

Long: Dropbox (DBX) - \$19

So the third way prices change is a protracted period of nothing going on. In other words, a stock just moving sideways for months or years. And I'm using air quotes, nothing going on because something really strong is going on, something really powerful.

And that is the stock is changing hands from people who get bored to people who are patient. That's what's going on there. So on the surface, it looks like, again, air quotes, nothing's happening. The stock price was ten. It's been ten for the last year. Nothing's going on... The weak hands have been shaken out. Everyone who's bored with that stock is gone. The only people who have bought it are strong hands with strong conviction. So when that begins to take off, it's going to really take off, really take off.

-Adam Robinson on The Knowledge Project

Intro

Dropbox has been a broken IPO. Investors from 2018 are down 30%, all while the rest of tech has soared. It's clear we are living in the software age. With so many companies commanding lofty multiples, the demand for being correct in one's assessments and investments is high. Part of that is deciding what these high growers will look like when that growth tapers off and investors ask to be shown a profit potential. SaaS, compared to most other industries, can reasonably demand these multiples given their incredible unit economics, scalability, upsell potential, and growing use-cases as the world seemingly catches up to them.

Dropbox is misunderstood. Among its IPO cohort it lags in revenue growth heavily, but, unlike peers, has begun to post quarterly profits and non-negligible amounts of FCF, aiming to grow that number to \$1Bn annually by 2024, a target reaffirmed by management on multiple occasions. It's not the next Google or Facebook, so that cash likely doesn't need to be reinvested at a high rate. Dropbox is not selling a return to growth. They understand their position and have taken steps to transition into their operating plan for the next decade as Wall St mistakenly expects more of the same. With the high-quality underlying business as a margin of safety at current prices, Dropbox is a long given ever-improving fundamentals, shareholder-friendly policies, and the upward force coming from buybacks.

Governance Summary

Incentives are paramount.

Period 1: Price Targets and Multipliers

Stock Price Targets	<\$10.00	\$10 - <\$15	\$15 - <\$20	\$20	\$25	\$30	\$35	\$40
Share Multiplier	0%	25%	50%	100%	150%	200%	250%	300%

Period 2: Price Targets and Multipliers

Stock Price Targets	<\$10.00	\$10 - <\$15	\$15 - <\$21.50	\$21.50	\$25	\$30	\$35	\$40
Share Multiplier	0%	25%	50%	100%	150%	200%	250%	300%

Period 3: Price Targets and Multipliers

Stock Price Targets	<\$10.00	\$10 - <\$15	\$15 - <\$23.50	\$23.50	\$25	\$30	\$35	\$40
Share Multiplier	0%	25%	50%	100%	150%	200%	250%	300%

Stock Price Target must be maintained for at least 30 consecutive trading days at any point during the 12 month period to achieve multiplier

On 10/29/2020 the company released an 8-k with the above compensation plan for Timothy Young, the company's new president. With founder, CEO, and chairman Andrew "Drew" Houston maintaining 20%+ ownership, the management team has clear skin in the game and now looks to focus on share price as a demonstration of value and a way to enrich themselves and fellow shareholders. And, if they were to get tired of working, a sale would trigger these options all the same.

In the event of a "change in control" (as defined in our 2018 Equity Incentive Plan), each non-employee director will fully vest in his or her outstanding company equity awards, including any Initial Award or Annual Award, provided that the non-employee director continues to be a non-employee director through such date.

Core

The crux of the business is simple enough: file storage. With 600m users and 15m paying, monetization is clearly not happening in the mass market. Dropbox operates a freemium model at the retail level, just like every other competitor. Their real income comes from businesses who purchase subscriptions for all of their constituent users. For example, they just won a big contract with the University of Michigan, who has over 50,000 students and faculty members. The university will pay an annual fee for every user that has access to the platform.

It's a crowded market. That's the central component to the bear thesis. Even as file storage companies continue to grow, the market doesn't see much reason to put a higher multiple on their earning potential because it's a commodity market at its core. My photos are my photos regardless of where they're stored. There's only one other pureplay competitor in Box. The rest of the players are tech giants like Google who sell the service as a part of a suite of offerings. The marginal cost of subscribing to a file storage service when you already pay for email, security or hosting is very low. But the number of businesses that have their needs met by one company is falling as more and more useful tech comes out.

