Goldman Sachs Investment Report Donny Mashiach

Goldman Sachs

Investment Summary & Thesis

Goldman Sachs is one of the largest and leading investment banks in the United States. Offering an array of financial services and known for their human capital, Goldman Sachs has thrived since its inception and remains a household name in the investment banking sector.

I am initiating a BUY rating with a 12-month target price of **\$375.95** for Goldman Sachs. The target price offers potential upside of **~20.3%** from their February 17th closing price

Key Drivers

Deal Flow 2021

- Goldman Sachs remains a leader in equity underwriting and mergers and acquisitions. With the economic recovery underway, many deals that were on hold will resume in 2021.
- Aside from the pent-up deal demand from 2020, firms are looking to achieve growth in the current environment which increases appetite through synergetic, inorganic growth via M&A. In addition, with rates anticipated to be held at all-time lows, investors are looking for better returns in the low interest rate environment.
- The emergence of special purpose acquisition vehicles increased deal flow significantly and is predicted to increase underwriting and M&A activity within the next 18 months.

Marcus Wealth Management

 Marcus is the new, online retail bank launched by Goldman Sachs last year. It is expected to provide Goldman with an additional source of funding as well as an entirely new, diversified client base in the retail market.

Strategic Partnerships

- Goldman Sachs recently announced partnerships through Marcus with some of the largest retailers in the world. Amazon and Walmart are among the Marcus partners.
- After issuing a credit card with Apple last year. Goldman announced it will be the issuing bank for another credit card, cobranded with General Motors.
- Goldman announced a partnership with JetBlue to begin financing travel.



Goldman Sachs started trading on the New York Stock Exchange in May 1999. At that time, it was one of the largest initial public offerings in history for a financial institution and the firm raised \$3.65 billion. After settling into the spotlight, Goldman Sachs increased the employee headcount and physical presence in the early 2000s. In 2006, Goldman Sachs benefited from a major upswing in the U.S. housing market before the 2008 crash. Goldman navigated the crash and launched their direct bank, GS Bank, in 2016. In 2018, Goldman acquired Boyd Corporation for \$3 billion. Since that time, Goldman has scaled the firm and, even during the Covid-19 pandemic, provided record revenues and profits. Goldman continues to be one the largest players in the investment banking industry and is set to keep their brand a household name for years to come.

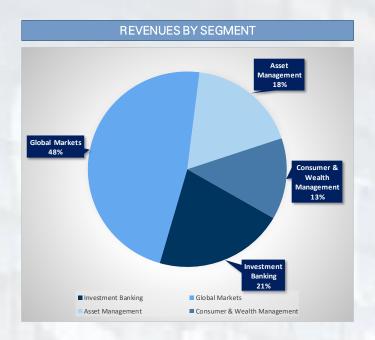
Performance –



Business Description

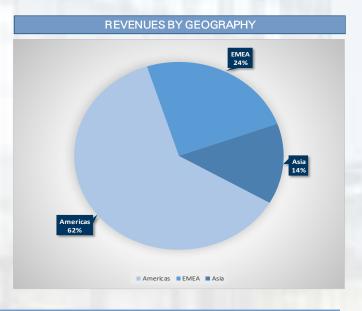
Founded in New York in 1869, Goldman Sachs is one of the largest and leading investment banks in the world. With offices in all major financial centers, the international bank directly employs over 40,000 individuals spanning the globe. Goldman Sachs divides their operations into four verticals: Investment Banking, Global Markets, Asset Management, and Consumer & Wealth Management. Goldman Sachs currently holds 8.4% of global market share in investment banking and leads the industry in Mergers and Acquisitions.





Asset Management generates revenue from incentive and management fees, as well as equity investments and lending. Asset Management was responsible for \$7.98 billion, 18% of net revenues in 2020. The 11% decline from the previous year reflected a decrease in equity investments partially offset by significantly higher incentive and management fees. Consumer & Wealth Management is comprised of consumer banking and wealth management and generates revenue from incentive and management fees, as well as private banking and lending. Consumer & Wealth Management contributed \$6 billion, 13% of 2020's net revenues. The 15% increase from 2019 was due to higher volume of AUM and GS Personal Financial Management, as well as higher credit card loans and deposit balances.

