An Exploration Of Cash Reserve Position Of Us Companies Flush With Buybacks During Covid 19 Using Event Study Model

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ABSTRACT

This paper examines US companies from different sectors involved in extensive buybacks in the recent past making the most of every opportunity like high abnormal cumulative returns. This study evaluates their current degree of liquidity position during COVID-19 linked with share repurchases. It further assesses companies' standing on the effectiveness of cash management, if they were not involved in the voluminous buybacks.

The nature of our research is of exploratory type using deductive approach under quantitative research design with the event study model applying on a secondary database.

The study discloses a decline in cash position or reserve of the companies measured with the help of simulated liquidity, solvency and performance parameters.

The limitations of this research is that it will majorly focus on US companies and may not be able to give a truly global perspective. The research outcomes pertaining to share repurchases bring to bear COVID-19 sort of state of affair. All implications with futuristic importance are discussed.

This research apprises the liquidity position of companies during COVID 19 linked with extensive buybacks. This is the first effort to capture future revenue growth simulation associated with cash reserve positions during pandemic. This study identifies companies affected or not during Covid-19 and lays down the guidelines that companies should follow while carrying on buybacks

Keywords

Buybacks, Share repurchases, COVID-19, Pandemic, The United States of America, Share Options, Capital Structure, Finance leverage, Dividend Pay-out, Simulation

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Introduction

This study tries to examine the role of buybacks in companies facing cash crunch during unprecedented times of COVID-19. Many studies have been done on share repurchases in the past, but none of them have tried to identify its impact on companies during such crisis situation as the world has not faced such a situation in the last 100 years. The last pandemic that could be compared to COVID-19 is the Spanish Flu which occurred way back in 1918. The study analyses US companies from different sectors and tries to figure out the current situation of the company and how it could have been different had they been not involved in stock repurchases. The study also tries to list down some best practices that companies should follow before going for buybacks.

COVID-19 is the name given to the infectious disease caused by the most recently discovered coronavirus. China was the first country which was majorly affected by coronavirus during the last few months of 2019. It then gradually started spreading in other countries with US, Brazil, India, Russia, Italy, France being the worst effected countries. It was declared as pandemic by the World Health Organization (WHO) during March, 2020. A disease is declared as pandemic when it has spread across multiple countries/continents and affecting a significant amount of people. Most of the countries had to impose lockdowns in order to prevent the spread of the virus which led to businesses being shut across the world significantly impacting the revenues of companies. Central banks around the world took extreme steps by cutting interest rates and making sure enough liquidity is available in the market. There have been relief packages by respective governments to make sure that people and businesses are able to survive through the crisis.

Share buybacks are a transaction in which a company buys back its own shares from the open market. It is also considered a way to return money to the shareholders' like dividends. Buyback leads to the reduction of outstanding shares of the company which may lead to increase in EPS without company actually improving its operational performance. Share repurchases have become very prevalent in the last two decades especially in the US as companies have identified it as a better substitute to dividends (money paid by the company directly to its shareholders). Rule 10b-18 by the US Securities and Exchange Commission, which came in 1982, allows companies to take care of certain liabilities before indulging in share repurchases. In year 1998, for the first time in US , the amount spent by companies on buybacks exceeded the amount paid as dividends [5] and [6]. Stock buybacks have started to become popular in other countries like India, Australia and certain European countries. The process involved in doing buybacks is cumbersome as compared to paying dividends. For dividends, management decides the amount that has to be paid based on the company's profit, cash flow, outlook and other investment decisions. Dividends can be divided

