



# Making a Difference in 2017 - IPOs & CES

By Tom Astle

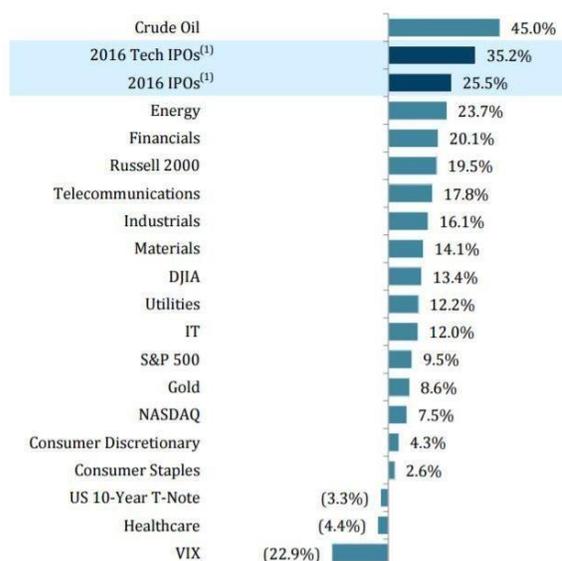
## IPOs - Will 2017 finally be the year?

Our portfolio strategy of investing in later-stage growth companies was partially predicated on an occasional IPO window opening up. We are still waiting for this. 2016 was not a good year for a number of reasons – market volatility, good availability of private capital, and a number of candidates waiting for better internal metrics to go out with. It was the weakest IPO showing in at least 20 years according to PWC.

But we think the window could open a bit in 2017. Markets are healthy, the few 2016 US tech IPOs performed well (see chart), demand for new growth names remains high – especially in Canada, private capital (at least from the US) is getting a little harder to find, and most importantly a number of IPO candidates are getting the metrics needed with sales and profit at levels that should make them attractive to a large number of institutional investors.

*“All eyes will be on the Snap IPO”*

Asset Class & Sector Performance 2016



We will be watching the Snap IPO in the US closely to get a better read on demand and, in Canada, there is some expectation that names like Real Matters and PointClickCare will break the log-jam earlier in the year potentially followed later by Vision Critical (DCF portfolio) and D2L. Other IPO-capable names include Hootsuite (DCF portfolio), Thunderbird Entertainment (DCF portfolio), BlueAnt Media (DCF portfolio), and ScribbleLive (DCF portfolio).

While IPOs could finally return in 2017, we also expect M&A trends to remain healthy. In 2016 we exited a number of companies through M&A trade sales (like QuickPlay Media, which sold to AT&T). We think these trends will continue to be helped out by the weaker Canadian dollar, recognition that Canada is a good location for R&D and the bags of cash sitting at the big US tech players.

Source: Factset as of December 30, 2016.  
 (1) Represents average offer/current

## Still Working on the Next Big Thing – Some Highlights from CES

While Difference has historically not been a single niche-sector focused investor, we do try and develop domain specific knowledge in several key areas where we see long-term investment opportunities. To date we have focused on:

- ❑ Fintech
- ❑ Media/Media Tech, and
- ❑ Enterprise SaaS

We remain excited about these areas, but are also scanning the horizon for emerging growth areas. Thus, we took a recent trip to the annual Consumer Electronics Show (CES) in Las Vegas, which has become one of the few places to get a broad tech overview. Almost 4,000 exhibitors and 175,000 attendees make this one big show – don't go to Vegas for a holiday when this thing is on! Here are some of the highlights:

### AI Everywhere



Artificial Intelligence in the form of natural language processing was the killer technology this year at the show – with Amazon Alexa the most successful (so far) implementation – followed by Google Assistant and Apple Siri. Alexa was being embedded in all kinds of products from cars to robots so that you can talk to them instead of using clunky screen/keyboard interfaces.

This is key to making other technologies like Smart Homes (“Alexa, set lighting and temperature for a dinner party”), TV programming (“Hey Siri, show me all movies with Emma Stone”), and easy at home shopping (“Alexa, order me a 1,000 shares of Difference Capital”).

