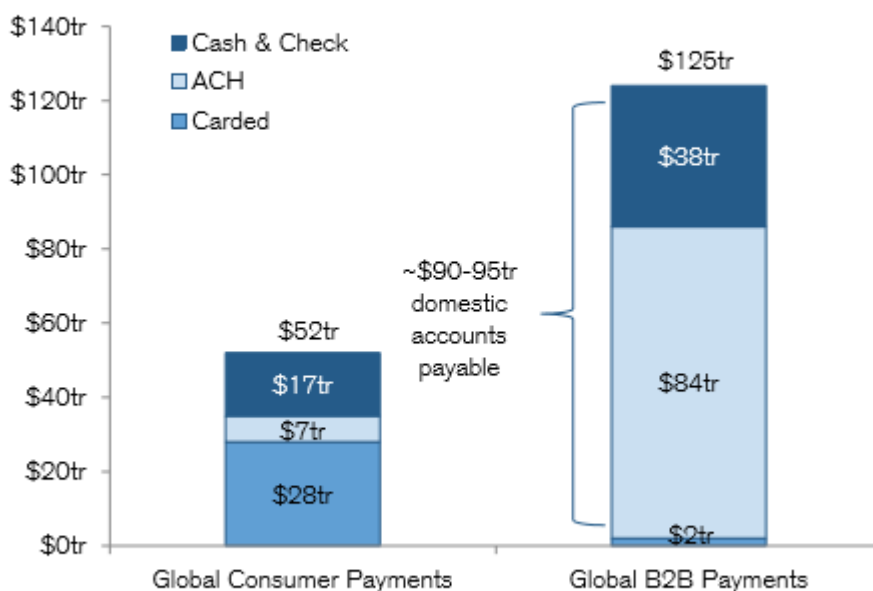


B2B Payments Thoughts 6/2020

- Over the last 6 months I've looked at AvidXchange, Bill.com, Coupa, Kyriba and have done a number of GLG calls in this area and wanted to collate my bigger picture thoughts.
- Why is B2B payments such a tantalizing space?...because it's hard not to extrapolate from consumer payments**
 - "Pure-Play" Consumer payments company Enterprise Value is roughly \$1.3T** in market cap. Furthermore, by and large, no matter how mediocre the technology these have all been great stocks. The idea that PYPL, kluge technology, subpar customer experience is a \$200B company is case and point. (Pure-play payments companies exclude stocks like Shopify, INTU, where payments is being monetized as part of a broader software solution).
 - Consumer payments TAM is huge with Global Personal Consumption expenditures at ~\$55T, about half on cards
 - History has shown if you can offer a solution that improves payment friction
 - 1) Consumer payments' EBITDA margins tend to be high with Visa at 70%, and Global payments (higher cost to serve) at 40%.
 - 2) Growth is very consistent – you grow with the economy + taking share from cash. People hate changing payments providers, so churn is relatively low. Even SMB payments churn is ~10%.
 - 3) Many ways to monetize. Interchange, fx spreads, fraud, data, integrate into software
 - The Volume TAM for B2B payments is ~2x that of consumer payment volume at \$125T.

Global B2B TAM ~\$125tr volume opportunity, although with various means of monetizing volume (*ad valorem* via virtual cards, cents per transaction on ACH, SaaS fees, etc.)



Source: Mastercard, Visa, Credit Suisse, Rounding differences for B2B paym

- However, B2B payments is fundamentally different than consumer payments.**
 - B2B payments solves a very different problem than what was solved in consumer. The fundamental problem that was solved in consumer payments in the 1960's when Visa and Mastercard were born was trust.
 - Before Visa and Mastercard existed the biggest problem for merchants was credit – is the person that is walking out of my store actually going to eventually pay me if I put their purchase on their account? The credit card and debit card solved this problem. Visa and Mastercard created universal rules that said it doesn't matter if this is the most dishonest person in the world, we promise you, the merchant, that when

we Mastercard says “authorize” that money is yours - we take care of everything else. Conversely consumers were scared to use the cards. What if someone charges my card and either 1) goes out of business before I get my goods like an airline, 2) or someone steals my card. Mastercard said, don’t worry we have rules for that too so you will get your money back (in most cases). On top of solving the trust issue the card networks came up with “interchange” which is what merchants pay to accept cards. At roughly 200 bps per transaction there was plenty of money to go around to fund merchant acquirers who signed up merchants, and banks who enticed consumers with rewards. The rest is history in that few merchants or consumers have any reservations whatsoever about using or accepting consumer cards.

