

Analysis Of Facebook Company

Chenyu Wang *

Department of KSB, American University, Washington DC, America

*Corresponding Author: 707065985@qq.com

ABSTRACT

As a leader in the global technology industry and one of the largest listed companies, Facebook takes selling advertising space as its core business and is committed to maintaining sufficient innovation and competitiveness in business and products. Even so, revelations of privacy breaches, misinformation, and anti-competitive practices have made investors more cautious about the company's investment decisions. From a portfolio and capital management perspective, diversifying the portfolio and reducing the correlation between assets helps Facebook deliver attractive expected returns. In terms of net present value, Facebook's cash flow sources and capital allocation priorities should reflect the company's ability to buy back shares and capital expenditures. Through a critical analysis and discussion of Facebook, the paper measures whether Facebook's business model has the ability to expand rapidly, increase stock value and market valuation, and attract more investment from the management and financial perspectives of the company's management structure, capital composition, and net present value of the company's assets.

KEYWORDS

Facebook; Portfolio Theory; CAPM; Cashflow; Investment Diversification

1. INTRODUCTION

Facebook is a worldwide technology enterprise and one of the most influential global social media authorities. At the heart of Facebook, it enables users to construct their profiles and link up with friends, family, workmates, and communities on the internet to share things such as updates, photos, videos, and other social content from its range of apps and services. Facebook currently has over 2.9 billion users worldwide and a massive reach and impact in social networking and digital communications as of 2022 [3]. Facebook's core business is to sell advertising space and tap into the rich data available to enable small and large companies to market to a massive audience via Facebook's highly targeted marketing platform. Facebook is at the core of how people relate, interact, share information, access news, and even produce and transmit content in the digital age. Nevertheless, its quick escalation led to numerous disputes on privacy, misinformation, and anti-competitive behaviours that serve as a basis for regulators' investigation and control worldwide. Besides digital advertising technology, Facebook remains an influential big tech player due to its continuously changing innovative platforms and services that shape the Social Media space while being part of many aspects of modern digital life.

2. ORGANIZATIONAL STRUCTURE

Facebook is a public stock market company. It was established in 2004 and listed through IPO (Initial Public Offering) in 2012, enabling the public shareholders to possess shares and ownership in its

association. Given the corporate structure of Facebook, a board of directors determines major company decisions and daily activities are directed by the executive team and employed individuals [8]. The organization can be projected through centralized decision-making as publicly owned by tradable shares. Overall, the corporation model has contributed to Facebook becoming a world giant.

Facebook stakeholders can be divided into equity holders and debt holders. Equity holders are the stockholders with portions of common or preferred stock in the business. Principal shareholders include institutional investors such as mutual funds and hedge funds, company founders, employees with acquired shares, and retail investors (Gomcyan, 2022). Stockholders have voting powers and may impact the business movements through stockholder meetings and shareholder proxies. In brief, they are rightful owners of dividends and potential capital gains if the company shares' value rises.

On the other side, debt holders are shareholders who have entered into a loan to Facebook in the form of bonds or other debts. Unlike equity holders, debt holders cannot claim ownership or voting prerogatives in the company. On the other hand, bondholders receive fixed-interest payments according to the terms of the debt agreement, and Facebook must pay their principal loan amount on the specified maturity date (Gomcyan, 2022). In short, debt holders are at lower risk, as they receive priority claims on the company's assets and cash flows when in financial pressure or bankruptcy.

3. MANAGERIAL RESPONSIBILITIES & AGENCY CONFLICTS

The executive leadership at Facebook is headed by the founder, CEO Mark Zuckerberg, and includes the CFO, COO, and heads of key business divisions. This senior leadership team oversees the daily operations and implementation of Facebook's business strategy across products, marketing, technology, and other functions. A core responsibility is driving revenue growth and profitability through innovation and managing Facebook's vast resources effectively. Executives are also tasked with anticipating technology trends, understanding user behaviour changes, and making sound investment decisions to maintain competitive advantages [11]. Furthermore, they set the cultural tone for ethical business practices regarding user data, content policies, and social impacts. Overall, Facebook's executive leadership is accountable to the board and shareholders for solid business performance and returns on shareholder capital.

