The Intangibles

October 2017

The Federal Reserve’s Unwinding of its Historical Stimulus p.2-5  How Fintech Impacts Traditional Financial Industry p.18-19
Toronto Housing Market Gets Off Fast Lane with Steady Price Decreases p.15-17  Surging Japanese Market p.7-12
The Hype Around Shopify p.12-14  The Fall and Rise of Bitcoin in the Time of One Month p.20-21
On September 20th, the Federal Reserve chair Janet Yellen officially announced that the Federal Reserve will start reducing its $4.5 trillion balance sheet in October 2017.

What is the Federal Reserve?
The Federal Reserve System (known as the Fed) is the central bank of the United States and plays an extremely vital role in promoting economic stability and maintaining well-functioning financial markets for the U.S. While the Fed also serves many other functions (such as acting a banker for the federal government and a lender of last resort for financial institutions), its most powerful tool is its control over the nation’s money supply and general level of interest rates, known as monetary policy, which can significantly alter and tune the American economy as well as its financial markets (Board of Governors, 2017).

The Historical Stimulus
So why does the Federal Reserve have a $4.5 trillion balance sheet in the first place? The story starts in 2007-2008, when the financial markets crashed and the American economy tumbled into the most severe recession since the 1930s (known as the Great Recession). Beginning in late 2008, in response to the aggravating economic conditions, the Fed began a six-year program of monetary stimulus known as quantitative easing (QE), which encompasses unprecedentedly large-scale purchasing of mostly U.S. government securities and mortgage-backed financial assets, with the hope of spurring economic growth, establishing public confidence in the economy and stabilizing the financial markets. Since the beginning of QE, the Federal Funds rate (the benchmark interest rate in the economy) had stayed within an all-time low range between 0 and 0.25% for over 5 years, as the Feds purchased over $3.5 trillion of securities in total, signifying the greatest monetary stimulus in the U.S. history (Fawley, 2016).

The logic behind this aggressive expansionary monetary policy is quite simple: as the Federal Reserve purchases more securities in the open market, it injects more funds into the general economy for consumers to spend and according to supply and demand, this increase in the money supply would lower the general level of interest rates (which is the price of money). Such action would stimulate economic growth because a lower interest rate would disincentivize saving (as the return from savings decreases) and incentivize more borrowing (as the cost of borrowing lowers). As quantitative easing pushes the general level of short-term
interest rates near zero, people would spend their paychecks instead of saving them in the bank account and businesses would also increase their borrowing to fund more investments.

In retrospect, quantitative easing was quite effective as an expansionary monetary policy since the American economy already started to pick up during the late-stage of QE’s implementation. The extremely low interest rate environment that lasted for 6 years after the downturn definitely stimulated spending and investments and pulled the U.S. out of the economic turmoil. Despite all the progress that QE created, there is still one problem left: the Fed’s balance sheet. From November 2008 to October 2014, the debt on the Fed’s balance sheet doubled from $2.106 trillion to $4.486 trillion (Amadeo, n.d.). What are they going to do with this debt?

**A lower interest rate would disincentivize saving (as the return from savings decreases) and incentivize more borrowing**

**What have the Feds done after QE?**

After QE ended and the U.S. economy started to experience sustained economic growth in 2014, the Fed started to increase the interest rate since an extremely low interest rate is no longer needed to stimulate the economy and a higher rate would also prevent too much inflation. The Fed first raised rates in December these announcements.

Although rate hikes might disincentive borrowing and Figure 1: A chart for the Federal Funds Rate

(both in March and June 2017). Yet, the Fed still hasn’t officially addressed the

**Fed is confident in the economy and believes a rate hike would not engender any material adverse effects on the trend of sustained economic growth**

What happened on September 20th?

On September 20th, 2017, at the end of Federal Reserve chair Janet Yellen’s statement after the FOMC meeting, she announced that in October, the U.S. central bank will begin to reduce its $4.5 billion balance sheet, which consists mostly of U.S. government securities and mortgage-backed securities. According to the previously released plan by the Fed, in order to reduce its balance sheet, it simply won’t reinvest some of its bonds or mortgage securities as they mature and that way, they’ll roll off its balance sheet. Initially they
would roll off at a pace of $10 billion per month and gradually increase the amount until it hits $50 billion a month.

In her statement, Ms. Yellen also states that the Fed believes Hurricanes Harvey, Irma, and Maria would bring some adverse effects to the economy only in the short run but not "over the medium term." According to the statement, inflation is also well under control but is still projected to be under the 2% inflation target that the Fed has set (Oyedele, 2017).

Implications of the Statement

The most influential part of the statement is definitely the official announcement of the balance sheet reduction. This is a widely anticipated move by the Fed as it has been repeatedly brought up in the Fed’s meetings in 2017, so this official announcement really confirms the expectation of investors and analysts.

Theoretically, the balance sheet reduction is a reversal of its historical stimulus, because instead of injecting more funds into the market like it did during the QE era, now the Fed is holding the funds it receives from these securities away from the economy. However, the Fed is not too aggressive in contracting the money supply because instead of actively selling these bonds and mortgage securities, they’re simply letting them mature and putting the funds aside.

The Fed is also very careful in controlling the magnitude and pace of this balance sheet as the reduction would initially begin at only $10 billion per month, and the cap would raise by $10 billion each month until it reaches $50 billion, which is also a rather moderate figure compared to the total of $4.5 trillion dollars. As illustrated in figure, at this pace, by 2020, the Fed’s balance sheet would drop below $3 trillion (Hankin, 2017). The only uncertainty now is the duration of this reduction process and whether the amount of reduction per month would increase if the economy continues to grow at such a fast pace. Overall, the Fed’s careful planning of the reduction process indicates that money supply wouldn’t go through a sudden shock and thus wouldn’t really drag down the current trend of economic growth.

Yellen’s comments on the inflation rate indicate that the economy is at a good place right now but has yet to reach its full capacity as inflation is still projected to be lower than the target 2% rate in the next 12 months. Moreover, the Fed’s statement confirms that the interest rates will continue to rise and predicts that the economy will grow at a pace that would be suited for interest rate growth. Therefore, the statement indicates a continuously growing trend for...
The US Dollar Index (USDX, DXY), which measures the dollar against six major peers, increased 0.83 percent at 92.558 in late trading after the Fed’s announcement, which illustrates that the market has processed the expectation of a rising interest rate in the future and the Fed’s confidence in the economy (because both a rising rate and a healthy economy increases the demand for USD). Similarly, the expectation of future rate hikes was processed by the fixed income market, evidently from the fact that after the announcement, the yield on the 10-year Treasury note rose to 2.266%, while the 2-year Treasury note yield hit 1.451%, its highest level since Nov. 2008 (Franck, 2017).

