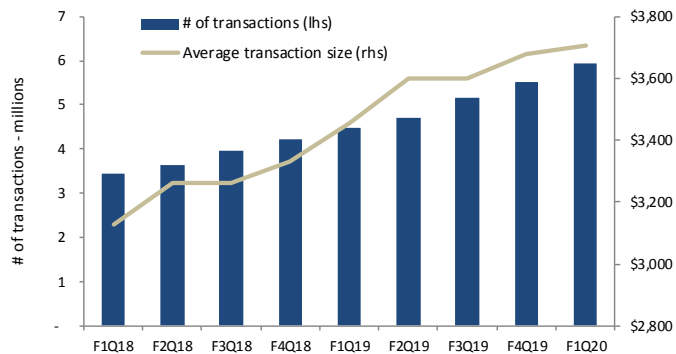
**Chart 15: ...the take rate increases when adding the subscription revenue to the numerator...**



Source: Company data, Autonomous Research

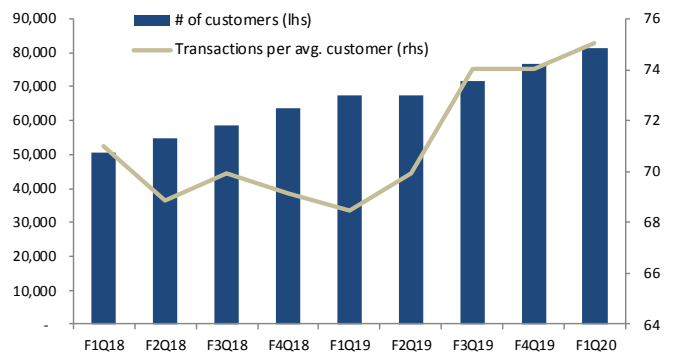
Increases in the number of transactions and the average size of the transactions are driving TPV higher. Dissecting this further, a larger customer base and a greater number of transactions processed per customer are driving the increase in the number of transactions, a healthy mix of revenue growth, in our opinion.

**Chart 16: A greater number of transactions and a larger txn size are driving TPV higher...**



Source: Company data, Autonomous Research

**Chart 17: ...while a larger customer base and a greater number of transactions per customer are leading to more transactions...**



Source: Company data, Autonomous Research

As shown in the table below, transaction fee revenue growth consists of several drivers. In the two periods for which we have data, Bill.com's transaction revenue growth has come from both TPV growth and increases in yield (rev/volume). The table below shows YoY growth rates across different metrics for the FY19 and F1Q20 time periods.

**Table 21: Several factors are driving transaction revenue growth**

Transaction Revenue Growth Build (YoY growth rates)	FY19	F1Q20
# of avg. customers (a)	27%	21%
Txns per avg. customer (b)	3%	10%
# of txns (c = a + b)	30%	32%
Avg. Ticket (d)	10%	7%
TPV (e = c + d)	44%	42%
Yield (f)	22%	44%
<b>Transaction revenue growth (g = e + f)</b>	<b>76%</b>	<b>104%</b>

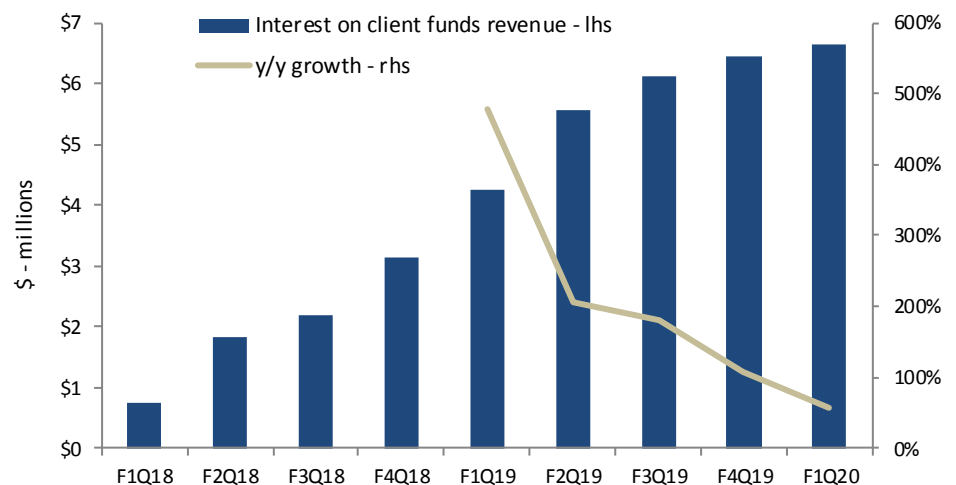
Source: Company data, Autonomous Research

### Interest on funds held for clients

Bill.com generates revenue from the interest that it earns on funds held on behalf of customers while their payment transactions are clearing. When processing payment transactions for clients, the funds flow through Bill.com's bank accounts, providing it with a balance of funds for some time. The company holds these funds from when they are withdrawn from the payer's account to the day the funds are credited to the receiver.

Bill.com invests the funds into interest-bearing deposit accounts, CDs, money market funds, commercial paper, and U.S. Treasury securities. Revenue from interest on client funds has increased during the last two years, although the YoY growth rates slowed in F1Q20.

**Chart 18: Revenue from interest on client funds has increased, although growth has slowed in recent quarters**

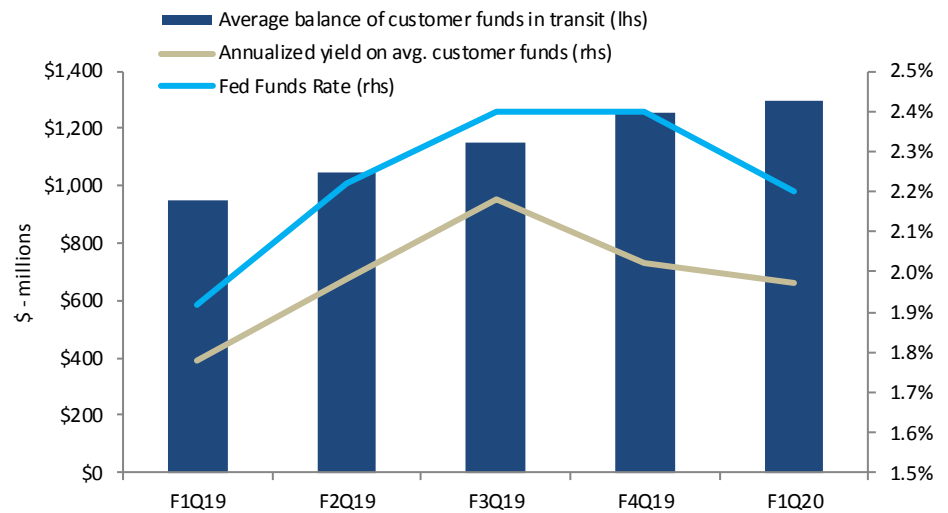


Source: Company data, Autonomous Research

The main drivers of revenue are the average client funds held and the interest rate earned on those funds. Growth in client funds has been steady, as it is fairly consistent with TPV growth, but lower interest rates started weighing on interest revenue in F1Q20.

Fund balances are a function of the amount of money transmitted by Bill.com's customers and the mix of payment types, with some payment types averaging more days in transit than others.

**Chart 19: Growth in client balances has been steady while we estimate the rate earned on those balances declined in the most-recent quarter**



Source: Company data, FactSet, Autonomous Research

We model average balance of customer funds as a percentage of TPV, as it has been consistent in the 1.5-1.6% range, although this figure dipped to 1.48% in F1Q20. With Bill.com investing in low-risk, short-duration securities, we model the annualized interest rate on client funds using the Fed Funds Rate, which has declined in recent quarters. In the table below, we highlight the YoY growth rates of the main drivers of revenue from interest on client funds.

**Table 22: Interest on client funds revenue growth build**

Interest on client funds revenue build (YoY growth rates)	FY2019	F1Q20
TPV (a)	44%	42%
Avg. customer balances - % of TPV (b)	-2%	-3%
<b>Avg. customer balances (c = a + b)</b>	<b>42%</b>	<b>37%</b>
Annualized yield on avg. customer funds (d)	103%	11%
<b>Interest on customer funds revenue (e = c + d)</b>	<b>185%</b>	<b>56%</b>

Source: Company data, Autonomous Research

# Walking through the P&L

While Bill.com has grown revenue above 50%, the company has yet to reach profitability. It continues to invest heavily in R&D to develop new products and in sales and marketing to acquire new customers.

Bill.com reports four main expense lines on its P&L. Below we provide a description of each and highlight the main drivers.

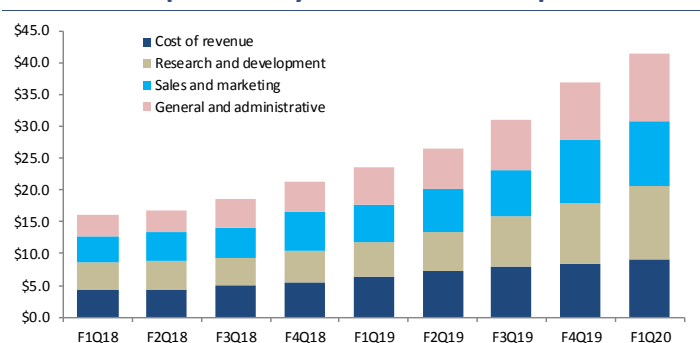
- **Cost of Revenue:** Consists of personnel-related costs for customer service and payments, transaction processing costs (i.e. costs of printing checks), postage for mailing checks, expenses for processing payments (ACH, check and cross-border wires), infrastructure expenses, and other.
- **Research and Development:** Consists primarily of personnel-related expenses to develop new products and enhance existing products.
- **Sales and Marketing:** Includes personnel-related expenses, sales commissions, marketing expenses, advertisements, and other.
- **General and Administrative:** Primarily personnel-related expenses for various departments including finance, risk management, legal and compliance, human resources, and information technology. Also includes any fraud losses.