Goldman Sachs classifies their revenue streams into four distinct verticals: Investment banking, global markets, asset management, and consumer management. Investment Banking & wealth includes financial advisory underwriting debt and equity, and corporate lending. In 2020, investment banking was responsible for \$9.42 billion, 21% of net revenues. The 24% increase from 2019 reflected higher underwriting activity pared with decreases in corporate lending and financial advisory. Global Markets includes fixed income, currency, and commodity intermediation and financing, as well as equity intermediation and financing. In 2020, FICC was responsible for \$11.58 billion, or 26% of net revenues while equities contributed \$9.57 billion, 22% of net revenues. The increase in FICC was driven by a large increase in intermediation while equities were propelled by derivatives and cash products in the volatile, pandemic environment.



Geographies

From a geographical standpoint, a strong majority of Goldman Sachs' revenues are from the Americas. The 62% net sales stream reflects a strong presence in the Unites States. In 2020, revenues from America and Asia increased 2% and 1%, respectively. The 3% increase in the aforementioned regions were balanced by a decrease of 3% in Europe, the Middle East, and Africa. The decrease in Europe is part of a larger trend of European consolidation in the banking sector due to Brexit.

Management & Corporate Governance



David Solomon



Stephen Scherr

John Waldron

Goldman Sachs is headed by David Solomon who serves as the firm's Chairman and Chief Executive Officer. Solomon graduated from Hamilton College and joined Goldman as the Global head of financing in 1999 as a partner. After a decade serving as co-head of the investment banking division and roughly two years as President and Chief Operating Officer, he replaced Lloyd Craig Blankfein in 2018 as Chairman and Chief Executive Officer. Known for his eccentric character, Mr. Solomon is also known as "D-Sol" on weekends and religiously takes the subway to work.

Management

Stephen Scherr serves as Chief Financial Officer John Waldron serves as President and Chief Operating Officer John Rogers serves as Executive Vice President & Chief of Staff Richard Friedman serves as Chairman of Merchant Banking Division Adebayo Ogunlesi serves as Lead Director

Board of Directors

David Solomon is the Chairman of the Board of Directors which currently consists of 12 members, four of which are women. According to the Goldman Sachs corporate governance guidelines, the board cannot exceed 15 members and the majority must be independent. Other provisions include a minimum of five meetings per year. Regarding the roles of chairman and CEO, the duties could be separate or combined, but if combined, an independent lead director is necessary. All members must have a stake greater than 5000 shares of common stock or restricted stock. The committee structure consists of three general oversight committees that must contain three members each: Firmwide Client and Business Standards, Firmwide Risk, and Investment Management Risk. Firmwide Client and Business standards and Firmwide Risk committees have other subsets that report to them.

Management Oversight CEO, President, CFO Committee Oversight Management Committee Firmwide Client & Business Standards New Activity:Suitability New Activity:Suitability Securities: Credit: Operational: Finance

CORPORATE GOVERNANCE

Institutional Ownership

Goldman Sachs is owned by nearly 70% institutional ownership, demonstrating the high demand for the stock in the institutional sector. The largest investors of Goldman Sachs are Vanguard and Blackrock who, as of 2020, own a total of 7% and 5.8%, respectively.



Competitive Positioning & Key Strategies

The emergence of special purpose acquisition vehicles (SPACs) is providing Goldman Sachs with a tremendous amount of revenue. A SPAC, also known as a blank check company, is an already public company with no operations that is created in order to merge with a private company quickly. Usually, a hedge fund or other investors will pool their money which is held in escrow until a target is found or the search period ends, and the funds are returned. A SPAC is a guicker and more efficient way for firms to go public and is increasing IPO and M&A activity significantly. According to dialogic data, SPACs are bringing in more than 70% of all money raised through IPOs. According to the Wall Street Journal, the SPAC emergence helped underwriters attain record revenues during the pandemic. In 2020, Goldman Sachs took in equity underwriting fees of over \$3.4 billion(\$1.12B in Q420), more than double 2019, as Goldman underwrote more new equity than any other firm. Currently, 287 SPACs are looking for targets which means hundreds of billion of dollars in mergers are projected to occur in the next 18-24 months. Goldman Sachs was one of the largest profiters of SPAC activity and is well positioned to generate enormous revenues from this new vehicle.

