FARM STUDENT ASSOCIATION

MATHSOC

JUNE 2020

FINDING ALPHA

TABLE OF CONTENTS

Spring 2020 Chief Editors: Abdullah Saif, Diga Ye

JUNE 2020

JUNE 2020

Growing Opportunities for Investment in Canadian Technology Sector

By Madeleine Pollock, Market Research Analyst

While COVID-19 impacted almost every sector of the Canadian economy, Canada's five biggest banks – TD, Scotiabank, RBC, BMO, and CIBC – remained profitable as they posted their Q2 2020 earnings back in late May. However, a deeper analysis of the Banks' balance sheets might show that they are not in the clear just yet.

In total, these five lenders have $1,749,913 trillion of individual loans and $1,200,220 trillion of commercial loans as assets. Major borrowers include oil and gas companies, retailers, and small businesses which were hit the hardest during the business shutdown. This imposes a big risk of default in loans for the banks; and they attempt to account for these possible losses using loan loss provisions.

Attraction of Top Technology Talent to Canada

Where many new engineering and computer science graduates aspired to work in Silicon Valley, many are now being attracted to Canadian cities. There are many new opportunities for talent in Canadian cities, with new jobs being created and lighter restrictions for foreign workers.

Foreign talent may be attracted to Canada, as Canadian work visas have shorter processing times, enabling more efficient immigration. Canadian visas are now processed within 10-14 days vs 6-10 months in the U.S. [1]. There may be more blocking foreign talent from working in the U.S than just the 6-10 month processing.

In the middle of June, President Trump signed an order to stop access to several employment-based visas that would affect those in the technology industry [2]. The order freezes new H1-B and H-4 visas, which are used by technology workers and their families, until the end of the year [2]. Of course, with the impact of the Covid-19 pandemic, new surges in U.S. cases, and travel restrictions, it is unfeasible for foreign workers to come before the end of the year. Despite travel restrictions, there could still be hope for foreign workers who are either already in the U.S. or have the ability to work remotely. This hope is shattered with the halting of these visas and it is uncertain if this freeze will continue past the pandemic.

More than maintaining travel restrictions, Trump suggests that these measures are necessary to tackle the growing unemployment within the U.S. [2]. These measures are after there was already additional tightening in the H-1B program in recent years [2]. There has been a lot of criticism of this by tech companies, tech investors, and tech lobbying groups. Cinnamon Rogers, CompTIA's Executive Vice President for Public Advocacy suggests “Making it more difficult for bright minds to work in the U.S. only benefits our competitors abroad who will attract their talents to build and develop cutting-edge, job-creating goods and services” [2]. Of course, competitors abroad can include Canadian companies, particularly tech companies, as this group is the most affected by these measures.

Tobias Lutke, Chief Executive Officer of Shopify offered his own comments on the work visa freeze and leveraged the opportunity to encourage workers to consider Canada instead. In response to the announcements, he tweeted “If this affects your plans consider coming to Canada Instead. If getting to the U.S. is your main objective, you can still move on south after the H1-B rules change. But Canada is awesome. Give it a try”. [3] Shopify has actually been on a hiring spree recently and has a lot of experience relocating people [3]. Shopify is just one example of a great Canadian tech company attracting a lot of foreign talent.

These additional challenges limit the opportunities for fresh tech talent to find employment in Silicon Valley and make Canadian tech hubs all the more enticing.

Booming Technology Hubs in Canada

The Canadian technology sector is growing, with developing tech hubs in major cities across Canada. Toronto, Ottawa, Vancouver, Waterloo, and Montreal are noteworthy for both their own startups and the abundance of satellite offices of major tech firms like Microsoft and Amazon. There are many new jobs and opportunities for entrepreneurs, further attracting top talent to the Canadian tech sector.

Over the past several years, Toronto has greatly expanded into the technology sector and seen a 54% increase in tech talent between 2013 and 2018 [4]. Toronto has around 228,500 tech workers (as of the 2019 end) and has a tech concentration of 8.3% [4]. Toronto is now recognized as the fourth-largest tech market in North America [5]. Toronto is home to Toronto based startups, such as Ecobee, Top Hat, and Ritual. Toronto is also host to satellite offices for multinational tech firms, such as, Amazon, Cisco, Oracle, Ubisoft, and Shopify [5].

Ottawa is, of course, notable for the founding and being the headquarters of Shopify. Ottawa is home to many startups, such as SurveyMonkey, Rewind, and GoFor Delivers. Ottawa is also host to many satellite offices, such as Canadian company OpenText and SAP. With many booming startups based in Ottawa, there is significant growth potential for the tech sector in Ottawa. Nearly 10% of workers in Ottawa fall into the tech sector, with about 64,500 tech workers (as of 2019 end), making it of largest proportions in North America [4].

Vancouver is another fast-growing tech hub, with many new expansions of multinational tech firms. Microsoft, Amazon, Apple, Salesforce, and Fujitsu are among these firms that are expanding into Vancouver and opening satellite offices there [4]. Vancouver is also the birthplace of Slack and host to startups, such as Hootsuite, PlentyOfFish, and Intuitive AI.

These cities are great examples of the route many major Canadian cities are taking into the technology sector. With many tech giants expanding into these regions and startup setting up shop, many technology jobs are being created and these are becoming booming hubs. There is a lot of opportunity for entrepreneurs to start innovating and attract investors, both Canadian and foreign.

Success of Canadian Technology Firms

Over the past couple decades, many Canadian startups have seen growth and prosperity, becoming leaders in innovation on the global scale. Some of these great leaders include the above mentioned Shopify, Blackberry, Slack, Ritual, and Wattpad.

Shopify, an Ottawa based company, started in 2004 as a store to sell snowboards online [6]. Shopify's founders, Tobias Lutke, Daniel Weinand, and Scott Lake, weren't satisfied with the existing e-commerce platforms and felt they didn't offer enough control. This motivated Shopify to innovate and develop their own platform, which is now used by many businesses internationally. Companies of any size use Shopify's platform for online sales, retails stores, or on-the-go [6]. Shopify has grown from 5 people to over 5,000 globally, with over 1,000,000 businesses powered by Shopify [6]. In the markets, Shopify investors have seen growth and had success. Shopify went public in May 2015, debuting on the New York Stock Exchange and Toronto Stock Exchange under the symbol "SHOP". The initial offering was only $17 and closed at $31.25 on the first day [7].

Fig 1. SHOP:US Close Price history to date. Data sourced from Bloomberg

For environmentally conscious investors Shopify is a company they and their dollar can get behind. Shopify is committed to sustainability and is focused on building a 100-year company [6]. Shopify's Sustainability Fund and Social Impact initiatives motivate use of renewable energy, reducing carbon emissions, and building products to support an equitable and sustainable future for their partners [6].

As many retailers seek to increase their online business amid the Covid-19 pandemic, Shopify has seen opportunity and further growth. The stock has surged from around $400 at the start of 2020 to over $900 in June [8]. This is extraordinary and of course is influenced by the pandemic.

Fig 2. SHOP:US Close Price over 6 months. Data sourced from Bloomberg

In the midst of the pandemic, many stocks and markets as a whole have seen a great decline. With stores closed and consumers confined to their homes, e-commerce platforms have been in demand, as can be displayed with Amazon's (AMZN) recent performance, for example. Further e-commerce adoption has led to Shopify Inc. shares seeing a boost from the pandemic.

BlackBerry is another notable global Canadian tech force, founded by University of Waterloo Alumni Mike Lazaridis and Douglas Fregin. The pandemic has brought a promising opportunity for BlackBerry, as well, who has seen its share price increase by over 60% since the initial height of the pandemic in mid-March. BlackBerry has partnered with Shopify and the federal government on a Covid-19 tracing app. This app will allow users to upload their test results onto the app and location [9].

Fig. 3: BlackBerry Ltd. BB:US Price since April 2020. Data sourced from Bloomberg

North, formerly known as Thalmic Labs, is a Waterloo based startup that was founded with the mission of making technology a seamless experience in our daily lives. Thalmic Labs was founded by Velocity students in 2012 and is notable for its Myo and Focals technologies. [10]. The then Thalmic Labs developed gesture recognition technology for the Myo, which has been used in over 150 countries worldwide [10]. Researchers have leveraged the Myo to help amputees control and communicate with their prosthetic limbs [10]. This is just one example of the many uses that global customers have found for the Myo.

