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Finding Alpha

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MADE IN CHINA

SUN JING PU

DECEMBER 4TH, 2018

WHEN you hear the expression “made in China”, are you still picturing the cheap, dollar-store sold, easily broken toys? Well, think again. In May 2015, Chinese Premier Li Keqiang and his cabinet issued a strategic plan in hope to transform China from a “big manufacturing country” to a “strong manufacturing country”. This humongous initiative was titled “Made in China 2025”, yet the 10 years landmark is only the first of his 3 steps to lead China towards world leadership in manufacturing.



The Plan

Believing firmly that manufacturing is the foundation of a country's economy, China wants to revamp the industry to improve its competitiveness in the global market. Inspired by and elaborating on the German “Industry 4.0” program promoting intelligent manufacturing, the Asian country wants to:

- make manufacturing innovation-driven,
- emphasize quality over quantity,
- have greener development,
- optimize infrastructure, and
- nurture human capital. [1]

Having these five goals in mind, China plans to invest heavily into 10 major sub-industries including advanced information technology, automated robotics and aerospace equipment. In the “Made in China 2025” strategy, China outlines a few major milestones for the next 30 years:

- 1) Increase domestically produced components of core technologies and materials to 40% by 2020 and 70% by 2025, thus entering the league of “strong manufacturing countries”.
- 2) By 2035, reach average level of the “strong manufacturing countries” league by promoting innovation and enhancing full-scale industrialization.
- 3) By 2049, the 100th anniversary of the People's Republic of China, the country wants to be in the position of leadership in global manufacturing and will have distinctive competitive advantages in technology and products. [2]

Criticism

While the plan is absolutely amazing for Chinese manufacturers and local companies, it is heavily criticized by many multinational corporations and European and North American countries. The argument revolves around the fact that the program promotes a government-intervened market that disadvantages foreign investments.

Opinion

China's big plan on becoming the world leader in manufacturing is an obvious threat to US's current position in the global market. Ranging from information and technology to pharmaceuticals, the "Made in China 2025" plans menaces US leadership from almost every angle. Yet, from this seemingly forced checkmate, the Trump administration might have found a way to delay, in the least said, this Asian domination.

In our last publication, we discussed about how one of the major motifs of the US-initiated trade war is to force China to change its current unfair local laws that allow Chinese companies to "legally" appropriate foreign investors' intellectual properties. Since, at least for now, Chinese companies still need to cooperate with foreign investors to bring their own technology up to pace with the rest of the world, by coercing China to lay an even playground for all domestic and foreign manufacturers, US may indirectly slow down China's pace for innovation or make it pay for sharing current leading technologies.

Nevertheless, the bottom line is that China is moving from the old image of a copycat, a country that can only manufacture cheap replicas of leading technologies, to one of an innovator in almost every single aspect of the manufacturing process.

1. <https://www.csis.org/analysis/made-china-2025>

2. https://baike.baidu.com/item/%E4%B8%AD%E5%9B%BD%E5%88%B6%E9%80%A02025#8_15

OIL IN THE BEAR

GARBO LIU AND JIM YANG**NOVEMBER 31ST, 2018**

DURING the month of November 2018, the price of US crude oil (WTI) plunged 22%, making it the worst month for the oil market in over 10 years (1). WTI is priced at \$50.72 as of November 30th, drastically down from its four-year high of \$76.41 just over a month ago on October 3rd. This current predicament of the oil market has certainly fallen hard into a “bear market,” which is denoted by a 20% fall from the most recent peak.



The Market

The oil market is well-known for its cyclicity and the changes in prices can be summarized by one principle from ECON101, “supply and demand”. For example, when the demand for oil exceeds the supply, prices rise as people are willing to pay more for a scarce resource. On the other hand, when production exceeds demand and inventory starts to build, prices tumble.

So what caused the oil prices to reach a four-year high in early October and shortly fall into a full-blown bear market in November? There are two main reasons: the unexpected increase in supply due to the softer-than-expected Iran sanction and accelerated production, and the decrease in demand in response to the fear of a global economic slowdown.

The Supply Side of Things

Earlier in 2018, the Trump administration vowed to zero out Iranian oil exports using economic sanctions as a form of penalty (2). This sanction, kicking in on November 4th, forbids other countries in the world from purchasing oil from Iran who is the third largest oil producer in the world. The market knew this will undoubtedly limit the world supply of oil and thus drove the prices up higher and higher throughout 2018 to reach a four-year high. Removing Iran from the world supply, Saudi Arabia, Russia, and US accelerated production, working harder than ever to fill up the gap.

1. <https://www.cnbc.com/2018/11/30/oil-markets-opec-output-cuts-oversupply-in-focus.html>

2. <https://www.cnn.com/2018/11/21/investing/oil-prices-trump-saudi-arabia/index.html>

3. <https://www.cbc.ca/news/world/imf-world-bank-growth-projections-1.4855024>

However, the anticipated sanction shocked the market in early November by taking a softer approach – temporary waivers were granted to eight countries, allowing countries like India and China, two of the largest oil consumers in the world, to continue buying crude from Iran (2). This softer sanction eased a great supply tension in the oil market and prices fell in response. On the production side, lifted by the shale oil boom, US recently overtook Russia and Saudi Arabia to become the world's largest oil producer for the first time in more than 40 years. The International Energy Agency (IEA) predicts US output will have soared by more than 2 million barrels per day in 2018 and US inventory levels have increased nine straight weeks, as of November 28th (2). The “headfake” of the Iran sanction and the higher-than-expected oil production led to an over-supply, causing the prices to plunge.

The Demand Side of Things

In addition to the increase in supply, fear of a global economic slowdown was also a driver for the falling price. Appetite for oil in the US has been “very robust,” but the IEA recently warned of “relatively weak” demand in Europe and developed Asian countries. IEA also flagged a “slowdown” in demand in India, Brazil and Argentina caused by high prices, weak currencies and deteriorating economic activity. Moreover, the International Monetary Fund (IMF) downgraded its 2019 GDP estimates for both China and the United States (3) because of the trade war. Global GDP is expected to slow from 2.9% in 2018 to 2.5% next year. Economic slowdown is certainly not a good news for oil, which powers the economy.



Image: WTI price reaches four-year high and plunges to bear during 2018
Source: <https://www.cnn.com/quotes/?symbol=@CL.1>

Other Factors Influencing Oil Price

Aside from demand and supply, other factors that affect oil price include:

- **Commodity Price Cycle:** from a historical perspective, there appears to be possible a 29-year cycle that governs the behavior of commodity prices in general. Studies have shown that there's a periodic peak in oil demand in 1920, 1951 and 1980.
- **Cartel:** the biggest influencer is OPEC, which will be discussed in depth below.