into cash dividend and stock dividend. Cash dividend can be further divided into:
Regular cash dividend: The amount which is usually paid quarterly, half-yearly and annually depending on the company's policies. A decrease in regular dividends can give negative signals that the company is not performing well.
Extra cash dividend: Extra amount paid which may not be repeated in the future. This is usually paid when the company has a good quarter. A cut in extra dividend does not give any negative signals.
Special cash dividend: It is similar to extra dividends, but will not be repeated in the future.
Liquidating dividend: When the company sells some or all parts of the business.
On the other hand, buybacks have to follow a completely different procedure. The company has to generally appoint an Investment banker which advises the company on the price at which the share could be bought. This offer price is usually higher than the current market price since the shareholders need to see some benefit in this deal and the company also wants to give signals that the stock is undervalued. The number of shares that has to be repurchased needs to be decided and how the buyback will be financed. Usually, the company uses the reserve cash to finance repurchases but using debt as a source of finance has also become prevalent in last few years.
The study focuses mainly on the US companies from different sectors as buybacks have become very prevalent in the US but other countries are also catching up with the buyback trend. Europe and Asian firms have also been actively involved in share repurchases in last 30 years.
The study involves companies from sectors like technology, aviation, pharma, food and beverage. But the major focus would be on aviation and technology as these two industries showed a contrast in terms of effect of COVID-19 on their operations.
Technology industry has been booming in the last 15 years owing to the fact that most of the businesses are moving online. Technology companies are facing intense competition and they need to constantly upgrade themselves in order to remain relevant. Big global companies like Google, Amazon, Facebook etc. have been continuously investing in cutting edge technologies like Artificial Intelligence (AI), Blockchain, cloud computing etc. Every company is trying to introduce these new technologies to optimize their business which has led to the success of these technology companies in the last decade.
On the other hand, aviation industry has been struggling in the last decade. It is a very capital-intensive industry and with companies trying to gain market shares, there has been a lot of pressure on pricing which has ultimately eaten into the margins of the industry.

Literature Review

Share Buybacks not only affect the firm's financial situation, but it also has some effect on the rival firms in the same industry. As per studies by Titman (1984), Brander and Lewis (1986), rival firms might be affected by changes in the capital structure of the firm. Since stock buybacks change the debt-equity ratio which might change the overall average debt-equity ratio of the industry and similar firms would want to take decisions which can lead to similar capital structure. Some studies also suggest that rival firms are affected on the day when the stock buybacks are announced rather than the actual day on which it takes place. The effects can be of two types: first is the communicable effect and the other is the competitive effect [15].
Returns from an investment in equity has two parts: Dividends and Capital gains (changes in stock price over the investment period). During the 19th and 20th century, dividends formed the majority portion of the overall returns. Between 1802-1870, dividends accounted for 90% of the overall returns for US stocks. But going forward, the amount of dividend paid has gradually decreased. Now the returns are more about the changes in stock price. The popularity of stock repurchases has also led to decline in dividends. Stock repurchases are considered temporary unlike dividend policies. A decrease in dividends give a negative signal to the market that firm may not be doing well, whereas stock repurchases can be stopped and started any time without any such negative signals[21].
Accelerated share repurchases (ASRs) have been widely used to conduct buybacks in last 15-20 years. Under this, the firms immediately buyback shares from an investment bank rather than announcing a potential buyback. The performance of the firm after the announcement of the share repurchase program gives some idea about the motivation behind the buybacks (Lie and McConnell, 1998; Lie, 2005).
The market reaction also plays a role in influencing the firm's share repurchase decision. Generally, market reacts positively to share buybacks. Firms with higher free-cash flows, poor share price performance, lower valuation ratios are more likely to repurchase shares [11].
Reading through previous researches done in the field of share repurchases, certain important motivations for share repurchases have been highlighted. These are listed below:
Firms tend to keep minimum required cash balance and use excess cash for buybacks which is in line with the free cash flow (FCF) theory proposed by Easterbrook (1984) and Jensen (1986). Keeping excessive cash idle on the balance sheet is not considered an effective use of cash. So, if companies do not find profitable investments, they tend to go for share buybacks as a preferred method of returning money to shareholders that too at a premium.
Buybacks are also done in order to change the company's capital structure [18]. Capital structure refers to the way in which the company finances its operations. In simple words, it is the portion of debt and equity on the balance sheet of the company. Capital structuring decisions play an important role in the performance of the company. If the company is using too much equity, they are losing out on cheap debt (Basic rule of finance: Cost of debt< Cost of equity). On the other hand, if the company is highly leveraged, they might not be able to take further debt and the coverage ratio might be impacted during crisis times.
Buybacks are usually done at a premium to the market price which tends to give signal to the market participants that the stock is undervalued [14]. A famous quote by veteran investor Warren Buffet which says: "When a stock can be brought below a business's value it is probably the best use of cash". Following this quote, managements sometimes feel that their company's stock is trading at less than its intrinsic