More recently, North released the Focals, which are designed as glasses, but offer augmented reality capabilities. The Focals display notifications (from smartphones, Alexa, etc.) on the lenses, which are not visible to others. The Focals display these notifications via holographic projections and use bluetooth to connect with devices[10] The Focals also leverage a ring-like joystick to make it easier to control [10].

It was confirmed at the end of June that North was acquired by Google [11] Following this acquisition, North will be remaining in the Kitchener-Waterloo area. It seems, amid the acquisition, North will also be winding down its focus on the Focals project and could soon be moving towards new projects with the support of Google. On their website, North states “We couldn't be more thrilled to join Google, and to take an exciting next step towards the future we've been focused on for the past eight years” [11]. This is indeed an exciting step for North and the Waterloo technology sector as this provides further opportunity for growth and innovation in the region.

The Canadian technology sector is well established, with many examples of success. There is still a lot of room for growth and many Canadian cities are expanding quickly into technology hubs. There are many jobs being created to attract top talent to these regions and drive innovation. The booming technology sector provides opportunity for hopeful entrepreneurs and investors that are looking for innovation.

[1]https://www.visualcapitalist.com/investing-in-canada-the-silicon-valley-of-the-north/
[2]https://www.bloomberg.com/news/articles/2020-06-22/trump-to-order-freeze-on-some-work-visas-through-end-of-year?sref=stXBRNL0
[3] https://www.bloomberg.com/news/articles/2020-06-23/-canada-is-awesome-shopify-ceo-tells-workers-barred-from-u-s
[4] https://vancouversun.com/business/commercial-real-estate/canadas-top-10-tech-talent-cities-ranked
[5]https://www.northeastern.edu/graduate/blog/6-top-tech-companies-to-work-for-in-toronto/
[6] https://www.shopify.ca/about
[7] https://www.fool.ca/2019/07/26/if-youd-invested-10000-in-shopify-tsxshop-on-its-ipo-4-years-ago-itd-be-worth-this-much-today/
[8] https://finance.yahoo.com/quote/SHOP/history?p=SHOP
[9] https://www.bnnbloomberg.ca/shopify-blackberry-working-with-feds-on-covid-19-tracing-app-1.1452604
[10] https://mobilesyrup.com/2019/01/10/waterloo-based-north-focals-augmented-reality-glasses-hands-on/
[11]https://www.bynorth.com/

JUNE 2020

Canadian Banks Face Potential Credit Losses Due To COVID-19

By Claudia Santillana, Market Research Analyst

While COVID-19 impacted almost every sector of the Canadian economy, Canada's five biggest banks – TD, Scotiabank, RBC, BMO, and CIBC – remained profitable as they posted their Q2 2020 earnings back in late May. However, a deeper analysis of the Banks' balance sheets might show that they are not in the clear just yet.

In total, these five lenders have $1,749,913 trillion of individual loans and $1,200,220 trillion of commercial loans as assets. Major borrowers include oil and gas companies, retailers, and small businesses which were hit the hardest during the business shutdown. This imposes a big risk of default in loans for the banks; and they attempt to account for these possible losses using loan loss provisions.

Riskier Financials and Loan Loss Provisions

In order to mitigate potential future loan losses due to the global pandemic, banks have increased their loan loss provisions by billions of dollars. Loan loss provisions are the amount of funds banks set aside in order to pay for loans on their books that they believe have a very high probability of not getting repaid. Even though not all these loans will turn into losses, these amounts gauge how worried the banking industry is in regards to loan-default and financial outlook. Combined, the five big banks set up aside almost $11 billion of loan loss provisions, an increase of almost 500% from the same quarter in 2019. The Banks' Q2 2020 earnings showed that loan loss provision expenses were by far the biggest contributors to the Bank's profit plunge for the quarter, adding on to the already lower revenue across divisions. TD Bank posted net income of $1.5 billion, down 52% from last year. Net income was $392 million at CIBC, down 70% from last year. Scotiabank posted profits of $1.32 billion, a fall of more than 40% from last year's level. RBC made a profit of $1.4 billion, a drop of 54% from last year. BMO reported net income of $689 million, a decrease of 55% from last year. Overall, all five banks' net profits were lower than what they had set aside for credit losses.

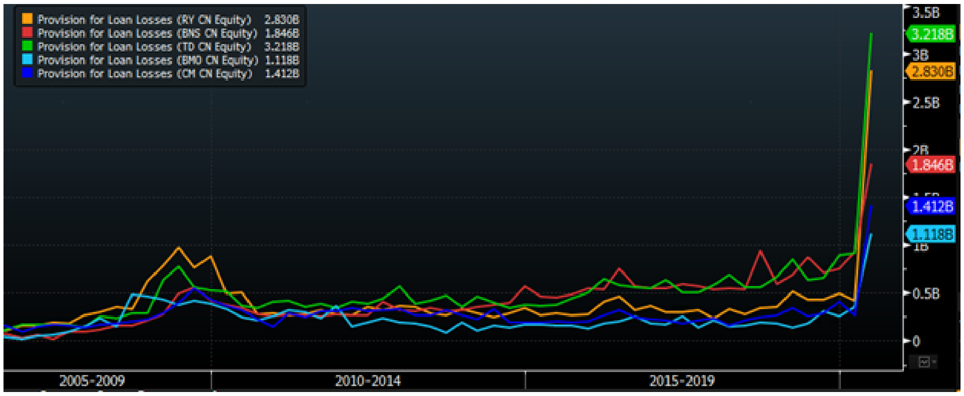


Figure 1: Loan Loss Provisions per Bank (BNS: Bank of Nova Scotia, TD: Toronto-Dominion Bank, BMO: Bank of Montreal, RY: Royal Bank of Canada, CM: Canadian-Imperial Bank of Commerce).
Source: Bloomberg

Additionally, Canadian Banks are providing mortgage payment deferrals to Canadians experiencing hardships due to COVID-19, such as unemployment, to provide financial relief. Deferrals will last for up to 6 months and will be available to mortgage customers until at least September 30, 2020, while interest continues to accrue, and then will be added to the balance at the end of the deferral period. As of June 24, 13 member banks of the Canadian Bankers Association, including the five Big Banks, have provided help through mortgage deferrals or skipping payments to more than 743,000 Canadians, which represents about 15% of the number of mortgages in bank portfolios. According to the Canadian Bankers Association, cash flow freed up from completed deferrals is roughly $985 million per month, or $2.9 billion per quarter. Banks are also reducing credit card interest rates, deferring payments, and instituting low minimum payments on credit cards and lines of credit. As of June 24, more than 450,000 credit card deferral requests are in process or have been completed by eight banks, including the Big Five [1].

While realized loan defaults may not show up on the bank's books for another one or two quarters due to the described banking measures, once mortgage and credit card deferrals run out, and economic stimulus programs for individuals, such as the CERB, expire, then we will start seeing the real impact these credit losses will have on the Banks' future earnings. The current loan loss reserves set aside have a fundamental assumption that the economy will decline until 2020 and start to recover in 2021, meaning the Banks do not forecast provisions to increase from Q2 levels in the upcoming quarters. However, due to the unprecedented nature of the situation, unemployment levels and business operations might not go back to normal as fast as economists have been estimating, which could mean that the amounts set aside on loan loss provisions will remain high for the quarters to come.

The Future of Canadian Banking and Lending

Canada's big banks are notorious for being reliable on dividends payout, and shareholders see their dividend yield as a measure of how optimistic the banks are on their financial outlook. The Big Five haven't cut dividend payouts since 1940, even during the financial crisis in 2009, TD and Scotiabank hiked their dividend yields to show confidence in their financial health and encourage investors [2]. The reliable stream of income, not the stock performance, is what mainly attracts investors to hold Canadian bank shares.