- In B2B – **data liquidity is the problem.**

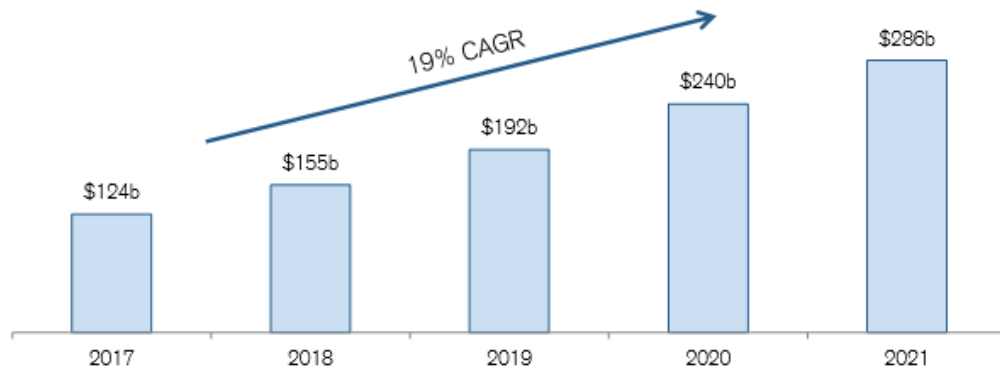
- Trust is not the problem. If you are selling janitorial services to Ben and Jerry’s, you trust they will pay you.
- In B2B payments the nightmare is reconciling the payment + invoice + putting it in the ERP, and figuring out where the money actually is so you can close the books which can take several weeks. If you are a company with 50 ERP’s and 20 regions, and you are receiving ACH, you need to pull a raw data files from the 10 different banks to see which ACH transactions should be applied to which invoice. Conversely if you are paying with ACH, you send a data file to the bank but you need to separately enter into your ERP which ACH transaction goes with which invoice you paid.
- The fundamental problem is that the banking system (ACH is a 1970’s technology) does not seamlessly integrate with buyer and seller ERP’s (and ERP’s themselves are extremely heterogenous). The reason why checks have been so successful is that the check is in the same envelope as the invoice. Keying in that an invoice has been paid with that accompanying check can be *less* work than pulling raw bank data files to reconcile ACH records with invoices (that your customers e-mailed you as paid). It’s insane to think that checks are still 30% of B2B payments volume (and a greater % of transactions) when those funds aren’t even guaranteed.

Inflection point the modernization of B2B payments has potentially arrived for two reason 1) the cloud, and 2) monetization opportunities have significantly improved because you can imbed different types of higher yielding payments into software workflows.