As shown in the left-hand chart below, Bill.com’s expenses during the last year were split evenly across these four expense lines. While the right-hand chart is a little choppy, it shows that the company is achieving the most operating leverage from its Cost of Revenue line. Since F2Q19, R&D, Sales and Marketing, and G&A have all increased as a percentage of revenue.

In the latest fiscal quarter, the company increased its average R&D headcount by 67% on a YoY basis. For Sales and Marketing, the headcount increased by 51%, so despite top line growing more than 50% YoY, it’s not surprising for these lines as a percentage of sales to remain elevated.

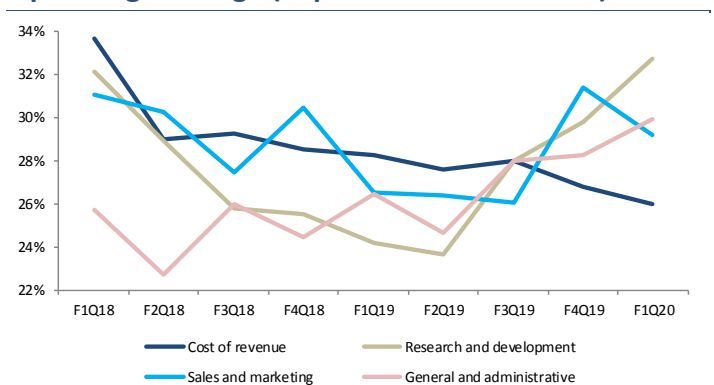
Given the company’s focus on growing the business, we expect management to reinvest in R&D and Sales and Marketing, although it’s likely that these expense lines as a percentage of sales decline over the medium to long term. Additionally, we believe the Cost of Revenue and G&A lines should see operating leverage over time.

**Chart 20: During the last year, Bill.com’s expenses have been split evenly across its four expense lines**



Source: Company data, Autonomous Research

**Chart 21: Cost of revenue has seen the most operating leverage (expenses as a % of sales)**



Source: Company data, Autonomous Research

We believe high-margin revenue from interest on client funds is adding ~600-800bps to the gross margin, which is driving Cost of revenue as a percentage of sales to decline. In the analysis below, we remove interest on client funds from both revenue and gross profit and calculate the company's gross margin using our adjusted figures.

We believe the contribution to gross margins increased from the beginning of FY18 to the beginning of FY19, as interest rates increased. More recently, interest rates have declined, which is likely weighing on the gross margin (i.e. interest on client funds is becoming less of a benefit).

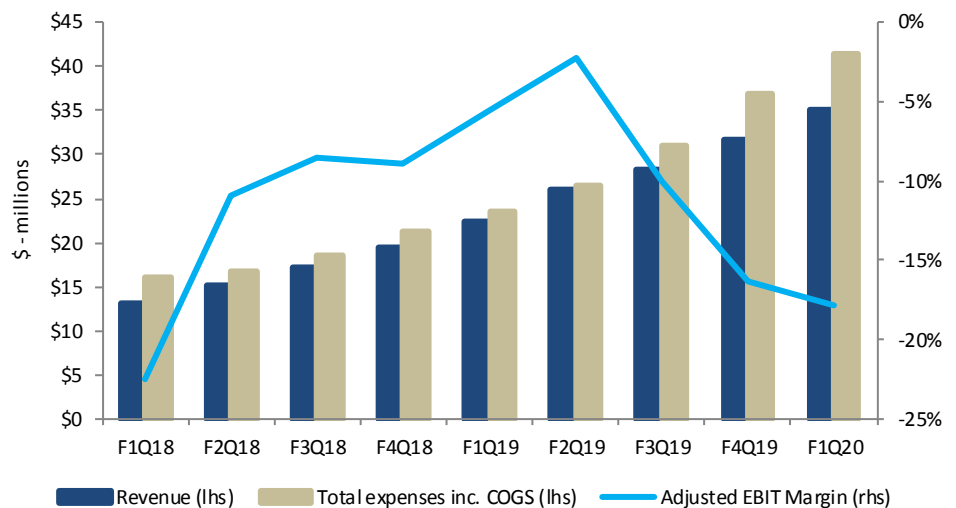
**Table 23: We estimate revenue from interest on client funds is adding 600-800bps to gross margin**

Gross Margin Analysis (\$mn unless noted)	F1Q18	F2Q18	F3Q18	F4Q18	F1Q19	F2Q19	F3Q19	F4Q19	F1Q20
Total Revenues	\$13	\$15	\$17	\$20	\$22	\$26	\$28	\$32	\$35
Less Interest on client funds	\$1	\$2	\$2	\$3	\$4	\$6	\$6	\$6	\$7
<b>Total Revenue ex Interest on client funds</b>	<b>\$12</b>	<b>\$13</b>	<b>\$15</b>	<b>\$16</b>	<b>\$18</b>	<b>\$20</b>	<b>\$22</b>	<b>\$25</b>	<b>\$29</b>
Gross Profit (reported)	\$9	\$11	\$12	\$14	\$16	\$19	\$20	\$23	\$26
Less Interest on client funds	\$1	\$2	\$2	\$3	\$4	\$6	\$6	\$6	\$7
<b>Gross Profit less interest on client funds</b>	<b>\$8</b>	<b>\$9</b>	<b>\$10</b>	<b>\$11</b>	<b>\$12</b>	<b>\$13</b>	<b>\$14</b>	<b>\$17</b>	<b>\$19</b>
<b>Margins (% of revenue):</b>									
Gross Profit (reported)	66%	71%	71%	72%	72%	72%	72%	73%	74%
Interest on client funds	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>Gross Profit (excluding interest on client funds)</b>	<b>64%</b>	<b>67%</b>	<b>66%</b>	<b>66%</b>	<b>65%</b>	<b>65%</b>	<b>64%</b>	<b>66%</b>	<b>68%</b>
<b>Delta in ppts (contribution to margin from interest on client funds)</b>	<b>2.0%</b>	<b>4.0%</b>	<b>4.3%</b>	<b>5.5%</b>	<b>6.6%</b>	<b>7.5%</b>	<b>7.8%</b>	<b>6.9%</b>	<b>6.0%</b>

Source: Company data, Autonomous Research; Assumes interest on client funds is a 100% gross margin business.

Despite revenues growing above 50% YoY for some time, expenses have grown quickly as well. Bill.com's adjusted EBIT margin expanded from F1Q18 to F2Q19 (almost reaching profitability at -2% margin), but it has declined since then.

**Chart 22: Bill.com expanded margins from F1Q18 to F2Q19, but since then, expenses have grown faster than revenues**

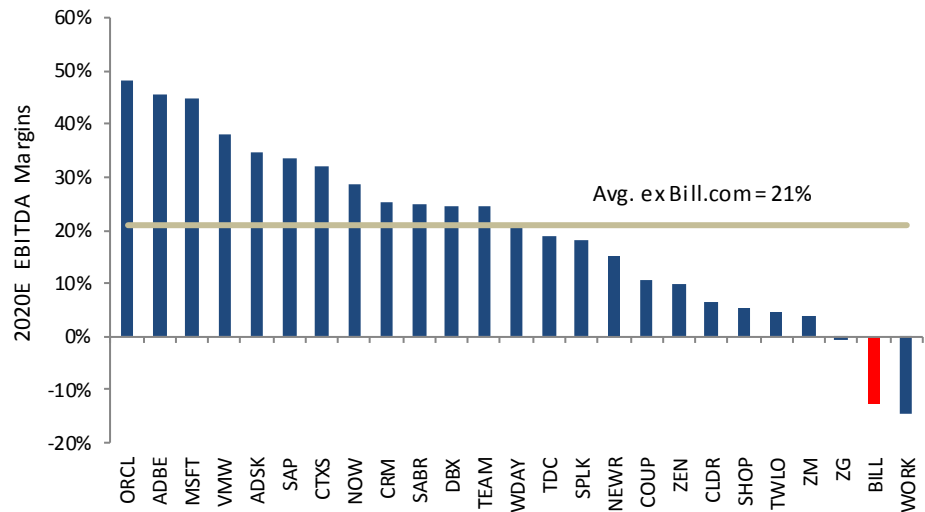


Source: Company data, Autonomous Research

## Does profitability matter at this stage?

When compared to companies in the software space (both large and small cap names), Bill.com screens at the low end of profitability. We believe this is partially driven by Bill.com's reinvestment in the business given that it's still in a high-growth stage. Furthermore, Bill.com upped this reinvestment in recent quarters. For perspective, Bill.com's EBITDA margins declined from -2% in F1H19 to an average of -16% during the last two quarters.

**Chart 23: Bill.com screens at the low end of profitability when compared to other companies (2020E EBITDA margins)**

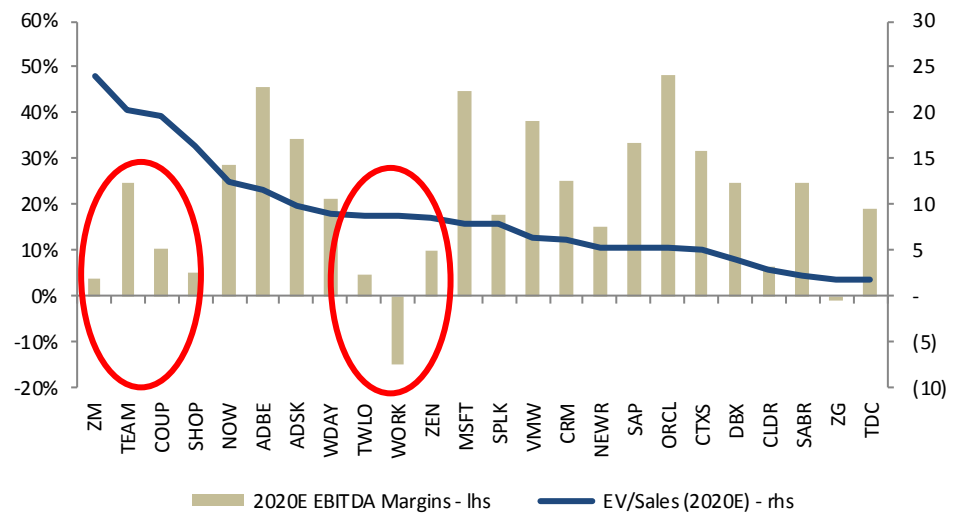


Source: FactSet, Company data, Autonomous Research

Many software companies add back stock-based compensation and other items when calculating their adjusted EBITDA figures. If Bill.com decides to make this adjustment, we believe adjusted EBITDA margins would be 4-6ppts higher than GAAP figures.