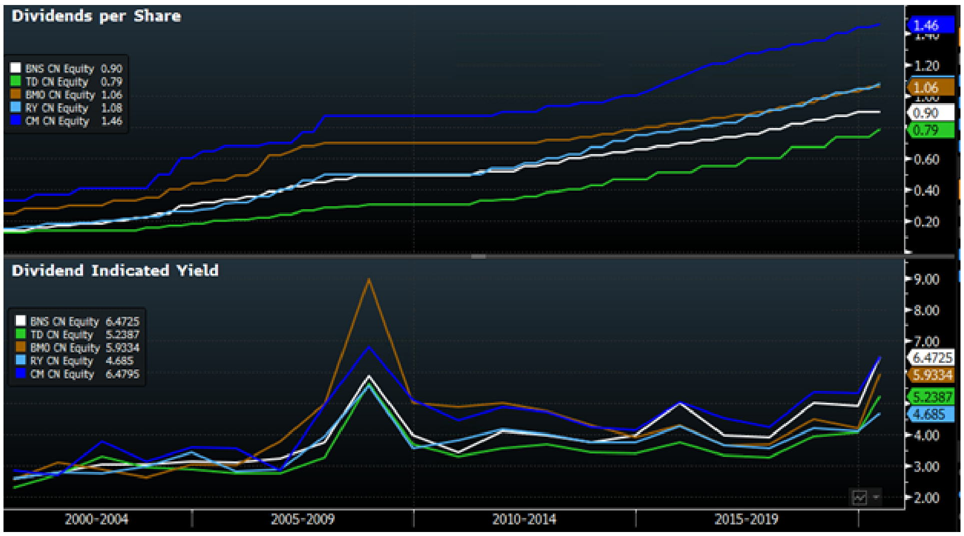


Figure 2: Dividends per Share ($) and Dividend Indicated Yield (%) for The Big Five Banks – (BNS: Bank of Nova Scotia, TD: Toronto-Dominion Bank, BMO: Bank of Montreal, RY: Royal Bank of Canada, CM: Canadian-Imperial Bank of Commerce). Source: Bloomberg

Even though the Office of the Superintendent of Financial Institutions (OSFI) has warned banks not to buy back shares or raise dividends, it has not prevented payouts. All five big Canadian banks have reassured shareholders that they will keep paying out dividends for the year. This might come at a price since it will put pressure on the Banks' capital ratios. The capital ratio is the percentage of a bank's capital to its risk-weighted assets. More specifically, the Tier 1 Common Equity Ratio (CET1), which is used to gauge a bank's capital strength, is the percentage of the bank's equity capital (common stock, retained earnings, and preferred stock) to its total risk-weighted assets.

OSFI has set a minimum Tier 1 Common Equity Ratio of 4.5%, and 8% minimum total capital ratio for Canadian banks [3]. On average, the Big Five have posted a CET1 of 11.18% for the quarter ended April 30, 2020, which signifies the industry has significant excess capital. However, due to the big earnings declines seen in Q2 2020, payout ratios that exceed 100% over the next coming quarters might be a reality and will test CET1 levels as earnings continue to be volatile in the upcoming quarters due to financial stress Canadians might face due to the economic shutdown.

Financial Stress Is Still A Reality for Canadians

Even as Canada starts to reopen for business, the country's unemployment rate reached a record-high of 13.7% in May [4]. Although jobs have been added back to the economy, many Canadians are still receiving funds from the Government through the CERB program. Despite the fact that CERB payments have been extended for two more months, the program is not a long-term solution to the roughly 3 million Canadians still unemployed. Additionally, the funds received through the CERB are considered taxable income, which must be repaid during next year's tax season, which will put a financial strain on Canadians, who ultimately are the Banks' customers and borrowers.

Additionally, households and Canadian businesses have taken on huge amounts of debt in order to be able to survive the economic shutdown. The household debt ratio, which consists of debt as a proportion of household disposable income, rose to 176.9% at the end of the first quarter of 2020 when the global pandemic began to take hold of the economy. This is close to the all-time-high record it hit in late 2017 [5]. Even before the economic shutdown, Canadians were already carrying near record levels of debt, and Covid-19 might be the tipping point for those already struggling. Similarly, corporate debt posted record-high levels. Corporate debt, including both loans and debt securities, outside of the financial sector reached 118.7% of GDP at the end of the second quarter, which the third highest among G-20 countries after China and France [6]. Although the Government has implemented programs such as the Canada Emergency Business Account (CEBA) to provide interest-free loans, and the Canada Emergency Wage Subsidy program (CEWS), once these benefits stop, businesses are expected to repay some of these funds. Furthermore, with consumer confidence on the decline, and social distancing measures limiting the number of customers physical stores can welcome, this will put Canadian businesses on a tough position, and potentially force them to file for bankruptcy.

The Banks will have to consider all these factors that are not present now but might be a reality in the near future. Due to the possible bigger-than-expected loan loss provision expenses in the last quarter of 2020, the Bank might have to face the difficult decision to cut dividend payout rates, or post worsening earnings due to the bad loan expenses cutting into net profits. This poses a credit crisis that will majorly impact the Big 5. It is known that bank shares tend to bottom as credit losses peak, as it was seen during the financial crisis of 2009 and early 2016 after the oil and gas credit cycle. A similar cycle is expected to happen this time around during the last quarter of 2020 due to the financial stress put on Canadian businesses and individuals.

[1References:
1- https://cba.ca/fast-facts-on-bank-measures-in-response-to-the-covid-19-pandemic
2- https://business.financialpost.com/investing/why-canadas-big-banks-defend-dividends-in-coronavirus-market-rout-and-at-all-other-times
3- https://www.osfi-bsif.gc.ca/Eng/fi-if/in-ai/Pages/20200501-smsb-let.aspx
4- https://globalnews.ca/news/7029601/canada-may-unemployment-rate/
5- https://www.cbc.ca/news/business/statistics-canada-debt-1.5609510
6- https://www.bnnbloomberg.ca/record-high-company-debt-hangs-over-canada-s-economy-td-says-1.1384537

JUNE 2020

The Last Stand for Hertz and its Implication on Investors

By Simon Wei and Matthew Unrau

Hertz is the second largest car rental company in North America. The 102-year-old company filed for bankruptcy in late May and has been in the process of selling off assets and handling the logistics of a chapter 11 bankruptcy. Nonetheless, HTZ (Hertz Global Holdings) has not yet been delisted from the NYSE and trading continues to be in effect.

Current Situation:

At the end of May, Hertz totalled nearly 19 billion in debt with only 1 billion of available cash [1]. Despite the company's significant efforts to raise money, they fell short and were unable to deliver their payments to creditors in April 2020. On May 22, the missed payments were set to expire, unfortunately, Hertz had roughly around 1 billion US of Cash. The amount of liabilities Hertz faced had increased due to the decline in the value of vehicles because of the pandemic [2]. In an enduring attempt to please the creditors holding asset-backed securities that finance their fleet of over 500,000 vehicles, Hertz has proposed selling more than 30,000 cars a month through the end of the year in an attempt to raise around 5 billion dollars [2].

As mentioned above, the leading cause of the chapter 11 bankruptcy was the debt obligations on the leased vehicles. Additionally, with strict travel bans across the globe, air traffic essentially halted and took a major hit. Hertz had lost a majority of customers passing through airports.

Alongside these expenditures, Hertz comprised of 38,000 worldwide employees; a severe problem since demands of renting cars drastically declined. To counterpoise this, Hertz laid off 12,000 employees and put 4,000 more on furlough. Further the company cut vehicle acquisitions by 90% and stopped all non-essential spending, saving a yearly estimate of about 2.5 billion dollars [1].

Bankruptcy:

Hertz has not completely liquidated all their assets and will not do so as of yet. This is due to them filing a Chapter 11 reorganization bankruptcy. Chapter 11 is a form 0of bankruptcy that involves a reorganization of a debtor's business affairs, debts, and assets. In addition, it allows room for negotiations with your creditors to modify the terms of your debts and create a repayment plan without having to sell your entire assets - in comparison to chapter 7 liquidation [3]. The benefits of Chapter 11 are that it stops most litigation right in its tracks; it allows a business time to formulate a strategy to repay its debt. If the company cannot repay all of what it owes, it can usually pay less, sometimes a lot less and still survive. As for a last added bonus, it stops the accrual of interest on unsecured debts [4]. The largest downside of filing a Chapter 11 is that the shareholders are in for a rough ride. The company has the right to cease all dividends and the appointed trustee may ask that stocks are returned in order to be replaced with shares in the "reorganized company" [5]. Essentially, if you owned stocks of Hertz, they will become worthless and shareholders get completely wiped out. The new shares are often issued to its creditors in exchange for a reduction or forgiveness of the outstanding debt. Nonetheless, we start to ask how did Hertz stock price increase by more than 250% in 3 days.

