

IPO ANALYSIS

Research on potential upcoming IPOs from
selected candidate companies.

Zscaler

Bilibili

Spotify

March 2018

VentureDeal

Zscaler Files Terms For \$110 Million IPO



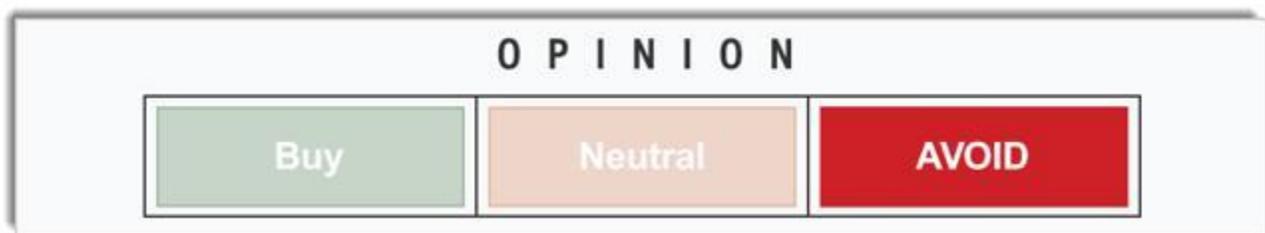
Quick Take

[Zscaler \(ZS\)](#) intends to raise \$110 million in a U.S. IPO, according to an amended [S-1/A regulatory filing](#).

The company has developed a suite of cloud security software offerings for the enterprise market.

ZS management is proposing to price the IPO at a rich valuation and without demonstrating a path to profitability.

My opinion is to AVOID the IPO at the current price. Perhaps institutional buyers will persuade management of their excessive valuation expectations. Alternatively, if the IPO fizzles, interested investors may be able to pick up a bargain post-IPO.



Company Recap

San Jose, California-based Zscaler was founded in 2007 to offer a range of internet and hybrid security capabilities to businesses of all sizes.

Management is headed by co-founder and CEO Jay Chaudhry, who was previously Chief Strategy Officer at Secure Computing and founder & CEO of CipherTrust.

The company has developed a robust partner network for both referrals & resellers and internet service providers.

Investors have funded \$148 million in several rounds and include TPG Capital (8.7% pre-IPO). CEO Chaudhry and affiliates own 54.3% of company stock pre-IPO.

Technology

Zscaler has created a suite of cloud security solutions in the following categories:

Zscaler Internet Access

- Secure Web Gateway
- Cloud Firewall
- Cloud Sandbox
- Bandwidth Control
- Data Loss Prevention

Zscaler Private Access

- For Amazon Web Services ([AMZN](#))
- For Microsoft Azure ([MSFT](#))

Zscaler Platform

- Cloud Architecture
- SSL Inspection
- Data Privacy & Security
- Zscaler App

Below is a brief company promotional video:

(Source: [Zscaler](#))

Market

According to a December 2017 Gartner [market research report](#), it forecasted that global security technology spending would reach \$96 billion in 2018, representing an increase of 8% over 2017.

The main factors driving the growth include a change in buyer mindset as regulations such as GDPR in the EU require increase data security.

Additionally, an environment of continually evolving security threats and the transition of private systems to public or private networks are driving the robust demand.

Below is a table showing the breakdown of security spending by segment,

Worldwide Security Spending by Segment, 2016-2018 (Millions of Current Dollars)

| Segment | 2016 | 2017 | 2018 |
|----------------------------|---------------|---------------|---------------|
| Identity Access Management | 3,911 | 4,279 | 4,695 |
| Infrastructure Protection | 15,156 | 16,217 | 17,467 |
| Network Security Equipment | 9,789 | 10,934 | 11,669 |
| Security Services | 48,796 | 53,065 | 57,719 |
| Consumer Security Software | 4,573 | 4,637 | 4,746 |
| Total | 82,225 | 89,133 | 96,296 |

Source: Gartner (December 2017)

Zscaler operates in the largest market, Security Services, which has also shown the highest growth rate or forecasted rate.