value and indulge in buybacks. It is in line with the “Buy low, sell high” principle of finance.
Some firms also use stock buybacks in order to manage their Earnings per share(EPS). This is more common for firms that are on the verge of missing estimates [7]. Missing EPS estimated does not bode well for the reputation of the management team and this might lead to mass-selling of shares. On the other hand, meeting EPS targets also leads to increase in stock price which ultimately leads to increase in value of share-based compensation for top management. It further improves their reputation and give a boost to their career [2].
Certain tax rules also motivate companies to go for buybacks. Tax cut and jobs act(TCJA) which was passed in Dec 2017 in the US decreases the corporate tax rate from 35% to 21% which ultimately led to more cash in the hands of companies. Instead of using this cash for long-term investment which was the aim of the tax cut, some companies utilised excess cash for buybacks because of which buybacks increased by 55% to a record $806.4 billion in 2018.
If we look at other country like India, the Dividend distribution tax (DDT) motivated companies to go for buybacks, but when buybacks also became taxable, companies had to rethink their distribution strategy. So, at different points in time, the tax structure related to share repurchases has influenced buyback decisions.
Companies tend to do stock buybacks in order to reduce the dilutive impact of stock options [8]. Companies grant performance-based stock options to its employees, it has become very prevalent all over the world, especially among US companies. When employees exercise these options, it leads to increase in the number of outstanding shares which leads to dilution in the stake of existing shareholders. In order to cater to this issue, companies started repurchasing shared using the proceeds that they get when options are exercised and issue only those number of shares which are in excess. By this, the dilution effect is reduced significantly.
Sometimes, linkages of management salary to the share price of the company has been criticised and is also considered a motivation for boosting share prices using buybacks.
Stock repurchases is considered an alternative to dividends. There is a dividend distribution tax (DDT) in some countries which makes buyback more tax efficient. In India, buybacks started gaining traction because they were not taxed whereas dividends were, this led the government to impose a buyback tax in order to reduce the number of buybacks. Buybacks are temporary unlike dividends which is also a motivation for companies.
Buybacks are often considered a way by promoters to increase their holdings. As per the studies conducted by Mishra, (2005), buybacks did not play a major role in providing excess returns to the shareholders but they were used as a mechanism by promoters to increase their stake. The study also pointed that wrong utilisation of buybacks can lead to big losses for the company [1].
In all the previous literatures, the impact of COVID-19 has not been taken into account since it is an unprecedented situation that nobody would have thought can happen. This research majorly focuses on the impact of COVID-19 on companies from certain sectors and analyse the buyback decisions taken by respective companies in the past which makes it unique from all the previous researches.

Research Methodology

The research involved analysing 16 companies which included 5 airlines, 6 technology companies, 1 financial company, 2 consumer goods companies, 1 pharma company and 1 airline manufacturer. The companies are as follows: Delta Airlines, Southwest Airlines, American Airlines, Alaska Airlines, American Airlines, Apple, Alphabet, Facebook, Oracle, Cisco Systems, Microsoft, Merck, Wells Fargo, PepsiCo, Mondelez, Boeing. The reason for choosing majority companies from airline sector and technology sector is because these companies have been consistently involved in huge buyback transactions over the last decade.
The financial metrics that were used for analysing the company is Share buyback amount in last 5-10 years, Free cash flow, % of free cash flow used for buybacks, Debt/EBITDA level of companies (Table 1). By looking at all the parameters, an observation was made for different companies on whether buybacks were important for the companies at different points in time and could their situation would have been better had they not involved them in buybacks. All the data which is collected is historical in nature, but some projected assumptions are also made based on the ongoing situation of the companies as per latest news reports.
The data which was collected was analysed and benchmarked against the peers in order to arrive at the final results. Excel was used as the tool to do the analysis.
The research also tries to analyse the impact of COVID-19 on companies from different sectors. Some companies have grown exponentially amid crisis times whereas some companies have been on the opposite end. It was very important to study this impact as it plays a major role in deciding the efficacy of the buybacks done by respective companies in the past.
Below is the summary of data used for analysis:
All figures in Billion USD