4. https://www.opec.org/opec_web/en/about_us/24.htm

5. <https://www.ft.com/content/c2c5342e-f4cc-11e8-ae55-df4bf40f9d0d>, Mamta Badkar

6. https://en.wikipedia.org/wiki/List_of_countries_by_net_oil_exports

The Organization of the Petroleum Exporting Countries (OPEC) is an intergovernmental organization created in 1960 with five starting members (Iran, Iraq, Kuwait, Saudi Arabia and Venezuela). Its mission is to “coordinate and unify petroleum policies among Member Countries, in order to secure fair and stable prices for petroleum producers” (4). By September 2018, there are a total of 15 countries registered in OPEC, and total oil production in OPEC has contributed to 44% of the global oil production and 81.5% of the world’s proven oil reserves (4).

Historically, OPEC has gained significant amount of wealth due to surge in oil price in 1970s, when the petroleum production in the US and other parts of the world has reached its peak (known as the 1970s energy crisis); in 1980s, OPEC has imposed production target to its member country to reduce oil supply, further increasing the price of oil in 80s.

However, OPEC’s meeting on November, 29th, 2018 came to the agreement that crude oil production has reached a four-year high, and price has met its worst month in the past decade (4). OPEC will cut supply by 1M barrels per day or more at the upcoming OPEC meeting, which, as Michael Wittner, an oil analyst at Societe Generale, says, “will be necessary to avoid sever oversupply in 2019 and to maintain Brent prices within the desired range of \$70-\$80” (5). Brent was trading at \$58.68 on November 30th’s market close. Agreement reached by OPEC has signaled restriction in oil production, and it imposes concerns for equity and bond investors as the energy sector of S&P 500 fell by more than 15% since the beginning of October this year.

Now What?

Now that prices are dropping to new lows, OPEC is under great pressure to significantly cut output to help put a floor beneath the market. A decision could be taken at the next OPEC meeting in Vienna on December 6 (6). This will likely reverse OPEC and Russia’s decision in June to pump over a million barrels per day more to make up for the expected loss of Iranian exports. In addition, Saudi Arabia’s energy minister Khalid Al Falih has already announce in mid-November that they will be reducing supply in December with more cuts potentially following next year (7).

Although cheaper oil sounds good for everyday consumers, net oil exporters, such as Saudi Arabia, Russia, Iraq, Kuwait, and UAE will likely face economic slowdowns with increasing poverty and unemployment (7).

THE ECONOMY & NATURAL DISASTERS

DAVID JIN AND KHALISA VALANI

DECEMBER 4TH, 2018

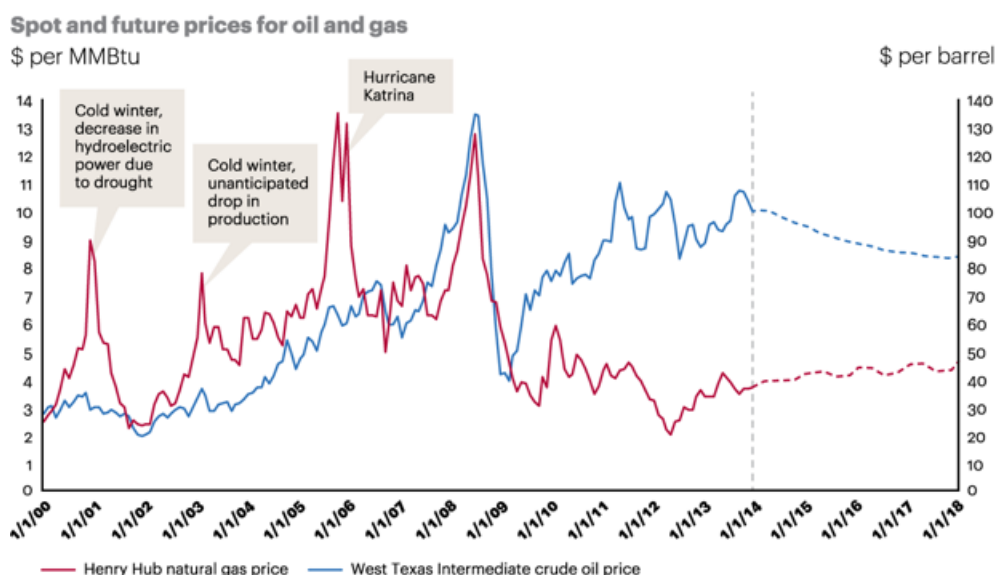
NATURAL disasters are often unpredictable events that cause immense damages, and in extreme cases, loss of life. Their occurrences cause dire effects on communities, infrastructure and business activities, but can also create opportunities for a select few.

Impact of Natural Disasters on Commodities

The short-term impacts of natural disasters in the economy are especially felt in the commodities markets. Often, a natural disaster such as a hurricane or flood will directly impact the supply chain associated with the commodity by either destroying the commodity itself or creating difficulties with processing. This impacts consumers as increased scarcity of the commodity generally increases prices, and also affects business operations and revenues, which suffer from decreased efficiency and outputs. For example, in 2008, the United States experienced severe flooding of corn and soybean crops, causing mass shortages that resulted in soaring prices for the commodities.

One commodity in particular that has significant economic importance is oil, due to its use in transportation. Not only are individuals and households affected by oil prices, but many businesses also require oil to transport products. As a result of Hurricane Harvey in 2017, oil refineries in Texas were unable to continue production, and the effects of oil scarcity were felt throughout the U.S. and Mexico in the form of increased prices of gasoline. The impact of natural disasters on the oil and gasoline markets has been seen many times in the past, such as in the case of Hurricane Katrina, as shown below:

Figure 1
Natural gas prices have decoupled from oil prices



Note: MMBtu is million British thermal units.

Sources: U.S. Energy Information Administration, Chicago Mercantile Exchange; A.T. Kearney analysis

Commodities play a major role in the financial markets, and are often used for hedging, which limits investment risk. Airlines have been famously known to hedge against oil, as fuel costs comprise a great deal of their operation costs – when oil prices rise, costs to the airlines are increased, causing lower profits, and vice versa. In order to protect themselves from the volatility and uncertainty in oil prices, which can be easily affected by unpredictable events such as natural disasters, airlines purchase large quantities of oil futures to lock in a certain price that will be known for future business needs. This allows for accurate cost forecasting, which can shape core strategies and decisions.