When looking at the same group of software companies, there are several companies that trade at high EV/Sales multiples despite having low margins. Many of these companies trade at high multiples because of the fast top-line growth. We believe the same could apply to Bill.com. Despite low profitability, it's likely that the business can grow revenues in the 30-50% range in the coming years, and thus, should trade at a high multiple of NTM sales.

**Chart 24: Several software companies have low margins but trade at lofty EV/Sales multiples (2020E EBITDA margins sorted by EV/Sales)**



Source: FactSet, Company data, Autonomous Research

Investors often talk about the Rule of 40 for software companies, the principle that a software company’s combined growth rate and profit margin should exceed 40%. There are multiple ways to achieve that 40% threshold. A company can have low margins with fast growth (i.e. Bill.com or Coupa), high margins with slow growth (i.e. Oracle or Microsoft), or some combination of the two. Adding together Bill.com’s revenue growth of 67% in FY19 to its -9% EBIT margins results in 58%, so well above the 40% hurdle. Even if we consider only growth of Bill.com’s subscription and transaction fees of 51%, Bill.com still passes the test.

**We believe Coupa Software (NR) and Shopify (NR) could act as close peers for Bill.com. Both offer software and payments to their customers, and they have yet to reach profitability. That said, margins at both companies are improving as they achieve scale across several expense lines.**

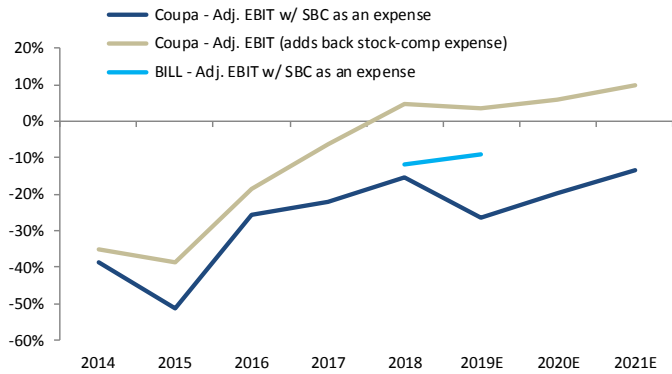
Coupa Software might be one of the closest comps for Bill.com, as the company helps businesses purchase goods and services, connecting customers with over four million suppliers globally. Its core platform consists of procurement, invoicing, and expense management modules, as well as payment capabilities.

Coupa’s adjusted EBIT margin has improved over time, although EBIT margins with stock-based compensation as an expense are still negative and are expected to be negative during the next two years, according to FactSet consensus. Coupa has seen the most operating leverage from its Sales and Marketing line during the last three years, while R&D and COGS as a percentage of revenue have also declined but to a lesser extent.

Bill.com’s Sales and Marketing and COGS lines as a percentage of revenue are slightly below Coupa’s, while its R&D and G&A expenses are slightly above.

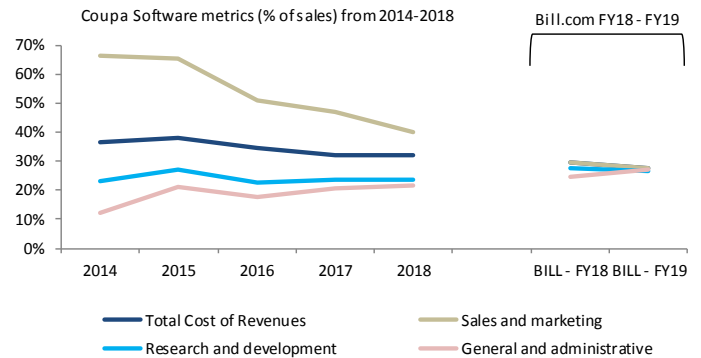


Chart 25: Coupa's margins have improved but they're still negative when expensing stock comp



Source: Company data, FactSet, Autonomous Estimates; Bill.com figures are as of June 30<sup>th</sup>; Coupa figures are for the closest fiscal year end.

Chart 26: Coupa has achieved operating leverage across multiple expense lines, most coming from Sales/Marketing



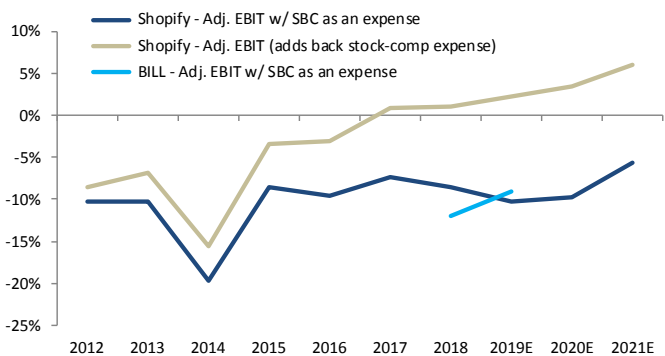
Source: Company data, Autonomous Research; Coupa figures are for the closest fiscal year end.

Analyzing Shopify's financials, we reach similar conclusions. Profitability has improved, although the company is adding back more stock-based compensation expense. Bill.com's EBIT margins are in line with Shopify's margins when including SBC as an expense.

Shopify has seen the most operating leverage from its Sales/Marketing and R&D lines. We point out that Shopify recognizes revenue from payment processing on a gross basis, with interchange reported in cost of goods sold. Most payment companies report net revenue (i.e. net of the interchange costs), so Shopify's reporting style artificially inflates revenue, which would lower the expense lines as a percentage of revenue. This is likely why Shopify's COGS are above Bill.com's.

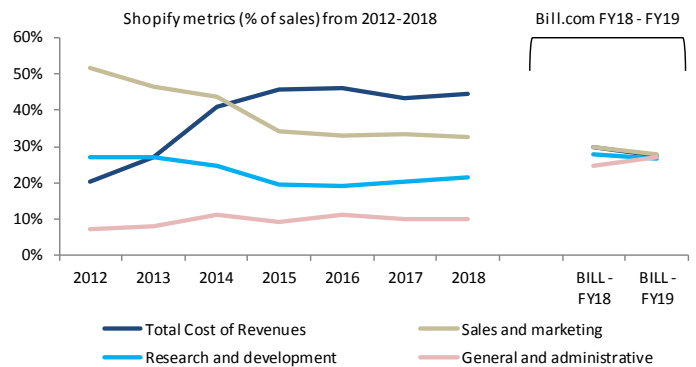
Additionally, if investors keep interchange costs in Shopify's sales and apply an EV/Sales multiple to their sales estimate, they are likely overstating sales, and in turn, the value of the business. We wouldn't be surprised if this happened in valuation estimates for Shopify, where software analysts, who might not have a deep understanding of payments, likely cover the name.

Chart 27: Shopify has a similar margin profile as Bill.com



Source: Company data, FactSet, Autonomous Estimates; Bill.com figures are as of June 30<sup>th</sup>

Chart 28: Shopify has seen operating leverage across Sales/Marketing and R&D



Source: Company data, Autonomous Research

## Unit economics

Below we dissect the unit economics across Bill.com's revenue streams. We estimate interest income has the highest incremental margin, then subscription revenue, and then payments.

The average Bill.com customer generates subscription revenue of \$858 per annum, which we estimate comes on at a 75% incremental gross margin, leading to \$644 in incremental gross profit per customer in the first year of closing.

For transaction fees, the average customer completes 286 transactions per year at an average transaction size of ~\$3,600, leading to TPV per customer of just over \$1mn. The average take rate is just ~3-4bps, leading to annual transaction fees of \$380 per customer. Bill.com provides some guidance on the increase in direct operating costs (for processing payments and other items), which we use as a proxy to estimate the incremental gross margin from payments. We assume direct costs for processing transactions is ~2bps of TPV, which leads to \$174 of incremental gross profit, or just under a 50% gross margin.