Take a hypothetical company that uses Microsoft for email, apps, and hosting. They have some amount of storage already in their current plan - so why would they pay for Dropbox? The answer is because they also use salesforce. OneDrive integrates with salesforce. But they also use DocuSign and need to deliver their customers their content on Vimeo while also tracking the process using Atlassian. That's where OneDrive breaks down. Dropbox is a place to store terabytes of data -

but that's more of an added bonus that comes with the seamless ability to move data through integrated pipelines with greater ease - an effect of their speciality compared to the breadth of competitors. Dropbox boasts over 300,000 connected apps. Microsoft and Google may have comparable functionality, but I want to bet on the company who's viability depends on this specialization versus where it's just another task because the execution will be better.

Open ecosystem



50B+
API calls /month

75%
of teams linked to a third-party app

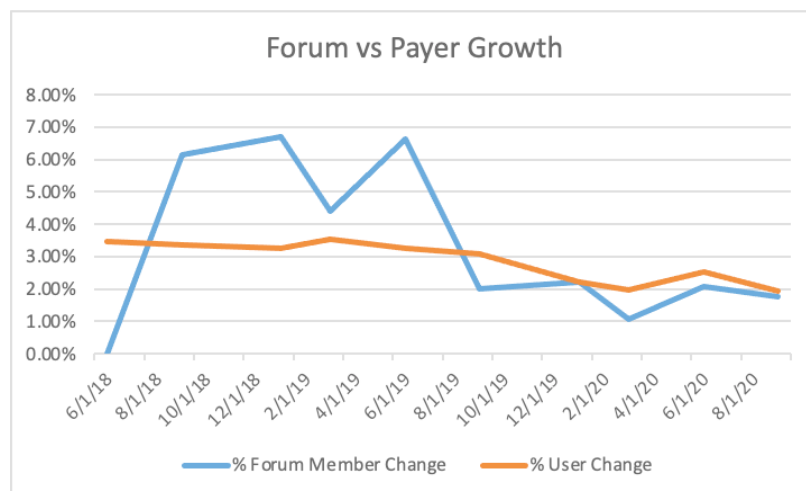
750K+
registered developers

Big tech has the luxury of obfuscating the ease that comes with Dropbox in order to migrate more users to their core offerings - storage is just a side hustle. For example, when sharing a file on Google Drive, the other user needs to also be part of an organization that uses Google as their email provider. Dropbox is email agnostic. By looking through reviews, it appears that Dropbox is [loathed by IT admins](#) but generally favored by [users less concerned with technical performance](#).

There is a very vocal set of users who do not recommend the service, either for personal or business users - choosing and recommending alternatives over Dropbox. The complaints range from having Condoleezza Rice on the board of directors, spurring the unfruitful <http://www.drop-Dropbox.com/>, to movements away from its core offerings attesting that they are no longer the same simple sync and store company. The goal of the company has been to push users towards their web app as they build out a notes app, e-signatures, and a password manager. It's a worrying trend to have so many disgruntled users - full stop. Still, the question remains: are these users representative of something larger? Logically, why would someone come to the internet to discuss a file sharing service if they weren't asking a question, complaining, or looking to move away? This vocality is likely a part of the churn that has become a longer-term side effect of big early successes by the business.

Churn for the business is stable in the mid teens according to their IPO disclosures. And this is on the user level. Consider their mission of “Making work better”. Most users don’t use Dropbox for work. Back when they were getting started they had an incredibly viral promotion that guaranteed permanent extra storage for referrals, likely why they boast 600m accounts but only slightly more than 2% paying, compared to Box which has a conversion rate a bit less than 20%. To give an idea of its reach: I was in middle school but still signed up and got my family to use the service. Losing people who used the free or lowest tier to store photos is not great, but is preferable to accretive business clients. The half a billion registered users are not the target market for the company. Their new acquisitions and offerings point to SMBs and enterprise clients as the path to continued revenue growth by focusing on work.