The upside towards the company is that it has only filed for Chapter 11 Bankruptcy in the USA. With operating locations in Europe and Australia, they are not including those assets in the reorganization. This gives hope towards the growth of the company and the potential for it to make it out alive after the reorganization. As mentioned previously, this is Chapter 11 compared to Chapter 7 liquidation, Hertz is still not out of the picture. With 4 new CEO's in the past 6 years they are struggling to find what fits and works for them. The desire to continuously fix the company and make it profitable for shareholders is evident but the timing of the Coronavirus could not have been better in wiping them out. With Uber and Lyft gaining larger market shares each and every year, Hertz had adapted to modernizing its smartphone apps - making it much more accessible to youths and the newer generation.
Hertz with roughly 19 billion dollars in debt, was one of the largest companies to have collapsed due to the coronavirus pandemic, which has crushed the travel industry.

This may potentially be a wakeup call to traditional style businesses amidst black swan events. With new ways of transportation like Uber and Lyft, their operating expenses are much lower with less obligations and fixed costs. These may be ideas that we need to address in a potentially risky industry that heavily relies on tourism and free movement of individuals. With Covid, it brings attention to another side that most tourism companies would never have thought of until this year. The silver lining is that it has brought attention to weaknesses in our economies that we would have never thought of – overall strengthening our economy.

How the Debt got so big?

The big question is why now? The billions of dollars in debt had accrued over the past five years. Hertz corporate credit has been listed as junk for the past decade. This happened because Hertz kept piling on Asset-Backed Debt. Originally, Hertz got into debt trouble when they overpaid for multiple Merger and Acquisitions deals, include Dollar Thrifty brand, and when they were cash-strapped they started selling Asset-Backed Securities to help finance their company's main expense, buying vehicles. Now, Asset-back securities (ABS) are investment securities that are collateralized by a group of assets, such as leases, loans, and basically anything other than mortgages. ABS's allow their issuers to generate cash from investors who in turn make money off of otherwise illiquid assets. Say in Hertz's situation, they purchase their cars from automobile makers. They needed money to finance their spending, so they created an ABS out of all the cars they were purchasing. The plan was to use the money from the investors to purchase the new cars, then after they had gotten too old to rent out to customers, they would sell them. They allowed the company to give a small percentage back to the investors and keep a bit for themselves. These ABS's are investment-grade bonds and provided much-needed capital for Hertz.

This strategy could've worked had two things not have gone terribly wrong. One, the market of used cars fell off and they don't sell for as much as predicted. Thus, Hertz lost a big part of the revenue stream dedicated to paying back the investors. Second, and most importantly, the pandemic ground all air travel and subsequently car rentals to a halt. Hertz could not sell enough of its fleet or make enough revenue to pay back its ABS's and thus finally folded.

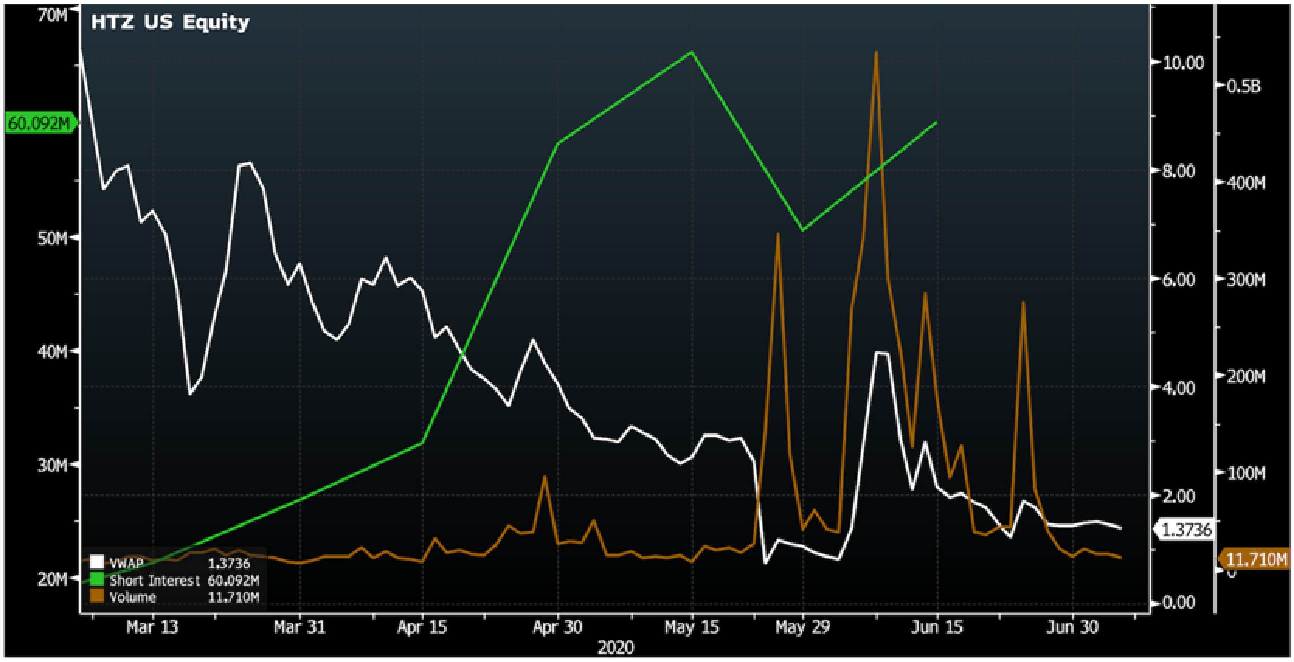
Stock Rise

After the company filed for bankruptcy, the stock plummeted to 56 cents per share. In the following weeks, it rose to a high of $5.53 per share on Monday, June 8th, almost a 900% increase. Why is it that after a company declares bankruptcy does a stock rise tenfold?

A possible reason for this happening to any stock is the possibility of a miracle happening and the company can continue to generate revenue and pull itself out of bankruptcy, this miracle could be an unexpectedly quick solution to the pandemic and thus could prove to be an ultimate value play. However, with the mountain of debt Hertz is facing, it is extremely unlikely that the company's stock does anything other than going to zero. Nonetheless, investors still drove the stock up. I believe it was a combination of these two things.

The first being a short squeeze of the company's shares. As aforementioned Hertz has been in some trouble for the better part of the last decade. The recent pandemic furthered the pessimistic views on the stock. From Bloomberg LP, the Short interest (Number of open or uncovered shorts) increased from 15 million in February to over 66 million shorts a week before the company filed for bankruptcy (Bloomberg Terminal). After the bankruptcy, the short interest fell sharply by over 15 million shares. This is the short squeeze. Investors sensed that the stock was going to be delisted and worthless and wanted to get their money while the stock was still listed. 15 million people sold their shares, and investors bought them stopping the fall and started increasing the stock price.

The second part of the increase was an influx of opportunistic and amateur investors. Like many investors, a sharp rise in a stock creates some excitement and the possibility to make some quick money. This is even more common when a stock is extremely cheap. Kirk Ruddy, a former bankruptcy claims trader explains that in general, "people don't know where to put their money. They are like 'Hey I'm going to try that $1 stock." [6] As more and more people buy the stock; it jumps up to a peak of $5.53 but stops when the smart investors start to sell and clock in their 900% gain. The combination of the initial short squeeze and the momentum buying sparked the massive increase, even though the stock is most likely to return to zero.



Graph 1: Trading Volume, Price per Share, and Short Interest for Hertz from March to July 2020
Source: Bloomberg

The graph above shows the Short Interest (Green Line), the Price per Share (White Line) and the Daily Trading Volume (Orange Line). Clearly, the Short Interest (Reported every two weeks) rises sharply until the bankruptcy announcement, and all the investors covered their shorts evident in the first spike in the trading volume. This helped the stock recover a bit before investors started buying the stock at its low as evident in the large trading volume. The trading volume topped half a billion shares in one day, more than 3 times the number of outstanding shares, 142 Million (Bloomberg Terminal). This continuous buying in such a short amount of time sharply increased the share price to its highs. The final spikes in the trading volume came on speculations that Hertz would issue more shares to raise more money and 'strike the iron while it's hot.' As the trade volume died off, so did the price per share and it returned to $1.37 per share.

Future Outlook on the Market

The car rental market will be shaken up without its second-largest player in the game. The other rental car giants, Enterprise and Avis are in much better financial situations and have a better chance of surviving the pandemic. However, it all depends on the airline industry as mentioned at the start of the article. When the airline industry starts flying again, then the car rental companies will be able to start making money again and be able to operate their business.