Impact of Natural Disasters on Manufacturing

While many associate natural disasters with the devastation that they bring, there is one industry that benefits greatly from their occurrence – the manufacturing materials industry. The aftermath of a disaster significantly increases the demand for materials required to create shelters or rebuild homes and infrastructure. Particularly, the steel industry has flourished due to the demand created by natural disasters. For instance, the earthquake and tsunami that hit Japan in 2011 created the need for 30 metric tons of steel to be used for reconstruction of infrastructure over the course of several years. Steel has also become a popular choice for building storm shelters due to its weight, strength and resilience against corrosion and firms in Joplin, Missouri saw an increase in demand for above ground steel shelters as a result of the Missouri twisters. It is evident that providers of manufacturing materials such as steel have opportunities to profit from the needs that arise from natural disasters such as earthquakes, tsunamis and twisters.

Impact of Natural Disasters on Insurance Industry

2017 was the most expensive year on record for natural disasters in the United States—with hurricanes, wildfires and other events resulting in an unprecedented \$306 billion in total damage, according to the National Oceanic and Atmospheric Administration. The Washington Post reports that insurers will pay a record \$135 billion as a result of natural disasters that occurred last year (1).

Top 10 Costliest Catastrophes, United States (1)
(\$ millions)

Rank	Date	Peril	Estimated insured property loss	
			Dollars when occurred	In 2017 dollars (2)
1	Aug. 2005	Hurricane Katrina	\$41,100	\$50,751
2	Sep. 2017	Hurricane Maria	(3)	(3)
3	Sep. 2001	Fire, Explosion: World Trade Center, Pentagon terrorist attacks	18,779	25,405
4	Aug. 1992	Hurricane Andrew	15,500	24,852
5	Sep. 2017	Hurricane Irma	(3)	(3)
6	Oct. 2012	Hurricane Sandy	18,750	20,240
7	Jan. 1994	Northridge, CA earthquake	12,500	19,169
8	Aug. 2017	Hurricane Harvey	(3)	(3)
9	Sep. 2008	Hurricane Ike	12,500	14,311
10	Oct. 2005	Hurricane Wilma	10,300	12,719

At first glance, these staggering dollar amounts make it seem that these catastrophic events could lead to the demise of the insurance industry. Due to the fact that the losses arise from a small number of lumpy events, the insurers may not have sufficient resources to cover the losses. Particularly, the firm may suffer losses in excess of the value of the premiums that it charged for the coverage. In these cases, the firm may go bankrupt or may choose to exit a state where there is a significant exposure to such risks. This is evident when examining the aftermaths of Hurricane Katrina, which accounted for over \$37 billion in insured losses. One major insurer, Allstate, has exited several coastal states while another, State Farm, has chosen not to renew some policies in these areas. The fourth-largest personal insurer in Florida, Poe Financial, went bankrupt (1).

1. <https://www.reuters.com/article/us-flood-agriculture-idUSN1126439920080611>

A second consequence of catastrophic losses is their influence on the rate structure even for firms that remain quite viable in the presence of natural disasters. Suppose that an insurer is writing coverage in a very high-risk state that experiences a major disaster once every decade. In that disaster year, the firm will suffer losses well in excess of premiums. In order for the insurer to be profitable insuring the state, it will consequently have to charge more for insurance in the other years in which there are no catastrophes. Thus, investors would observe very high loss ratios in the catastrophic risk states in years in which a catastrophe has occurred and expect especially low loss ratios in the non-catastrophe years as compared to the loss ratios in states not subject to such catastrophic risks. Therefore, it is crucial for investors to take this factor into consideration when analyzing and evaluating firms in the insurance industry.

Yet, while natural disasters certainly had a devastating impact in a variety of ways, the insurance industry had the overall financial capacity and aptitude to stay in tact. While many insurance brokers are on the hook for a specified amount of initial damages, many also pass off a large portion of their catastrophic risk to a reinsurer. For example, Allstate retains only the first \$500 million in losses from a hurricane, along with 5% of losses thereafter, before reaching a maximum cap at \$3.4 billion. Reinsurers assume the remaining balance (2).

Reinsurance firms can be other, larger insurance companies, hedge funds, private equity, or other financial organizations that are willing and capable of taking on catastrophic risk in exchange for premium payments. Going into 2017, reinsurers had experienced five consecutive years of positive underwriting results, meaning that premiums paid were greater than claims paid out.

Catastrophe Bonds

Insurance companies also utilize catastrophe bonds (“cat bonds”) as a cheaper alternative to traditional catastrophe reinsurance. Issued by companies that are vulnerable to unpredictable disasters, cat bonds act like any other bond, with the exception that the borrower does not have to pay back the full amount on the bond in the case of some kind of natural disasters causing the issuer with unexpected costs – an unusually high number of insurance claims in this case.



Catastrophe bonds have been the fifth best-performing asset class since the financial crisis, according to research conducted by Deutsche Bank, outperformed by only silver, gold, and high-yield debt from the US and the European Union. The bonds have gained 4.3% this year according to the Swiss Re Cat Bond Total Return Index, and up 20% from 12 months ago (3).

So, what is the catch? Certainly, a huge storm that activates conditional triggers on catastrophe bonds would devastate investors, and their buffer is shrinking as the market matures – the average coupon on a cat bond issued this year is a mere 5% according to Bloomberg. The average expected loss is 2.71% according to a report from Brendan Grady at KeyBanc Capital Markets (4).

2. <https://www.investopedia.com/financial-edge/0311/the-financial-effects-of-a-natural-disaster.aspx>

3. <https://www.investopedia.com/articles/investing/081415/4-ways-airlines-hedge-against-oil.asp>

4. <https://www.capitalsteel.net/news/blog/effects-natural-disasters-today%E2%80%99s-steel-industry>

Combined, the spread is the narrowest ever. However, cat bonds are insured for very specific events. A bond may only cover wind damage caused by a hurricane, but not flooding. This specificity works to the advantage of all parties. For bond buyers, it reduces the likelihood that their money will be diverted away to cover claims. For insurers, it's not as if cat bonds are the only method of insulating themselves from losses. Rather, the debt is just another way to hedge against a once-in-a-generation type of disaster.

Furthermore, these bonds have little to do with the overall economy and business cycle. That makes them a strong candidate for diversification among the institutional investors — pensions, endowments, family offices and hedge funds.

As cat-bond sales this year have shown, supply has kept up with demand. And, according to a report from Kroll Bond Rating Agency, “many observers agree this will continue as it is expected there will be a greater need for more insurance due to climate change.”