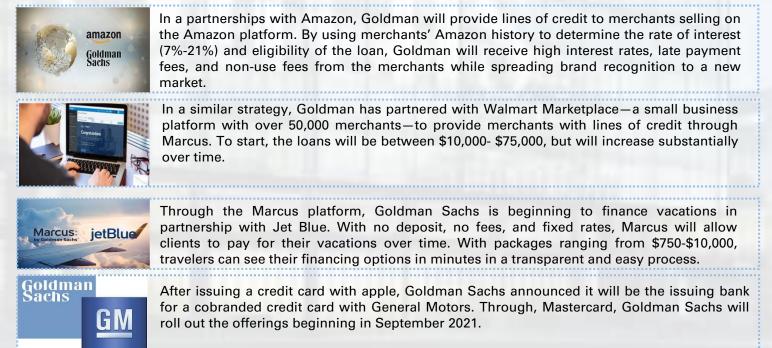


SPAC ACTIVITY 2020

Retail & Strategic Partnerships

Another competitive position Goldman Sachs is developing is in the retail space. After launching Marcus, the online commercial bank in Q4 of 2020-and announcing expansion into the United Kingdom-Goldman has accumulated over \$4 billion in funding through offering high-yield saving accounts and certificate of deposits with fixed rates and no fees. Investors can invest as little as \$1,000 in proprietary assets and utilize the platform's smart money management tools to manage their capital. Through the Marcus platform, Goldman Sachs has created a number of partnerships with retailers, manufacturers, and airlines.





Industry Analysis

The investment banking industry is one of the largest and fasted growing revenue streams in the world. Offering an array of financial services—including advisory, underwriting, asset management, and sales and trading—annual revenue for 2021 is expected exceed \$150 billion, according to IBIS world. According to Mckinsey, the banking industry historically trades at a 50% discount to the broader economy and more than 75% of banks trade below book value. The banking sector, composed of roughly 3000 participants, is a topheavy, consolidating industry with the 50 largest firms accounting for 90% of market share. The largest firms, like JP Morgan, Goldman Sachs and Bank of America, are household names that dominate the sector. A recent proposed increase in taxes and intensified regulation should exacerbate the consolidation further.



Covid-19 & Global Banking

According to Mckinsey's Global banking Annual Review, the banking industry came into the COVID-19 crisis better capitalized than the 2008. Consequently, most banks should be able to regain pre-COVID-19 ROE within five years. However, downward trends are likely to occur including: Severe credit losses through 2021, a \$3.7T loss in cumulative revenue, and an ROE decrease from 8.9 to 5.4% through 2024. With nearly all central banks expected to keep near zero rates, banks will be forced to choose between rebuilding capital and paying our dividends. A survey of 2000 top financial executives believe a muted recovery is the most probable case. In this scenario, of the 750 largest financial institutions, 17% would fall below the floor 8% CET1 ratio triggering failure. More sever effects could occur if these expected failures cause a loss of trust in the banking system without severe government and central bank intervention.

According to Deloitte's 2021 Banking and Capital Markets Outlook, within the US banking industry, net loan losses were \$318 billion, with higher losses in credit cards, commercial real estate, and small business loans. Megatrends that had prevailed in the U.S. financial industry's recent history have reversed course as a result of the pandemic. A sharing economy has been thwarted by health and hygiene concerns, urbanization has been slowed by fear of virus spread within close proximity, and globalization has been slowed by government restrictions and an uncertain future. Other trends have taken shape in their place, most notably, digitalization of transactions and virtualization of the work force. New technologies such as AI and predictive analytics have enabled banks to cut operational expenses and are expected to save the banking sector \$447 billion in expenses by 2023.



Industry Analysis

<u>Fintechs</u>

Intensified by the pandemic is another form of disruption to traditional investment banking, fintechs. Financial technology companies are technology companies in the finance industry. According to FT Partners, an investment bank exclusively focused on the fintech sector, a new wave of disruption is on the way. While some of the traditional roles of investment banks like managing risk and underwriting loans don't seem prone to disruption in the short-term, the intermediary and advisory work may be taken over by automation. A prime example of this is within the asset and wealth management space. Digital wealth management is emerging as an alternative to the traditional path by automating the process and lowering the fees with robo advisors which act on AI technology. Investment banks are hedging the disruption by heavy investment in the fintech sector. Goldman Sachs recently acquired Marcus as an attempt to digitalize the wealth management space and reach retail investors. Morgan Stanley announced its purchase of E-trade, an online brokerage and investing platform geared to retail investors. Ultimately, automation will decrease headcount and increase efficiency and transparency forcing banks to find more creative ways to generate fees or buy up the fintech sector.