Fed’s careful planning of the reduction process indicates that money supply wouldn’t go through a sudden shock and thus wouldn’t really drag down the current trend of economic growth. The implications of the statement for investors in the stock market in general is also quite mixed and should not affect the markets too much in the long run. On one hand, the unwinding of the balance sheet might contract the economy and slow the current growth. Yet on the other hand, such monetary policy indicates the Federal Reserve’s confidence in the economy. Therefore, the market’s reaction on the day of the announcement was very moderate as the S&P 500 index rose only 0.06%. However, the bank stocks in general, as monitored by the Finance Select Sector SPDR Fund (NYSEARCA: XLF), increased by around 5% in the month following the announcement. This is because the expectation for future interest rate hikes also increases the expected profits for these companies in the financial sectors, especially banks. As interest rate rises, these banks can charge a larger spread between the rate at which it lends money and the rate at which it pays depositors. Also, with a healthier economy, banks will have fewer default borrowers. Thus, in the foreseeable future, bank stocks are expected to have a very bullish market under the rising interest rate environment.

Since this move was widely anticipated by the market, this announcement didn’t cause too much fluctuation. However, it definitely indicates a rising interest rate and a healthy economy in the near future, while it also marks the official end of the historical monetary stimulus that started in late 2008.
Figure 3: A 30-day chart for Finance Select Sector SPDR Fund (NYSEARCA: XLF) shows that the ETF that monitors the financial sectors in general has grown around 5% in the month after the announcement.

Source: Tradingview
The Japanese equities have been performing extraordinarily as of late, outperforming both the S&P 500 and the European markets this year. In fact, the Nikkei 225, an index that tracks the performance of the top 225 blue-chip companies (arranged by price) traded on the Tokyo Stock Exchange, reached its highest level since December 1996 earlier this month after improving 17.2% since the new year. The tremendous growth was further propelled in late September by the re-election of Prime Minister Shinzo Abe, who is a major catalyst for the dramatic economic turnaround for Japan.

Historically, the Japanese economy has been in shambles for the past two decades. Since the asset price bubble burst in early 1992, the economy failed to escape deflation and economic stagnation which resulted in the country reaching the highest debt to GDP ratio globally. The conditions worsened with the 2008 recession and the Japanese leadership failed to bring their nation out of the hole they dug themselves into. As a result of deflation and poor corporate governance, many investors chose to keep their money under their mattresses because they still gained from being risk-averse and not investing (Connington, 2017). These conditions pumped money out of Japanese equities for the past 2 decades since the equities seemed like “dead money”. With the rapidly decreasing population, skyrocketing debt, and people holding onto their money instead of investing in the country, the situation looked hopeless.

About 5 years ago, Shinzo Abe was elected as Japan’s Prime Minister and he implemented a series of aggressive monetary and economic policies along with reforms to corporate governance. Abe’s plans did not solve all of Japan’s economic concerns but have certainly led the nation in the right direction. The market reaction to his most recent re-election is a testament to this statement.

Why are equities surging?

Abe and Abenomics

When Abe came into power in 2012, Japan was still stuck in their deflationary spiral. Abe’s aggressive economic policies aimed to jump-start the Japanese economy and end the 2-decade fight against deflation. Other key objectives include boosting domestic demand, GDP growth, and raising the inflation rate to 2%.

Abe’s policies, also known as Abenomics, focuses on three key pillars to achieve their objectives. Firstly, Abe’s policies target the fiscal policy where the government

By Danny Jiang

influences the economy through adjusting its spending levels and tax rates. The fiscal stimulus plans totaled about 20.2 trillion yen ($210 billion USD) with approximately 10.3 trillion yen ($116 billion USD) spent directly from the government. The stimulus packages were focused on developing and enhancing Japanese infrastructure projects. The government added an additional 5.5 trillion yen, and 3.5 trillion yen in April 2014 and December 2014 respectively towards these plans. The massive government spending intends to spur economic growth and GDP growth and so far, the investments have been paying off (McBride, n.d).

Secondly, Abe’s reforms to the monetary policy turned Japan into a guinea pig from an economic standpoint. The Bank of Japan (BOJ) injected liquidity (check out “The Federal Reserve’s Unwinding of its Historical Stimulus” for more information on this), and pushed interest rates into the negative territory in an attempt to encourage investment and lending. This move proved to be extremely beneficial given the most recent economic data which will be discussed later in this article.

Lastly, numerous structural reforms on corporate governance were made. These reforms included
liberalizing the labour market and agricultural sectors, cutting corporate taxes, increasing workforce diversity, and cutting business regulations. These changes aim to revive and drive competition both internationally and domestically.

From an investments perspective, poor corporate governance allowed companies to hoard their cash and earnings without the need to innovate or provide dividends. This is a direct result of deflation since the there was no cost to being risk averse and greedy. This behavior drove many investors away from owning Japanese equities since they were receiving a dismal return on investment. However, with Abe’s reforms, shareholders are given more incentives to invest. Companies are no longer hoarding cash and are innovating and growing while providing dividends and share buybacks to investors. Making Japanese equities more attractive to invest in.

**Effects of Abenomics on the Economy and the Markets**

With the implementation of such aggressive economic policies, the Japanese economy and equity markets surged in the past five years. In fact, the Nikkei 225 rose about 141% since Prime Minister Abe’s re-election on September 26, 2012 and have hit highs of over 22000 basis points in late October. Despite the dramatic rise of Japanese equities, there is still significant room for further development. According to Star Capital, the Japanese market has a PE ratio of 16 while the world has a PE ratio of 19 and the US has a PE ratio of 22. This suggests the Japanese market is still undervalued since it outperformed both the US and the world equities for the past year (Connington, 2017).