**Table 24: Unit economics and incremental margin vary by revenue source**

Unit Economics Analysis (\$ unless noted)	FY19
<b>Subscription Revenue:</b>	
Subscription fees for average customer (a)	\$858
<i>Incremental Gross Margin (%)</i>	<b>75%</b>
<b>Incremental Gross Profit (\$ (b))</b>	<b>\$644</b>
<b>Transaction fees:</b>	
Txns for average customer	286
Avg. Txn Size	\$3,589
TPV for average customer	\$1,026,597
Txn fees (c)	\$380
<i>Take Rate</i>	<i>0.037%</i>
<i>Direct processing costs (% of TPV)</i>	<b>0.020%</b>
Direct processing costs (\$)	\$205
<b>Incremental Gross Profit from transactions -\$ (d)</b>	<b>\$174</b>
Incremental Gross Margin from txn fees	46%
<b>Interest on client funds:</b>	
Avg. client balance (% of TPV)	<b>1.5%</b>
Avg. client balance (\$)	\$15,399
Yield	<b>1.75%</b>
Incremental interest income (e)	\$269
<i>Incremental Gross Margin</i>	<b>95%</b>
<b>Incremental Gross Profit - \$ (f)</b>	<b>\$256</b>
<b>Total:</b>	
Revenue (g = a + c + e)	\$1,507
Gross Profit (h = b + d + f)	\$1,074
Gross Profit Margin (i = h/g)	71%
<b>Total ex interest on client funds:</b>	
Revenue ex interest on client funds	\$1,238
Gross Profit ex interest on client funds	\$818
Gross Profit Margin	66%

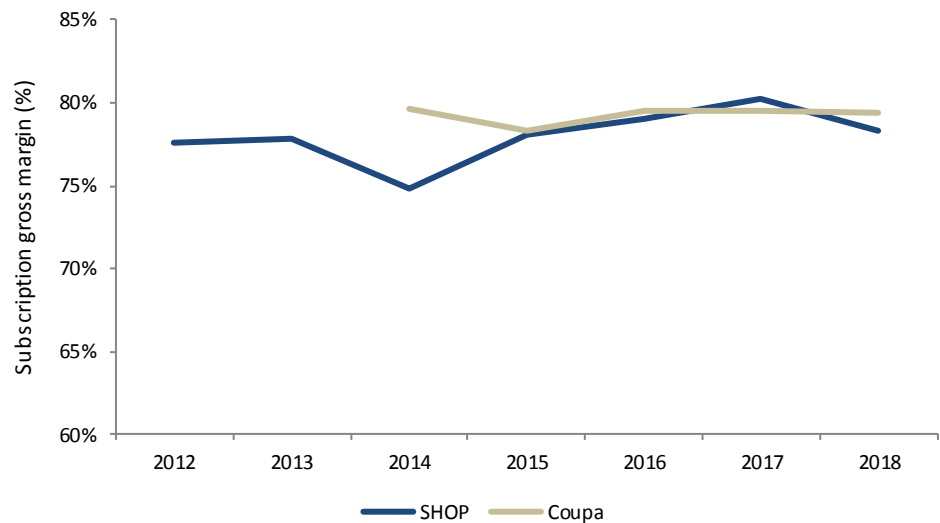
Source: Company data, Autonomous Estimates

We believe interest income carries very low incremental costs, and we peg this business at a 95% incremental gross margin. The average client balance is just over \$15k (~1.5% of its annual TPV), which at a 1.75% yield, leads to ~\$269 in additional revenue. At a 95% incremental margin, we estimate \$256 in incremental gross profit.

Adding these three revenue streams together implies a total gross margin of 71% for the entire business, slightly below the 72% reported gross margin in FY19. Removing the high-margin revenue from interest on client funds reduces the gross margin to ~66%.

Our 75% gross margin assumption on subscription revenue could prove conservative, as Shopify and Coupa Software have subscription revenue gross margins just under 80%.

**Chart 29: Shopify and Coupa have subscription gross margins of ~80%**



Source: Company data, Autonomous Research

Taking our unit economics analysis a step further, Bill.com says in its filing that its average payback period is a round five quarters (for customers acquired in FY18). The company measures the payback period as the time it takes for the cumulative non-GAAP gross profit it earns from customers acquired during a given quarter to exceeds the total sales and marketing spend in the same quarter.

Using our annual gross profit estimate above of \$1,074, Bill.com’s retention rate of 82% (excludes financial institution partners which is just 11% of total revenue by our estimates), and the 5-quarter payback period, we estimate an LTV/CAC of ~4.4. This is well above the 3.0 hurdle that is often quoted in the software industry.

This LTV/CAC figure doesn’t adjust for Bill.com’s net dollar retention rate of 110% for FY19 and 106% for FY18. Assuming customers grow with Bill.com, leading to a higher LTV, we believe LTV/CAC could be above 6. For perspective, Coupa software quotes an LTV/CAC greater than 6. Our LTV estimates are undiscounted figures.

**Table 25: We estimate Bill.com’s LTV/CAC to be above 4x; assuming clients grow with Bill.com, LTV/CAC could be above 6x**

LTV/CAC (\$ unless noted)	\$
Gross profit (annual)	\$1,074
Gross profit/quarter	\$268
Payback (# of quarters)	5
<b>CAC Estimate</b>	<b>\$1,342</b>
Gross Profit	\$1,074
Retention Rate	82%
Average Life of customer (in years)	5.6
<b>LTV (assuming no rev growth)</b>	<b>\$5,966</b>
<b>LTV/CAC (assuming no rev growth in client base)</b>	<b>4.4</b>
LTV (assuming rev growth w/ client base)	\$8,645
<b>LTV/CAC (assuming rev growth w/ client base)</b>	<b>6.4</b>

Source: Company data, Autonomous Research; Bill.com discloses a 5-quarter payback period and client retention of 82% excluding financial institution partners.

**Bill.com customer adoption is strong because the savings are compelling**

As shown in the table below, we estimate the average accounts payable customer using Bill.com can save over ~\$4k in costs through operating efficiencies after paying for Bill.com’s platform. While the analysis is far from perfect, as back-office operations vary widely by customer, we believe it provides a framework into why adoption of the platform has been so strong across SMB customers. The annual cost for the typical Bill.com customer is \$1,240 (\$860 in subscription fees and \$380 in transaction fees), implying that customers keep over 75% of the savings.

**Table 26: We estimate Bill.com AP customers can achieve \$4k in net savings after adopting Bill.com’s solutions**

Analysis of potential savings using Bill.com (\$ unless noted)	Paper	Online/Automation
Finding invoices/supporting docs, data capture (hours)	0.50	0.10
Reviewing and approving bills (hours)	0.50	0.15
Payments – writing/sending checks (hours)	0.50	0.05
<b>Total hours per item (a)</b>	<b>1.50</b>	<b>0.30</b>
Avg. Transactions per customer per year (b)	300	300
<b>Total Hours per customer per year (c = a* b)</b>	<b>450</b>	<b>90</b>
Average Wage	\$15	\$15
<b>Total Cost</b>	<b>\$6,754</b>	<b>\$1,351</b>
<b>Delta</b>		<b>\$5,403</b>
Annual cost for average Bill.com customer		\$1,238
<b>Net savings to Bill.com customer</b>		<b>\$4,165</b>
Savings accrued to Bill.com (%)		23%
<b>Savings accrued to customer (%)</b>		<b>77%</b>

Source: Company data, Autonomous Research

Below we highlight some of the areas of inefficiency for back-office accounts payable/accounts receivable departments, and where an automated solution like Bill.com can reduce costs.

- **Finding invoices/supporting docs and capturing data:** This includes the time spent matching invoices against contracts, manually entering data into legacy systems, errors from manual entry, invoices received in various formats (fax, email, mail), and time spent resolving unmatched invoices. An automated system can help steer suppliers to send invoices via email, capture data automatically (Bill.com uses its intelligent virtual

assistant – IVA), reduce manual entry errors, and match invoices with contracts/purchase orders via integration with accounting systems.

- **Reviewing and approving bills:** Time is often wasted waiting for bills to be approved, searching for the right person to approve a payment (sometimes the person is at a different office location), orders are spread across different departments, back and forth conversations to reach final approval, etc. Automated solutions address many of these issues by allowing all parties to operate under the same system/dashboard and employees to have certain user roles (i.e. can have one person restricted to entering and checking bills, another person for approving payment, and a final person executing the payment). For example, if an employee imports a bill into the system and submits it to approval, the employee with approval privileges can either approve or deny the item. If approved, it would be sent to the payments employee, who would then execute the payment via the Bill.com system.
- **Payments – writing and sending checks:** After receiving the appropriate approval, the company must make the payment to the supplier (in the AP customer’s case). Employees spend time writing checks and tracking them across internal systems. Costs related to postage, misplaced checks, and inaccuracies add up. An automated system can take an approved payment and then execute it immediately. Customers have greater control over when and how the supplier is paid (i.e., pay 6 days before the due date and pay via a virtual-card payment).

## Higher-yielding transactions

### Unit economics on virtual cards are attractive

Virtual cards have become a more popular form of payment in recent years. A virtual card is a single-use, 16-digit virtual credit card that accounts payable departments can use to securely and quickly make payments to its suppliers. Typically, a predetermined credit limit equal to the amount to be paid to the supplier is put on the card. Other restrictions can include timeframe (i.e. purchases can only occur within this 48-hour window), number of transactions, and supplier name.

While the interchange rates are in the 200-300bps range, the payee (i.e. the supplier receiving the payment) benefits from improved cash management, control, and security. Virtual card transactions not only enable faster payments to suppliers, but they carry rich data that suppliers can use to easily match incoming payments with open receivables, leading to back-office efficiencies.

Using Bill.com’s average transaction size of \$3,600, we show in the table below how virtual cards can skew the revenue per transaction for the company higher.

**Table 27: Virtual cards, which have a higher rev/txn, are likely driving yield increases at Bill.com**

Transaction Types/Fees	Fee (\$ or %)	% of txns	Rev/txn	Cost/Txn	Gross Profit/Txn	Gross Margin	% of Txn Size/TPV		
							Revs	Costs	Gross Profit
ePayment/ACH Processing	\$0.49	85%	\$0.49	\$0.01	\$0.48	98%	0.01%	0.00%	0.01%
Checks or Invoices Mailed	\$1.69	10%	\$1.69	\$0.70	\$0.99	59%	0.05%	0.02%	0.03%
Bill.com completes Payables data entry (optional)	\$0.49	1%	\$0.49	\$0.01	\$0.48	98%	0.01%	0.00%	0.01%
<b>Virtual Card Payments</b>	<b>1.20%</b>	<b>1%</b>	<b>\$43.07</b>	<b>\$0.00</b>	<b>\$43.07</b>	<b>100%</b>	<b>1.20%</b>	<b>0.00%</b>	<b>1.20%</b>
Get paid via credit card payment	2.00%	1%	\$71.78	\$53.83	\$17.94	25%	2.00%	1.50%	0.50%
Cross-Border Wire —U.S. Dollars	\$9.99	1%	\$9.99	\$5.00	\$5.00	50%	0.28%	0.14%	0.14%
Cross-Border Wire —Foreign Exchange	\$17.94	1%	\$17.94	\$8.97	\$8.97	50%	0.50%	0.25%	0.25%
<b>Total/Weighted average</b>		<b>100%</b>	<b>\$2.02</b>	<b>\$0.81</b>	<b>\$1.21</b>	<b>60%</b>	<b>0.056%</b>	<b>0.023%</b>	<b>0.034%</b>

Source: Company data, Autonomous Estimates; Assumes Bill.com reports revenue on a gross basis except for virtual cards

Below we break down the unit economics of a virtual card. From our conversations with other public payment companies that operate in the B2B space, we believe the economics on virtual cards are highly attractive to card issuers and players such as Bill.com.