- Historically, to solve the data reconciliation problem you hired a bunch of people in your accounts receivable/payable department to open mail/e-mail, scan invoices and type in information to different workflows such as an ERP of procurement software. In fact, Bill.com, Avid Xchange, had mail centers where they hired people to open your mail, scan the invoices, write checks, and then they would send you a datafile compatible with your ERP.
- Now with modern software architecture it's much easier to format data from disparate data sources (pdfs, bank data files) to be more easily consumed by disparate ERP's. Modern software architecture also makes it much easier to imbed payments into the workflow. All you need is an API that connects the accounts payable workflow to a cross border remittance firm, for example.
- Historically it was very hard to make money from B2B payments. AP "automation" which was basically a BPO business where you charge for labor and maybe \$8.00 per check/ACH.
- More recently new forms of monetization have arrived which makes B2B payments a far more attractive business model.
 - o Virtual credit cards (VCC) have been around for 20 years but have slowly become more accepted by suppliers.
 - VCCs are wonderful for payments automation. From a reconciliation perspective, single-use 16-digit card numbers (Virtual cards) have terrific utility. From a buyer perspective, spending limits, the ability to assign a separate card numbers to specific SKU's mean control, and easier record keeping. From the seller's side, reconciliation is also much easier. Remember the beauty of a Mastercard is that as a merchant, as soon as you see the "authorized" when you type in the card number, you are guaranteed payment for that amount. With a check you need to cash it, and with ACH you need to keep checking the bank website to see if the funds were received and then you need to match that with the multiple invoices it could be associated with.
 - Most importantly, VCCs are subject to interchange, the cost set by the payment networks (Visa, Mastercard, American express) that merchants pay to accept credit cards. Just like consumer cards, merchants were initially reluctant to pay interchange, but over time this has essentially been built into the price of the merchandise. The most important thing here is that there is now 250 bps in the system that can be split amongst the buyer (rewards), AP automation provider (Bill.com, Coup, Comdata) and the bank issuing partner. The magnitude in the change of economics for AP automation providers is dramatic.
 - For example, before Bill.com offered virtual cards, it earned ~13 bps in revenue (mostly software subscription fees plus transaction fees each check or ACH transaction.) If 10% of Bill.com volumes ended up on Virtual cards, and Bill.com earned 100 bps, Bill.com's revenues would nearly double and its "take rate" would go from 13 bps to 23 bps, and all the interchange would be extremely high margin.
 - Today, we know that roughly 20% of AvidXchange's payment volume is happening on Virtual Cards which suggest that 10% - 20% penetration of VCC is highly reasonable.

- Cross border is also highly lucrative.
 - Cross border take rates could easily be 100 bps because of the FX spread. The way this works is usually a remittance specialist like Cambridge payments makes an FX spread of 300 bps, and they would share that with the software provider who originated the payment, could be Bill.com, or Coupa. Again a very high incremental margin.
- Same-day pay. We learned from SQ that merchants are willing to pay 1% to get paid instantly versus waiting 3 days (typically credit card settlement). We also know that B2B suppliers are also willing to pay to be paid instantly instead of waiting 30 days as payment terms dictate. Avid exchange has done \$150M in advances, and 70% of suppliers came back. We know that Coupa Accelerate is anecdotally gaining good traction. My sense is the take rate here can be ~200 bps. This gets divvied up between the third-party lender, the AP automation provider (Bill Avid Coupa) and sometimes a small rebate goes to the buyer.
- Below is a Credit Suisse chart of Virtual Payment volumes. Like consumer card payments growth in adoption is strong and steady. The more VCC is accepted by merchants, the less resistance there is and the more money there is for the B2B ecosystem.

Virtual cards are one of the fastest growing areas in payments, expected to deliver a near ~20% CAGR 2017-2021E (roughly ~2-3x underlying industry growth rates)



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How will B2B payments play out?