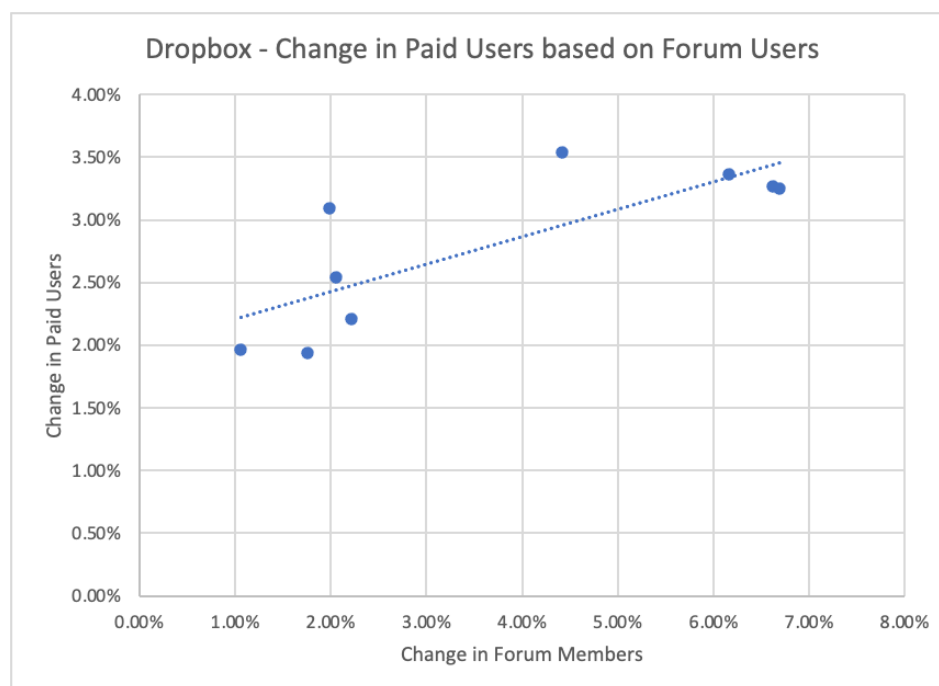
Below I have graphed and normalized the amount of forum posts and accounts as a proxy for general user growth. The egregious spike is probably contributed to COVID-19, possibly with a methodology reporting change as well. What we see is that user growth has slowed but is consistent. While not an extremely bullish graph, it shows that things are stable. The %’s are also so low because they are on a month to month timescale. At large, a 7% growth in forum members in the last year matches an 8% growth in paid users over the same period. And, beyond an explosion in forum members in early 2019, the two move in lockstep quarter to quarter. As of November, They had 1m forum members vs 15m paid users. The point is that the consistent growth we see in forum members affirms the current rate of revenue growth.



There is also evidence that new additions are leaning towards the more profitable enterprise side of their business. By using Dropboxforum.com’s member count on the front page of the site and archive.org to grab previous counts, we find a significant correlation between forum members (perceived as IT) and paid users at large. Essentially, for every 1% growth in forum members there is a

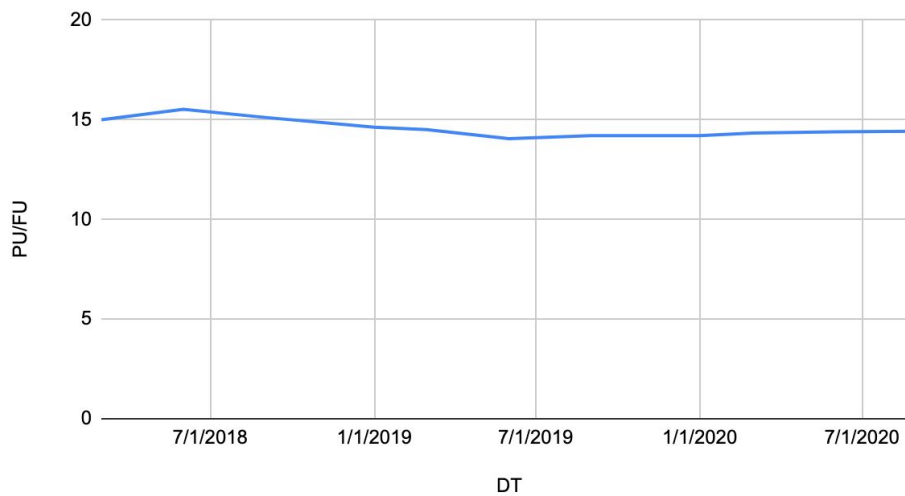
correlated .75% growth in paid users. Using this metric to estimate Q4 2020, it appears that they will surpass 15.5M paid users due to consistent growth in forum members.