We've been doing a deeper dive into AI and specifically “Machine Learning” as Canada has become a major centre of excellence in it and the technology's impact could be profound. And while consumer AI as discussed above will likely be dominated by the large Silicon Valley companies, we sense that industrial/commercial AI will be equally exciting and probably more investable by us. Stay tuned for more on this subject.



## Autonomous Driving



While a driverless car may sound pretty far out to some, we believe the technology will be here in the next 5 years. Other issues such as regulation, and adoption (cars are replaced every 7 years on average) may be the gating factors more than the availability of the technology.

Autonomous driving is really the combination of a number of emerging technologies including machine learning for vision, advanced

sensors, high speed wireless links, etc. In fact, your car may end up being the most powerful computer you own. But it's all coming together pretty fast. There are multiple levels of autonomous driving with most of the initial levels still requiring a human in the monitoring role and a number of these technologies are already on the road with names like Tesla. The most basic form - automatic emergency braking - should become a standard feature in many cars quite quickly and clearly demonstrate the safety advantages of putting machines in the loop.

Almost all manufacturers have announced plans to have autonomous driving capability. At CES, one of the major halls was dedicated to automotive technology, making it one of the bigger auto shows in the world.

Google claims its driverless cars are already driving as well as a new driver (after 2 million miles of training), and with further training (i.e. machine learning) should exceed the average driver. Autonomous cars don't get behind the wheel drunk, don't text while driving, and are always paying attention. They will constantly be aware of traffic and talking to vehicles around them.

We can see that in a few years, Uber or several firms will have a fleet of driverless (likely electric) cars in the urban cores and offer "mobility-as-a-service" to users who will never own a car (or a garage). Think about the impact to the automotive industry! We also expect delivery vehicles will also be one of the first autonomous applications, but we note that one of the largest occupations in the US and Canada is the truck driver – so there could be some impact to employment. Watch for some high profile demonstrations this year – like cross country trips all done autonomously.



## Virtual or Augmented Reality

Virtual Reality (VR) has been a big theme at the show for a few years and we aren't quite sure it will be a fundamental technology, or suffer a similar fate to 3D TV. But it clearly will have some cool applications. The technology is now quite accessible – you can buy a \$10-20 headset like “Google Cardboard” that you slide your smartphone into and using an app like Google Street view you can soon be virtually standing at almost any location in the world in a 360 degree environment.



Higher-end VR systems from Facebook's Oculus, Sony, HTC, and Microsoft provide an even more engaging experience. As usual the gating factor is content and that may take a while. Again, we see the consumer space dominated by the big players but suspect there will be many commercial applications that are investible.

## Television continues to evolve



CES has always been about the latest TV technologies and this year was no different. Ultra-high resolution 4K TVs are pretty well mainstream now in new TVs and has had one of the fastest adoption curves of any technology. But 4K is only really noticeable on screens over 65". More impressive is the color depth (called HDR or High Dynamic Range) that new technologies such as LG's OLED or Samsung's Quantum Dot technology bring – with very black blacks and white whites. When you see the technology – especially on an 80" screen with true 4K HDR content, it is truly impressive. Dude, it's time to throw that rear projection TV out of the basement!

Of course what we watch on our TVs also continues to evolve. Streaming is rapidly displacing cable services. But we do note that many cord cutters are now adding OTA (over-the-air) channels to their repertoire of options. We are very happy to see this - as one of our more recent small investments (ViXS Systems) makes semiconductors that enable OTA signals to be seamlessly integrated with streaming boxes and support OTA channels on devices like tablets and phones, etc.



## What Else?

*Smart Homes* – lots of gadgets for automating your home for both security and convenience. Smart thermostats, cameras, light fixtures, and of course robotic vacuums.

*Drones* were everywhere, and you will likely own one within a couple of years, but the Chinese (specifically DJI) look to dominate this space.

*Wearables* – lots of fitness tracking technology, most of it on your wrist, but some of baked right into your clothes.

And finally there was ride-on motorized luggage. Great fun, until a friend sees you.



If you have any questions or comments – please reach out!

Here's to a great 2017!

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