IPO Details

ZS intends to sell 10 million shares of common stock at a midpoint price of \$11.00 per share for gross proceeds of approximately \$110 million.

Assuming a successful IPO, the company's post-IPO market capitalization would be approximately \$1.27 billion, excluding the effects of underwriter over-allotment options.

Management did not disclose specific uses of the proceeds from the IPO; rather, it used standard boilerplate language to describe its intentions.

Management's presentation of the company roadshow is not currently available.

Listed bookrunners of the IPO include all major underwriters such as Morgan Stanley, Goldman Sachs, BofA Merrill Lynch, Barclays, Deutsche Bank Securities, Credit Suisse, Baird, BTIG, Needham & Company, UBS Investment Bank and Stephens.

Valuation

Below is a table of relevant capitalization and valuation metrics for Zscaler:

| Measure | Valuation |
|----------------|------------------|
|----------------|------------------|

| | |
|------------------------------|-----------------|
| Market Capitalization at IPO | \$1,271,180,218 |
| Enterprise Value | \$1,407,119,218 |
| Price/Sales | 8.24 |
| Price/Book | 6.81 |
| Enterprise Value / Revenue | 9.12 |
| Enterprise Value / EBITDA | -37.44 |
| Earnings Per Share - TTM | -\$0.33 |
| Total Debt To Equity | -0.01 |

(Source: Company Prospectus and [IPO Edge](#))

As a reference, ZS's clearest public comparable would be Check Point Software Technologies ([CHKP](#)); below is a comparison of their primary valuation metrics:

- Price/Sales: CHKP 9.14 vs. ZS 8.24
- Price/Book: 4.62 vs. 6.81
- EV/Revenue: 8.11 vs. 9.12
- EV/EBITDA: 16.03 vs. -37.44
- EPS: \$4.82 vs. -\$0.33

So, the only metric that Zscaler looks comparatively cheap is Price/Sales. Every other metric indicates management's current valuation expectations are excessive.

Commentary

I previously wrote about Zscaler in my analysis, [First Look | Zscaler Files For \\$100 Million IPO](#).

In that piece, I highlighted ZS' strong topline revenue growth, increase in gross profit, growing gross margin, but increased cash used in operations.

Zscaler's topline growth is impressive, at 51% for the six months ended January 31, 2018. However, cash flow used in operations has been uneven in previous years or increasing in the current fiscal year, so I wonder if management has been burning more cash to increase sales in the runup to the IPO.

With its suite of security applications, ZS' market positioning favorable to the extent that enterprises want fewer vendors and reduced complexity. However, competitors abound, on a suite basis as well as for individual applications.

The concern I have with the Zscaler IPO as it is currently contemplated is one of valuation. Management appears to be setting expectations above market, perhaps to have a lower fallback position in negotiations with institutional investors.

While ZS is growing revenue faster than direct comparable Check Point, its growth hasn't been a straight line, so management doesn't have a perfect track record to warrant such a high EV/Revenue.

Furthermore, while its gross profit and margin are increasing, its operational losses are worsening, so management isn't providing investors with a credible path to profitability.

So, a combination of excessive valuation and growing losses isn't one that I can get on board with.

Management may reduce its proposed IPO price if it receives enough negative feedback from institutions. Alternatively, the IPO may proceed at the current price level and possibly break issue post-IPO, providing interested investors with the opportunity for a lower entry point.

Accordingly, at the current proposed pricing and valuation, my opinion is to AVOID the IPO.

Bilibili Files To Raise \$400 Million In U.S. IPO



Quick Take

Shanghai-based [Bilibili \(BILI\)](#) intends to raise \$400 million in a [U.S. IPO](#) of its ADSs representing underlying Class Z shares.

The firm has developed a platform and safe environment for children to view and interact with entertainment content online.

BILI is growing rapidly and has strong growth prospects as the Chinese online entertainment continues to outpace global growth rates.

I'll provide a final opinion when we learn more details about the IPO.

Company

Shanghai, China-based Bilibili was founded in 2009 to provide an online source for digital and animated content for young people in China's domestic market.

Management is headed by Chairman and CEO Rui Chen, who has been with the firm since November 2014 and was previously co-founder of Cheetah Mobile ([CMCM](#)).