In a typical four-party consumer card-present credit transaction, simple math suggests that the issuer receives 140bps+ of the transaction economics, while the acquirer/processor nets ~40bps and the network 10bps. If an ISO is involved, the acquirer/processor then rebates ~80-90% of the 40bps to the ISO. In a card-not-present virtual card transaction, our understanding is that the issuer receives ~150bps of the total ~250bps charged to the supplier in interchange revenues.

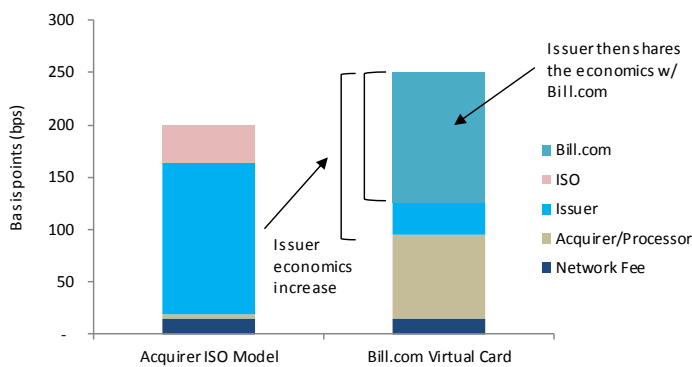
In Bill.com’s case, since Comdata is issuing virtual cards for Bill.com’s account payable customers, Comdata receives 150bps of economics. Since Bill.com is acquiring the customer and maintaining the relationship (like the ISO in the four-party model), it’s likely that Comdata rebates a majority of the 150bps back to Bill.com. We estimate an 80%/20% split, so Bill.com receives 120bps while Comdata keeps 30bps. This is a highly lucrative model for Bill.com, so we’re not surprised to see the company add it as a payment option on its platform.

To be clear, Bill.com is sharing in the issuer interchange economics while in a traditional credit card transaction, an ISO is sharing in the acquirer’s economics. That said, both Bill.com and an ISO are acting as distributors in the transaction (aka the last-mile connection with the end customer).

It’s unclear if Bill.com rebates any of the 120bps back to its own customers for choosing to pay with a virtual card. Looking at the financials, revenue per transaction is increasing but so is cost per transaction, and margins have not expanded.

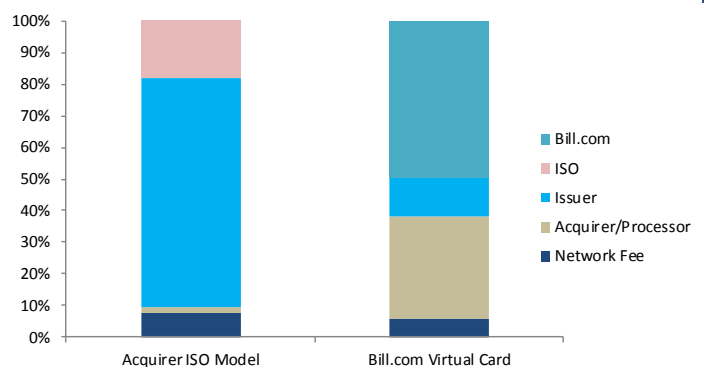
On its website, Comdata advertises a rebate on virtual cards spend for account payables customers, stating “turn your payables into a revenue generator with monthly rebates on spending”. The idea here is to drive virtual-card usage by sharing some of the economics with paying customers. Not a bad strategy, in our opinion, especially if this is high incremental-margin business for Comdata.

**Chart 30: Issuer economics increase with virtual cards; it then shares most of that with Bill.com**



Source: Company data, Autonomous Estimates

**Chart 31: Bill.com retains most of the economics from virtual cards**



Source: Company data, Autonomous Estimates

**Cross-border payments also have higher yields**

Bill.com partnered with FleetCor’s Cambridge business in 2018 to begin offering cross-border payments to its customers. We believe the average size of cross-border transactions could be higher than the company average. Western Union (FUP) disclosed at its 2016 Investor Day that the average B2B transaction size was ~\$13,000. It also disclosed that it

generated ~\$80bn in volume in its B2B segment, which translates to a 0.50% revenue yield and an average revenue per transaction of ~\$65.

While Bill.com's customer base skews to the smaller end, we believe these higher-ticket cross-border payments could increase the take rate over time. Bill.com disclosed that since introducing cross-border payments, it has disbursed over \$500mn for its customers. This translates to less than 1% of TPV by our estimates (using cumulative TPV since end of FY18 in the denominator), a low level that should allow Bill.com to gain further share of wallet with its existing customers.

Additionally, with Bill.com acquiring the customer and maintaining the relationship, we believe the same rules of the road apply in cross-border payments as virtual-card payments, in that Bill.com would retain most of the economics above what it costs Cambridge to buy and sell foreign currencies to execute the payments.

### Opportunity to add higher-yielding invoice accelerator?

When reading the S-1, we didn't see any mention of an invoice accelerator offering to suppliers. Suppliers deal with delayed payments and outstanding receivables, and they're effectively providing a free loan to the buyer of goods. The length of the loan depends on when the goods are purchased by the buyer and when payment is ultimately received (i.e. the invoice due date).

The idea would be for Bill.com to offer suppliers the ability to get paid faster than they otherwise would under a typical accounts receivable collection cycle.

Bill.com could automatically notify its suppliers that they have a new offer through the Bill.com platform. Bill.com can estimate a discount and payment amount based on the number of days early the supplier wishes to be paid (i.e. if the supplier is collecting a \$3,500 payment, it might accept \$3,450 to be paid 15 days earlier).

AvidXchange is already offering an invoice accelerator to its suppliers, and we've seen other AR/AP solutions providers such as Tiplati offer similar products. AvidXchange has mentioned that yields on invoice accelerator payments can be in the 200-300bps range. Presumably this could be even higher if the buyer and supplier are new, as AvidXchange is tasked with underwriting the buyer and supplier payment history. In these payments, while Bill.com would effectively be buying receivables from the supplier, they are really underwriting the buyer because they're the paying entity.

It's unclear how much of Bill.com's customer base is split across accounts payable (buyers) and accounts receivable (supplier) customers, but if Bill.com can introduce such an offering, it might be able to increase the yield on payment transactions (estimated 200-300bps for invoice accelerator payments vs. Bill.com's transaction yield of just 5bps). Additionally, if suppliers that use Bill.com are much smaller entities, presumably they would have higher demand for the product than larger entities, which obtain their capital needs elsewhere. Square (UP) has seen strong demand for working-capital loans across its small-business customers.

# Distribution

**Bill.com acquires its customers across two channels – 1) Direct to SMBs and 2) Indirect through accounting firms and strategic partners.**

**Direct:** The direct channel consists of internal sales personnel, interactions at industry trade shows, online advertising, and word of mouth. Management stated that in a 2019 survey that it conducted, roughly 50% of new customer respondents indicated that they first heard about Bill.com because they used the platform at a prior company or heard about the platform through a colleague.

If this translates into ~50% of new customers being acquired organically, that would certainly make it easier for Bill.com to scale the business. We estimate that the company is growing at an LTV/CAC of 4-7x.

Management also highlights its 1.8mn network members as a source of prospective customers. Bill.com defines network members as its customers plus their suppliers and clients with accounts on the platform. They are essentially entities that joined Bill.com's network at the invitation of a Bill.com customer who wanted to pay them or be paid electronically. These network members provide Bill.com with their bank account details, enabling them to connect, invoice, pay and get paid electronically.

It's hard to tell how successful Bill.com is at converting network members into full-paying customers. That said, since 2016, we estimate that network members have grown at a 19% CAGR while paying customers increased at a ~30% CAGR. This suggests the penetration rate (i.e. paying customers divided by network members) increased from ~3.2% to 4.3%.

**Table 28: Paying customers have grown at a faster rate than network members**

Member & Customer Growth	Network Members	Paying customers	Penetration Rate (%)
As of 3/8/2016*	1,000,000	32,000	3.2%
As of 6/30/2019	1,800,000	76,790	4.3%
<b>CAGR</b>	<b>19%</b>	<b>30%</b>	

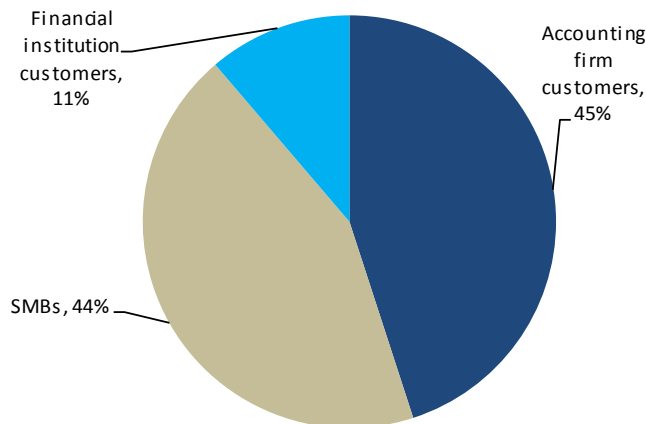
*Source: Company data, Autonomous Estimates; \*Bill.com disclosed on March 8, 2016 that it passed 1mn network members*

**Indirect:** Bill.com also acquires customers through accounting firms and strategic partners. These partners include more than 70 of the top 100 accounting firms, other financial services businesses, and large financial institutions such as Bank of America (OP), JPMorgan Chase (N), and American Express (OP). We outline below the three main distribution channels on the indirect side of the business.