Company	Buyback Amount	FCF	Buyback as % of FCF	Avg. debt/EBITDA
Cisco Systems	43.7	235.2	19%	1.8x
Apple	209.4	1024.1	20%	1.3x
Alphabet	40.8	398.0	10%	0.1x
Oracle	232.3	423.0	55%	3.3x
Microsoft	193.2	670.4	29%	1.5x
Facebook	73.7	301.2	24%	0.0x
Delta Airlines	26.3	59.9	44%	2.4x
American Airlines	N/A	N/A	N/A	6.8x
SouthwestAirlines	25.1	56.4	45%	2.2x
Alaska Air Group	0.2	8.1	3%	2.1x
United Airlines	14.5	25.1	58%	3.4x
Boeing	95.7	215.6	44%	3.2x
PepsiCo	8.5	97.3	9%	2.9x
Mondelez	7.3	40.2	18%	4.7x
Wells Fargo	209.3	463.7	45%	N/A
Merck	78.1	183.0	43%	2.1x

Table 1

Source: Annual Reports, Ycharts.com

The above data is for the period 31st Dec 2016 to 31st Mar 2020. The data is represented in such a manner so as to get some sense of the repurchases by different companies and then shortlist some companies for further research.
In the above table, FCF represents Free cash flow which is calculated by using the formula (CFO-Capex- Interest expense), where CFO- Cash flow from operations and Capex is Capital expenditure by the company.

EBITDA stands for Earnings before Interest, tax, depreciation & amortisation.
The debt/EBITDA is the average of the period stated above.
The N/A for American Airlines represent that the company had negative Free cash Flow but still was involved in consistent share repurchases by using debt so the % of buybacks with respect to FCF does not make sense.
The N/A for Wells Fargo represents that since this is a financial company, Debt/EBITDA does not make much sense.
By looking at the above data, it was observed that airlines are having a high buyback amount as a % of revenue, so by doing further research, the data for last 10 yrs. was collected for these airlines and is shown in table 2. It further drives the point that shares repurchases have been on the higher end for these companies in last 10 yrs. also.

Company	Buyback as % of FCF
Delta Airlines	49%
American Airlines	N/A
Southwest Airlines	71%
Alaska Air Group	32%
United Airlines	77%