The founder, Yi Xu, is President and a director on the board.

Shareholders in the firm include affiliates of CEO Rui Chen (21.5% pre-IPO), Kami Sama Limited (13.1%), CMC Bullet and CMC Beacon Holdings (12.8%), Loyal Valley Capital (9.0%), IDG-Accel China (7.6%), Legend Capital (5.9%) and Tencent affiliates (5.2%).

Technology

BILI has created a digital content and ecommerce platform aimed at providing anime, comics and games [ACG] along with video, live broadcasting and mobile games to online communities of young consumers.

Below is a sample minecraft video on the site:

(Source: [bilibili](#))

The site also has a category it calls 'professional user generated content, or PUGC, to provide content choices for visitors.

The firm claims over 71.8 million monthly active users [MAUs] in Q4 2017, an increase of 45.3% over Q4 2016. Average daily time spent by users in 2017 was 76.3 minutes.

Customer Acquisition

Bilibili markets its online services primarily to whom it terms 'Generation Z' demographics, which are defined as individuals born from 1990 to 2009 in China.

The firm obtains new users primarily via online search and social media services which generate viral media and word of mouth referrals.

Its customer acquisition costs - primarily Selling and Marketing expenses - as a percentage of its revenues have fluctuated dramatically in recent years, so it is difficult to ascertain a particular trend in its CAC metrics:

- 2017: 9.4%
- 2016: 19.6%
- 2015: 13.5%

Bilibili says it plans to 'deepen our partnership with third-party game developers to offer more games tailored to our platform and our users and enhance our capabilities to develop games in-house.'

Market

According to a market research report by PwC on the [China Media Outlook](#), it forecasts a average CAGR of 8.1% for the categories of Total TV and Video Revenue and Video Games for the period 2015 - 2020.

While there is some wiggle room for category definition, the overall growth in demand for online media in China is impressive.

The global entertainment media growth rate is forecasted to be a CAGR of 4.4% vs. China's overall CAGR of 8.8%, or double the global rate.

This portends good things for companies like Bilibili as long as they can stay relevant to young audiences and their fickle tastes.

Financials

BILI's recent financial results can be summarized as follows:

- Stunning topline revenue growth at an increasing rate
- Swing from gross loss to gross profit in 2017
- Swing to positive gross margin percentage in 2017
- Swing to cash flow positive in 2017

Below are the company's operational results for the past three years (Audited GAAP):

| | For the Year Ended December 31, | | | |
|---|---------------------------------|--------------------|------------------|-----------------|
| | 2015 | 2016 | 2017 | |
| | RMB | RMB | RMB | US\$ |
| (in thousands, except for share and per share data) | | | | |
| Selected Consolidated Statements of Comprehensive Loss Data: | | | | |
| Net revenues | 130,996 | 523,310 | 2,468,449 | 379,394 |
| Cost of revenues ⁽¹⁾ | (303,568) | (772,812) | (1,919,241) | (294,982) |
| Gross (loss)/profit | (172,572) | (249,502) | 549,208 | 84,412 |
| Operating expenses: | | | | |
| Selling and marketing expenses ⁽¹⁾ | (17,689) | (102,659) | (232,489) | (35,733) |
| General and administrative expenses ⁽¹⁾ | (153,707) | (451,334) | (260,898) | (40,099) |
| Research and development expenses ⁽¹⁾ | (24,915) | (91,222) | (280,093) | (43,050) |
| Total operating expenses | (196,311) | (645,215) | (773,480) | (118,882) |
| Loss from operations | (368,883) | (894,717) | (224,272) | (34,470) |
| Other income/(expenses): | | | | |
| Investment income, net | — | 9,795 | 22,957 | 3,528 |
| Interest income | 2,345 | 1,502 | 1,483 | 228 |
| Exchange (losses)/gains | (3,732) | (21,267) | 6,445 | 991 |
| Other, net | (793) | (3,668) | 18,518 | 2,846 |
| Loss before tax | (371,063) | (908,355) | (174,869) | (26,877) |
| Income tax | (2,425) | (3,141) | (8,881) | (1,365) |
| Net loss | (373,488) | (911,496) | (183,750) | (28,242) |
| Accretions to preferred shares redemption value | (57,942) | (161,933) | (258,554) | (39,739) |
| Deemed dividend in connection with repurchase of preferred shares | (139,522) | (113,151) | (129,244) | (19,864) |
| Net loss attributable to noncontrolling interests | 1,912 | 1,430 | — | — |
| Net loss attributable to the Bilibili Inc.'s shareholders | (569,040) | (1,185,150) | (571,548) | (87,845) |
| Net loss | (373,488) | (911,496) | (183,750) | (28,242) |