In addition to the surging markets, the recent economic landscape also reflects the success of Abe’s reforms so far. The unemployment rate is at a multi-decade low of 2.8%, down from 5.4% in 2008, and corporate earnings have also been rising as shown in Figure 1. Furthermore, capital investment rose over 15% and corporate profits surged by over 40% since the beginning of Abenomics. This implies that Japanese companies are receiving a far greater amount of foreign and domestic investment and they have been able to use these new funds to achieve an incredible rate of growth. A 40% rise in corporate profits is a key fundamental factor that results in the profitability of investing in Japanese companies, resulting in the drastic growth of the Nikkei 225. Lastly, nominal GDP is up just over 8.4%, tax revenue is also up by 36.4% and the number of government bonds issued is down by 22%. The growth in GDP, decrease in government bonds, and higher tax revenue are healthy signs that the economy is still growing (ABENOMICS, n.d.).

### Economic Indicators

<table>
<thead>
<tr>
<th>Category</th>
<th>Indicators</th>
<th>Units</th>
<th>Pre-Abenomics</th>
<th>Post-Abenomics</th>
<th>Progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>Nominal GDP</td>
<td>JPY</td>
<td>495 tn</td>
<td>537 tn</td>
<td>↑</td>
</tr>
<tr>
<td>Corporate performances</td>
<td>Nikkei stock average</td>
<td>JPY</td>
<td>8,803</td>
<td>19,687</td>
<td>↑</td>
</tr>
<tr>
<td></td>
<td>Corporate ordinary profits²</td>
<td>JPY</td>
<td>48.5 tn</td>
<td>68.2 tn</td>
<td>↑</td>
</tr>
<tr>
<td></td>
<td>Capital investment</td>
<td>JPY</td>
<td>71.8 tn</td>
<td>82.6 tn</td>
<td>↑</td>
</tr>
<tr>
<td>Job market</td>
<td>Number of employed persons (female)</td>
<td>Persons</td>
<td>62.7 mn (26.6 mn)</td>
<td>64.7 mn (28.1 mn)</td>
<td>↑</td>
</tr>
<tr>
<td></td>
<td>Jobs to applicants ratio (regular)</td>
<td>%</td>
<td>0.74 (0.44)</td>
<td>1.48 (0.97)</td>
<td>↑</td>
</tr>
<tr>
<td></td>
<td>Unemployment rate</td>
<td>%</td>
<td>4.5</td>
<td>2.8</td>
<td>↑</td>
</tr>
<tr>
<td>Fiscal condition</td>
<td>Tax revenue</td>
<td>JPY</td>
<td>42.3 tn</td>
<td>57.7 tn</td>
<td>↑</td>
</tr>
<tr>
<td></td>
<td>Amount of JGB² issued</td>
<td>JPY</td>
<td>44.2 tn</td>
<td>34.4 tn</td>
<td>↓</td>
</tr>
<tr>
<td></td>
<td>Level of dependency on JGB</td>
<td>%</td>
<td>38.1</td>
<td>35.6</td>
<td>↓</td>
</tr>
</tbody>
</table>

*Figure 1: The Pre and Post-Abenomics economic summary Source: The Government of Japan*
Falling Yen Favoring the Net Exporter Status

The Japanese Yen have been on a downtrend lately and these conditions are extremely favorable to the economic position of Japan. According to the Observer of Economic Complexity, Japan ranks fourth in the world in exports and has about a US$22 billion trade surplus in 2016 (Japan, n.d.). This is mainly due to Japan’s robust technology sector which produces unique, hard to replicate products which are in high demand globally. With a falling Yen, Japanese exporters are able to capitalize since their products are now cheaper and more attractive to foreign buyers (a falling Yen results in the ratio of a foreign currency to the Yen to rise assuming that the foreign currency does not fall at a faster rate than the Yen). This increases demand for Japanese products which favours numerous Japanese companies focused on exporting their products.

In Figure 2 and Figure 3, this relationship becomes evident as the Yen to USD ratio (JPY/USD) and the Nikkei 225 are clearly inversely related. Since September 2017, the JPY/USD fell as the Nikkei 225 rose drastically. A similar trend followed in the late spring of 2017 and the fourth quarter of 2016.
Abe’s Re-election Results
On October 22, 2017, a general election was held after Prime Minister Shinzo Abe decided to call a snap election earlier this year in an attempt to win a two-thirds majority in Parliament. After a term of incredible economic successes, Abe’s decision paid off as he won more than two-thirds of all the seats in the Parliament. This enables him to revise Japan’s Pacifist constitution in 2020. The constitution does not allow Japan’s military to develop any significant offensive capabilities in the land, sea, and air. With the mounting North Korean hostilities, Abe and his party aim to change this constitution (Griffiths & Berlinger, 2017).

More importantly, with Abe’s re-election, his policies can continue its implementation. After all, Abenomics was the focal point of Abe’s campaign and why he was favoured so heavily by the Japanese public. After Abe’s re-election, the Nikkei 225 surged by about 1.4% and the Yen fell again propelling the growth in equities.

Investment Opportunities
Given the extremely positive economic data and the optimistic outlook for Japan’s economy in the near-future, a strong equity performance is expected to continue. However, this does not mean that investing in individual Japanese stocks is a good idea. From a tax and feasibility standpoint, your broker must allow you to invest in stocks in the Japanese markets where an investor might have to pay extra taxes to both their domestic government and the Japanese government. This also brings on a lot of unsystematic risk and additional fees that could be completely avoided by other investment ideas.

Investing in index ETFs is by far the better and safer way of reducing unsystematic risk associated with certain stocks and industries while achieving clearly superior returns to other market-tracking ETFs. The iShares MSCI Japan ETF (NYSEARCA: EWJ), iShares JPX-Nikkei 400 ETF (NYSEARCA: JPXN), and the iShares Currency Hedged MSCI Japan ETF (NYSEARCA: HEWJ) have both done extremely well in the past year, advancing 8.3%, 8%, and 12.6% respectively since the beginning of September 2017. All of these ETFs allow an investor to gain exposure to a diverse range of Japanese companies while reducing unsystematic risk. The Currency Hedged MSCI Japan ETF aims to reduce currency risk associated with the impact of the Yen relative to the US dollar. The iShares JPX-Nikkei 400 ETF tracks that Nikkei 400 index which is comprised of the top 400 large to mid-cap Japanese companies traded on the Japanese Stock Exchange.