Dependent variable:	
Paying Users	
Forum Members	0.750** (0.250)
Constant	1.250 (1.407)
Observations	9
R2	0.562
Adjusted R2	0.500
Residual Std. Error	1.936 (df = 7)
F Statistic	9.000** (df = 1; 7)
Note: *p<0.1; **p<0.05; ***p<0.01	

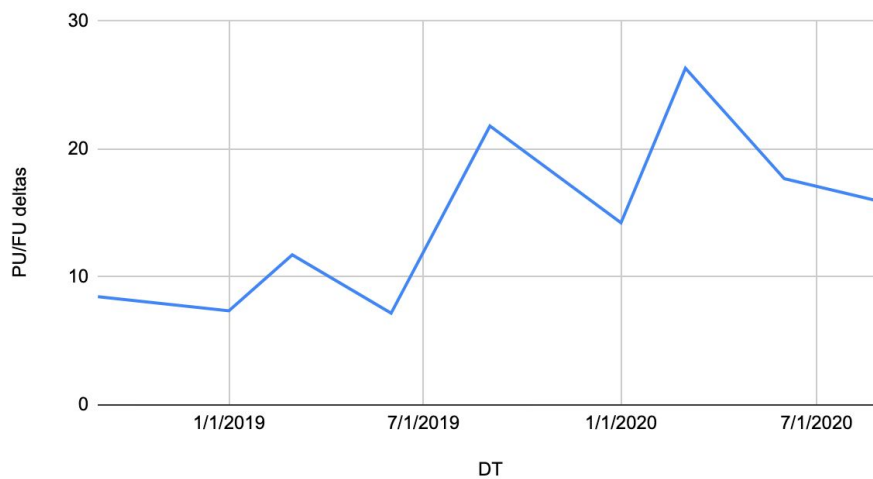


Digging deeper, we find a constant ratio between total paid users to total forum users. This can be conceptualized as 1 IT member per 15 staff. I think that, since forum accounts are not likely to be deleted, it is more revealing to visit the ratio based on quarterly change. There we see that the ratio has doubled from less than 10:1, emblematic of a small organization, to being constantly above 15:1 and passing 20:1. A growth in this ratio demonstrates a greater amount of enterprise wins.

Paid Users/Forum Users



Change in Paid Users/Change in Forum Users



Note that this is newer ground for Dropbox who, in comparison to Box, had aimed to be a consumer-first product (a mistake in retrospect), while Box sought enterprises. Box has seen significant revenue deceleration, dropping to just 15% growth, equal to Dropbox on half the base. It's clear that, especially with the emerging business model of success stories in SaaS, enterprise is where the fertile ground is. By pivoting from a pure-play in storage, with integration and ease of use as its competitive advantage, into a full productivity solution, they are poised to be a real source of competition for Box - evident in the UMich win this year. And, with added offerings beyond their integration ease, the service is well-aligned to compliment an offering by a tech giant vs compete with it.

Today, though, I'm not so sure; Dropbox's model makes sense theoretically, but it ignores the messy reality of actually making money. After all, notably absent from my piece on [Business Models for 2014](#) was consumer software-as-a-service. I'm increasingly convinced that, outside of in-app game purchases, consumers are unwilling to spend money on intangible software. That is likely why Dropbox has spent much of the last year pivoting away from consumers to the enterprise.

-Stratechery in 2014

Their most recent yearly ARPU is \$122. That figure has steadily risen quarter after quarter. In totality, given that the number is rising so consistently, it means revenue is rising faster than user growth. This can be fueled by a few trends: consumer growth outpacing given higher expected revenue due a lack of a volume discount, that they have been able to exercise upsells/pricing power to existing users, or that new users are paying more per user in that each marginal addition raises the average. Given their churn and the availability of free options that are better suited for consumers, it's unlikely that the first possibility is a reality. As such, the remaining explanations indicates that their enterprise efforts are bearing fruit.