(Source: [Bilibili F-1](#))

Revenue (\$)

- 2017: \$379.4 million, 272% increase vs. prior
- 2016: \$82.9 million, 199% increase vs. prior
- 2015: \$20.7 million

Gross Profit (\$)

- 2017: \$84.4 million
- 2016: (\$39.3 million) loss
- 2015: (\$27.2 million) loss

Gross Margin (%)

- 2017: 22.2%

- 2016: Negative
- 2015: Negative

Cash Flow from Operations (\$)

- 2017: \$71.4 million cash flow from operations
- 2016: \$31.4 million cash used in operations
- 2015: \$30.3 million cash used in operations

As of December 31, 2017, the company had \$117.3 million in cash and \$214.9 million in total liabilities.

IPO Details

BILI intends to raise \$400 million in gross proceeds from an IPO of ADSs representing underlying Class Z shares.

Class Y shares, which will be retained by senior management and will provide them with 10 votes per share vs. only one vote per share for the Class Z shares.

This is a frequent mechanism to ensure voting control by management in the event they lose economic control of the firm.

The S&P 500 Index no longer admits firms with multiple share classes into its index.

Management says it will use the net proceeds from the IPO as follows:

We intend to use the net proceeds from this offering for [i] research and development, [ii] selling and marketing, and [iii] general corporate purposes and working capital, including potential strategic investments and acquisitions.

Management's presentation of the company roadshow is not currently available.

Listed bookrunners of the IPO are Morgan Stanley, BofA Merrill Lynch and J.P. Morgan.

Commentary

The competition for desirable younger audiences within China's online entertainment industry is strong, with dozens of independent companies or affiliated with major internet search firms vying for user attention.

Bilibili has done well to grow its business given this environment, although its investment relationship with industry leader Tencent certainly helps in this regard.

The firm's financial results in terms of topline revenue growth are impressive. Many western technology firms that seek to IPO don't have BILI's growth trajectory.

However, in 2017, management showed the company can be profitable from a gross profit perspective, but the firm is still posting significant operating losses despite its swing to cash flow positive from operations.

BILI operates as a VIE, or Variable Interest Entity, structure in that the entity seeking to go public in the U.S. only has contractual rights to the profits or losses of the Chinese subsidiaries and does not own the underlying assets.

This is a legal gray area that brings the risk of management changing the terms of contractual agreement or the Chinese government altering the legality of such arrangements. Prospective investors in BILI would need to factor in this important structural uncertainty.

When we learn more specifics about pricing and valuation from management, I'll provide an updated analysis.

Spotify Files For \$1 Billion Modified IPO



Quick Take

[Spotify Technology \(SPOT\)](#) intends to raise \$1 billion in a modified U.S. IPO, according to an [F-1 regulatory filing](#).

The company has created an online music entertainment and podcast streaming service that is widely used by listeners worldwide.

SPOT is pursuing an unusual hybrid IPO that doesn't rely on underwriters and has very little in the way of shareholder lockups.

As we learn more information about the IPO, I will provide updates to IPO Edge members.

Company

Luxembourg-domiciled, Sweden-based Spotify was founded in 2008 to provide a new way for users to listen to music via its subscription service that allows them to either pay a subscription fee or receive advertisements to listen to Spotify's entire catalog of content.

Management is headed by co-founder and CEO Daniel Ek, who previously founder Advertigo, an online advertising firm and was CTO at Stardoll, a fashion community for pre-teens.