It is also important to note that currency hedging is not very effective during times of currency stability and is extremely effective during times of huge decreases in the JPY/USD ratio (illustrated in Figure 6). This is largely due to the fact that smaller rises and falls in the JPY/USD ratio become an expense to a currency hedged ETF since the ETF hedges these movements with FOREX derivatives. These smaller expenses take away from the smooth uptrends of non-hedged ETFs (Figures 4 and 5). However, during times of large drops in the JPY/USD ratio (4th quarter of 2016, 2nd Quarter of 2017, and 4th quarter 2017) shown in Figure 2, the hedged ETF pays off heavily providing almost twice the return of a normal, unhedged ETF as illustrated in Figure 6.

However, another interesting observation is the fact that all of these ETFs are already partially hedged for currency fluctuations to some extent. Since Japanese equities generally perform better with a weaker Yen and the US is Japan’s largest exporting partner, a weaker Yen to USD ratio is actually beneficial for Japanese equities. This means that by investing in an ETF comprised of Japanese equities is already partially hedging the risks of currency fluctuations with a significantly smaller expense ratio.
Figure 4: The iShares MSCI Japan ETF showed a very stable uptrend since last July. Source: Tradingview

Figure 5: Similar to the MSCI Japan ETF, the JPX Nikkei 400 ETF exhibited a similar performance. Source: Tradingview

Figure 6: The iShares Currency Hedged MSCI Japan ETF exhibited a much more volatile growth. Source: Tradingview
The Hype Around Shopify

By Cindy Luo

In a turn of events, Shopify Inc. (NYSE: SH) tumbled by as much as 20 per cent earlier this month after Citron Research aggressively began shorting the stock. In a stinging tweet and video rebuke, Citron founder Andrew Left insisted that this Canadian e-commerce company was running an overvalued “get-rich-quick” scheme. He argues that Shopify’s hype is unsustainable and that the stock should really be worth half of what it is. This claim has prompted many investors to follow his footsteps and reconsider Shopify’s valuation and growth expectations. Perhaps the momentum Shopify has accumulated over the years is finally coming to an end.

Company Overview

Shopify Inc. earns revenue by helping small to medium-sized businesses sell their products and services online using a cloud-based platform, which handles all back-end logistics including web design, payments, marketing and shipping. The convenience of having end-to-end e-commerce solutions packed into a subscription-based model has truly allowed Shopify to “quietly power an e-commerce revolution.” (Baldwin, 2017)

Co-founded in 2004 by Tobias Lutke, Shopify went public in May 2015 on the New York Stock Exchange (NYSE: SH) and the Toronto Stock Exchange (TSE: SHOP). Today, Shopify has a market cap of $9.33B, and supports almost 500,000 individual businesses and 1 million plus active users.

Since an initial public offering price of $17 per share, the stock price has nearly grown seven-fold prior to this month’s events. Just weeks ago, Shopify was trading at its highest value at $148.83 a share – that is, before dipping down to $94.22, as shown in Figure 1. (Vynck, 2017)

![Figure 1: Since its IPO in May 2015, Shopify has experienced exponential growth, outperforming the market and exceeding investors’ expectations. Source: Thomson Reuters](image)

Over the course of this blooming period, Shopify has yet to turn a profit. However, strong industry growth and increased growth expectations continued to drive prices upwards, making it one of the most expensive software stocks in the market. In its latest earnings report, Shopify has outperformed even its own estimates, coming in at a little over $151 million in sales compared to its forecast of $144 million. (Vynck, 2017)

Its continuous growth in revenue has allowed it to become one of the best performing stocks in the Canadian market.

Industry Growth

Shopify’s growth is propelled by the shift of retail spending from physical stores to online platforms. This global retail trend has fueled e-commerce growth and put mounting pressure on bricks-and-mortar businesses. In 2017, e-commerce represented 10.7% of all retail sales. While the percentage of total sales has increased year over year, the change in annual growth rates...
in Figure 2. The deceleration in growth rates mainly stems from low oil prices and an unstable U.S. currency.

Shopify Inc. is a prime example of this.

**Competition**

Shopify may be one of the fastest growing e-commerce platforms, but it certainly does not make up the largest market share in the industry. As depicted in Figure 3, Magento holds the biggest share, followed by WooCommerce. Unlike Spotify, Magento and WooCommerce operate on an open source platform, which allows merchants to customize their websites using code and features made available by developers.

Surprisingly, these two companies do not trade on the stock exchange. This makes Shopify the most traded company in its industry.

Other emerging competitors include Amazon Web shop, BigCommerce, and Wix Stores. Back in 2015, Shopify announced a major partnership with one of its competitors, Amazon. The platform integration with the King of e-commerce connects Shopify merchants to potential Amazon customers and vice versa. The ability to partner with competitors and industry leaders sets Shopify apart from its competition.

Shopify continues to collaborate with technology leaders such as Facebook and Pinterest, to achieve a more integrated and comprehensive coverage of its e-commerce services.

**Valuation**

Current valuation by Morningstar shows that Shopify is above industry levels in almost every aspect of valuation metrics. Its Price/Sales ratio is almost 3 times the industry average while its Price/Cash Flow ratio is 34 times the average. In fact, Shopify has a higher valuation than Amazon, who is actually producing positive earnings and cash flows. As a result, many investors believe that Shopify is overvalued considering that the company

This has an effect on growth because much of the global e-commerce sales is denominated in the U.S. dollar. Nevertheless, the industry is expected to achieve double-digit growth by 2020, with sales reaching $4 trillion. Economic indicators, such as the expanding middle class, greater internet penetration and growing competition all contribute to this strong projection.

Together, thriving industry growth has allowed technology stocks involved in e-commerce to also experience exponential increases in its valuations.
Comparing these two companies based on current data is unreasonable since Shopify is only in the early stages of its growth cycle. Shopify’s strategy to invest heavily in its business deeply aligns with that of Amazon, who also took losses in the beginning in exchange for more investment in its infrastructure. For many years Amazon was unprofitable yet it still traded at elevated valuations. The more accurate metric is not profitability, but rather revenue growth and earnings progress. By these measures, Shopify remains one of the few stocks in the market with truly amazing growth potential. In the next two years, Shopify is expecting a revenue growth of 51%, a number that may very well justify its current valuation. (SmallCap Power, 2017)

**Technical Analysis**

A technical analysis on SHOP using the Moving Average Convergence Divergence (MACD) indicator signals a potential short-term buy. MACD is a trend and momentum technical indicator that shows the relationship between a longer moving average and a shorter moving average. The crossovers, the intersections between the two lines, are great indicators of potential buy and sell positions. A buy signal occurs when the fast line crosses above the slow line. (Mitchell, 2016) On Figure 5, point X signals a sell position because the fast line crosses below the slow line. This signal turned out to be accurate since stock prices dipped from that point onwards. By this logic, point Y, the most recent crossover, indicates a short-term buy position.