- There will NOT be a Visa/Mastercard (combined market cap \$500B) of B2B payments. This is because Visa Mastercard are actually rails, where they authorize, clear, and settle on top of their own servers and fiber network. B2B payments are built on top of existing rails, namely ACH bank rails (the fed does the clearing), and Visa Mastercard.
- I think the big surprise could be how popular same-day pay will be. While large suppliers have access to working capital loans the potential lack of friction of getting cash 30/60/90 days faster on COUP Pay, seems like a huge value add. Coup knows who owes you money and when the payment is scheduled to go out. If COUP pay “sees” that proctor and gamble is scheduled to pay you it can allow banks to offer short term loans backed by receivables in a frictionless manner. This is new feature launching later this year. In the meantime, today, customers like Nike, on a daily basis, use COUP Pay to offer suppliers immediate payment on a 30 day invoice (as an example) in exchange for a 2% (As an example) discount. NKE’s treasury department uses this when it has spare cash on hand. We also know that AvidXchange offers suppliers “instant pay” to suppliers when AvidXchange sees that a payment has been scheduled by a highly trusted buyer (say Colliers) to a seller (say Cintas) AvidXchange will pay Cintas 98 cents on the dollar and will collect \$1 from Colliers 30 days later. Today AvidXchange makes 2% on these volumes (which are small because they are still testing but has done \$150M in advances).
- Similar to consumer payment merchant acquirers (acquirers sign up merchants and provide links to payment networks) I expect B2B business models to initially coalesce around end market needs. I.e enterprise, Mid-market, SMB. At the low end Bill.com for example will continue to perfect a product around fast onboarding, low customization, and horizontal applicability to primarily users of Quickbooks. At the high-end COUP will offer AP automation to sophisticated customers with complex workflows and highly customized ERP’s. In between will be AvidXchange, FLT Corp, Bottomline Technologies, and Tapalti.
- I believe the most of the value will be created in B2B payments where:
 - 1) B2B payments is part of a broader set of complex workflows (multiple geographies and ERP’s), by far the best example is COUP. The integrated model of Procurement + Payments + Community intelligence means COUP will likely get a ton of payments volume, and that its pricing on payments will not be commoditized.
 - 2) Go-to-market is highly efficient for customers that do not have complex workflows but still need AP automation like Bill.com.
 - 3) Where someone does the hard work to integrate AP automation with a mish mosh of ERP’s. Example here would be AvidXchange.

How much will all this be worth? – the U.S. alone could be a ~\$1T opportunity in today's dollars.

- Below is the low, medium, high scenarios for U.S. B2B payments. The mid-point assumes.
 - 10% Virtual card penetration at 30 bps (We think Avid Xchange cd be 20% of volume and 180 bps take rate)
 - 5% Cross Border Volume penetration and 60 bps take rate (MA/V were making 100 bps on this)
 - 10% Accelerated payments volume Penetration at 75 bps take rate (Think AvidXchange yield is 200 bps on this)
 - 20x EBITDA multiple on 35% software margins and 65% payment margins.

U.S. B2B Payments Enterprise Value Potential			
Low	Mid	High	
38	38	38	Estimate of U.S. B2B payment volumes (30% of Global) in \$Trillions
5%	10%	20%	Virtual Card Volume Penetration
0.10%	0.30%	0.60%	Virtual Card take rate to AP provider (Avid Xchange is 180 bps)
2	11	45	Virtual Card revenues \$B
3%	5%	10%	Cross Border volume penetration
0.30%	0.60%	1.00%	Take rate on FX
3	11	38	Cross border revenues \$B
5%	10%	20%	Accelerated payments volume penetration
0.50%	0.75%	1.00%	Take rate on Accelerated payments (Avid Xchange is 200 bps)
9	28	75	Accelerated payment revenues \$B
87%	75%	50%	ACH/Epayments
0.03%	0.03%	0.03%	Take rate on ACH
10	8	6	ACH/Epayments Revenues \$B
0.09%	0.10%	0.12%	Software revenue take rate (COUP and BILL are at 9 bps today)
34	38	45	B2B Software Revenues \$B
58	97	208	B2B payment revenues U.S. in \$Billions
35%	35%	35%	Software EBITDA margins
65%	65%	65%	Payments margins
28	52	122	B2B EBITDA \$Billions
48%	53%	59%	B2B EBITDA margins
18.0x	20.0x	22.0x	Terminal EBITDA multiple
8.6x	10.7x	12.9x	Implied Revenue multiple
498	1,030	2,679	Potential value of U.S. B2B payments opportunity

I think Coupa (high end) and Bill.com (low-end) are the most interesting ways to invest in the B2B payments opportunity because they focus on providing functionality (via software) on top of B2B payment rails so there is a much broader value proposition. Similar to Square software + payments versus just payments functionality (I would put Wex and FLT corporate payments offerings in this payments-without-software bucket)