SoFi & ELLEVEST Marcus: by Goldman Sachs Corns Extrade Ebury

<u>Brexit</u>

A trend that was thought to have been short-term some time ago but has evolved significantly over the past few years is the decision for the United Kingdom to exit the EU, also known as "Brexit." According to Deloitte's *Brexit: What now for US banks and Capital Markets Firms?*, Brexit directly affected US investment banks. Political and economic uncertainty caused unprecedented volatility in the region. The friction caused by the exit—mainly the trade and citizenship complications—has caused intense currency fluctuation, decreased investment, and movement out of Europe. Goldman Sachs recently consolidated their London office and announced a shift of \$40-\$60 billion in assets from London to Frankfurt as a direct result of the exit, according to Yahoo Finance. JP Morgan shifted some 200 billion Euros as well. The exit makes staff placement for financial institutions more difficult in the United Kingdom. Consequently, Goldman Sachs consolidated their offices in the region. The larger consequence for domestic investment banks should be a net positive as firms will look to invest more in non-European firms and the US can seize the opportunity to increase their competitive position.



Intensified by the Brexit debacle, the banking industry has shifted in geography in the last 20 years. In two decades, European banks have decreased from 14 of the top 30 revenue generating banks, to just four. Asia and North America have both gained in this area and now have 15 and 10 of the top 30 banks, respectively.









Financial Analysis

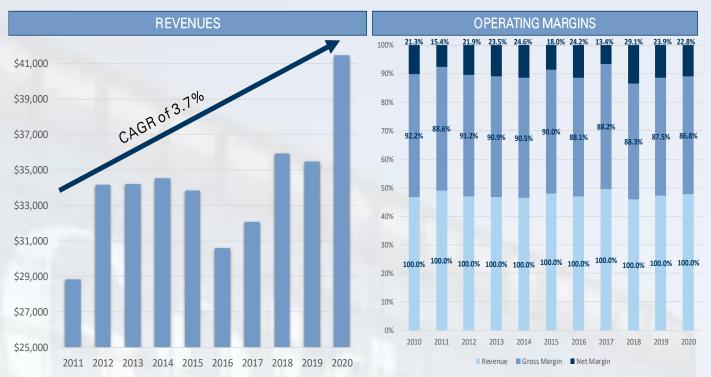
Diluted earnings per share is a measure of earnings per share assuming all convertible securities are exercised. Goldman Sachs has increased their diluted earnings per shares substantially since 2010. A nearly 8% compounded annual growth rate led them to an almost \$28 in diluted earning per share in 2020. At the year end fourth quarter earnings conference, David Solomon attributed the steady increase in EPS to a continued commitment of share buy backs. The 2020 record EPS was due to record revenues, and margins, particularly in the fourth quarter where Goldman Sachs produced a staggering \$11.7 billion with a quarterly EPS of \$12.08. The fourth quarter EPS beat analysts' expectations of \$7.47 by a large margin. According to Market Watch's average analyst estimates, Goldman could continue the upward trend and reach nearly \$36 earnings per share by 2023.

Annual dividend per share measures the portion of earnings a firm pays out to shareholders on an annual basis. Goldman Sachs has significantly increased their annual dividend per share in the last 10 years. The initial \$1.4 annual dividend per share climbed to \$5.00 since 2010 representing a steep, 13.6% compounded annual growth rate. As of Q121, Goldman Sachs has a three-year dividend growth rate of 72.4% and pays out only 24% of earnings as dividends. The current dividend yield percentage for the firm is 1.56%. Goldman's high free cash flow has allowed them to reward investors who the hold shares. The low payout ratio also gives the stock valuation a high ceiling as continuous increases in revenues and high free flows aid Goldman's commitment to cash continued dividend payouts. Investors continue to be rewarded even in volatile times. While other firms saw decreases in dividend pay outs, Goldman has remained steadfast.