Shopify is taking the small and medium sized markets by storm, and it is already spilling its reach to large corporations with Shopify Plus. By integrating its platform with top industry leaders, Shopify is expanding its revenue streams and poaching customers away from its competitors. Shopify is not only leveraging the social and economic trends of the industry but also improving the functionality and scalability of its platform through ongoing investment.

Earlier this month, Citron Research put a price target on Shopify at $60 a share, a price that prompted many investors to short the stock. This valuation is unreasonable since Shopify is growing at a rate that is 2 to 3 times faster than the valuation multiples of companies Citron used in their calculations. (Seeking Alpha, 2017) The recent dip in price presents a prime opportunity for short-term and long-term investors to invest in Shopify stocks. After all, Shopify is an inimitable e-commerce platform that has an optimistic growth outlook to justify its premium valuation.
As a city known for having one of the fastest growing housing markets, Toronto is seeing a continuing decrease in prices. A report released by the Toronto Real Estate Board (TREB) shows that housing decreased 9.4% since May (TREB, 2017). To understand the changes the housing market is going through now, it is crucial to be educated on how the market got its reputation in the first place.

Toronto Housing Market: Five Months Ago

At the end of the third quarter this year, the Canadian Mortgage and Housing Corporation (CMHC) published a report, revealing the symptoms of an unhealthy market. Figure 1 gives an overview of their findings.

The most significant observation identified was the overvaluation of real estate prices. Common drivers of price, like population growth or increases in disposable income, were not enough to justify the rising price tag on Toronto houses.

In Figure 2, the House Price Index Growth illustrates the growth of housing prices relative to Toronto’s population over the past 18 years. While the increasing population is enough to apply upward pressure on housing prices, by no means should it be responsible for double-digit growth. The CMHC concluded with strong evidence that based on these trends, buyers were obtaining houses at prices much higher than the actual value of the house.

Figure 1: Symptoms of an unhealthy market

Source: Canadian Mortgage and Housing Corporation

Figure 2: House Price Index Growth in Ontario
Source: Canadian Mortgage and Housing Corporation
Other symptoms identified by the CMHC includes evidence of the housing supply being unable to keep up with the demand for houses (overheating) as well as evidence of price acceleration which is the increase of price growth due to compounding overvaluation. (CMHC, 2017)

Many analysts think that these characteristics are being driven by foreign investment. The Globe and Mail reported “9.1 per cent of home sales in a recent month in York Region and 7.2% in the city of Toronto” were involved with foreign investments. (Mahoney, 2017)

“I’ve seen the effects of foreign investment in my hometown, Markham,” Waterloo student, Adam Yoshida said. “My friend lives in an apartment building where his whole floor is empty because of foreign investors”.

The foreign buyers’ exact weight on prices is debated between economists, however there is no denying the increase of empty homes and apartment buildings.

Ontario’s Fair Housing Plan
In April, the Ontario government provided the world with its response to the heated market in a move to ensure housing market stability. The Ontario government decided to introduce "Ontario's Fair Housing Plan". According to the Ontario.ca, its main goal was to “help people find affordable homes, increase supply, protect buyers and renters and bring stability to the real estate market". Out of several changes introduced, the most impactful was the 15% levy on foreign homebuyers (Ministry of Finance, 2017). Canadian Prime Minister Trudeau defended the Fair Housing Plan saying, “The levy aims to differentiate between buyers who are ‘living to move’ or merely betting on the housing market” (Hertzberg & Argitis, 2017).

Other points on the Fair Housing Plan included a tax on vacant homes, more rent control on landlords, programs involving more houses and apartment buildings being constructed, and an advisory group that keeps the Ontario government updated on the effects of the plan. (MoF, 2017)

Critics of the plan doubted the benefits of the changes.
Prem Wasta from Fairfax Investment Firm commented, "most banks can't survive an 50% drop in real estate values ... it's going to come down and a lot of people are going to get hurt". (Chipman, 2017)

The Situation Today
Since the Fair Housing Plan was put into action, the housing market continued to decrease with September showing a modest...

with these price decreases, Toronto’s housing market has transitioned from a market that favors sellers to a “buyer’s market”
A decrease in benchmark prices since August and a hard hitting 9.4% since May. While this decrease is the biggest since the early 2000s, the prices are still up 12.2% from September last year. (Hertzberg & Argitis, 2017)

Matt Lundy of the Globe and Mail thinks that with these price decreases, Toronto’s housing market has transitioned from a market that favors sellers to a “buyer’s market” (Lundy, 2017). Several analysts and economists such as Penelope Graham and Robert Hogue are looking at the fresh October numbers and estimate that prices are starting to heat up and increase once again (Graham, 2017) (Hogue, 2017).

Overall, it seems that five months into the implementation of the Fair Housing Plan is not setting up the real estate doomsday that some people thought it would which will hopefully lead to buyer confidence.

The Future
Although Toronto finds itself in a somewhat optimistic scenario, the future still holds some uncertainty. Robert Hogue of RBC has forecasted a “decline of 4.2% in 2018” but with a healthy increase in housing prices by 1.1%. This is supplemented with a forecast of a steady 4.6% decrease in the number of home sales. “We’re still in the early phase of a prolonged cooling process of Canada’s housing market”, Hogue writes, “we expect that rising interest rates will drive the next phase in 2018—and quite possibly beyond” (Hogue, 2017).

Additionally, the market is holding its breath to see what will happen with another government intervention: a “stress test” that will be implemented on January 1st, 2018 where uninsured mortgages have a minimum qualifying rate of either the “five-year benchmark rate published by the Bank of Canada or the contractual mortgage rate +2%” - whichever rate is higher. Without a doubt, these changes to Guideline B-20 will cause more buyer uncertainty to the mix which leads to a higher decrease in housing sales (Office of Superintendent of Financial Institutions, 2017).