- **Accounting firms:** Bill.com partners with over 4,000 accounting firms nationwide, and it markets and sells its products/services through those accounting firms. Bill.com also has a partnership with CPA.com to market Bill.com's products and services to accounting firms, which then enroll their SMB customers directly into Bill.com's platform. Accounting firms accounted for ~54% of its total customer as of FY19 (41,000 of the 77,000) and 45% of its revenue in FY19 (\$49mn of \$108mn total).
- **Financial institutions:** Bill.com integrates with some of the largest banks in the U.S., allowing their customers to leverage Bill.com's platform and solutions.
- **Accounting software companies:** Bill.com also integrates with accounting software companies such as Intuit's QuickBooks and has referral relationships with other accounting software providers including Oracle's NetSuite and Sage Intacct.

Accounting-firm customers generated ~45% of revenue in FY19. Based on additional disclosures, we estimate the non-accounting-firm, direct SMB channel is the 2<sup>nd</sup>-largest channel, contributing ~44% of total company revenue. We estimate financial institutions drove the remaining ~11%.

**Chart 32: Accounting firms and SMBs are Bill.com’s two largest channels**



Source: Company data, Autonomous Estimates; We scale up Bill.com’s disclosure of subscription and transaction revenue by channel to estimate the total company revenue by channel

**Table 29: We estimate these channels to be ~45% and 44% of total company revenue, respectively**

Distribution channel analysis (\$mn unless noted):	FY18	FY19
<b>Revenues (\$mn):</b>		
SMB and accounting firm customers	57	96
<b>Accounting firm customers</b>		<b>49</b>
<b>SMB</b>		<b>47</b>
Financial institution customers	8	12
<b>Total company</b>	<b>65</b>	<b>108</b>
<b>% of total company revenue:</b>		
SMB and accounting firm customers	88%	89%
<b>Accounting firm customers</b>		<b>45%</b>
<b>SMBs</b>		<b>44%</b>
Financial institution customers	12%	11%
<b>Total company revenue</b>	<b>100%</b>	<b>100%</b>

Source: Company data, Autonomous Estimates; We scale up Bill.com’s disclosure of subscription and transaction revenue by channel to estimate the total company revenue by channel

At 54% of customers and 45% of revenue in FY19, a accounting firms are clearly an important channel for Bill.com. Customers acquired *outside* of the accounting-firm channel generate annual revenue that is ~40% greater than customers in the accounting-firm channel, by our estimates.

**Table 30: 54% of Bill.com’s customers come from the accounting-firm channel; they generate lower rev/customer than the other channels**

Accounting-firm channel exposure	FY19
Bill.com customers (EOP)	76,790
Accounting firms (% of total customers)	<b>54%</b>
<b>Customers from accounting-firm channel</b>	<b>41,467</b>
Bill.com revenue (\$mn)	108
Accounting firms (% of revenue)	<b>45%</b>
<b>Revenue from customers in accounting-firm channel (\$mn)</b>	<b>49</b>
<b>Revenue per customer:</b>	
Accounting-firm channel	\$1,176
Non-accounting-firm channel	\$1,687
<b>Non-accounting-firm channel (% of above accounting)</b>	<b>43%</b>

Source: Company data, Autonomous Estimates

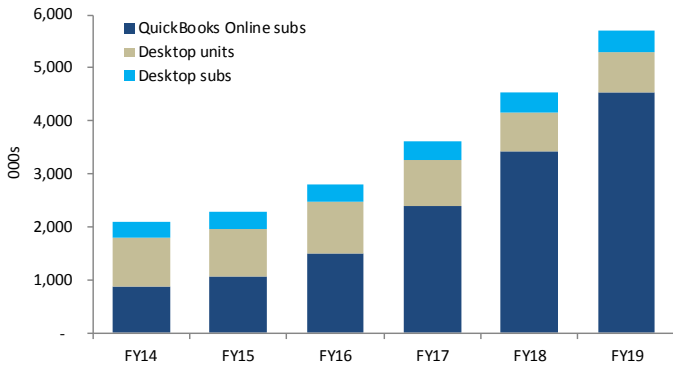
**Intuit’s QuickBooks is growing quickly**

While Bill.com does not provide the revenue exposure from Intuit, we believe the partner is a meaningful contributor to Bill.com’s revenue (although likely less than 10%). Based on Intuit’s filings, the number of QuickBooks paying customers has increased by a 22% CAGR during the last five years, with QuickBooks online growing at a ~40% CAGR.

While most of Intuit’s QuickBooks subscribers are in the US, the company has experienced faster growth outside of the US. Bill.com currently does not serve any customers outside of the US, so perhaps Intuit has other account payable/account receivable providers in these

markets. Additionally, Intuit’s faster growth outside of the US might present an opportunity for Bill.com to follow Intuit into these international markets, allowing the company to gain a presence outside the US.

**Chart 33: QuickBooks paying customers have increased at a 22% CAGR since FY14**



Source: Company data, Autonomous Research; FY14 is an estimate based on mix percentage in FY15.

**Table 31: QuickBooks Online growth is being driven by both US and non-US markets**

Country (mn unless noted)	TAM	FY19 QBO Subs	QBO Sub Growth
US	48	3.30	25%
UK	5	0.55	78%
Canada	3	0.32	48%
Australia	3	0.22	39%
Brazil	17	0.06	47%
France	3	0.02	143%
India	7	0.05	42%
Rest of World	N/A	0.07	33%
<b>Total</b>	<b>85</b>	<b>4.59</b>	<b>33%</b>

Source: Company data, Autonomous Research

**Contract structures vary across channel**

Bill.com’s contracts with its SMB and accounting firm customers primarily consist of cancellable contracts that can be terminated by any party at any time. Bill.com recognizes subscription revenue for cancellable contracts daily and transaction revenue on the date of the transaction.

In the financial institutions channel, Bill.com enters into multi-year contracts where the company receives guaranteed monthly minimum fees. These contracts enable the financial institutions to provide their clients with access to online bill pay services through the financial institution’s online platform. The fees that Bill.com earns from these contracts vary based on the number of users and transactions processed. Our concern with this channel is that the business doesn’t scale at the same level of profitability as the SMB direct channel, but it’s encouraging to see language that Bill.com earns more revenue as the number of users at the financial institution increases.

**Reselling model with strategic partners**

With its strategic and accounting partners, Bill.com generally provides wholesale prices, and its partners determine the final price to their clients. To drive usage across its partners’ clients, we believe Bill.com offers volume discounts (i.e. the more clients that a partner has on Bill.com, the higher the discount). We’ve seen references to wholesale discounts of up to 80%. With the strategic partners and accounting firms controlling the end user price, these partners can decide whether to profit from reselling Bill.com’s offering or pass along any savings to their clients.

**Integration is not exclusive**

While accounting firms and other strategic partners may offer another form of distribution for Bill.com, it does not appear that these partners are exclusive in many cases. For example, across six providers of accounts payable and accounts receivable solutions (other than Bill.com), all are integrated into Intuit’s QuickBooks and many integrate into other popular software providers such as Oracle, Sage, and Microsoft.

In the case of Intuit’s QuickBooks, customers can go to the QuickBooks Apps Store and select their own provider. Bill.com shows up as the second-most popular app under the “Make payments” category (Stripe/PayPal/Square sync is number one), scoring 4.5 stars

and 451 reviews, above Beanworks (5 stars and 27 reviews), MineralTree (5 stars and 5 reviews), Tipalti (5 stars and 2 reviews), and Stampli (5 stars and 1 review).

**Table 32: Other providers of AR/AP solutions integrate into the same software providers as Bill.com**

Software provider (Integration – Y = Yes)	AvidXchange	Beanworks	Bill.com	DocuWare	Stampli	Tipalti	MineralTree
Intuit Quickbooks	Y	Y	Y	Y	Y	Y	Y
Oracle NetSuite	Y	Y	Y		Y	Y	Y
Sage Intacct	Y	Y	Y		Y	Y	Y
Microsoft Dynamics	Y			Y	Y		Y
Sage	Y			Y	Y		Y
Infor Property Management	Y			Y	Y		
Oracle JD Edwards	Y			Y	Y		
SAP	Y			Y	Y		
Xero		Y	Y				Y
Yardi	Y	Y			Y		
Acumatica	Y				Y		
Caliber Software	Y						Y
FinancialForce	Y				Y		
OGsys	Y				Y		
Oracle				Y	Y		
Rent Manager	Y	Y					
TOPS	Y				Y		

Source: Company websites, company data, Autonomous Research

# Competitive landscape

The market for accounts payable and accounts receivable software providers is highly fragmented, and we believe there are a few smaller software companies trying to build scale. The lack of a large-scale player highlights the challenges to build scale in the B2B segment. While we provide a more comprehensive list of competitors in the table below, we believe some of the key players outside of Bill.com include AvidXchange, Beanworks, Billtrust, PaySimple, Tpalti, and MineralTree.

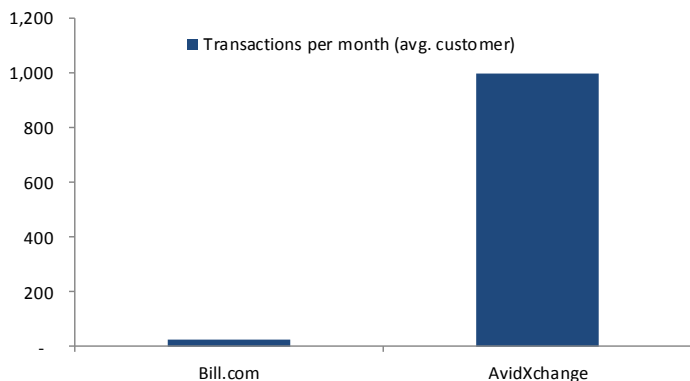
## Providers focus on customers of different size

We believe market share is split across the size of the end customer. For example, AvidXchange focuses on companies in the expanded middle market that typically generate \$5mn to \$1bn in annual revenue. AvidXchange has stated that its average customer does ~1,000 transactions per month, well above Bill.com's 25 transactions per month for its average customer. Based on the company's comments, we believe AvidXchange's typical customer averages ~\$25-30mn in annual TPV, which at the latest customer count of 6,000, implies ~\$150-180bn in annual TPV.