- Coupa is a true platform that captures all your spend data (who you paid for what when, your contract language, if your goods were delivered on time) and this data powers multiple workflows including procurement (25% or revenues), contract management, supplier management, invoicing. The reason why COUP can do this is because it is a single instance cloud software that collects all its customer's data in one place in real time. Today COUP's software alone represents a take rate of 9 bps, and frankly 20-30 bps is entirely reasonable in the future given COUP has the data to show their platform saves the average customer 500 bps on procurement. On top of that COUP Payments will be a hub that connects COUP's platform to the broader financial system. COUP can then bring the flow of payments to the COUP platform and can monetize this volume on a take rate basis. COUP's customers spend roughly \$500M a year and on average Pay COUP \$300K a year for the software.
- Bill.com is at the other end of the spectrum with its average customer spending \$1M a year and paying Bill.com \$1K a year for the software. Relative to COUP, Bill.com is an extremely simple product. It loads all your PDF invoices into the BILL.com portal for approval, and then you send Bill.com one payment for all the invoices you want to pay and Bill.com cuts checks/sends ACH/Virtual Credit Card numbers to your suppliers and reconciles all this with Quickbooks – otherwise known as AP automation. Bill.com primary business model innovation was its initial go-to-market strategy which got accountants who used Quickbooks to also sell Bill.com. Given Quickbooks has 6M customers, Bill.com was able to achieve broad adoption and brand recognition. Today Bill.com has 100K customers (versus COUP at 1,400 customers), and 50% of customers who come to Bill.com are direct/self-onboarded.
- Below is a summary of the B2B payment companies for comparison

	2019 Revenues	Growth	TPV 2019	Avg Spend/Customer	Monetization	Unique element
Coupa	\$400M	49%	\$600B	\$500M	Software + Transactions	Single code base, ton of data
AvidXchange	\$162M	30%	\$30B	\$5M	Software + Transactions	Integrates to 150 ERP's
Bill.com	\$134M	55%	\$100B	\$1M	Software + Transactions	Cheap and easy to implement
Mineral tree	n/a	n/a	n/a	n/a	Software + Transactions	Cheap and easy to implement
Fleetcorp*	\$2,649	8.8%	n/a	n/a	Transactions fees (interchange)	Signing up Suppliers for Virtual Card (need a big call center to do this)
Wex**	\$1,724M	15.5%	\$81B	n/a	Transactions fees (interchange)	
Bottom Line	\$435M	5%	\$200B	n/a	Transaction fees (interchange)	Old tech stack, but did white label bill pay for banks' SMB business
*Fleet corp,	only about 20% of business is corporate payments. Rest of business is fuel cards, hotel cards, and tolls					
**Wex,	only about 20% of business is corporate Virtual cards. Rest of business is fuel cards, hotel cards, and tolls					

A quick word on what FLT actually does in corporate payments.

- FLT Corporate payments is \$500M in 2019 revenues, 20% of total FLT revenues and includes:
 - - **\$225M virtual credit card business.** 80% of this is FLT's direct VCC business. Here, FLT goes to a builder, for example, and says, here is a virtual card to pay all your bills. Give us your list of suppliers and we will make sure to find out 1) if they take credit cards, and 2) what rules they might have such as maximum ticket size. When the buyer pays with a virtual card, FLT probably earns 50 bps to 100 bps on this. 20% of FLT's VCC business is indirect where FLT issues VCC to AvidXchange and Bill.com and likewise signs up the suppliers. FLT has a call center that calls up each supplier to find out what their VCC rules are so that Avid and Bill.com can write these rules into their workflow. Since FLT's VCC business is more of an issuing business than a software + payments business it is feels more interchangeable/lower multiple.
 - **\$200M Cross border payments business.** Here instead of asking your bank to send international wires, you can ask FLT to do it and FLT will offer you better pricing and better data files optimized for ERP consumption.
 - **\$75M AP Automation, same as COUP Pay but without the Business Spend Management software.** Definitely skews larger. Qualtrics, MGM International resorts, Lyft are customers. Customers approve their invoices for payment on the Nvoice Pay (FLT acquisition) UI and you send one ACH to NVoice Pay who pays all your bills and gives you a data file to be consumed by your ERP.