As the housing market continues to show signs of promise and health, the province lies in wait in hopes that this wild ride of a market will finally come to an equilibrium.
How Fintech Impacts Traditional Financial Industry

By Yi Wang

Over the past few years, the financial technology industry expanded at an incredible rate. With the development of financial technology, many things that could not be done in the past can now be achieved easily. So, what exactly is financial technology? And what impact does financial technology have on the traditional financial industry? According to Investopedia, financial technology, also known as fintech, is an industry composed of companies that use new technologies and innovations with their available resources to compete in the marketplace of traditional financial institutions and intermediaries in the delivery of financial services. It can also be understood as using technology to solve financial problems. For example, if you are a small business owner, and you run into cash flow problems, you would most likely apply for a loan through a bank. However, to apply for a loan, you would need to submit numerous documents, satisfy many strict requirements, and the process will usually take a couple of months. By the time you received your loan, it might be too late.

Here is how a fintech company comes into play. There are many financial technology companies who require fewer documents that are currently solving this problem by having numerous automated processes which allows the loan to arrive in your bank account within 24 hours. This is just one of the many examples of how financial technology companies have made our lives easier and better. Furthermore, fintech is also impacting the traditional financial services industry tremendously. From an annual global fintech financing trend report provided by KPMG and CBInsights, venture capital (VC) backed fintech companies made up 55% of overall fintech investments, and this is a good sign showing fintech is one of the most popular industries right now. Since VC is a form of financing that is provided by firms or funds to small, early-stage companies that are deemed to have high growth potential, so with their heavily investment on fintech, it is an indicator that they believe fintech industry will demonstrate high growth in the future. In fact, the overall investment in the FinTech industry rose from $3.9 billion in 2013, to $12.2 billion in 2014 to $19.1 billion in 2015. In the analysis section, we will see more detailed analysis on how fintech affects our day to day life and the impacts on the traditional financial service industry.

![Annual Global Fintech Financing Trend](source: KPMG and CBInsights)

In April 2016, the CFA Institute released a report called ‘Fintech Survey Report’. The purpose of this report is to share professional insight on the financial technologies industry. Out of the 3803 professionals who attended this survey, and 92% of them are CFA Charter Holders. The result of this survey illustrates that the top four financial technologies that the attendants feel will have the greatest impact on financial service industry are: Robo-advisors, Peer-to-Peer lending, Crowdfunding, and Blockchain technology. The bar chart below shows which financial technology the attendants think will have the greatest impact on the
financial services industry in 1 year and 5 years from now.

![Greatest impact on Financial Services Industry](image)

Figure 2: Greatest Impact on Financial Services Industry
Source: CFA Institute Fintech Survey Report

The sections below will mainly focus on what Robo-advisors, Peer-to-Peer lending and Crowdfunding is, and how those financial technologies affect traditional financial service industry.

### Robo-advisers

Robo-advisors are digital platforms that provide automated, mathematical rules and algorithm-driven financial advice and portfolio management with little to no human intervention. It is a low-cost way for users to manage their wealth since these algorithms are executed by software with minimal human intervention. A typical robo-advisor collects information from clients about their risk appetite and tolerance, future goals, expected return and other data, and then the software utilizes its algorithms based on these data to offer advice or automatically allocate, manage and optimize clients’ assets. Currently, there are over 100 robo-advisory services. The most famous company in this industry includes Betterment, Wealthfront, Personal Capital, and Future Advisor. The robo-advisory services these company offers are similar but different in many ways. For example, Betterment will automatically invest a portion of your saving accounts money every month into stocks, bonds, and mutual funds, and its algorithms will automatically allocate and rebalance users’ assets based on their risk appetite and tolerance.

Although Robo-advisory will cause tremendous changes to traditional financial advisory industry, asset management industry, and banking industry, it is not suitable for everyone. Due to limitations and the complexity of this technology, its target market are affluent individuals because their investing needs can be satisfied by low-cost, effective technologies. However, robo-advisory is not perfect. There are still a lot of potential risks involved with this technology such as flaws in the automated financial advice algorithms, privacy and data protection concerns, and the mis-selling of financial advice. However, robo-advisory is one of the most successful examples of how financial technology have changed our life, and how it tremendously impacted the traditional financial service industry.

### Peer-to-Peer Lending

Peer-to-Peer lending also known as P2P lending, it is an online lending platform that matches lenders with borrowers. It provides a similar function as traditional financial institutions, but at a lower cost. Thus, the borrower can borrow money at lower interest rates, while lenders can earn higher returns compared to savings and investment products offered by banks. Another advantage for the borrower is that they can have access to finance operations which they may not have otherwise gotten approval for by standard financial intermediaries. While this might be risky for lenders, they can charge higher interest rate on those borrowers to compensate for the risks.

The P2P lending platform have impacted banks in many ways. For example, it forces banks to charge a lower interest rate for borrowers and provide higher returns for lenders. It also forces banks to process lending faster because, for those lending platforms, borrowers can usually get the money in a short amount of time. Although P2P lending provides convenience at a lower cost, it still has many disadvantages. One of the major risks associated is the high probability of default because lenders have very
little assurance that the borrower, who traditional financial institutions may have rejected due to a high likelihood of defaults, will repay their loan. Despite the risks involved in the P2P lending platform, it is growing extremely fast. According to statistics provided by the Peer-to-Peer Finance Association, the total money lent by its members in the final quarter of 2016 is €843.9 million which increased the cumulative money lent over peer-to-peer platforms to €2.9 billion.

Crowdfunding
What would you do if you have a great idea or a great product that you think will change the world, but you do not have enough money to make it happen? You will most likely attempt to borrow money from friends, family, and banks. However, not everyone has the same vision as you do, and they may not believe in your ideas, which makes the process of borrowing money extremely tough. This issue led to the creation of the crowdfunding platform which is the practice of funding a project or venture by raising monetary contributions from many people who share similar visions. There are only two types of actors on the platform: the project initiator who proposes the idea to be funded, and backers which are individuals or groups who support the idea. Furthermore, according to The Crowdfunding Centre’s May 2014 report, there are two major types of crowdfunding; the first type is called rewards crowdfunding, where entrepreneurs pre-sell a product or service to launch a business concept without incurring debt or sacrificing equity. The second type is called equity crowdfunding, where the backer receives shares of a company, usually in its early stages, in exchange for the money they pledged. It is a great technology that benefits everyone in this transaction. For the project initiator, they can access to financing easily, and for investors, they can invest in thousands of projects they see potential in. Similar to Peer to Peer lending and Robo-advisors, crowdfunding has grown rapidly in past few years. In fact, here are over 2000 crowdfunding platforms in 2015 and the total money raised worldwide is over $34 billion in total as in 2015. To summarize, robo-advisors provide low-cost, automated and algorithmic-drive financial advice to users with little to no human intervention. Peer-to-peer lending is an online lending platform that matches lenders with borrowers, provides lower interest rate for borrowers and higher return for lenders than they can get from the traditional financial institution. Crowdfunding is the practice of funding a project or venture by raising alternative and attractive financing resources for project initiator.