While catastrophes create opportunities for a select few investors, insurers and investors alike would prefer no disasters at all. At the end of the day, disasters cause dire effect on communities, infrastructure, and businesses activities, and total return seems inconsequential when people's lives or homes are lost.

5. <https://www.constructionexec.com/article/natural-disasters-impact-on-the-construction-insurance-industry>

6. <https://seekingalpha.com/article/4106541-economic-recovery-natural-disaster>

7. <https://qz.com/126587/betting-on-natural-disasters-has-been-one-of-the-best-investments-since-the-financial-crisis/>

THE PAN AMERICAN – TAHOE DEAL: A GENERAL RUNDOWN

DAVID JIN

NOVEMBER 14TH, 2018

ON Wednesday, November 14th 2018, Pan American Silver Corp. (NASDAQ:PAAS) (TSX:PAAS) (“Pan American”) announced the acquisition of Tahoe Resources Inc. (NYSE:TAHO) (TSX:THO) (“Tahoe”), creating one of the world’s top silver mining companies. Shareholders of Tahoe will be entitled to receive common shares of Pan American or cash in exchange for their shares of Tahoe, along with the right to a contingent payment in common shares of Pan American.

Pan American is a mid-cap metals producer, headquartered in Vancouver, Canada. The company explores, develops, and operates mostly silver producing properties and assets across Mexico, Peru, Argentina and Bolivia. It also has control over non-producing silver assets in each of these jurisdictions and the United States.

Tahoe is a small-cap precious metals company, headquartered in Reno, Nevada. The company acquires, explores, and develops resource properties for the mining of precious metals and primarily silver across Guatemala, the United States and Canada.

The Terms of the Deal

Reports from Pan American indicate that it will buy Tahoe for \$1.07 billion in cash and stock. Tahoe shareholders may choose to receive either US\$3.40 in cash or 0.2403 Pan American share for each Tahoe share. The purchase price is limited to a maximum cash consideration of US\$275 million and a maximum number of 56 million shares of Pan American.

The Base Purchase Price of US\$3.40 per share represents a premium of about 55% to Tahoe’s last close on November 13, 2018, or 34.9% to Tahoe’s volume weighted average price (“VWAP”) for the 20-day period ending on November 13, 2018.

The deal also includes an issuance of Contingent Value Rights (“CVR”) to Tahoe shareholders. This will be exchanged for 0.0497 Pan American shares for each Tahoe share, payable upon first commercial shipment of concentrate following the restart of operations at the Escobal mine.

The total consideration, including the Base Purchase Price and the Contingent Purchase Price, is US\$4.10 per share, representing a premium of approximately 86% to Tahoe’s last close on November 13, 2018, or 62.8% to Tahoe’s VWAP for the 20-day period ending on November 13, 2018.

At closing, existing Pan American and Tahoe shareholders will own approximately 73% and 27% of Pan American, respectively. Upon satisfaction of the terms of the CVR, Pan American and Tahoe shareholders will own approximately 68% and 32%, respectively.

Each of Tahoe’s directors and senior officers, who together hold about 1.7% of Tahoe’s issued and outstanding common shares, have agreed to vote their Tahoe shares in favour of the transaction. The Boards of both companies have also unanimously approved the transaction.

The deal is expected to close in the first quarter of 2019.

1. <https://www.panamericansilver.com/assets/documents/35e5b6718d/Pan-American-Silver-and-Tahoe-Resources-Create-the-Worlds-Premier-Silver-Mining-Company.pdf>

2. <https://www.panamericansilver.com/assets/Financial-documents/2017/134a81b3a5/Annual-Information-Form-2017.pdf>

3. https://s22.q4cdn.com/803885423/files/doc_downloads/toolkit/2017-AIF.pdf

Management

The CEO of Pan American, Michael Steinmann, will serve as the CEO of the combined entity. Mr. Steinmann has over 25 years of experience in the industry. He has a strong understanding of South America's mine operations, project development and corporate mergers & acquisitions.

The roles of Tahoe's Founder & Executive Chairman, Kevin McArthur, as well as its President & CEO, James Voorhees, are still unclear. Both Mr. McArthur and Mr. Voorhees have more than 30 years of experience in the industry. Mr. McArthur led Glamis Gold through a period of unprecedented growth during which production increased by more than 400%. Mr. Voorhees has held numerous positions in mine design, construction, management and operations at properties around the world.

Impact & Strategy

Pan American will effectively double its silver reserves with the acquisition. This will establish the business as the world's largest silver reserve base and silver measured and indicated resource base, as well as the largest publicly-traded silver mining company by free float. With a world-class primary silver asset portfolio diversified across the Americas, the combined entity will have industry-leading operating metrics, and will be well positioned to access capital to advance growth.

Escobal, the world's third largest silver mine, began commercial production in 2014, and produced 21.2 million ounces of silver in concentrate at US\$8.63/oz all-in sustaining costs, in its last four quarters of undisturbed production. Operations at the Escobal mine have been halted since last year, after Guatemala's Supreme Court provisionally ordered its closure following an appeal from environment and human rights organization CALAS. Pan America will rely on its 25-year track record of operating mines in Latin America to work with the communities around Escobal to gain their support to establish the restart of the mine.

4. <https://www.tahoeresources.com/English/company/leadership/management/default.aspx>

5. <http://www.mining.com/tahoe-resources-forced-halt-escobal-mine-guatemala/>

BREXIT: THE FULL STORY

ANANDINI GUPTA AND CLAUDIA SANTILLANA

DECEMBER 1ST, 2018

THE European Union was founded on the purpose of realizing a vision of greater social, political and economic harmony. The EU which is comprised of 28 nations of Western Europe, formed to establish interdependent economies and coordinate the strengths of member states, such that all nations function together as a single large market. This was achieved by getting rid of most barriers to trade through the coordination of economic and fiscal policies, a common monetary policy and currency, free movement of people, goods, services and money as within a single country, making it easier to conduct cross border trades and resource exchange.

France, Germany and the United Kingdom are the 3 most significant players in the union. In such an interdependent system, what were to happen if one of the major players, UK, was to leave the union? In such a scenario, the overall GDP of the EU is expected to fall by about 2 trillion along with a 0.8% fall in real output and 5% fall in the budget. Without Britain in the union, the European Union would not have as much of a push to extend into free market services.



Effects of Leaving the EU

Withdrawing from the EU would imply the withdrawal from a frictionless economic relationship between the UK and the rest of the EU, which has been estimated to cause a decrease in employment by about 0.3%. Belgium, Cyprus, Ireland, Germany and the Netherlands, would be faced with the highest exposure to an economic shock, among other nations by Britain's exit from the EU. Ireland in particular would take a major hit owing to shared land border and potential reintroduction of customs borders as well as its close agro-business ties with the United Kingdom.