The firm has developed partnerships with hardware vendors in order to maximize user enjoyment on a wide array of devices and with content licensors that enable Spotify to stream their artist content.

Major investors and shareholders in the firm include CEO Ek (25.7% pre-IPO), Martin Lorentzon of Rosello (13.2%), Sony Music Entertainment ([SNE](#)) (5.7%), TCV (5.4%), Tiger Global (6.9%) and Tencent ([OTCPK:TCEHY](#)) (7.5%).

Technology

Spotify has developed an advanced music and podcast streaming system that supports both an advertising and subscription fee model.

Below is a brief overview video:

(Source: [Techboomers](#))

The system provides additional functionality for paid subscribers, enabling them to skip songs or save music within the app. It also provides the ability to listen to songs of a similar style and other characteristics that can be personalized to each user.

Customer Acquisition

Spotify currently claims 71 million Premium Subscribers. It also says it has 159 million MAUs (Monthly Active Users), which are both Premium and ad-supported listeners, as of December 31, 2017.

The free, ad-supported serves as the 'on-ramp' to the Premium service, so in that respect, Spotify has a 'freemium' business model.

Management says its service 'is nearly double the scale of [its] closest competitor, Apple Music.'

The firm operates the service as a two-sided marketplace, providing, it believes, benefits to users in the form of an easy-to-use, personalized service.

For content creators, it provides distribution and the ability to help artists connect with existing and new listeners based on its 'curation algorithms and data assets that surface new music to Users in playlists, to physical billboards, branded events, and personalize campaigns.'

Market

According to a mid-year 2017 report by the RIAA [as cited](#) in a Billboard analysis, the U.S. streaming industry grew by 50% in number of subscribers through June 30 vs. 2016.

Total digital revenue was \$3.2 billion for 1H 2017, up 48% over the previous year's period.

Additionally, subscription revenues increased by 61%, while ad-supported revenues increased only 37%.

The RIAA cited the comparatively low advertising revenue growth as problematic for its music creator members since they receive differing royalty amounts depending on the type of revenue stream.

Globally, management says that the recorded music industry has returned to growth after several years of declining revenues and that the growth is due to the transition by consumers to streaming services.

As smartphone use becomes widespread and wireless networks more capable, the ability to distribute streaming music is expected to continue to increase into new markets worldwide.

Competition

Major competitive vendors that provide music streaming services include:

- Apple Music ([AAPL](#))
- Amazon Prime ([AMZN](#))
- Google Play Music ([GOOG](#))
- Deezer
- Joox
- Pandora ([P](#))
- SoundCloud

In addition, the firm competes with Internet radio services such as LastFM, SiriusXM ([SIRI](#)) and iHeartRadio. Terrestrial radio stations are also competitors.

Management says that its differentiated service which can personalize listening entertainment at scale to users while providing a platform for creators to develop fan bases is an important competitive advantage.

Financials

SPOT's recent financial results can be summarized as follows:

- Growing topline revenue, but at a decreasing rate
- Rapidly increasing gross profit dollars
- Uneven but growing gross margin percentage
- Sharply increased cash flow from operations

Below are the company's operational results for the past five years (Audited IFRS):