Robo-advisors, peer-to-peer lending, and crowdfunding changed the way people manage money, investments, lending, and fundraising. They are just a few of the many financial technologies that brings monetary contribution from many people, it is a contribution from many people, it is a convenience to consumers but also brings threats to the traditional financial service industry in many ways. With the development of these technologies, we will see more and more financial technologies over the years to come. The competition in the financial industry is depending more and more on the usage of financial technology. Therefore, for the traditional financial industries to survive, they need to find ways to cooperate with these financial technology companies. On the other hand, financial technologies companies must also find ways to cooperate with larger traditional financial service companies’ due to their brand name and larger customer base. Although financial technology has so many advantages, it will face many challenges in the future such as stricter regulations, and potential risks that have yet to be discovered. Therefore, it is hard to conclude whether Fintech companies will cause a lot of damage on traditional financial institutions, but it is safe to say that these industries are finding ways to improve the financial services industry.
The Fall and Rise of Bitcoin in the Time of One Month

By Edward Su

China’s Policy on Cryptocurrency

Fear and doubt have spread through the cryptocurrency market as regulatory uncertainties recently devastated the bitcoin market. From the chart below, the price of bitcoin has fallen 38% since the beginning of September. On September 4, 2017, The People’s Bank of China (PBOC) announced a ban on fundraising through initial coin offerings (ICOs) (Zhou, 2017). ICOs are similar to Kickstarter campaigns that give investors a special type of currency in return for their investment. Cryptocurrency enthusiasts may have only heard of Chinese ICO projects such as NEO (Antshares) or Qtum but China actually has a very active ICO market. Over 65 ICO projects have been developed in China with over $400 million (USD) raised by investors (Zhou, 2017). The problem with this is that most of these projects are unreliable and even fraudulent. Everyone wishes they invested in bitcoin back when it was in its infancy stage when the prices were dirt cheap compared to today’s prices. Some ICOs provide huge discounts to pre-ICO investors dooming those who joined the official ICO. Despite promises of immense returns, most projects have no open-source code or even concrete evidence of a sustainable business plan. This type of irresponsible behavior compelled the PBOC to act by tightening regulation on the crypto market.

Closing of Cryptocurrency Exchanges in China

Following the announcement mentioned above, cryptocurrency exchanges such as: BTCChina, ViaBTC, BitKan, Yunbi, Huobi, and OKCoin all announced that they will cease operations at the end of September and requested users to withdraw their funds. On September 15, the price of bitcoin crashed as investors quickly liquidated their investments following the announcement of exchange closures. Despite PBOC’s announcement concerning ICOs, it is likely that Chinese officials have made it clear that these guidelines also apply to general cryptocurrencies. Leaked “draft instructions” prepared by the PBOC indicate intentions to ban cryptocurrency trading altogether but so far, the authenticity of these documents have not been verified (Wirdum, 2017). However, the information in these documents also corroborates with one warning issued by a Chinese quasi-regulatory body, the National Internet Finance Association of China. This is based on the premise that crypto exchanges lack “legal basis” to operate in the country. Bitcoin itself is not banned in China, owning, using, and mining bitcoin are technically not affected by the published guidelines. However, it is reported that a goal of China’s monetary regulation is to ensure “the source and destination of every piece of money can be tracked”.

Figure 1: Price of BTC/USD from August to October
Source: TradingView
South Korea’s Stance on ICOs
In the beginning of October, the South Korean Financial Services Commission announced a ban on all forms of ICOs and related businesses. The vice-chairman of financial affairs made this official statement:

“We expressed a serious concern that the recent inflow of funds into the nonproductive speculative direction is showing up. As a result, we believe that additional measures are inevitable in order to switch to productive investment [...] All forms of ICO prohibition including securities issuance [and] monetary lending and coin margins are prohibited, blocking all business-related business alliances” (Hollerith, 2017)

Until December, trading of virtual currencies will only be allowed if a bank has confirmed the authorization of an account. This allows the government to monitor the flow of funds as well as investigate violations of “Know Your Customer” (verifying identity and understanding customer goals) and “Anti-Money Laundering” (preventing the process of generating income through illegal means) protocols. To summarize, personal investment in ICOs will not be affected, and exchanges will remain in operation. The South Korean government is primarily concerned with scams and fraud rather than controlling the economic policy behind bitcoin, this announcement offers a milder reaction compared to the PBOC’s.

Japanese Migration
During the second week of October, bitcoin began to reach all-time highs amidst regulatory concerns. One reason for this is due to Japan’s extremely accommodating stance towards cryptocurrencies and bitcoin. Japan has been especially proactive in regard to bitcoin. A law in April recognized bitcoin as a legal payment method and its Financial Services Agency has issued operating licenses to its bitcoin exchanges earlier this year. The exchanges also operate on a zero-fee trading system. Over the past month, bitcoin trading using Chinese yuan fell to 5% of total trades while the Japanese yen rose to 51% (Shen & Donnelly, 2017). On top of this, the Japanese stock market has had a terrific run recently, with the Nikkei 225 reaching a 20-year peak. With the election of Japanese prime minister, Shinzo Abe, Japan will see a continuation of government effort to boost economic growth. Japan’s goal of economic growth, vision to increase cashless consumer payments, and positive outlook on fintech, may be indicative of continual future support for cryptocurrency technologies (Terazono, 2017).