1. <https://www.forbes.com/sites/johnmauldin/2016/07/05/3-reasons-brits-voted-for-brexit/#364c5fb1f9d>

2. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/760484/28_November_EU_Exit_-_Long-term_economic_analysis__1_.pdf

For nations under the union, access to markets and free movement of people between member countries is a major factor that contributes to the growth of the European Union and all its members. There is a significant exchange of workforce between nations. Breaking off from the EU implies that these rules of free movement of labour would no longer hold for UK. Eastern European countries such as Poland, Romania and Lithuania have approximately 1.2 million workers in the UK. Introduction of new laws and migration barriers will lead to retreating of migrants and a drop in migration rate in turn leading to rampant unemployment in the eastern European countries.

The fear of losing Britain as a crucial member of the EU translated into reality with the announcement of the referendum for “Brexit” in June of 2016, for Britain’s political parties to regain control over the laws of the land. About 9 months later (March 2017), an official statement announcing that Brexit would be in force in two years’ time and initiating the Withdrawal from European Union Procedures (also known as Article 50) was made. After a year-long negotiation process, the UK came to the decision this summer, that it would retain the current laws/policies of the EU until it formulated its own, while making it clear that the EU would have no further say or control over any future laws applicable in Britain.

Two Types of Proposals For the UK’s Exit From the EU

Hard Brexit: Three of the ties that the Prime Minister talks about ending are the right of freedom of movement between EU countries, so that any citizen of the EU can work and live in any other EU country; the need to pay money to be a member of the EU; and the fact that EU law overrides UK law.

Soft Brexit: maintain close formal ties with the EU, allow citizens to live and work in the UK, and keep some type of free trade agreement with the EU.

Latest Developments

Early in November, UK made significant progress on its decisions and is now nearing the final stages of the Brexit. It has presented the economic prospects to exiting with a properly formed deal (i.e a Soft Exit) as opposed to a no deal exit from the EU, the much dreaded, Hard Brexit.

An official long-term economic analysis on the EU Exit published by the UK Government predicts a weak economy for the UK under any form of Brexit, due to higher barriers to UK-EU trade, such as the introduction of tariffs, costs from new customs procedures and regulations, resulting in greater economic costs². The effects and potential outcomes will vary depending on the type of deal (or no deal) that EU and the UK has agreed upon. For example, if the soft-Brexit Chequers Deal is officially implemented, then there will be a “free trade area for goods” to “avoid friction at the border, and protect jobs and livelihoods” by “maintaining a common rulebook for all goods including agri-food” traded between the UK and the EU, however if no deal is reached then tariffs will be placed on goods³.

In addition, reduced migration will negatively impact the UK’s GDP and GDP per capita. Free movement of people will end as the UK leaves the EU, and the lower economic output predicted due to new trade barriers and other factors will also reduce incentives for workers to emigrate to the UK. These changes affect the size of the labour force and lower overall migration, therefore reducing the overall GDP. Below are the estimates on how much the UK’s economy would decrease under the following deals (or no deal) compared to how its economy would’ve been if it had remained part of the European Union.

3. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/723460/CHEQUERS_STATEMENT_-_FINAL.PDF

How Brexit will affect UK growth

Figures estimate impact on GDP 15 years after the UK leaves the EU



So far, Brexit has caused a major impact on the stock and forex market. On June 24th, 2016, the day after the Leave vote, the S&P Global Broad Market Index lost \$2.8 trillion due to the panic Brexit brought upon the market. Stock price movements were driven by fears of an economic slowdown of the UK economy, as well as a sharp devaluation of the pound of more than 10% at one point right after the vote was announced, making it one of the biggest one-day sell-offs in recent history⁴, triggering one of the most volatile trading sessions in the last decade. Shares for exporters and firms reporting earnings in foreign currencies experienced higher returns, whereas importers saw lower returns due to the pound's devaluation.

Brexit concerns are still impacting the London Stock Exchange. On average, UK listed companies are trading at 13 times earnings, compared to 18 times earnings in the US and EU making them the cheapest in the developed world. Some UK stocks will undoubtedly face difficulties in the future as a result of Brexit, depending on the deal taken and the forecasted UK's economic slowdown.

4. <https://www.ft.com/content/91dd01b6-3caf-11e6-8716-a4a71e8140b0>

ALIBABA: FROM E-COMMERCE TO ECOSYSTEM

BILL ZHUO

DECEMBER 5TH, 2018

ALIBABA Group is a mixture that consists of a global e-commerce segment, a technological innovation segment, and a financial service segment. At its very beginning as an online marketplace domestically in China, its main operation was facilitating a 24/7 platform that connected Chinese suppliers and international buyers. After 19 years of expansion and development, it has captured the economies of scale to its full extent and has diversified its e-commerce business lines into retail, wholesales, and business solution. From current data, 80% of China's online shopping market is dominated by Alibaba. Two of its main revenue-generating websites, Taobao and Tmall, have a total quarter gross merchandise volume 4 times more than what eBay can bring to the table[1]. It is indeed the world's largest e-commerce company.

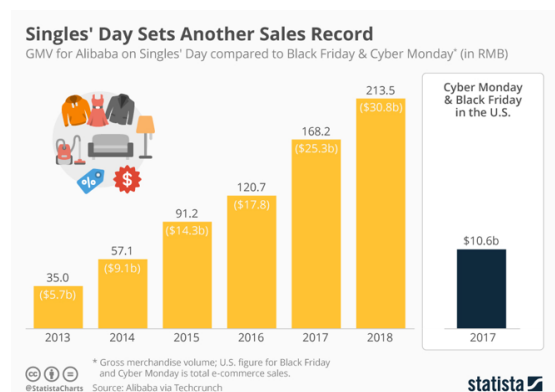
About the Company

Besides the huge success in e-commerce, it has evolved into a technological giant in China. In recent years, Alibaba has focused on utilizing data gathered from its humongous customer base and applying artificial intelligence, including deep learning and machine learning, to provide better insights to analyze individual customer's preference. Furthermore, Alibaba has an unparalleled technological advantage in handling excessive web traffic. In 2017's Singles Day sale, the platform was able to facilitate 256,000 transactions per second without any disturbance to the customers' shopping experience. It promotes extensive automation in a lot of aspects of life, including face-recognition payment systems, unmanned shops, and even an automated car vending machine.