The length of the pandemic really has total control over the industry and how many businesses can survive. These businesses rely on a steady stream of revenue and a competitively priced used car market. Evidently, the virus has taken those two revenue-generators away. In addition, the fixed costs of running a rental car business are extremely high. In economics, a fixed cost is a liability that must be paid regardless of how much money the business brings in. In the case of rental cars, the fixed costs are expensive, like storage for a large fleet and buying new cars to replace the ageing ones are not cheap. Therefore, until the ill effects of the pandemic subside, it is a rough road ahead for rental car companies. The stock market agrees too, as Avis Budget Group, listed on the NASDAQ stock exchange is trading 47% lower than its February highs.

In the absence of Hertz, Enterprise and Avis should scoop up the majority of Hertz customers providing a boost to their companies. Although with rideshare companies starting to attract some traditional rental car customers, companies like Uber and Lyft could certainly benefit from the absence of Hertz.
In conclusion, Hertz company is going bankrupt due to an extensive amount of debt starting from the beginning of the decade. Their absence in the car rental market will not have drastic impacts right now as the industrial demand is close to none, and its rivals will continue to struggle through the pandemic. Even though stocks like Avis are trading at an attractive price, they won't be making any money until the pandemic is over and I believe that the rental car industry will continue to struggle until then. However, once the airlines industry opens back up, rental car competitors like Enterprise and Avis, and rideshare companies like Uber and Lyft are primed to gain a large number of customers after Hertz's fall.

[1] https://globalnews.ca/news/6977917/coronavirus-hertz-car-rental-bankruptcy/
[2] cbc.ca/news/business/hertz-bankruptcy-car-rental-1.5581850
[3] https://www.credit.com/debt/filing-for-bankruptcy-difference-between-chapters-7-11-13/
[4] https://www.kgrlaw.com/business-file-chapter-11/
[5] https://www.lawfirms.com/resources/bankruptcy/chapter-11/effect-chapter-11-stockholders.htm
[6] https://www.latimes.com/business/story/2020-06-08/bankrupt-stock-hertz

Tencent is eyeing on iQiyi: The long and winding road to profitability for Chinese OTT companies

By Johnson Shih, Market Research Analyst

Tencent has approached to Baidu for potentially merging with iQiyi?

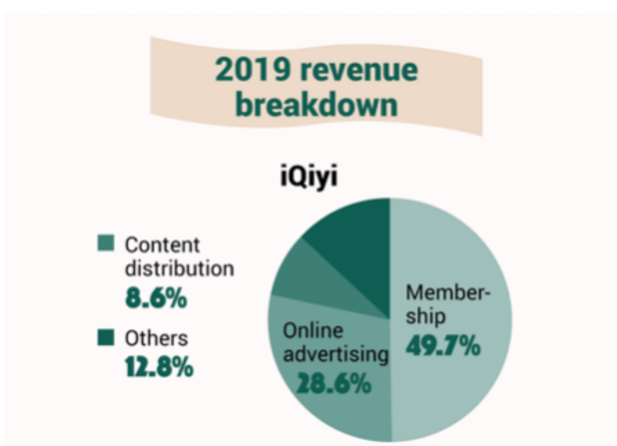
A week ago, there is news in the market that Tencent has approached to Baidu, which owns 56.2% of iQiyi (NASDAQ:IQ), and hopes to acquire most of iQiyi's shares. As of June 16th, iQiyi has risen 25% since the rumors. For iQiyi, since the third quarter of last year, its revenue growth rate has not exceeded 10%, and its share price has fallen below $20. For Tencent, with the rise of video platforms such as Bilibili and TikTok, the oligopoly of Tencent, IQiyi (Owned by Chinese searching engine giant, Baidu), Youku (Owned by Alibaba) in the Over-the-top media services (OTT) is losing its market shares by the impact of the new players. This is obviously not good news for Tencent, who is aiming to dominate the content providing industry. Under the competition, merging with other OTT providers may be the only solution for Tencent to keep its leading position in this capital game.

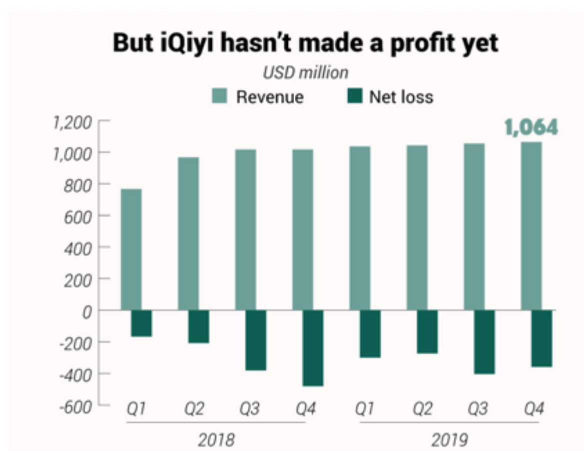
A quick glance on the Chinese OTT markets

Exhibit 6: Annual Revenues

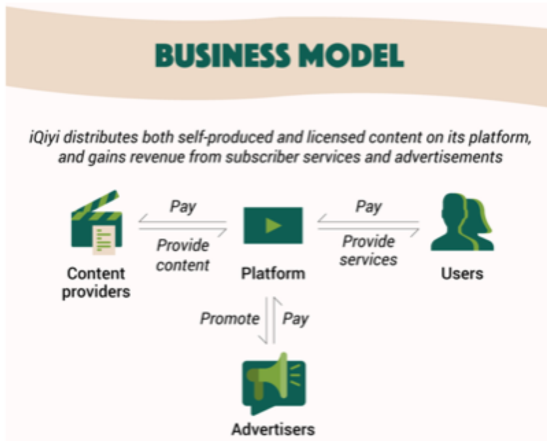
Source: iQiyi and Ming Lu.

For the past couple of years, long video content providers, such as iQiyi, Youku, and others have always been favored by the investors by branding themselves as "Chinese Netflix". From a business model point of view, the two are in fact similar, they both provide long videos, and their income is mainly based on membership fees. Investors used to buy the story. In just three months of listing, iQiyi's stock price rose from 15.55 US dollars on the first day of listing to 46.23 US dollars, with a market value also exceeds US$30 billion. But now investors' attitudes seem to have changed. It is reasonable to think that the pandemic outbreak in early 2020 will greatly benefit internet companies that provide online services. After briefly falling, Netflix's stock price rose all the way to a new high. In contrast, over the past two months, iQiyi's share price has fallen from $27.5 to $19.15, a decline of up to 29%. From the perspective of revenue, since the third quarter of 2019, iQiyi's revenue was 7.4 billion RMB, and the revenue growth rate was lower than 10% for the first time. This situation has not improved much in the next two quarters. [1] [2]



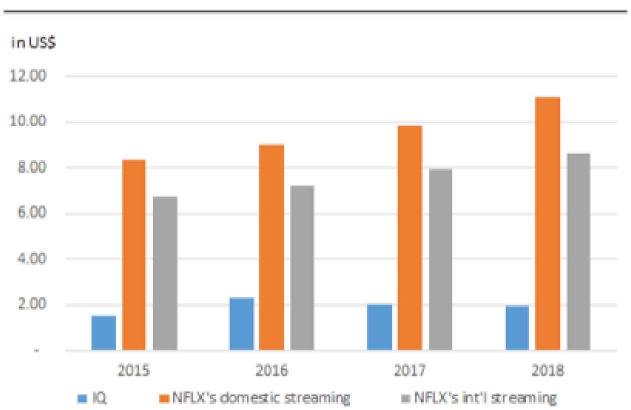


Specifically, iQiyi's revenue mainly comes from two businesses: membership and advertising. In 2019, the two revenue streams have delivered very different results. Since 2019, although the growth rate of iQiyi member income has slowed down, the growth rate has remained above 20%. On the other hand, advertising revenue has drastically declined to its historical low. In the past four quarters, its advertising revenue growth rate was 16%, -14%, -15%, and -27%. (3)