Table 2

Source: FactSet

Analysis and Results

All the companies were analysed keeping in mind their sector, liquidity position and their overall positioning among peer companies. Here are some observations for each company:
Cisco Systems: This company is part of the technology domain. Their share repurchase(19%) is on similar lines to other companies in the same sector and their Avg. debt/EBITDA is also within limit, hence the buybacks done by the company has not deteriorated the liquidity position of the company and the company being in the technology sector is not majorly impacted by COVID-19 as compared to other sectors like aviation, hospitality etc. , so it can pass the crisis relatively unscathed.
Apple: Being a pioneer in the technology space, the company has been involved in lot of buybacks over the past decade, but like any other big technology company, it also has very high cash balance, so the liquidity position of the company is stable even during the COVID-19 crisis. The Debt/EBITDA is also within limits.
Alphabet: Google's parent company alphabet has been relatively less involved in buybacks (10%) as compared to other technology companies. With minimal debt and huge cash balance, company has been investing in new technologies and these small buyback programs will not deteriorate the company's liquidity position.
Oracle: Being a software company, the share repurchase is pretty high (15%) as compared to other technology companies and the debt/EBITDA is also relatively high , but the company has not been majorly impacted by COVID-19 and the high reserve cash available for the company will enable it to easily sustain the crisis.
Microsoft: It has a huge cash balance so they can involve in share repurchases in order to boost EPS and at the same time, they have been continuously investing in upgrading their products and launching new software which is a good sign. The buyback program did not have an impact on the liquidity position of the company even in crisis situation like COVID-19.
Facebook: Like all the other big technology companies, there is no impact on fakebooks' liquidity position because of all the buybacks done in the past and this strategy is useful for them in order to return money to its shareholders.Delta Airlines: The company has been consistently involved in buybacks over the years. If the data for last 10 years is observed (49%), majority of free cash flow is being used for buybacks which is testing the liquidity position of the company. Aviation sector is always been impacted by certain major events like the 9/11 attack and being an industry where fixed costs are high, it is better for companies to conserve some cash for crisis situations like COVID-19. Company should also look to upgrade their systems rather than utilising majority of it for share repurchases.
The company's buybacks (49%) is high but is actually on lower side as compared to other airlines and given a low debt/EBITDA, it will be less impacted as compared to other airlines. If they had even conserved 50% of the total buyback amount, it would have been able to cover its fixed cost and survive the crisis without any support from the US government.
American Airlines: The airline company has been involved in buybacks even though their FCF has been negative over the years. This essentially means that they have been using debt to finance these repurchases which is clearly visible in the avg. debt/EBITDA (6.8x) which is very high as compared to other airlines. The COVID-19 crisis has tested the top line of airline companies as they almost shut operations during lockdowns all over the world. This decline in revenue will further increase the debt/EBITDA levels of the company. The company's liquidity position has deteriorated and the share buybacks have contributed to it. If the company was no involved in consistent buybacks, their debt levels would be within limits and there would have been some headroom to take on more debt and sustain through the crisis.
The main result that arises from the above analysis is that it does not make sense to indulge in buybacks if the FCF is negative and the debt levels are also very high especially in sectors which can go through ups and downs whenever any crisis situation arises.
Southwest Airlines: The company is on the higher end in terms of share buybacks. Given the low cash flows for the company, the liquidity position is tested during the COVID-19 crisis. Using majority of FCF for repurchases has hampered the company's investments that could have a long-term impact and could have generated long-term returns for the shareholders.
Alaska Air Group: This is a very small airline company in terms of market share. Although they have not used much of their FCF for share repurchases as per last 4 yrs. data as well as last 10yrs. data, but given a very low market share and low cash reserves, company may decline further during crisis situation. The share repurchases has not impacted company's liquidity position but there are other factors that led to downfall of the company during crisis situations.
United Airlines: Similar to Alaska air group, the airline is not among the top airlines in the US, but they are among the top companies in terms of buyback (as % of FCF) and this

has impacted their liquidity position which is being tested in crisis situations. The company has not been investing effectively which has led to constant market share for many years.
Boeing: It is the world's largest producer of commercial jetliners and is also among the largest exporter. A slowdown in aviation industry directly impacts the business of the company. The company has been involved in lot of buybacks in last 10 yrs. which has eaten into the cash reserve of the company. The liquidity position of the company has been exposed during Covid-19 and they would have to be bailed out by the US Government if they have to sustain this crisis. Although, Boeing was struggling even before the crisis which has deteriorated its liquidity position but excessive share repurchases has also played its part.
PepsiCo: The company has been less involved in buybacks and also being a leading company in beverage segment, the company has enough cash reserves to sustain through the crisis.
Mondelez: The company has been less involved in buybacks and also being a pioneer in food and beverage segment, the company has enough cash reserves to sustain through the crisis.
Merck: The company is from pharma sector and pharma companies have to spend a lot on research and development, so ideally the FCF should be used towards new researches before giving it back to shareholders in the form of buybacks.
After analysing each company in the sample, the airline companies stood out the most in terms of the deteriorating liquidity position in such crisis situation.
Since aviation industry including Boeing (one of the largest US exporters) is very important for US economy, the government is willing to provide funds to them if they are not able to raise capital from other sources. Airlines like American airlines, who had negative FCF over the years and their debt levels have been going over the roof decided to use the fund available to them by the government, but if they would have been cautious in utilisation of their cash flows, their liquidity position would have been better. The airline industry is now asking for $50 billion for survival from the federal reserve (Central bank of US). On the other hand, Boeing is asking for $60 billion in federal assistance.
A company's cash can majorly be used for four purposes:

- To invest in capital expenditure.
- To go for mergers and acquisitions.
- To pay dividend to shareholders.
- To buy back shares.