Its previous affiliate financial services company, Alipay, has been providing digital payment support to its related business lines since 2004, which was considered as a crucial strength to its dominance in the e-commerce industry. Later on in 2014, when Alibaba went public, Alipay was transformed into Ant Financial through a spin-off[2]. It started as a payment system and its significance resembles how PayPal helped eBay in e-commerce. Surprisingly, its convenience in the payment process started a trend in China for people and business to go cashless in business transactions. To extend financial services, it proposed an innovative app, Yu'e Bao, which essentially allows consumers to invest spare changes to earn more than 4 percent return. To become a full house financial services company, it operates personal loans through MyBank and Huabei. In June 2018, Ant Financial was reported to worth more than Goldman Sachs as it was valued around 150 billion dollars.

The Single's Day Sales

Alibaba started its first Single's Day Sales on November 11, 2009, which was targeting young consumers who were single and encouraged them to purchase on Taobao and Tmall through huge discounts on all items on the platform. Within 24 hours, It was a success of magnitude of 52 million RMB (about 7.2 million dollars at that time), but it was just a starting point. As shown in the graph below, in the last 5 years of Single's Day Sales, the sales record has been broken every single year with consistent increases in net sales. In 2017, its total sales number within one day was 2.5 times more than the sales number combined from Cyber Monday and Black Friday in the U.S[3].



1. <http://projects.wsj.com/alibaba/>

2. <https://www.cnn.com/2018/06/08/how-ant-financial-grew-larger-than-goldman-sachs.html>

It has two important implications for Alibaba's marketing strategies.

First, it is a perfect example of how to educate its audience into a consumerism culture by using bombardment of social media coverage of the event. It is hard to imagine having a Black Friday sales countdown on TV in North America, but Alibaba did it. It hosted a gala featuring celebrities in China and western staples, like Mariah Carey and Miranda Kerr, just to show how much sales it had generated through the day. Alibaba has completely transformed a sales event into an annual celebration of consumerism culture in China.

Secondly, it asserts dominance in revenue generating power in the competitive global e-commerce market. It presents a simple indicator for the Alibaba investors that it has consistently increased earnings over the years despite resistance from the SEC and the recent trade war between China and the U.S.

Stock Performance and Recent Turbulences

Alibaba's stock price on NYSE reached its all-time high at 211.12 dollars per share on June 11, 2018. It started to fall when Google invested 550 million dollars in JD.com, a close competitor to Alibaba in the e-commerce industry in China. As the China-U.S. trade war was brewing over the summer, uncertainty from the investors demonstrated a further decrease in stock price. In September 2018, the stock experienced another downward blow when Jack Ma, the spiritual leader of Alibaba, claimed to retire from the board of directors as market expectation tumbled. Last but not least, the trade war started to make investors concern about whether Alibaba can continue such a cost-efficient logistics system and its steam-rolling profit growth. Even though Jack Ma himself addressed his optimism about the outcome of the trade war, the stock price of Alibaba did not think so. On December 3, the Chinese government and the White House had agreed to suspend any new tariffs to pause the trade war and Alibaba's stock price rose by 6% on that day. As of the day writing this article, President Trump renewed the threat to impose tariffs and verbally described himself as "a tariff man". Again, Alibaba's stock falls by 3.3% on December 5. Even though Jack Ma does not think the trade war will affect Alibaba much, the market still reacts according to any turbulence in the trade negotiation.



3. <https://www.forbes.com/sites/niallmccarthy/2018/11/12/singles-day-sets-another-sales-record-infographic/#26891a67815a>

4. <https://www.alibabagroup.com/en/ir/presentations/pre181102.pdf>

Technical Analysis on Potential Upside

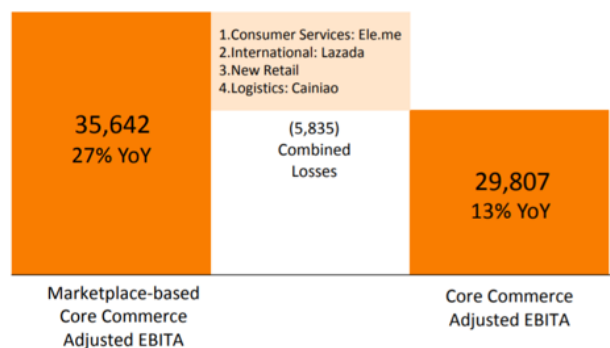
The Alibaba stock may seem to struggle under the trade war atmosphere but its metrics show us something otherwise. From its September earning report, Alibaba has a 54% year-on-year increase in total sales revenue with only about 20% of its total retail sales in China domestically.

Its profitability increased with significant margin, as the core commerce adjusted EBITA has increased by 13% over the last year. Meanwhile, it has decreased its free cash flow and diverted it more towards investments related to their technology infrastructure, New Retail, Cainiao businesses, and Digital Media & Entertainment segment.

Moreover, the P/E ratio of Alibaba is currently about 45.50, which is considered much less than other giants in the e-commerce industry. This shows that potentially Alibaba is undervalued at the current stock price. The earning report indeed demonstrates the management's philosophy in prioritizing long-term value over short-term benefits. Overall, our analysis can show that there is a potential upside for the Alibaba stock[4].

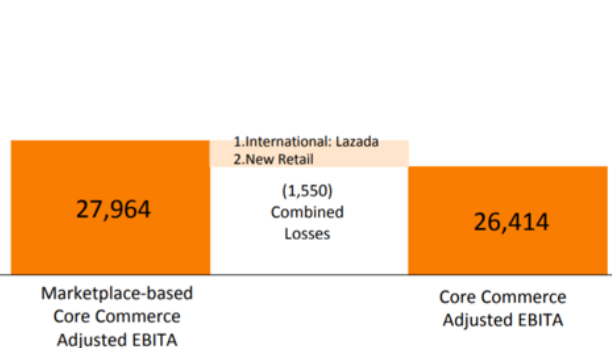
September Quarter 2018

(RMB MM)



September Quarter 2017

(RMB MM)



An Ecosystem Ruled by Alibaba

In 1999, nobody would expect Jack Ma and his fellows would start an e-commerce empire in their department in Hangzhou. In 2009, nobody would expect an event of discount sales would start a unique culture of shopping. Now, almost in 2019, people start to believe that Alibaba can make a change in the world, no matter it is in the global supply chain, cloud computing, or financial innovation. Alibaba is trying to form an ecosystem that covers every single aspect of people's lives, starting from grocery shopping to transportation, from robotics to digital intelligence, from payment methods to personal investment, otherwise known as the ecosystem ruled by Alibaba.