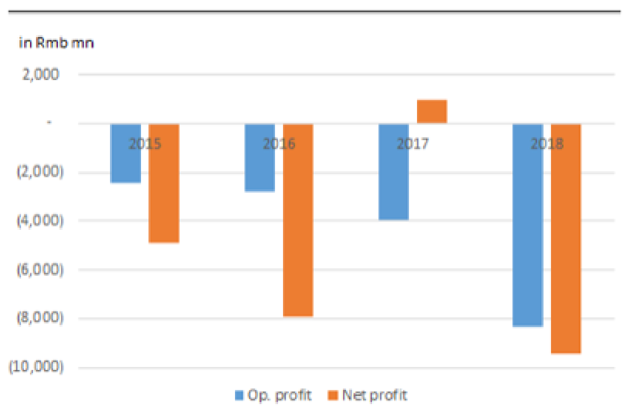
The proportion of member fees income in iQiyi's revenue structure continues to increase. By the first quarter of 2020, the revenue share of the member fees revenue stream has exceeded 60%. The economic slump and the rise of other types of advertising are two important reasons for the decline in iQiyi's advertising business. More importantly, in the long video business model, membership and advertising revenue is a zero-sum game, meaning that users pay membership fees to avoid watching ads. This business model is only valid when the membership fees can make up for the lost income of the ads. (4)

Chart 5 : ARPU Comparison



Sources: QuanamCap, Company data

Chart 6 : IQ's Op. and Net Profit

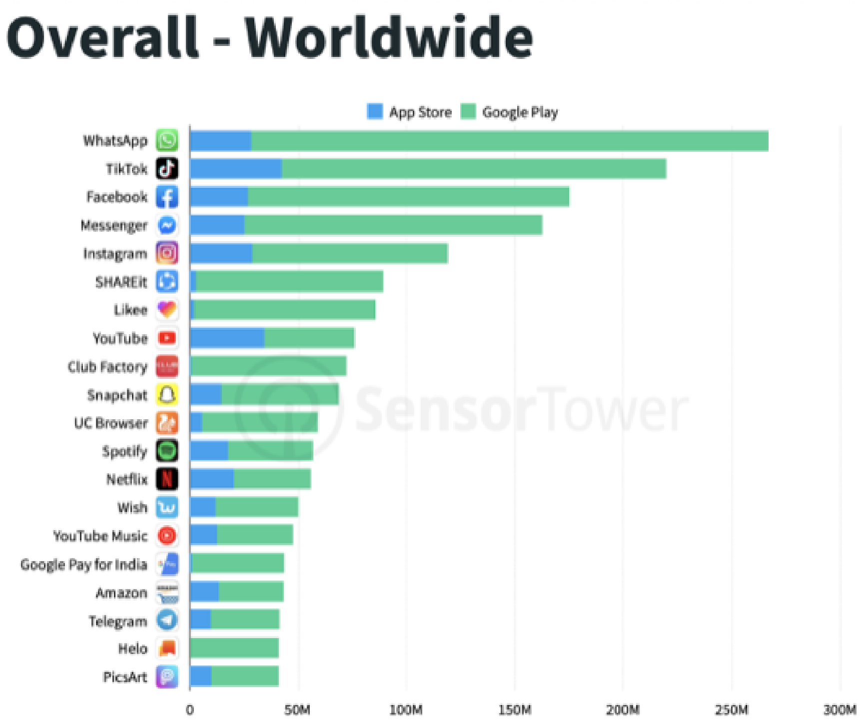


Source: Company data

Let us use some metrics to understand iQiyi's performance better. we can get the average revenue per user by dividing the membership income of this year by content costs of the previous year. As the growth of paying users decelerated and ARPPU growth was limited, iQIYI's ROI has declined significantly in recent years. In the past three years, iQiyi's ROI has fallen from 0.87 to 0.68. In other words, as the content costs increase due to increasing IP costs and sales and marketing costs, the return that can be generated is significantly lower. (2)

With Tencent and iQiyi merging, it will effectively increase the bargaining power to charge a higher membership fee and decrease the average IP acquisition price. Although the number of members of the two video sites is rapidly expanding to over 100 million, however, many of its members are still non-paying members. On the flip side, as the member base grows, the opportunity for future growth is smaller. Thus, with the other revenue pillar of the video website, advertising income, has also drastically changed under the influence of the epidemic. It is hard for both Tencent and iQiyi to fight the battle alone. (5)

Competition intensified and member unloyalty are the main challenges

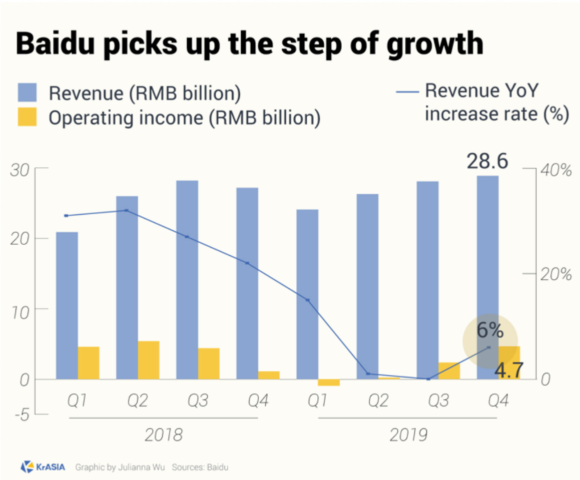


Today, the rise of short video and UGC platforms has further intensified the battle of OTT. In December 2018, the monthly total duration of users using TikTok and Kuaishou in the video field exceeded Tencent, iQiyi, and Youku for the first time. To a certain extent, the short video content providers and the long video content providers share the same market, and the business model boundaries are gradually blurred, thus, it is inevitable that the two are fighting for advertisement business. Finally, the user of Chinese video sites is extremely price-sensitive and unloyal. To find the best deal of the services in the market, users often switch between different sites to find the highest performance-cost ratio service. After all, the growth of subscription users has reached a bottleneck. Any increase in the membership fee will result in losing members.

The business model of the long video is a dilemma. The two major sources of advertising and membership fees compete with each other, resulting in cannibalization. Advertisement leads to poor user experience because an important reason for paying is to watch fewer ads; and fewer ads, in order to maintain the profitability, business needs to increase membership fees, price-sensitive users will find other alternatives.

Will Baidu agree to the deal?

On May 19th, 2020, Baidu announced its first-quarter 2020 financial report, with revenue of 22.5 billion RMB and a net profit of 3.1 billion RMB. Both core indicators exceeded market expectations. However, a year ago, Baidu released its 2019 Q1 financial report. Various indicators caused an uproar in the market that Baidu recorded an operating loss of 936 million RMB, which is the first time since 2005. Although Baidu is slowly recovering from its financial distress, the fact that Baidu is now facing multi-dimensional competition from Toutiao, Tencent, and other strong competitors, the negative net income of iQiyi does not contribute any momentum to Baidu's recovery. Therefore, it seems like merging the two companies is currently the best choice for iQiyi and Tencent, as iQiyi would naturally want to look for a strong partner to be its alliance. (6) (7)



[1] https://finance.yahoo.com/quote/IQ/
[2] https://finance.sina.com.cn/chanjing/gsnews/2020-06-19/doc-iirczymk7941189.shtml
[3] https://finance.sina.com.cn/stock/usstock/c/2020-06-16/doc-iirczymk7333215.shtml
[2] https://finance.sina.com.cn/chanjing/gsnews/2020-06-19/doc-iirczymk7941189.shtml
[4] https://variety.com/2020/biz/asia/tencent-iqiyi-china-video-streaming-takeover-merger-1234636656/
[5] https://marketrealist.com/2020/06/tencent-seeks-big-stake-iqiyi-3-highlights-investors/
[6] http://ir.baidu.com/news-releases/news-release-details/baidu-announces-fourth-quarter-and-fiscal-year-2019-results
[7] https://ir.iqiyi.com/static-files/336ce9c5-aa7e-4a01-a7ec-596804651799

JUNE 2020

Commodity Sector Overview

By Ethan McTavish

Sector Overview

The commodity sector has been one of the hardest hit asset classes, with the exception made for the safe-haven gold bullion. The price of commodities is ever so reliant on the basics of supply and demand and since the start of the COVID-19 pandemic demand has crumble and inventories have skyrocketed. With the two largest commodity consuming nations in the world; the United States and China both experiencing the pandemic at different times and with re-ignited political tension between the two countries. It provides for huge commodity trading opportunities, as traders capitalize on increased short-term volatility in the markets. This report will focus on the past market trends of hard commodities – oil and metals and conclude by discussing the soft commodities market, focusing on livestock.