Major agency conflict stems from Facebook's relentless pursuit of user and revenue growth over other considerations like privacy and social impacts. In 2018, the Cambridge Analytica data scandal revealed how Facebook improperly shared user data, violating privacy policies. Following congressional hearings and a \$5 billion FTC penalty, Facebook committed to new data protection measures (Facebook Newsroom). Yet in 2021, whistleblower Frances Haugen testified that Facebook prioritized profits over content safety (NPR). Such incidents demonstrate that shareholder interests in reputational integrity and legal compliance can be subordinated to Facebook's aggressive growth agenda [11]. While Facebook has tightened policies, shareholders remain concerned about the depth of reform given Facebook's financial incentives. In summary, this highlights potential misalignment between shareholder trust and managerial priorities.

4. PORTFOLIO THEORY & CAPM

Portfolio theory principles would guide investors in assessing how adding Facebook's stock could impact their portfolio's overall risk and return profile. Since Facebook operates in the technology sector, its stock performance may differ from that of other sectors an investor holds. This difference could help diversify the portfolio and reduce overall risk through lower correlation across assets [10]. However, Facebook has a relatively high valuation, so its potential for price appreciation may be lower than that of smaller or undervalued stocks. An investor would want to gauge Facebook's future growth prospects to determine if it still offers attractive expected returns. From a portfolio perspective,

Facebook could provide exposure to major technology trends around digital advertising, social media, and user data leveraging. However, its size and market dominance also bring regulatory risks that may temper future growth.

Portfolio theory principles provide a way for Facebook to attract investors' attention by diversifying and customizing its business. The core of the theory is to provide investors with an optimal investment method, that is, to obtain as much benefit as possible at the lowest possible risk [13]. Among them, diversification is a reasonable way to diversify the systemic risk of investment. From the point of view of the opportunities presented by digital advertising, social media, user data and other technology trends mentioned above, Facebook wants to allow investors to invest in specific audiences. For example, ads for organic cosmetics can be targeted to Facebook users who are working women in their 20s and 30s. With the continuous support of the development of information, intelligence, cloud technology and other technologies, this diversified and customized business approach can not only help Facebook have further development but also help investors diversify the systemic risk of the overall investment by gaining greater penetration in the main audience. For example, for investors developing software or games, Facebook's powerful user data analysis and penetration capabilities can help it obtain a wide range of user views and information, making it an excellent investment platform.

The risk-free rate represents the theoretical minimum return an investor could earn by taking no risk. For CAPM calculations, the risk-free rate is typically approximated by the current yield on U.S. Treasury securities like T-bills or T-bonds. These government-backed bonds are considered virtually free of default risk. The risk-free rate is the baseline rate of return against which all other potentially higher-risk investments are compared [2]. With inflation rising recently, the Federal Reserve has aggressively raised benchmark interest rates. Risk-free rates on Treasury yields have also risen sharply from near-zero pandemic levels. A higher risk-free rate makes the expected return from holding a risky asset like Facebook's volatile stock relatively less attractive on a risk-adjusted basis. Therefore, It increases the hurdle rate, and Facebook must clear it to compensate for the risk.

Another key CAPM input is the market risk premium, which captures the extra return investors expect for holding risky stocks versus risk-free assets. This premium represents the risk premium for investing in the stock market portfolio. It can be estimated by analyzing long-term historical averages of equity market returns more than risk-free bond returns [2]. The market risk premium tends to increase during periods of higher volatility and economic uncertainty as investors demand more significant potential returns to offset more perceived risk in equities. Given its large market capitalization and stock liquidity, a company like Facebook can expect its cost of equity to be highly influenced by changes in the broad market risk premium. Ultimately, a rising premium signals investors are pricing more compensation for owning risky stocks like Facebook's.