Return on equity is an important measure of efficiency and profitability of a firm in relation to the equity provided by the shareholders. ROE is calculated by dividing net income by average monthly common shareholders' equity. In 2020, Goldman Sachs produced a return on equity of 11.1%. This was after a significant 4% ROE impact of a litigation expense. The large increase in ROE notwithstanding the litigation expense in 2020 was driven by record operating performance, growth in industry wallet, and increases in market share both in lines of business and different geographies. The initial, medium-term ROE target for Goldman Sachs was only 13%, a number the firm surpassed by a landslide without the one-time litigation expense. As Goldman Sachs increases efficiencies on their operational verticals, we can expect continued ROE increases.

Goldman Sachs

Financial Analysis



<u>Revenues</u>

Goldman Sachs has realized a healthy revenue uptick since the US economy climbed out of the 2008 recession. From 2011, revenues have climbed by a CAGR of 3.7%. Falling for a brief period in 2011 due to a settlement related to mortgage-backed securities and intensified regulation, Goldman has steadily produced revenues above \$33 billion, navigating intense volatility and economic cycles. The differentiated operational verticals act as a form of risk mitigation through diversification. In periods of high volatility, such as Covid-19, the global markets segment thrived, specifically as strains on commercial papers and needs for liquidity created demand for FICC intermediation. In periods of lower volatilely and a "risk-on" atmosphere, Goldman can capture revenue through underwriting and M&A activity.

Operating Margins

As a financial institution, the nature of the business—offering mostly intangible assets—is not a capitalintensive environment. This allows for a great deal of free cash flow and high operating margins. Goldman has produced an impressive near 90% operating margin and translates over 20% of revenues to net income.

<u>Comparable Companies</u>

Goldman Sachs' peer group consists of the largest investment banks in the world. Second to only JPMorgan in market share, Goldman Sachs has performed exceedingly well relative to peers. In their price to equity ratio, Goldman Sachs was well below the median 13.0x value by nearly 2.0x. This would give the firm an implied valuation of \$321.61. Goldman also performs well in other metrics compared to the peer universe. Return on equity of 11.1% was significantly higher than the median 8.3% and their EPS growth rate of 16% beat the median 5.3% significantly.

Ticker	Company Name	P/E	ROE	EPS Growth
MS	MORGAN STANLEY	13.0x	11.7%	-13.5%
CSGN	CREDIT SUISSE GROUP AG-REG	-	8.3%	-4.8%
BAC	BANK OF AMERICA CORP	13.5x	6.7%	28.6%
UBSG	UBS GROUP AG-REG	10.6x	10.5%	-7.7%
С	CITIGROUP INC	9.7x	5.7%	33.9%
BARC	BARCLAYS PLC	13.3x	7.4%	-64.4%
DBK	DEUTSCHE BANK AG-REGISTERED	12.8x	1.9%	31.5%
JPM	JPMORGAN CHASE & CO	13.4x	11.6%	15.5%
JEF	JEFFERIES FINANCIAL GROUP IN	13.5x	8.3%	-23.1%
GS	GOLDMAN SACHS GROUP INC	10.1x	11.2%	16.0%
	Median	13.0x	8.3%	5.3%



Investment Report

Valuation

Dividend Discount Model: Case

13.5%			
5.0%			
7.7%			
\$5.00			
Growth Assumptions: 10-year			

Dividend Discount Model: Case

Growth Rate (5 years):	16.2%		
Final Growth Rate:	5.0%		
Cost of Equity Capital:	7.7%		
Dividends Per Share(LTM)	\$5.00		
Growth Path: Linear			
Growth Assumptions: Analyst			
consensus projections			

Using a free cash flow to equity model, Goldman Sachs was valued based on their ratio of levered free cash flow—calculated by subtracting capital expenditures from cash flow from operations— in relation to common equity. The assumptions for this model include a cost of equity of 7.7%, a growth rate of 5.0% via a constant growth path and a corporate tax rate of 24.0%. Because Goldman produced record free cash flow in 2020 in excess of \$80 billion, a four-year average of free cash flow was used to take into account cash flow volatility. In this model, Goldman Sachs was valued at **\$503.69**