Going further up the size spectrum, Coupa offers solutions to large enterprises based in North America, but more recently, the company has expanded into the middle market and international markets. For perspective, Coupa has ~1,000 customers and the average TPV per customer is ~\$500mn per year, well above Bill.com's \$1mn in TPV per customer.

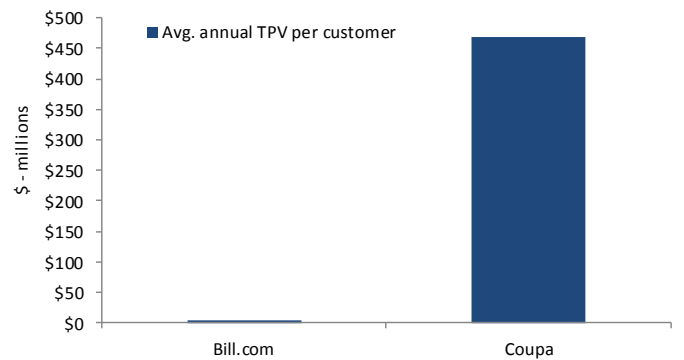
In terms of other competitors, Bottomline (NR) focuses on the upper middle market, so likely above Bill.com's sweet spot. FleetCor and WEX likely compete in the mid to upper end of the market, so above Bill.com's target customer. We believe players such as Beanworks, Billtrust, Paysimple, Tpalti and others are targeting smaller businesses, although a lack of data doesn't allow for a direct comparison with Bill.com.

**Chart 34: Bill.com and AvidXchange focus on customers of different sizes (monthly txn per customer)**



Source: Company data, Autonomous; AvidXchange is a private company and our estimate is based on management's comments.

**Chart 35: Coupa focuses on even larger customers (average annual TPV per customer)**



Source: Company data, Autonomous research

## Providers focus on different channels

Not only is the market segmented by the size of the end customer, but we believe go-to-market strategies differ across providers. Bill.com has a large SMB direct business, but it also relies heavily on strategic partners such as accounting firms and financial institutions.

AvidXchange stated in a meeting a few years ago that it is integrated into 140-150 different accounting systems, and earlier this year, it said that it now has over 250 accounting systems, so clearly this is a focus for the company. AvidXchange is working its way into the banking channel, offering their software solutions on a white-label basis, with key

relationships including Fifth Third (OP) and KeyBank (UP) (i.e. Fifth Third has 10 -12k middle-market customers).

AvidXchange also struck a deal with Mastercard in 2017 to streamline B2B payments in the middle market, forming Mastercard's B2B Hub. The strategic partnership allows Avid to reach ~350k businesses operating in that part of the market, with Avid bringing its AP and payment expertise and Mastercard contributing its commercial payment solutions. We believe this partnership has helped AvidXchange grow above 40% per year for the last seven years.

MineralTree has been focusing on bank partnerships, offering their partners a white-label solution that they can pass along to their end clients.

**Table 33: Players looking to automate accounts payable and accounts receivable processes**

Name	Year Founded	Total Funding (\$mn)	Description
Aria Systems	2003	\$180	Cloud-based monetization platform that addresses basic billing to managing recurring payment streams from customers
AvidXchange	2000	\$545	Automates accounts payable and payment processes for middle market companies. Average growth rate of 47% during the last seven years, expect ~40% growth going forward. Has ~6,000 customers.
Beanworks	2012	\$12	Accounts payable software provider focusing on the small business market.
Billtrust	2001	\$104	Focuses on accounts receivable solutions to manage the entire invoice to cash transaction lifecycle, quotes a 98% customer retention rate
C2FO	2008	\$398	Online B2B marketplace for working capital
Chrome River Technologies	2007	\$155	Provider of expense reporting and invoice management
corcentric	1998		Provides accounts receivable and accounts payable automation solutions for mid-market to Fortune 1000 companies. Exceeded \$1bn in annual customer gross billings in 2013
Coupa	2006	\$169	Business spend management platform that allows customers to streamline procurement, invoicing, expenses, and payments; In FY19 - \$260mn in revenue, 988 customers, \$399bn in volume.
DivyPay	2016	\$2	Expense management and virtual card platform that helps businesses control their spending and automate their expense reporting
DocuWare	1988		Provides digital document management and automated workflows to organizations of any size. Available in 16 languages and serves 12,000 customers across 90 countries.
Enliven Software	2007		Allows businesses to manage accounts receivable and accounts payable processes through integration with accounting systems
globys	2008		B2B Portal Solution enables business customers to transact with providers whether buying new products or paying their invoices
HighRadius	2006	\$50	SaaS provider for Integrated Receivables (Credit, Cash Application, Collections, Deductions, and Payments).
Invoice2go	2002	\$60	Mobile invoicing app that gives small businesses control over their time and business.
Mineral Tree	2010	\$73	Focused on creating efficiencies for accounts payable departments in the small business market. Has ~1,500 customers and billions in annual payments volume
Modulr Finance	2015	\$52	Integrates into businesses via APIs to help automate and manage payments (providers processing, collection, and reconciliation)
Nvoicepay	2009		Leader in full AP automation to over 400 business clients; enables businesses to pay their entire payable expenses domestically and internationally, acquired by FleetCor in 2019
Payoneer	2005	\$270	Cross-border payments platforms with 4mn customers across 200 countries; multiple payout options included wire, bank transfers, and others
PaySimple	2006	\$145	Simplifies billing and collection processes for businesses; helped over 17,000 businesses since 2006
plotoo	2015		Payment management platform that helps small and medium size businesses automate and streamline their payments
roger.ai	2017	\$7	Bill pay and accounts payable automation for SMBs and accountants
SAP Concur			Offers end to end expense management and AP automation to large businesses; In 2014, had 25k customers, 25mn active users in 150 countries, and \$600bn in annual volume. Acquired by SAP in 2014 for over \$8bn USD.
Stampli	2015	\$35	Accounts payable automation software. \$10bn in invoices managed annually, 18,000 AP users and approvers.
Stripe	2010	\$1,000	Offers a set of APIs that allow business to accept and manage payments online
Tipalti	2010	\$129	Accounts payable software provider that surpassed \$8bn in annual transactions and increased customer bookings by 250% in 2019
Tradeshift	2009	\$421	Cloud-based business network connecting buyers and suppliers; Offers procurement, payables and working capital solutions.
Viewpost	2012	\$70	AR and AP solutions that help businesses streamline payments, eliminate paper checks, and earn cash back on payments to vendors.

Source: Company data, Autonomous Research

# Management & Governance

While we have never met members of the management team, we believe they have done a good job scaling the business. While investors are minority investors in the business (new shareholders own just 14% of the shares outstanding) and have little say in the direction of the company, insiders and VC firms still own a significant portion of the stock, which suggests to us that management and the board will allocate capital appropriately. As a reminder, insiders did not sell any shares, and the company raised ~\$200mn to continue growing the business. We believe it's a positive that fintech entrepreneur and Bill.com founder René Lacerte still holds the CEO position and 5% of the shares outstanding. This stability is complemented by a board that has experience working at software companies that have scaled successfully. Additionally, some board members have instituted shareholder friendly activities at other publicly-traded companies. We are also encouraged by the straight-forward language and transparency in the S-1.

## Business is in the Lacerte family's blood

René Lacerte, CEO and founder of Bill.com, has an interesting background, which we think is worth explaining in more detail. René comes from an entrepreneurial family. The legacy dates back to Arthur Lacerte, René's great grandfather, who founded a general store in Canada in 1910. Fast forward a hundred years and the Lacerte family has founded more than 15 companies across North America. René's cousins Larry and Phil sold Lacerte Software to Intuit in 1998 for \$400mn.

Prior to Bill.com, René founded online payroll service company, PayCycle, which was sold to Intuit in 2009 for \$170mn. It's unclear how much Lacerte made from the PayCycle sale or why he left the business to start Bill.com. Perhaps the opportunity to grow Bill.com was that much more attractive.

Lacerte also spent five years at Intuit prior to starting PayCycle, working in their Small Business Group and contributing to the company's payroll strategy. Overall, it appears Lacerte is a fintech entrepreneur who has successfully built multiple businesses, and we expect him to continue scaling Bill.com.

## Capital allocation solid so far

We think the management team has allocated capital appropriately, focusing primarily on growing the business organically by reinvesting in sales and marketing and research and development. From what we can tell, Bill.com has not acquired a single company since inception (no goodwill on the balance sheet). Given the long runway for growth, we expect the company to continue reinvesting to grow organically.

## Strong board with experience scaling software companies

We believe Bill.com has a strong board, as several members have valuable experience scaling software businesses while other members have instituted shareholder friendly activities at other publicly-traded companies. Below we highlight a few that stood out.

- **Peter Kight:** He was the founder, chairman, and CEO of CheckFree, a provider of financial services technology, until it was acquired by Fiserv (N). We believe Kight has treated shareholders well. Kight was able to sell the CheckFree business to Fiserv at the peak of the market (Aug. 2007) at 16.5x Cash EBIT (ex synergies), which is the highest multiple across core-processing acquisitions above \$1bn. Kight then served as director and vice chairman of Fiserv following Fiserv's acquisition of CheckFree. More recently, Kight serves as chairman of the board of directors of payment processor Repay (OP).