Technological Developments
Two major hard forks are planned for Oct. 25 and Nov. 18 (Wirdum. 2017) which will result in the creation of new coins. There is a large amount of information and controversy surrounding these proposed forks. Following the event of these hard forks, there could potentially be 3 distinct blockchains and 3 types of coins in the following months. The first blockchain would be the original one that follows the current bitcoin protocol. The second will follow the Bgold protocol and that coin will be referred to as BTG. The third will follow the SegWit2x protocol which will be referred to as B2X. There is a large amount of technical knowledge needed to understand the reasoning behind these forks, as well as the pros and cons of each. The reason these developments could drive up the price is that at the time of the fork, if you held 1 bitcoin, you would then hold 1 BTC, 1 BTG or B2X after the fork. A similar event happened in August with the creation of Bitcoin Cash due to the refusal to adopt the original SegWit protocol. Due to the prospect of receiving free currency after the hard forks, demand for bitcoin increased dramatically leading to a record high of $6000 (USD).
Glossary

**Federal Funds Rate**: Also known as the Benchmark Rate or the Overnight Rate. The rate that financial institutions borrow from each other on an overnight basis, which is set by the Central bank and determines the general level of interest rates in the market.

**FOMC (The Federal Open Market Committee)**: the key branch of the Fed that determines the direction of monetary policy.

**Hard Fork**: A radical change to the protocol that makes previously blocks/transactions invalid. (Investopedia, 2017)

**Initial Coin Offering (ICO)**: An unregulated means by which funds are raised for a new cryptocurrency venture. (Investopedia, 2017)

**Monetary Policy**: Actions undertaken by a nation’s central bank in order to adjust the economy by increasing or decreasing the money supply in the economy (which involves increasing and decreasing interest rates).

**Quantitative Easing (QE)**: An expansionary monetary policy that involves an extremely large-scale purchase of long-term debts on the open market in order to lower both the short-term and long-term interest rate in the market.
Bibliography


Catalonia referendum was held with 92% of votes saying yes to independence.

2017-10-02
Atlanta Decriminalizes marijuana

2017-10-04
3 Year, 10 Year, 20 Year Bond Announcement

2017-10-05
News Breaks of Harvey Weinstein’s Sexual Harassment Cases

2017-10-05
Fed Balance Sheet and Money Supply Reports

2017-10-20
Bitcoin rose above $6000 for the first time ever

2017-10-17
Housing Market Report Released

2017-10-16
Trudeau reduces Canada’s small business tax

2017-10-13
Trump announces plan to cut cost sharing subsidies

2017-10-22
Shinzo Abe is re-elected

2017-10-26
Fed Balance Sheet Released

2017-10-26
Money Supply Report Released

2017-10-26
Amazon Earnings Report released as its stocks soared

2017-10-27
U.S. GDP Third Quarter Estimate Released

2017-10-30
Personal Income and Outlays Report Released
Our Chief Editors

**Danny** is a second-year student in the Math/Financial Analysis and Risk Management - CFA specialization program at the University of Waterloo. His love for writing, financial markets, social sciences, and his desire to learn more about the world of finance led him to this role. Danny is particularly interested in crypto currencies, financial derivatives, and statistics.

Outside of class and the library, Danny loves reading finance textbooks, financial news, and books on psychology, biology, anthropology, neuroscience, and history. He is also an extremely outdoorsy person and loves to bike, run, fish, hike, and free-dive when weather and work allows him to. Danny is currently training for his first Olympic distance triathlon and can be often found in the pool.

**Kwadwo** is a second-year student studying statistics and finance at University of Waterloo and Wilfrid Laurier University. He is hoping to combine his love for statistics, analytics, and capital markets in post-graduate studies. Kwadwo’s passion for efficiency and logistics has also currently led him to the role of Internal Analyst in the University of Waterloo’s Finance Association.

When he is not in class, Kwadwo loves to find new investing opportunities based on intrinsic value and read the financial reports of companies he understands. In the same way he likes to find undervalued stocks, he approaches fantasy football. He is an avid fantasy football player, football statistics aficionado, and public speaking enthusiast.
Our Editors

**Cindy** is a second-year student studying Financial Analysis & Risk Management. She has been a member of FARMSA for three terms now and spent her last semester as VP Finance. Cindy hopes to better understand the financial market so she can share this knowledge with her peers.

In her spare time, Cindy likes to watercolour, rock-climb, and watch Friends. She is passionate about entrepreneurship, the environment, and global development. Cindy nurtures these passions by being active on campus and always being open to new opportunities.

**Bill** is a first year student studying Math / Financial Analysis and Risk Management at the University of Waterloo. Bill is extremely passionate about economics and finance and is a seasoned competitor in various business competitions in high school such as DECA. Bill hopes to continue his passion for economics and finance by sharing his knowledge and insights on the capital markets to the others as a market research analyst.

Outside of school, Bill also reads about the financial markets, economic journals and business cases. Bill loves both playing and watching basketball and his favourite NBA teams are the Lakers and the Warriors. Bill also enjoys watching TV shows such as HIMYM, Friends, Suits and The Big Bang Theory.
**Jared** is currently studying math and business at the University of Waterloo and Wilfrid Laurier University. His passion is data science and how Big Data is changing the world of finance. As a market research analyst, Jared plans to exercise his analytical skill and love for data to provide a deeper look into capital market events.

During his spare time, Jared likes to work on calligraphy to relax. In addition to this, Jared is a moviegoer who loves all types of genres - from Ratatouille to Moneyball.

**Edward** is currently studying math and business at the University of Waterloo and Wilfrid Laurier University. Edward hopes to learn more about how financial markets work and the factors that drive investment decisions. He plans on furthering this goal by discussing and sharing his insights as a market research analyst.

Outside of class, Edward is interested in discussing philosophy and the ethics behind society.
Yi is currently studying Financial Analysis and Risk Management at the University of Waterloo. Yi has strong interest and knowledge in capital markets and fintech, and is extremely excited about emerging financial technology that could change how capital market functions. As a market research analyst, Yi plans to leverage his knowledge and working experiences in both fintech and capital market industry to provide deeper look into the trend and the impact fintech will brings to the market.

In his spare time, Yi love to play basketball and plays the drums for his band.

Our designer

Sofia is a second-year Mathematics and Business administration double degree student. She is new to the FARMSA market research team this term. Her interest in financial markets and her experience in designing promotional posters led her into the role of market research analyst & newsletter designer. She desires share her passion for finance with other members.

Sofia develops the habit of constantly following the finance-related news through internet and newspaper after participating a few times in stock-trading competitions. Her other hobbies including running, playing piano, swimming, skiing and hiking.