| | Year ended December 31, | | | | |
|--|-------------------------|-------------|-------------|-------------|-------------|
| | 2013 | 2014 | 2015 | 2016 | 2017 |
| (in € millions, except share and per share data) | | | | | |
| Consolidated Statement of Operations Data: | | | | | |
| Revenue | 746 | 1,085 | 1,940 | 2,952 | 4,090 |
| Cost of revenue | 618 | 911 | 1,714 | 2,551 | 3,241 |
| Gross profit | 128 | 174 | 226 | 401 | 849 |
| Research and development | 73 | 114 | 136 | 207 | 396 |
| Sales and marketing | 111 | 184 | 219 | 368 | 567 |
| General and administrative | 42 | 67 | 106 | 175 | 264 |
| | 226 | 365 | 461 | 750 | 1,227 |
| Operating loss | (98) | (191) | (235) | (349) | (378) |
| Finance income | 39 | 28 | 36 | 152 | 118 |
| Finance costs | (2) | (19) | (26) | (336) | (974) |
| Share in (losses)/earnings of associates and joint ventures | — | — | — | (2) | 1 |
| Finance income/(costs)—net | 37 | 9 | 10 | (186) | (855) |
| Loss before tax | (61) | (182) | (225) | (535) | (1,233) |
| Income tax expense | 2 | 6 | 5 | 4 | 2 |
| Net loss attributable to owners the parent | (63) | (188) | (230) | (539) | (1,235) |
| Net loss per share attributable to owners of the parent ⁽¹⁾ | | | | | |
| Basic and diluted | € (0.51) | € (1.40) | € (1.62) | € (3.63) | € (8.14) |
| Weighted-average ordinary shares outstanding ⁽¹⁾ | | | | | |
| Basic and diluted | 123,860,920 | 134,408,240 | 141,946,600 | 148,368,720 | 151,668,769 |

(Source: [Spotify F-1](#))

Revenue (\$)

- 2017: \$4.99 billion, 38.6% increase vs. prior
- 2016: \$3.6 billion, 52% increase vs. prior
- 2015: \$2.37 billion, 78% increase vs. prior
- 2014: \$1.33 billion, 46% increase vs. prior
- 2013: \$911 million

Gross Profit (\$)

- 2017: \$1.04 billion
- 2016: \$490 million
- 2015: \$276 million
- 2014: \$213 million

- 2013: \$156 million

Gross Margin (%)

- 2017: 20.7%
- 2016: 13.6%
- 2015: 11.6%
- 2014: 16%
- 2013: 17%

Cash Flow from Operations (\$)

- 2017: \$218.7 million cash flow from operations
- 2016: \$123.3 million cash flow from operations
- 2015: \$46.4 cash used in operations

As of December 31, 2017, the company had \$1.84 billion in cash & short-term investments and \$3.5 billion in total liabilities.

IPO Details

SPOT intends to raise \$1 billion in gross proceeds from an IPO of its ordinary shares.

There are no separate classes of shares, but the firm has ‘issues ten beneficiary certificates per ordinary share held of record (excluding warrants, options, and RSUs, as applicable) to entities beneficially owned by our founders, Daniel Ek and Martin Lorentzon.’

These ‘beneficiary certificates’ entitle the founders to retain voting control of the company aside from their economic rights, so effectively act as a multiple share class in function, entrenching the founders.

There will be no ‘underwriters’ as in a standard IPO. Instead, the company will attempt to discover price through an “Investor Day,” instead of through a roadshow. In addition, the firm will ‘engage in certain other investor education meetings.’

The firm will also not specify a set number of shares to be sold in advance of the offering. Rather, it will decide just prior to the floatation and will transfer that number of shares to the NYSE.

It is still unknown how the firm will set an expected minimum asking price, other than through its own opaque process. Buy orders will then be filled according to the price it sets in conjunction with the NYSE.

Since there will be no underwriters ‘to help stabilize, maintain, or affect the public price’ of its shares, there may be significant volatility in early days of trading.

Management did not disclose how it will use the proceeds from the sale of shares.

Commentary

Spotify is pursuing a new type of IPO, but not dissimilar in concept to that of Google ([GOOG](#)) in August 2004.

Google's IPO was a modified Dutch auction [as described](#) in this post-IPO research paper:

Economists refer to Dutch auctions as an open, first-price auction: the seller sets an opening price, and then units are sold beginning from the highest bidder downward, until the market clears... The end result for the offering company is a tradeoff: lower fees for the investment bank, but the risk of a lukewarm market for the stock issue... As the most popular Internet search engine, Google possessed key advantages which helped make the Dutch auction work—namely, a strong, widely-known brand name and a broad user/customer base. This allowed the company to publicize its IPO to a broad range of potential investors...Google's modified Dutch auction generated a relatively accurate but flexible initial share price. Many critics argued that Google's hybrid auction was flawed because the company reset the initial price range and allocation of shares after the auction began: Google substantially reduced the amount of shares offered after the auction had already started [deciding to provide successful bidders with only 75% of their original requested share amounts]. Dutch auctions are supposed to have fixed inventories. Fixing the inventory assures investors that the issuer won't be able to manipulate the clearing price by simply reducing inventory. This is of course exactly what Google did. They... cut the size of the offering by 24%.