THE RAPID GROWTH OF THE CANADIAN CANNABIS INDUSTRY

NATHAN SMITH AND EVAN HIGGINS

DECEMBER 3RD, 2018

THE late 2010's will likely be remembered fondly in Canadian business history as the time of the birth of the Canadian Cannabis Industry. October 17, 2018 marked the first day of legal cannabis sales, and the beginning of recreational revenues for over 140 cannabis companies listed on Canadian exchanges, with a combined market value of C\$60 billion[1]. Companies like Canopy Growth (TSX: WEED), Aurora Cannabis (TSX: ACB), Cronos (TSX: CRON), Aphria (TSX: APHA), and Tilray (NASDAQ: TLRY) have become well-known names to investors in both Canada and the United States. This legalization has made Canada a leader in the global cannabis industry, with first-mover advantage in the space. Although they are the second country to legalize recreationally, Canada's industry is already considerably more developed compared to that of Uruguay, the first country to ever legalize.

There is an expected \$32 billion in industry consumer spending set for 2022 in Canada, which could make the domestic market in Canada quite lucrative. Cannabis producers and other companies will have a developed national market, likely leading to solid revenues for further reinvestment and growth. Furthermore, estimates from Roth Capital Partners put the global market value at a potential \$150 billion, which suggests that there is ample opportunity for international expansion for these Canadian companies.

Cannabis and Investment Banking

Over the last decade, the relationship between cannabis companies and capital markets has grown significantly. Just a few years ago, when cannabis companies were trying to offer shares, bankers were finding it difficult to find investors, as most investors were skeptical of the sector. It was boutique firms and small investment banks that led the way, bringing private producers to public markets through Initial Public Offerings (IPOs) on the Toronto Stock Exchange about four years ago. Firms like GMP Capital Inc., Canaccord Genuity Group Inc., PI Financial Corp., and Eight Capital have contributed to IPOs and reverse mergers worth about \$200 million in Canada and the US[2]. These IPOs of Canadian companies have contributed greatly to positive investor sentiment towards the sector.

More recently, larger investment banks have become involved in raising capital and M&A activity for Canadian cannabis companies. Among Canada's large banks, the Bank of Montreal (BMO) has been the most active, offering loans, equity financing, and M&A advice for companies like Canopy Growth Corp., Aurora Cannabis, and Cronos Group Inc. However, they have been strict in their policy of not doing business with any company that has operations in the US. CIBC has also been involved, as the lead bank on a C\$104 million private placement for the venture capital branch of Canopy Growth Corp. Meanwhile, most other Canadian banks have limited their involvement thus far.

In the United States, we've seen a similar story, with most large investment banks staying away from the sector as it is still federally illegal. However, the largest deal in the industry so far was supported by Goldman Sachs and Bank of America. This was the C\$5 billion investment in Canopy Growth Corp. from Constellation Brands Inc.; the owner of Corona Beer. Constellation acquired a 10% stake in Canopy through the deal[3]. Goldman Sachs provided advisory to Constellation for this deal, while Bank of America provided a bridge loan. Greenhill & Co., a smaller investment bank, advised Canopy on the deal. With the current status of cannabis in the United States, bulge bracket US banks are still very reluctant to represent Canadian cannabis companies, as seen through this deal.



1. <https://www.bloomberg.com/news/articles/2018-10-17/cannabis-goes-legal-in-canada-as-investors-ride-stocks-higher>

2. <https://www.wsj.com/articles/canadas-investment-banks-are-big-winners-in-marijuana-boom-1538394451?mod=searchresults&page=1&pos=19>

Supply Problems

While legalization has signaled the beginning of recreational revenue generation for many cannabis companies, the legal supply-chain and purchasing system has not operated as smoothly as initially expected. The Canadian market is currently facing an undersupply of legally produced cannabis, with shortages being reported at legal retailers in multiple provinces. Retailers have had to make adjustments to these shortages. For example, in Quebec the government retailers have limited their operations to four-days per week. In Alberta, the issuance of new retail licenses has been paused due to the lack of supply[4]. Retailers in Nova Scotia have reported having only 40% of the inventory they had been expecting, with only 106 products available from a total of 282 the government had expected. However, suppliers are well-aware of this issue, and are ramping up production for the future.

Vic Neufeld, the CEO of Aphria said the he expected supply shortages in these early stages of legalization as licensed producers struggle to meet the substantial demand for product. However, Aphria and many other companies will have new production facilities coming online in 2019, which will increase Canada's supply significantly. There are even concerns of oversupply in coming years, when the industry is operating at a higher capacity. Planned combined production from Canopy Growth, Aurora, MedReleaf, Aphria, and Cronos totals 960,000kgs, which would create a supply 30% higher than domestic demand in the next two years[5]. This suggests that Canadian companies may have to export inventory internationally in order to maintain profit margins.

International Expansion

With increased production for both medical and recreational markets, larger cannabis companies have targeted international expansion. Companies like Canopy, Aurora, and Aphria have aggressive plans to enter European, Asian and Australian markets. These companies have largely targeted medical users, with the global landscape having more than 30 countries that have now legalized medical cannabis, and many like South Korea in the process of creating legislation. Many of these countries will rely on imports, as they do not have the growing capacity that Canada has amassed since it legalized medical cannabis in 2004.

This provides opportunity for Canadian producers, who have already begun to take advantage of the international market. Major producers hold medical supply agreements with countries like Germany, Italy, Portugal, Brazil and Australia. The United States also provides some opportunity, with a total of 8 states that have currently legalized recreational use. However, these markets are more competitive with cannabis companies already producing in-state. Canopy Growth may have an upper-hand though, with their Constellation deal providing distributional support for potential US sales.

The lack of global standard in regard to medical and recreational legalization laws can provide a barrier to entry in some markets however. Due diligence is required for Canadian companies to enter markets, and must evaluate whether the current legislative environment in certain countries would provide a profitable operation. Nevertheless, international markets will likely provide another important revenue stream for Canadian cannabis companies in coming years.