To value Goldman Sachs properly, a weighted average of all four valuations was leveraged. The dividend discount models, due to their accuracy, were weighted more heavily and received 50% weight in case 1 and 20% in case 2. The free cash flow to equity model was weighted at 20% and the multiples valuation was given a 10% weighting. This calculation provided a value for Goldman Sachs at **\$375.94** per share reflecting a **##.#%** upside from their current share price of **\$###.##**



Using the dividend discount model, Goldman Sachs was valued based on their annual dividend and growth rate. The assumption for this model included a cost of equity capital of 7.7%, a growth rate of 10 years at 13.5%, and a final growth rate at 5.0%. The growth rate assumed a linear progression between the two stages and assumed the 10-year CAGR of the dividends followed by a conservative estimate for future growth. Growing the dividend rate at 13.5% for 10 years, Goldman Sachs would only be paying out roughly 37% of earnings, leaving ample room for growth. In this model, Goldman Sachs was valued at **\$361.31**

Using the dividend discount model with different assumptions, Goldman Sachs was valued based on their annual dividend and growth rate. The assumption for this model included a cost of equity capital of 7.7%, a growth rate of 5 years at 16.2%, and a final growth rate at 5.0%. The growth rate assumed a linear progression between the two stages and assumed the analyst consensus for firm growth for the next five years followed by a conservative estimate for future growth. Growing the dividend rate at 16.2% for 5 years, Goldman Sachs would only be paying out roughly 30% of earnings. In this model, Goldman Sachs was valued at **\$312.06**

Free Cash Flow to Equity Model

	Growth Rate:	5.	00%	
	Final Growth Rate:	Ę	5.0%	
	Cost of Equity Capital	: 7	7.7%	
	Dividends Per Share(L	TM) \$	5.00	
	Free Cash Flow to Eq	uity(b): \$	64.44	
	Shares Outstanding(m	ר): 3	55.9	
	Corporate Tax Rate:		24%	
	Interest on Debt(b):	\$	6.00	
	Net New Debt(b):	\$1	5.00	
	Growth Path:	Constant		
ľ	Nodel	Price	Weight	
[Dividend Discount Model 1	\$361.31	50.09	
[Dividend Discount Model 2	\$312.06	20.09	

	ψ070.00	
Final Price	\$375.95	100.0%
Multiples Valuation	\$321.60	10.0%
Free Cash Flow/ Equity	\$503.59	20.0%
Dividend Discount Model 2	\$312.06	20.0%
	+	,.

Investment Risks

#1 Regulatory Risk

Government Regulation Capital Requirements Margin Requirements



Goldman Sachs is subject to "extensive and pervasive" regulations worldwide. As one of the most regulated industries in the economy, intervention by law enforcement and tax authorities is always substantial threat to the industry. In recent history, the Dodd-Frank Act increased monitoring costs as well as capital, margin, liquidity, and reporting requirements. These fluctuating requirements are, for the most part, unpredictable with no line of defense for the firm should requirements change. Consequently, Goldman Sachs is at the mercy of the regulators and can incur steep losses based on these requirements in a relatively short period of time.



Technological Risk

#3

Fintech Disruption Crypto Disruption



The exponential advancement of technology in recent years has created a new type of disruption for banks never seen before. The aforementioned fintech revolution is creating alternatives for investment banks' "intermediary" role. Another technological risk involves alternative, decentralized currencies such as Bitcoin. Blockchain and other technologies threaten to replace currency as it has been regulated and managed historically. A lethal combination of technological currencies and financial technology companies could uproot the financial industry.



Credit Risk Interest Rate Risk Foreign Exchange Risk



As a financial institution, the dependency on the macroeconomic environment creates room for unpredictable cash flows. Factors such as declines in economic growth, heightened inflation and illiquid markets can create strains on the firm. Credit risk remains at large for Goldman Sachs and, while provisions for loan losses are accounted for, the recent pandemic may test the firm in ways not seen in years past. Because many assets on Goldman Sachs' balance sheet are severely affected by interest rates, the firm is subject to heightened interest rate risk. Many of the positions Goldman Sachs holds are "net-long" which would translate into losses should interest rates go up. Additionally, because Goldman Sachs is global firm, operating, sourcing, and intermediating in many countries with different currencies, the firm is also subject to intense foreign exchange risk.



Sources

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