So, Google artificially lowered the price to 'set a market clearing price for its shares, [but] the modified Dutch auction as described in the prospectus did not require Google to do so. Google chose to go public at a price with unsatisfied demand [due to providing successful bidders with only 75% of their requested shares].'

The post-IPO action of Google's stock was also telling, with higher-than-usual volatility possibly due to a greater number of short-term investors (vs. more buy-and-hold institutional investors in a traditional IPO) 'flipping' the stock, or due to the multiple lockup period expirations post-IPO. Google had a total of five lockup expirations, some of which represented small share amounts and little effect and others which represented large share amounts and which had significant effect, in one case the stock dropped 7% in one day.

Spotify appears to have left itself maximum leeway to effectively 'manage' the price discovery and price-setting process in a similar manner that effectively creates a 'first day pop' of some amount while not leaving too much money on the table.

Also, there are no shareholder lockups, 'except for TME and Tencent,' so all other shareholders will be free to sell shares upon the IPO. As a result, this will likely increase volatility post-IPO.

Investors in the Spotify IPO should thus be aware of the following unusual aspects:

1. Be flexible and expect greater uncertainty in the offering environment vs. a traditional IPO.
2. If there is strong potential demand, consider putting in an expression of interest for a greater number of shares than you otherwise would. If there is a share allocation haircut, a la Google, you may still receive enough shares to make you happy.
3. Alternatively, if you believe that the almost complete lack of shareholder lockups will result in downward price pressure immediately following the IPO, an effective strategy may be to wait until the 'dust settles' in anticipation of a significant 'discount' post-IPO as shares are sold into the market.

As for the firm's financial results, they present an interesting mix of trends. While revenues have been growing dramatically as music streaming services have grown in popularity, SPOT's rate of topline revenue growth is declining.

Additionally, its ARPU, or Average Revenue Per User, has declined by 22% over the past three years, as the table below shows:

The table below sets forth our average Premium ARPU for the years ended December 31, 2015, 2016, and 2017.

| | Year ended December 31, | | | Change | |
|--------------|-------------------------|--------|--------|--------------|--------------|
| | 2015 | 2016 | 2017 | 2015 to 2016 | 2016 to 2017 |
| Premium ARPU | € 6.84 | € 6.20 | € 5.32 | (0.64) | (0.88) |
| | | | | (9)% | (14)% |

For the years ended December 31, 2017 and 2016, Premium ARPU was €5.32 and €6.20, respectively. This represented a decrease of 14% and 9% from the preceding fiscal years. The decreases were due principally to growth of the Family Plan and movements in foreign exchange rates.

(Source: [Spotify F-1](#))

This implies that its highest ARPU days, likely a function of early adoption in wealthier nations, have seen their peak and that ARPU will continue to drop as SPOT expands into less-wealthy countries, possibly increasing its ad-supported percentage of revenue in those regions.

However, gross profit dollars have also doubled in 2017 vs. 2016 and exceeded \$1 billion for the year. Paraphrasing Jeff Bezos of Amazon, "You can't spend gross margin, but you can spend gross profit dollars." I look for businesses with strong growth in gross profit.

In addition, cash flow from operations is dramatically increasing, reaching \$218 million in 2017, nearly double that of 2016.

One major question mark is that while Spotify has grown remarkably well in recent years, I wonder if that growth will continue, given that it has likely picked the 'low hanging fruit' represented by Premium subscribers.

Also, content creators (the RIAA in the U.S.) still aren't satisfied with their payout percentages, and if as I believe, SPOT's future business growth will be more in its ad-supported service, this could result in a collision between creators and the firm, potentially increasing its content costs as its ARPU continues to drop.

The IPO will present investors with an interesting array of decision opportunities. As we learn more about the firm's "Investor Day" and other idiosyncratic aspects, I will continue to update IPO Edge members.