In addition, based on the above discussion of the two key inputs of CAPM, since the risk-free rate is similar to the current yield of US Treasury bills, it is impossible for enterprises to actively affect the risk-free rate. At the same time, the risk-free rate is the basis of enterprise asset pricing. So in order to "clear" the threshold for a high risk-free rate, Facebook needs to think in two ways. On the one hand, for investment assets whose expected return is lower than the risk-free return calculated under the risk-free interest rate, Facebook could consider reducing the price of the asset so as to attract investors by increasing the expected return. On the other hand, for investment assets where the expected return (risk premium) is higher than the risk-free rate, investors could consider buying S&P 500 futures for compensation [7].

Lastly, the beta of the Facebook stock during the beta also reveals the measure of systematic risk attributable to the stock relative to the overall market. A beta above 1 indicates that Facebook's stock price is becoming increasingly volatile due to numerous factors. At the same time, less relative volatility is shown by a beta below 1. Facebook had a past beta value above 1, indicating that investors have paid the stock above the average risk and fluctuations [10]. The reason could be the relatively

short revenue growth trend, the rapid concentration of digital advertising markets, and the absence of the main competitors. Nevertheless, a highly profitable business, pricing power, and market standing combined could promote reducing risk perceptions among some investors. In CAPM theory, beta is directly connected with a higher cost of equity and the required rate of expected returns to balance the increased risk.

After 2021, Facebook changed its name to Meta Platforms Inc. [12], and according to the most recent data available on Barron's, the beta of Facebook is 1.31 and the market value of Facebook (Meta Platforms Inc.) is \$1.28 trillion [1]. The beta of Facebook is 1.31 and the market value of Facebook (Meta Platforms Inc.) is \$1.28 trillion [1]. The systemic risk of Facebook's assets is still higher than the average risk of the overall market portfolio. In terms of the relationship between Facebook's beta and its market, the beta value remaining greater than 1 for a certain period of time reflects the company's sensitivity to the overall market performance: Facebook's assets are highly sensitive to market changes, and its asset prices fluctuate greatly. The long-term high-risk nature of Facebook's assets makes investors need to be more cautious in their investment strategies. In this case, diversification can help investors reduce the systemic risk of investment.

5. VALUATION USING NPV

The primary cash flow an investor would likely analyze when valuing Facebook's stock is the company's future earnings and dividend potential. While Facebook has historically reinvested most cash flows for growth, its highly profitable advertising business generates tremendous free cash flows that could eventually be returned to shareholders. Analysts project Facebook's revenue and earnings to continue growing, albeit slower than its hypergrowth phase, driven by increasing digital ad spending and user engagement across its apps. However, the company faces maturing user saturation in developed markets and competitive threats from newer platforms like TikTok. Furthermore, rising regulatory scrutiny over user privacy and antitrust concerns poses risks to Facebook's targeted advertising model [5]. That said, the company's diversification into e-commerce, payments, and metaverse initiatives offers new long-term revenue streams. In short, an investor would need to evaluate the cash flow implications of these growth opportunities.

To estimate Facebook's future cash flow, investors need to analyze the company's overall operations and profitability through the relevant data in the company's financial statements in recent years. For example, cash income from operating activities is a percentage of total revenue. If Facebook's cash from operating activities has increased as a percentage of total revenue in recent years, then Facebook's business is in good shape and the structure of its cash sources is in a reasonable state. For another example, in terms of cash income from operating activities, if the cash received from the sale of products is relatively large, then the situation also reflects Facebook's good business ability. In addition to the cash structure and the proportion of cash inflows to total revenue, investors also need to consider Facebook's investment and fundraising activities and the company's current stage of development. Investors need to use this kind of analysis to predict the future development of Facebook, and thus the future development of the company's cash flow.