Exhibit 1: See below United States and China new daily COVID-19 case count. *Assuming accurate reporting, we can see that the United States has seen a spike in new coronavirus cases, as businesses continue to re-open. Meanwhile in China, they have gone months with very few cases, as restriction on foreign travel and wearing face*

masks are upheld.

Oil

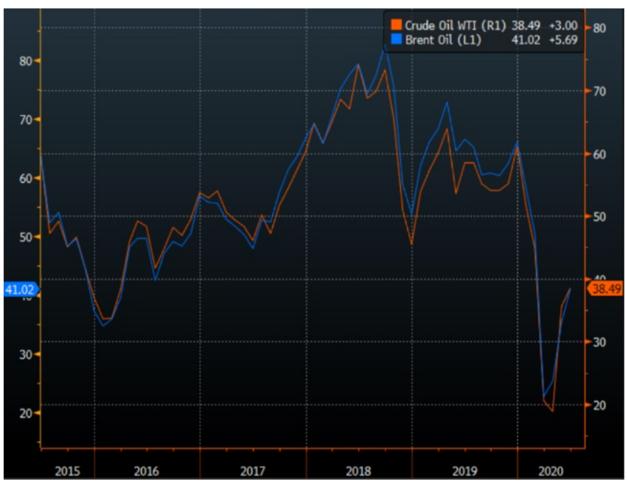
Recent Price Trends

Since the beginning of March to the end of April, there has been a sharp decrease in the price of WTI Crude and Brent Oil. WTI fell from its January 8th high of $65.65 a barrel to going negative on April 20th due to several factors all of which happened in the matter of a few months.

Actions

Starting with an unprecedented production cut of 10% of the global supply by OPEC+ members reached on April 12th [1], and with China, the second largest consumer of oil opening businesses in mid-April has helped raise the price of oil off its lows. In the past month, prices continued to rise as businesses continue to reopen globally and in June, OPEC+ agreed to extend its historic production cut which has stabilized oil around the $40 dollar range, a 150% increase from its mid-teen lows. Details of this extension include its 10 million barrel per day cuts to last through the end of July, with smaller production cuts going into 2022[2]. The price is still down 40% from the start of the year as a surplus of oil in the market remains as huge oil-consuming industries such as: transportation and manufacturing continue to struggle.

Exhibit 2: See below the price of Brent and WTI crude oil over the past 5 years (left) and from the beginning of the pandemic (right). *The price of oil has recovered partially from the beginning of the pandemic with hopes that economies have survived the worst.*

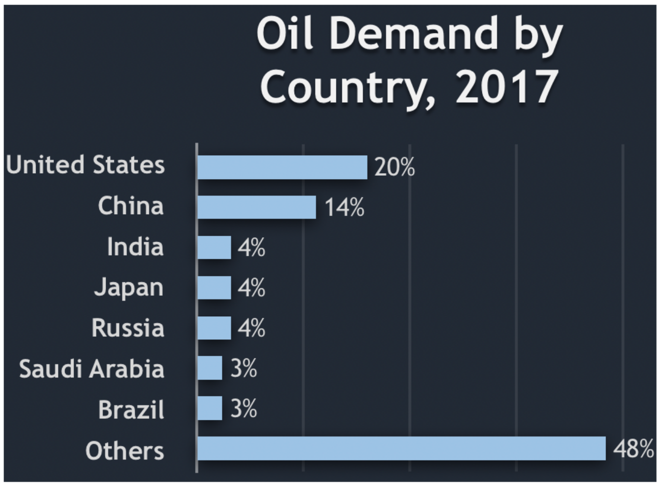


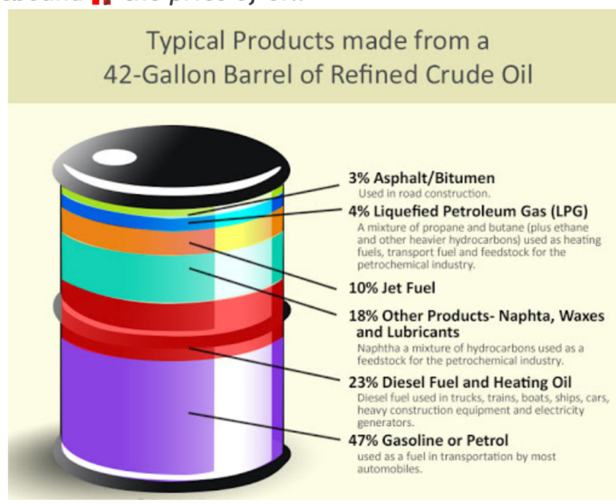
Market Outlook

Similar to other industries, prices will continue to remain volatile with conflicting optimism that businesses are starting to open, while COVID-19 cases rise world-wide. Extra attention is necessary on these rising cases as most are appearing in the largest oil consuming nations such as the United States, India, Russia, and Brazil. In contrast, as some countries have made significant progress in eliminating the virus through preventative measures, they will continue to keep borders closed to countries with rising cases. It should be expected that restricted travel will remain until at least the end of the year or until a vaccine; limiting the price of oil. But on the back of increased domestic travel (domestic flights, local travel), the United States opening businesses at any costs and better than expected manufacturing data in China [3].

Expect in the next 4 months, without a vaccine the price of oil to stay around the $45 per barrel mark but oil should drop to around the low $30s in the next month. Once a vaccine is found and readily available, expect oil in the long-run to settle around the mid-$50 range

Exhibit 3: See below the world's break down of oil consumption by country [4] (left) and the uses for oil [4] (right). *Most of the largest oil consuming countries are seeing an increase in COVID-19 cases. This will continue to suppress the heavily oil dependent industries such as manufacturing and transportation, putting pressure on the rebound of the price of oil.*

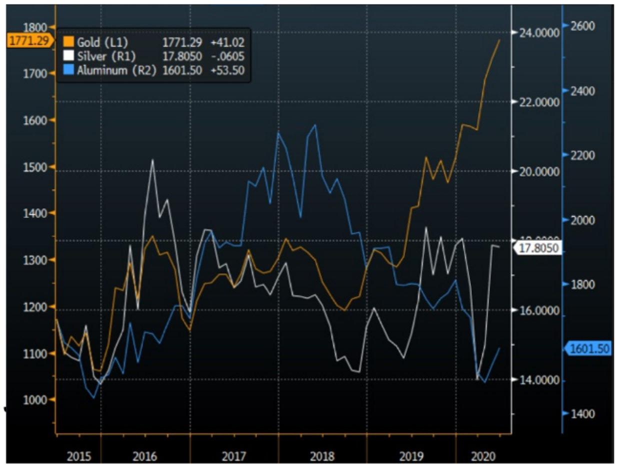




Metals – Gold, Silver, Aluminum

Recent Price Trends

With gold and silver viewed as safe heaven metals we have seen similar price movements among these two over the past couple of months. Gold and silver are up 61 and 20% respectively within the past five years, and gold remains up 20% since the start of the pandemic with silver up slightly as well. Besides dramatic drops in these two commodities; the first on February 28th and the second in the middle of March which is due to companies and governments selling these metals to cover other positions [5]. Since 2018, both gold and silver rose in price due to several factors. Some of which include: the political tensions between the United States and China from their trade war and increasing predictions of a recission in 2020 for reasons other than a pandemic. These two main factors led to a spiral of other effects causing bond yields to invert and lower interest rates furthermore making these hard commodities more attractive to hold. Silver's price has had a more jagged recovery in recent months which is more dependent on the U.S. and China's success in limiting its COVID-19 cases and industrial demand. As 56% of silver use is for the industrial space [6].