Usually excess cash on books of companies leads to share repurchases, but some companies were taking on debt in order to do buybacks which could be detrimental especially in industries which are cyclical in nature as they might go through downturns once in a while. Given the companies analysed, taking debt to buyback shares is not a god option. The balance sheets have become highly leveraged since the global financial crisis of 2008 after which federal reserve has been constantly involved in Quantitative easing (It is an unconventional monetary policy in which the central bank buys long-term securities from open market which increases money supply and promotes lending and investment).

Conclusion

By analysing companies from different sectors and looking at their liquidity positions pre-Covid and post-Covid, analysing the buybacks done by them in the past, the study is able to draw the following conclusions:
Technology companies like Apple, Microsoft, Facebook have huge cash balances, their fixed cost is not high and they generally do not take debt to fund share buybacks, because of all these reasons, their liquidity position is not impacted by share repurchases even in crisis situations like COVID-19. These companies have also been consistently involved in strategic mergers and acquisitions (Facebook-WhatsApp deal in 2014, Microsoft-LinkedIn deal in 2016) in order to grow their business which shows that the companies focus is on strategic investments first and then if there is excess idle cash available, they do buybacks in order to return money to its shareholders. By this, the shareholders benefit both from long-term investments and at the same time the EPS is boosted due to buybacks.
For airline companies, buybacks looked like a way of boosting share prices without actually improving the operational aspect of the company as buybacks do not usually improve the operations of the company. But given the fact that some airline companies used debt to fund these buybacks, they have felt the pain in these crisis situations. These companies aimed for short-term shareholders gains through buybacks rather then long-term benefits which can be achieved through continuous strategic investments. It is also a type of industry which has faced significant downturns in last two decades, so they need to keep a healthy cash balance for crisis situations.
For companies in other industries, they were not involved in significant repurchases and having a significant market share, they would be able to sustain through the crisis.
After all the analysis, the research pointed out key points that should be kept while going for buybacks. These are:
If the company has significant cash reserve even after doing all the strategic investments, they should go for share repurchases as idle cash on balance sheet is not an effective use of cash.
Taking debt in order to fund these buybacks is not a good idea. Company should look at its debt/EBITDA levels a with respect to peers and then take the decision based on that.
Excessive share-based compensation should be avoided as this could be a motivating factor for share repurchase decisions.
The nature of the industry to which the company belongs plays an important role in share repurchase decisions. If the industry is cyclic, excessive buybacks should be avoided as company might require it during industry downturns.
Overall, it was observed that buyback decisions are an important part of management's decision making and these decisions should be taken judiciously keeping in mind the existing situation and the future outlook of the company. Management need to realise the importance of these decisions on the overall operations of the company.

Recommendations:

The study recommends that debt should not be used to fund buybacks. Only excess cash flow should be used for the purpose. The company should first focus on investment opportunities, mergers and acquisitions before going for share repurchases.

Limitations

The study was conducted on the US companies from different sectors because share repurchases are very prevalent in the US as compared to other countries. Because of this, the study might not give a global perspective on share buyback decisions. Also, the tax laws related to buybacks are different in different countries which might lead to different motivation factors for doing share repurchases.

The quarterly results (Apr-June,2020) of the companies have not been declared at the time of research. That quarter will see a major impact on the financials of the company because lockdown was imposed during this period in different countries all over the world. The research is based on the assumptions of the impact on different businesses due to COVID-19. Some businesses will be less affected (Technology sector) and some will be massively affected (Aviation sector). If the quarterly results would have been known, then the result could have been more comprehensive because it would have been backed by actual results rather than assumptions.

Covid-19 has brought a lot of uncertainty to the financial markets and nobody knows when it is going to end. If it sustains for more than a year, then the outlook of companies analysed could be far worse than what is stated in this research. The underlying assumption of this research is that things will become better in the next six months.

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