- **Steven Cakebread:** Joined the board in May 2019. He has been the CFO of Yext, a cloud-based digital knowledge platform, since 2014. The company went public in 2017 and the business has scaled from \$124mn in sales in FY17 to over \$300mn in FY20E. From 2002 to 2008, Cakebread served as CFO at Salesforce.com, which IPO'd in 2004 at ~\$4 per share and increased to ~\$15 at the time of his departure.
- **David Hornik:** General partner at August Capital. He has been on the board of Splunk, a provider of machine data analytics software from 2004 to 2017.
- **Allison Mnookin:** Served as CEO of QuickBase, an online application software company in 2016. From 2010 to 2016, Mnookin served as VP of Intuit's Quickbase business unit prior to Intuit divesting the business to private equity. Mnookin also serves on the board of LPL Financial (OP). We believe LPL has allocated capital appropriately over the last few years. The company has returned capital to shareholders through dividends, and it has repurchased its own stock at reasonable P/E multiples.
- **Rory O'Driscoll:** Board member since 2013. O'Driscoll has served on the boards of various software companies including Box, DocuSign, and ExactTarget.

### Inside ownership at the company remains significant

In the table below, we show the ownership of insiders and institutions with more than 5% of the outstanding stock before and after the IPO. With only 14% of shares going to new public shareholders, the ownership percentages come down slightly. Executive officers and non-VC directors own ~7% of the shares outstanding, including René Lacerte's ownership at ~5% (~\$114mn).

Large institutional investors include DCM, August Capital, Ossa Investments, Emergence Capital, and Financial Partners.

**Table 34: Executives and non-VC directors own ~7% of the shares post IPO; CEO owns ~5% of shares**

Name	Directors/Related Persons	Before Offering		After Offering		Value of shares (at \$38)
		Shares Owned (#)	% Owned	Shares Owned (#)	% Owned	
DCM	David Chao	9.9	16%	9.9	14%	\$296
August Capital	David Hornik	7.7	13%	7.7	11%	\$232
Ossa Investments		5.6	9%	5.6	8%	\$167
Emergence Capital	Brian Jacobs	4.9	8%	4.9	7%	\$148
Financial Partners	Steven Piaker	4.8	8%	4.8	7%	\$143
<b>René Lacerte</b>	<b>Bill.com CEO</b>	<b>3.8</b>	<b>6%</b>	<b>3.8</b>	<b>5%</b>	<b>\$114</b>
Scale Venture Partners	Rory O'Driscoll	3.8	6%	3.8	5%	\$113
Icon Ventures	Thomas Mawhinney	3.4	6%	3.4	5%	\$103
John Rettig	Bill.com CFO	0.6	1%	0.6	1%	\$18
Peter Kight	Director	0.1	0%	0.1	0%	\$4
Steven Cakebread	Director	0.1	0%	0.1	0%	\$3
Allison Mnookin	Director	0.1	0%	0.1	0%	\$3
Bora Chung	SVP, Product	0.0	0%	0.0	0%	\$0
<b>Total Insiders/Directors/&gt;5% Institutions</b>		<b>44.8</b>	<b>74%</b>	<b>44.8</b>	<b>64%</b>	<b>\$1,344</b>
Executive Officers		4.4	7%	4.4	6%	\$132
<b>Executive Officers &amp; Non-VC Directors</b>		<b>4.7</b>	<b>8%</b>	<b>4.7</b>	<b>7%</b>	<b>\$142</b>
<b>Total Company</b>		<b>60.7</b>		<b>70.6</b>		<b>\$2,117</b>

Source: Company data, Autonomous Research

### Three-class board with staggered three-year terms

The board of directors consists of 10 members and is divided into three classes of directors that will serve staggered three-year terms. Class I directors include René Lacerte, Thomas Mawhinney and Peter Kight (terms expire at first annual stockholder meeting). Class II directors include Alison Mnookin, David Chao, Steven Piaker and Rory O'Driscoll (terms

expire at second annual stockholder meeting). Class III directors include David Hornik, Brian Jacobs, and Steven Cakebread (terms expire on the third annual stockholder meeting).

According to the Bill.com filing, the board of directors determined that Cakebread, Chao, Hornik, Jacobs, Kight, Mawhinney, O'Driscoll, and Piaker, and Ms. Mnookin, are "independent directors".

### Compensation

Executives are compensated primarily in the form of salary, bonus, equity awards (i.e. options), and non-equity incentives. In FY19, over 80% of the executive compensation came from equity compensation, which vests based on time and continued service with the company. Non-equity compensation, which is paid out semi-annually based on corporate and individual performance objectives (metrics in FY19 were tied to revenue), made up less than 10% of total compensation.

### Restating the bylaws

Bill.com is restating its bylaws that could prevent other companies from acquiring control of the company. Here are a few that stood out.

- **Board vacancies:** Authorizes only Bill.com's board of directors to fill vacant directorships. This could prevent a stockholder from increasing the size of the board and gaining control by filling the resulting vacancies with its own nominees.
- **Classified board:** Board is classified into three classes of directors, which can lead to slower board turnover.
- **Supermajority requirements to restate bylaws:** Requires votes of 66.7% to change many of the new bylaws being put in place.
- **Issuance of preferred stock:** The board will have the authority, without action of the stockholders, to issue up to 10mn shares of undesignated preferred stock. This could discourage a takeover of the company.

## Questions for management

- 1) Subscription revenue growth has been driven by growth in the number of customers and subscription revenue per customer. Can you talk about the sustainability of growth in subscription revenue per customer? Historically the company has raised prices on its per user per month subscription plans. Can you talk about your ability to raise prices in the future?
- 2) The customer count continues to grow above 20%, and we estimate the company has less than 2% market share in the US. Can you talk about how fast the number of customers can grow and what can we expect in terms of market share gains over the next 3-5 years?
- 3) The company lost a strategic partner in FY19 (we believe it was Capital One). Can you talk about why the strategic partner decided not to renew? Who was the strategic partner? Did they choose another provider? Was Bill.com unwilling to sacrifice on economics or did a competitor undercut it on price? Did the strategic partner bring this in house? Was this loss lower-margin business because Bill.com is paying a referral fee/commission to this strategic partner?
- 4) When will the company lap the headwind from the loss of the strategic partner?
- 5) Transaction fee revenue increased 105% in F1Q20 - it appears half of that is being driven by growth in the customer base and the other half by higher take rates. (~4.8bps take rate in F1Q20 vs. ~3.3bps in F1Q19). Can you discuss what is driving the higher yield? Presumably more virtual-card and cross-border transactions (in foreign currencies), which have variable rates, are driving the take rate higher?
- 6) How do you think about the trajectory of the take rate over the next year and the next 3-5 years?
- 7) What percentage of TPV and processed transactions comes from virtual cards and cross-border payments? Where do you think this penetration rate can go over time? Is there a ceiling to this figure?
- 8) What are the take rates on virtual cards and cross-border payment transactions? What is the average transaction size?
- 9) We've seen Comdata offer rebates to its accounts payable customers who use virtual cards. Is the company offering rebates to its customers? If so, how much of the economics do you rebate? Are rebates as common across smaller accounts payables customers that Bill.com serves (versus larger enterprises)?
- 10) Interest rates have declined from last year. Can you talk about how much of an impact you expect this to have on the interest earned from client funds?
- 11) What are the client funds invested in and how sensitive is your revenue/earnings to changes in interest rates?
- 12) Can you talk about your main competitors? Do you come across AviaDXchange or are they focused more on the mid-market?
- 13) Do you have any plans to move up market or expand into other geographies?
- 14) Intuit's QuickBooks Online business is growing quickly outside of the US. Is it possible for you to follow them into these international markets? Is there anything from a technical or operational standpoint that the company would have to do to enter new geographies?
- 15) On the distribution side, we've seen multiple providers integrate into popular accounting software like QuickBooks, Sage and Oracle. Can you describe the

- integration process – how does it work and long does it take? Does the SMB customer select the AR/AP provider or does the accounting software steer its customers to preferred vendors?
- 16) We estimate ~45% of total company revenue comes from accounting firm customers, 44% from SMB direct and the remaining 11% from financial institution customers. Can you talk about how this mix has shifted over time? Does the company expect one channel to grow faster than the others?
  - 17) The company partners with 4,000 accounting firms (up from a few thousand several years ago), can you talk about how many more accounting firms the company can add in the coming years? How important of a growth channel is this for the company?
  - 18) Our understanding is that Bill.com provides wholesale pricing to its accounting firms (volume discounts are common – i.e. the more customers the accounting firm has on the Bill.com platform, the cheaper the price for the accounting firm) and that the accounting firms set the subscription price for the end user. Can you talk about how this works and is there any risk to the pricing model if some end customers are paying lower prices than Bill.com's SMB direct customers?
  - 19) Switching over to margins and expenses, can you talk about the incremental gross margins across the three revenue lines – subscription fees, transaction fees, and interest income on client funds?
  - 20) Switching to expenses, the company is spending ~30% of its revenue on Sales and Marketing and ~30% on R&D. Can you talk about how you expect these lines to trend over time? Which lines will have the most operating leverage?
  - 21) When thinking about reinvesting in the business, are you managing to a certain LTV/CAC? Or is there a point when the company would scale back the investments?
  - 22) The company has been slightly FCF negative during the last two years, can you talk about your expectations for FCF generation (or burn) over the next three years? The company raised ~\$200mn in the IPO. When will the company exhaust these funds?
  - 23) Has the company provided any long-term guidance? Where does the company see operating margins going over the medium to long term?
  - 24) In terms of capital allocation, is there any desire to acquire other companies? If Bill.com did acquire a company, would it prefer to expand into another segment of the market (either via a different distribution channel or geography) or would it be more likely to add additional functionality/improve the platform?
  - 25) What new products/offerings is the company planning on introducing to the platform in the coming years?

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