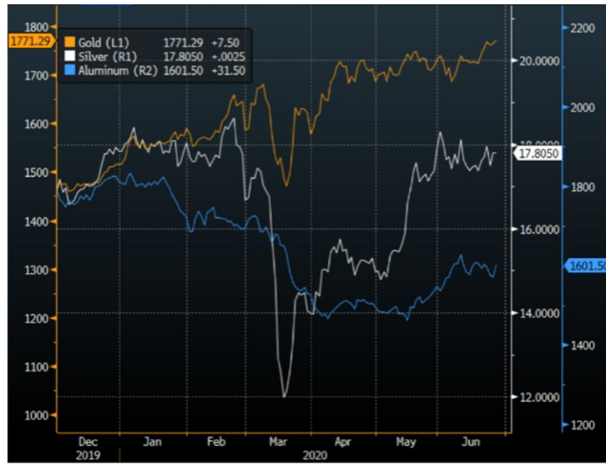
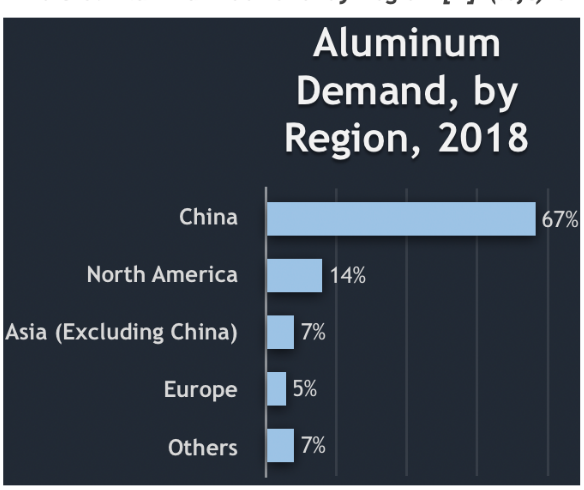


Exhibit 4: See below the price of gold, silver, and aluminum over the past 5 years (left) and from the beginning of the pandemic (right). *The price of gold has skyrocketed almost to its all time high which was reached in the 2008 Financial Crisis. The price of silver and aluminum prices have boosted from optimistic data coming from China.*

The price of aluminum has stayed steady since the beginning of April and has increased in May as China starts to report manufacturing figures consistent with figures before the pandemic [3]. Even though investors are buying aluminum contracts on the Shanghai Futures Exchange which is strongly influenced by China's data. Meanwhile, the metal on the London Metals Exchange as listed above reflects the global aluminum price [8]. Long run, this factor should not cause a big price difference between the two as the expectation is that the price gap between the two exchanges will narrow as current arbitrage opportunities in the markets exists. Also, with China being such a large market player in the space and with few COVID-19 cases it has been importing a surplus of aluminum from other countries further propping prices back to normalized levels [9]. In addition to this, with energy prices rising in the past couple of months this has increased the input costs of producing aluminum steepening the cost curve, supporting the price.

Exhibit 5: Aluminum demand by region [7] (left) and one of China's main manufacturing indicators [3] (right). *In addition, for China accounting for 67% of all aluminum consumption it as well produces 55% of*



global output. Furthermore, China has seen PMI measures comparable to those before the pandemic.

Market Outlook
Expect in the coming weeks that gold and to a lesser extent silver will continue to rise to new highs as China economy gets back on track, and people continue to flee to safety as cases in United States and India surge. In addition, with gold and silver being denominated in US dollars and the dollar expected to decline due to these health trends. Expect more foreign investors to buy gold and silver pushing the price of gold towards $1,800 - $1,900 and silver between $18 to $19 dollar range. Even with a vaccine, the increasing US-China tensions and to a further extent China's tensions with nations such as India and Canada, among others, should keep gold above $1,700. With respect to silver it should continue to push towards the $19 by the end of the year with the fact that it will continue to be an integral part of the tech industry and is positively correlated with inflation. Aluminum prices with better than expected PMI should cause aluminum to push $1,700 in the next couple months. But with fears that China is trying to restructure the economy by focusing more on the service sector in the long run, could dampen prices long term [10].

Livestock

Recent Price Trends

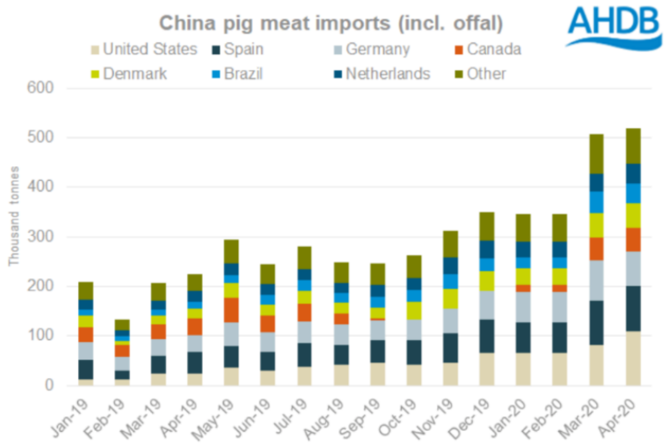
Live cattle and lean hogs have been some of the most volatile segments of the soft commodities with worldwide closures of the food service industry. From December 2019 to the beginning of April these closures have strongly contributed to the 40 and 30% decline in the price of lean hogs and live cattle respectively. But a reverse in this trend occurred in April and early May as both commodity prices elevated with closures of some of the biggest producers in the industry. Companies such as: Smithfield Foods Inc, JBS, and Tyson Foods were forced to shut down several dozen slaughterhouses across Canada, United States and Brazil as production workers fell ill to COVID-19 [11]. These three countries account for approximately 65% of global meat trade [12]. At the same time, with optimism of businesses starting to open and governments taken necessary precautions to flatten the curve has boosted bullish positions. Since early May, as slaughterhouses continued to reopen the increased production has left live cattle prices around the $97 mark. In contrast, a drastically oversupplied hog market as reported by the U.S. Department of Agriculture showed hog inventories up 5% from a year earlier, at a record high for the period. In addition, with an increase in the price of corn in the past week which is a big input costs of both meats will be a big factor in future price movements [13]. Albeit U.S. corn prices remain down 30% on the year.

Exhibit 6: Live Cattle and Lean Hog prices. *Both have been impacted hard with restaurant closures, but as restaurants start to open around the world supply factors are outweighing demand changes.*

Market Outlook

Although, with rising production in both meats and the United States and Brazil experiencing increasing COVID-19 cases which could dampen food service demand further. It would not be a surprise if more production facilities within these countries close and have an April repeat. Furthermore, as China consumes 50% of the world's total pork consumption and is still recovering from an African Swine Fever that ravaged China's hog herd over the past two years [12]. As such, China has increased its April pork imports by 170% on the year and more recent months show similar figures. This should help prop up U.S. pork prices from their lows. But a close eye is needed on US-China tension as a potential for increased tariffs on lean hogs could increase bear positions. Furthermore, China's production recovery from the African Swine Fever could increase inventories globally, pressuring prices further [14].

__Exhibit 7: See below China's imports of pig by country [15].__ Imports from the United States has more than doubled from a year ago.



[1] https://www.bloomberg.com/news/articles/2020-04-12/oil-price-war-ends-with-historic-opec-deal-to-cut-production
[2] https://www.ctvnews.ca/business/opec-allied-nations-extend-nearly-10m-barrel-cut-by-a-month-1.4972669
[3] https://www.caixinglobal.com/2020-07-01/caixin-china-manufacturing-pmi-rises-to-six-month-high-as-demand-rebounds-101573796.html
[4] https://www.eia.gov/tools/faqs/faq.php?id=709&t=6
[5] https://www.bloomberg.com/news/articles/2020-02-28/gold-prices-plunge-by-the-most-intraday-since-june-2013
[6] https://investingnews.com/daily/resource-investing/precious-metals-investing/silver-investing/5-factors-drive-silver-demand/
[7] https://www.nrcan.gc.ca/our-natural-resources/minerals-mining/aluminum-facts/20510
[8] https://business.financialpost.com/pmn/business-pmn/shanghai-aluminum-hits-4-1-2-month-peak-on-china-demand
[9] https://www.reuters.com/article/china-aluminium-imports/rpt-china-braces-for-aluminium-import-wave-as-coronavirus-recovery-upends-trade-idUSL4N2DB22Q
[10] https://www.investopedia.com/articles/investing/103114/chinas-gdp-examined-servicesector-surge.asp
[11] https://www.bloomberg.com/news/articles/2020-04-06/tyson-s-meat-plants-disrupted-as-workers-fall-ill-or-stay-home
[12] https://www.bnnbloomberg.ca/u-s-reels-toward-meat-shortages-and-the-world-may-be-next-1.1426664
[13] https://www.reuters.com/article/usa-livestock/livestock-u-s-cattle-futures-drift-lower-as-corn-prices-soar-idUSL1N2E7305#:~:text=CHICAGO%2C%20June%2030%20(Reuters),for%20livestock%20producers%2C%20traders%20said.
[14] https://www.reuters.com/article/us-china-economy-output-pork/chinas-2019-pork-output-plunges-to-16-year-low-as-disease-culls-herd-idUSKBN1ZG08H
[15] https://ahdb.org.uk/news/the-chinese-pig-meat-market-in-four-charts