3. <https://www.wsj.com/articles/supply-constraints-to-slow-canadas-marijuana-legalization-1539778281?mod=searchresults&page=1&pos=11>

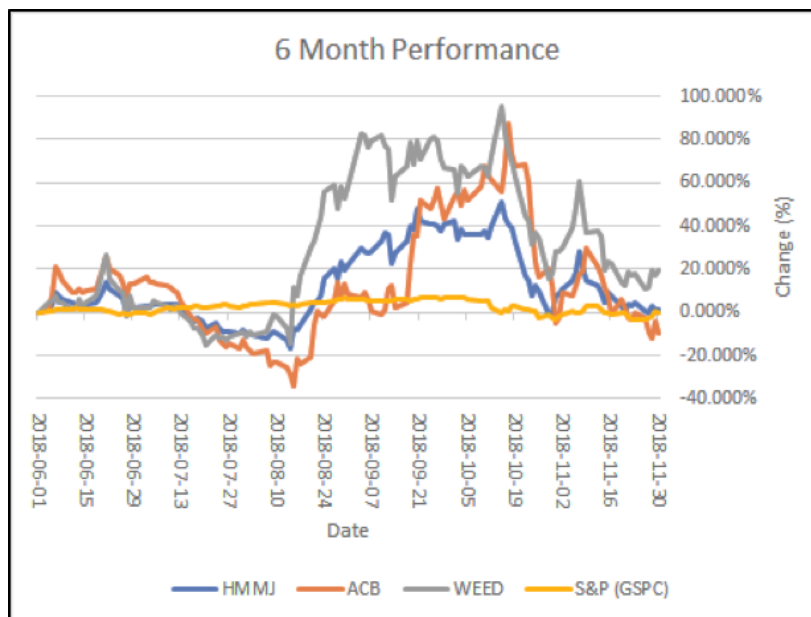
4. <https://www.bloomberg.com/news/articles/2018-11-26/pot-retailer-watches-24-7-to-scoop-up-scarce-canadian-supply>

5. <https://seekingalpha.com/article/4182085-canadian-cannabis-overproduction-gold-rush-alternatives?page=>

Cannabis Market: A Bubble or Volatility?

With the legalization of marijuana, to address the anticipated supply issues, the number of producers increased greatly, while returns on existing cannabis stocks have also been dramatically high. Investors who bought in, even just one year before legalization, may have seen returns over 300%. Continuing at this level of returns is of course unsustainable, which we saw by the drop cannabis stocks took, commencing just before legalization day. To date, the drop corrected their growth to be more on par with that of the S&P 500. See Figure 1 for an idea of recent changes in price.

The price movement results in a highly volatile market which has some investors questioning the underlying value of the market and if it is just another bubble. Evidence suggests that the cannabis market is not just a bubble and it comes down to where the value comes from. Bitcoin is valuable only if all users agree it is, which easily creates a bubble environment. Cannabis however, is an actual product with demand with a largely agreed upon price, which gives us true value. This prompts the following question: how should investors determine the intrinsic value of Cannabis stocks?



Performance and Valuation Metrics

As the market is currently undersupplied, producers can easily sell all of their products. Here are 3 important factors that can be assessed to help determine the true value of a production company: production capacity, yield per square foot, and average price per gram. Square feet of production is a key indicator that reasons the total enterprise value of a company. For example, Canopy Growth Corp. produces 30,000 (kg) and has a market capitalization of C\$13.9 billion versus Aurora who produces 15,800 (kg) and has a market capitalization of C\$7.1 billion[6]. Half the production, half the market cap. What can highlight a valuable firm regardless of size is how efficiently they produce their marijuana. Efficiency comes down to how many grams can they produce per square foot of cultivation space, and at what cost every gram is produced. EV/kg (EV per number of kilograms produced) can often measure such efficiency. As another example, Aurora's success is no doubt due in part to their ability to produce at the low cost of just C\$0.96 per gram[7]. We can compare this to Aphria who has seen less success and is selling at C\$1.53 per gram.

6. <https://www.pwc.com/ca/en/services/deals/whats-the-deal-blog/a-candid-review-of-cannabis-multiples.html>

7. <https://smallcappower.com/top-stories/canadian-cannabis-stocks-cost-per-gram/>

Note that due to the high volatility of this market, how young cannabis companies are, and overall market is, traditional valuation methods such as P/E, EV/EBITDA, and P/S do not reveal as much about the company. PricewaterhouseCoopers produced a report showing a 1027.8x EV/EBITDA industry average[6]. While this metric is not at a level where it is useful as a comparable, EV/R is slightly more revealing with an industry average of 104.3x. Still, production tends to reveal more about a company's ability to create revenue, especially while these firms are still rapidly scaling.

Lastly, when deciding on a Cannabis producers' value, it is becoming more important to consider what acquisitions they have pursued to determine how much value was added relative to any premium paid. Aurora's rapid acquisition of its competition has played a huge role in its growth. However, an acquisition strategy can be a faulty approach, as we see with Aphria. Aphria has dropped just shy of 40% due to short seller Gabriel Grego of Quintessential Capital Management that criticized several acquisitions by Aphria, labelling Aphria "a black hole for shareholders' money"[8].

Marijuana ETFs

Looking for the next winner in the cannabis industry can still be a difficult feat due to the number of companies in the space. Big gains (or big losses) are often the result of announced acquisitions or partnerships, which is information that an everyday investor only tends to hear about after the matter. For this reason, investors need to be holding the winner before such events take place. But transaction costs can make buying several different firms in hopes of a winner a costly strategy that may not pay off. For this reason marijuana exchange-traded funds (ETFs) provide a valuable strategy to gain exposure to the market.

Two popular marijuana ETFs are Horizons Marijuana Life Sciences Index ETF (TSE: HMMJ) and Horizons Emerging Marijuana Growers Index ETF (NEO: HMJR), the latter of which trades on Toronto's Aequis NEO Exchange.

HMMJ is a popular capitalization-weighted holds mostly larger players - Canopy, Aurora, Aphria, Cronos, etc. HMMJ was the first marijuana ETF to be introduced to the market back in April 2017. It was worth over \$110 million after just 6 days on the market. After a short 16 months, HMMJ became the first marijuana ETF to break the C\$1 billion milestone[9]. HMJR, on the other hand, is a capitalization weighted ETF that holds only small-cap (under C\$500 million) producers, cultivators, and distributors[9]. This is in a sense what HMMJ doesn't track, so the HMJR reflects the performance of all small players that might otherwise go unnoticed.

HMMJ is reflective of the big players (and generally the overall industry's) performance. Investing in this ETF is a cheaper way to gain exposure to their performance. HMJR, on the other hand, exposes an investor to the upsides and downsides of small-cap companies. This can include big gains from acquisitions and smoother operations from a simpler business set up, but also potentially smaller profits from being a new and inefficient firm.

8. <https://www.cbc.ca/news/business/aphria-stock-short-seller-1.4929951>

9. <https://www.theglobeandmail.com/globe-investor/funds-and-etfs/etfs/horizons-new-cannabis-etf-stands-apart-from-competitors/article38002121/>