Facebook's cash flow from operating activities was \$57,683, \$50,475, and \$71,113 from 2021 to 2023, respectively [9]. Cash flows used in investing activities were \$-7,570, \$-28,970, and \$-24,495, respectively; the net cash flow were \$-1,089, \$-1,269, and \$27,231, respectively [9]. Through the calculation of the relevant ratio, it can be seen that the proportion of Facebook's cash flow used for operating activities in the total revenue or total cash flow in the three years was first declining and then rising. At the same time, the proportion of the company's cash flow for investment activities in the total cash flow is in the trend of first increasing and then decreasing. Therefore, investors can roughly judge Facebook's business performance based on the above analysis. Facebook increased the range of products sold or other operating activities in 2022-2023 compared to 2021-2022, while investing less in the company's assets. In the next two years, Facebook is likely to continue its 2022-

2023 development strategy, because, for an industry giant like Facebook, the chance of large fluctuations in business in the short term is small. Of course, investors can't ignore the company's latest similar asset restructuring, major business adjustments and other news, and adjust their judgment on Facebook's development at any time.

The specific analysis and estimation of the company's future cash flow is helpful for investors to understand the company's future development in the market. According to the above statement, the systemic risk of corporate assets is greater than the average risk of the overall market, which requires higher requirements for investors' prudence and flexibility. In this case, the future development of good cash flow (or the company's future good operating ability) can encourage investors to make more decisive investment decisions.

In addition to earnings, investors may consider Facebook's share buyback capability as a potential cash flow source when valuing the stock using NPV. The company has an active share repurchase program, repurchasing over \$50 billion in recent years. These buybacks increase earnings per share for remaining investors by reducing the share count. They also return excess cash to shareholders instead of dividends. Moreover, buybacks can help offset dilution from Facebook's stock-based employee compensation [5]. In the future, the sustainability of these repurchases hinges on continued strong free cash flow generation. However, mounting regulatory pressures and the need to fund massive investments in AI, cloud infrastructure, and metaverse development could limit buyback programs. Therefore, stock valuation models that consider share buybacks must factor in Facebook's evolving capital allocation priorities.

Facebook has issued several corporate bonds to raise debt capital over the years. In 2020 alone, the company issued \$10 billion worth of investment-grade bonds across several maturities. The proceeds were earmarked for general corporate purposes, including funding capital expenditures, share buybacks, and potential acquisitions [6]. Corporate bond issuances are a way for Facebook to raise low-cost capital while maintaining a prudent capital structure and credit rating. An investor would apply the net present value (NPV) principles to value these bonds. This process involves projecting the expected future cash flows through periodic interest payments and the final principal repayment amount when the bond matures. These cash flows are then discounted back using an appropriate discount rate reflecting the bond's inherent risk level. In other words, the discount rate accounts for the time value of money and compensates for the risk taken by the bondholder.

In Facebook's case, determining this discount rate would consider factors like the company's creditworthiness, the bond's maturity term, liquidity, and any embedded options or covenants. Estimating NPV also requires assumptions about whether Facebook will redeem the bonds early or let them mature based on prevailing interest rates. Another consideration is the company's growth prospects and ability to sustainably generate enough cash flows to service the debt and interest payments over time [6]. Lower growth rates or hiccups in Facebook's core digital advertising business could make it more challenging to repay the bonds. Ultimately, investors would likely compare a bond's calculated NPV against its current trading price to assess whether it appears undervalued or overvalued. Overall, a positive net present value could represent an attractive investment opportunity.

6. CONCLUSION

Facebook has developed an incredibly efficient and influential tech business model by applying its millions of users and enormous amounts of data to beam personalized advertising on its platforms. Its publicly traded corporate structure with easy access to capital markets enabled it to fund fast expansion and innovation in the plethora of apps and services it offers. Facebook's management under the founder and largest stakeholder, Mark Zuckerberg, has been taken to task for the governance weaknesses, privacy of data issues and growth before all other stakeholders like users' safety. Facebook needs to be careful when using its user data repository as a source of income. It needs to

demonstrate its responsibility for managing this goldmine and not lose the trust of its users and the regulator. The venture of Amazon into the e-commerce, fintech, and Metaverse sectors not only provides it with new growth pathways but may also complicate its business. In addition, advancing competition from alternative platforms may lead to decelerating Facebook's growth. Regarding investment, Facebook's huge potential to maintain a high level of sustainable free cash flows gives it some room for shareholders' payout and other investment activities. Though its significant market valuation comes with possible impediments, such as regulatory considerations and systematic risk factors, the outlook for this company is still upbeat.

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