Pricing power is latent given the high switching cost of changing an architecture, moving files, and reworking a work pipeline. New features are also a big selling point. To offer digital signatures, note taking, or a password manager at a marginal cost of a few dollars per user per month to enterprises is a fast route to energizing the business. If either of those possibilities are proving true, it's easy to forecast *some* growth vs the stagnation or loss that the market implies. To non-consumer users the value proposition is clear: Dropbox is the working memory in the brain of the business while OneDrive can be the long-term solution. For the same reason that humans read books like *Atomic Habits*, it's desirable to boost the efficacy of this portion of the brain. That means that, even if there are other solutions, it makes sense to go with the easiest. \$10 a month per employee is a reasonable cost to a business that wants to help employees be more efficient by choosing Dropbox and, eventually, its ancillary services.

Dropbox's valuation stagnation can be better thought of as a result of the performance of 2 businesses: a consumer business that is losing paying users and a steadily growing SMB/enterprise platform. Both are profitable. Both have solid management. But the former is worth less year to year as the latter is slowly worth more. If both of the effects trend the way we would prefer (ie stagnation of lost consumer share), the share price may finally pick up.

Optionality

The main optionality regarding revenue growth comes in the space of E-Signatures. HelloSign is a 2019 acquisition that competes directly with DocuSign. The suite of offerings is essentially the same. The difference lies in their customer acquisition strategy. By offering a free limited use version (like they do in storage) vs \$10/mo for DocuSign, \$13 for the lowest tier vs \$25, and matching \$40 for business customers, their offering comes in at the low end of the market. DocuSign is valued at \$40Bn with \$1Bn in revenue in the TTM. The market is huge, recurring, and growing. HelloSign also came with HelloWork, a workflow solution that [replaces the need for forms](#) at large. The exact revenue contribution is unknown. We do know that the acquisition is of a very complimentary product with the same business model and overall goal of the core business, in making work better. With their huge installed base, Dropbox is very well-positioned to compete with DocuSign.

Dropbox also has built out some complementary features like Paper, a note-taking app. Think Evernote, but with better access to your files and connected to a platform that you already use. Another is a password manager that works across systems. This is a “best practice” that can significantly expand in use across businesses that they can easily upsell.

Valuation

Dropbox is in a weird place. Given their continued growth they are ignored by value-seekers. But because their growth is decelerating, they are ignored by growth investors. As such, investing in this liminal space gives a greater likelihood of finding a marginal buyer down the road.

Target model		
Non-GAAP	2019	Long-term target
Gross margin	76%	78-80%
R&D expense as % of revenue	30%	23-25%
S&M expense as % of revenue	23%	18-20%
G&A expense as % of revenue	11%	8-10%
Operating margin	12%	28-30%
Annual Free Cash Flow	\$392M	\$1B+

Dropbox also has some impressive long-term targets for their business, aimed at being achieved in 2024. I tried putting these targets in my model and it just said “no brainer”. By assuming 2019 numbers into perpetuity and 0% growth in EBIT, we arrive at today’s price via a DCF. On FCF/share and EV/EBITDA metrics, the company is cheap looking 1-3 years out. See and tweak the model to be

sure. But the main point is, if they can hit half of these targets, the stock can be worth \$50+ with a constant 10% growth in revenue in close to 5 years.

In my model, I do not include stock-based compensation or operating leases in FCF - which was a main point of contention in a [short report by Spruce Point](#). There are a lot of reasons why FCF will grow, such as their capex dropping off as they complete their new HQ, sublease it out, and also shift more employees to remote-only. \$1bn in FCF by their definition is not hard to see, but even if the “true” number is half that, it would be hard to see the company not being undervalued, especially as the company begins to show net declines in outstanding shares. Currently they have \$400m in authorization remaining that will be exhausted by 1Q 2021. At 0 debt and over \$400m in cash, a ramp-up is bullish; a levered-ramp up is even more bullish.

Slack may be acquired by salesforce at over \$20Bn in enterprise value as they compete with Microsoft Teams. Though growing faster, at half the revenue and double the valuation even with long-term prospects slightly dimming, it’s logical to see the premium that would be paid for a comparable product with great profit potential. M&A is not central to the thesis, but is possible.

In essence, Dropbox is cheap based on their growth prospects and profitability. Management will soon make the market realize that through buybacks. Current prices provide a great margin of safety for a high-margin, sticky, and growing business as the market pegs it at no growth. It’s easy to see all the avenues they have to prove this conceptualization wrong. With growing ARPU and forum users, a historically accurate proxy for paying customers, and despite the high rate of churn we expect, the quality of customers is only growing, thereby increasing the defensibility of their revenue base and it’s long-term trend.