The Goldman Sachs Group, Inc.

Doing "God's Work"

	Downside Scenario	Current Price	Price Target	Upside Scenario
Price	183.00	241.94	285.00	330.00
Return	*-24.4%*		*19.9%*	*36.4%*

Symbol	NYSE: GS
52-Week Range	250.46 – 180.73
YTD Performance	5.22%
Market Cap (M)	$89,200
Enterprise Value (M)	$250,200
Net Debt (M)	$161,000
Dividend Yield	2.06%
LTM P/Bk	0.95x
LTM P/E	10.23x
ROE	9.35%
ROA	0.88%

FY (Jan)	2019A	2020E	2021E
EPS			
Q1	5.79	6.36	7.10
YoY Change		*11.4%*	*11.7%*
Q2	5.81	5.84	6.42
YoY Change		*0.48%*	*9.9%*
Q3	4.89	6.37	6.94
YoY Change		*32.9%*	*8.9%*
Q4	7.03	6.45	7.36
YoY Change		*37.4%*	*14.1%*
Year	23.66	24.63	27.34

- To complement its premium Investment Banking and Global Markets businesses, GS embarked on a consumer-oriented transformation towards online lending and savings initiatives. Though still in the early innings, this represents an unprecedented effort to mirror its more diverse peers with an influx of lower-cost deposits.
- The now-bank holding company emerged from the Financial Crisis with a bruised reputation and hopes to maintain a trading-dominant business model, but struggled to generate pre-crisis returns amid a tighter regulatory environment. These issues culminated in a pivotal 4Q'17, when debt trading wildly disappointed and GS first fell discount to peers.
- GS' multiple faced further pressure in 2H'18 after two former bankers endured U.S. and Malaysian criminal charges, and reports proved former CEO Lloyd Blankfein's attendance at a CY'09 meeting with 1MDB executives. While the issue has put a ceiling on GS' multiple, we point to its deep litigation reserves and positive settlement talks minimizing a significant financial impact.
- With a push to digitize its existing trading and IB segments combined with a newfound platform to the public, we think new-CEO David Solomon will bring about a long-needed era of stability.
- GS shares currently trade at 0.95x its LTM book value, 12.5% below its three-year average spread to U.S. large-cap peers (BAC, C, JPM, MS, and WFC). We expect shares to trade back in-line to 1.12x book value, generating a $285.00 target price, and a 19.9% return.

COMPANY OVERVIEW

The Goldman Sachs Group, Inc. (NYSE: GS) operates as a bank holding company that delivers investment banking, securities, and investment management services worldwide. The New York, NY-based firm's roots trace back to its founding in 1869. Its core clientele features financial institutions, governments, corporations, and affluent individuals. As of 4Q'19, GS updated its reporting segments as follows: Investment Banking (22.1% revenue) offers financial advisory services, and specializes in equity & debt underwriting; Global Markets (42.6%) participates in S&T services for a range of fixed income and equity products; Asset Management (19.5%) manages third-party funds across various asset classes; and Consumer & Wealth Management (15.8%) houses the firm's Marcus initiative. GS is scheduled to report 1Q'20 earnings on April 15, 2020.

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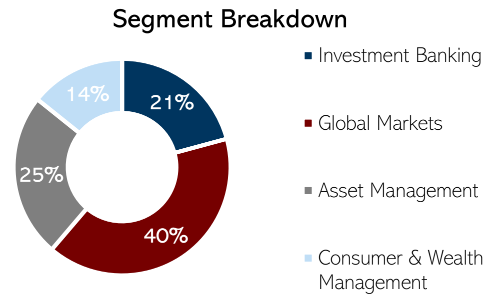
BUSINESS SEGMENT

GS' historic operations fell under four main segments: Investment Banking, Institutional Client Services, Investing & Lending, and Investment Management. However, as of 4Q'19, GS altered its reportable segments to better reflect its Wall Street peers. The new structure provides transparency and minimizes earnings volatility via the deconstruction of the previously dominant I&L and ICS services, while highlighting new consumer-oriented areas.



Global Markets (GM)

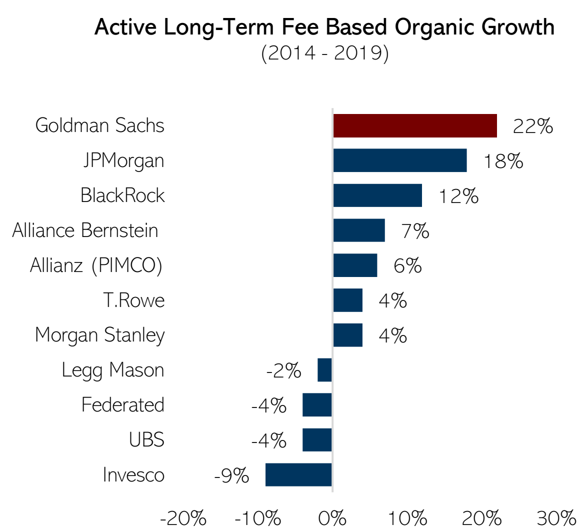
GS' Global Markets unit is the largest new segment and serves as a market maker where clients can buy and sell financial products, raise capital, and manage risk. GM makes and clears market transactions for fixed income, equity, currency, and commodity, options, and futures worldwide. As of 4Q'19, this segment comprises warehouse lending and structured finance revenues that previously fell under Investing & Lending. It also includes derivatives related to advisory and underwriting activities that previously sat under Investment Banking.

- **Fixed Income, Currency, and Commodities (FICC) (47.4% of GM segment)** - includes market making by executing clients' transactions of interest rate products, credit products, currencies, commodities, and mortgages. It also encompasses financing activities to clients through the repurchasing agreements, structured credit, warehouse, and secured asset-backed lending.
- **Equities (52.6% of GM segment)** - similar to FICC, it includes market intermediation for execution activities for equity products in addition to commissions and fees from executing and clearing institutional client transactions. Furthermore, it includes prime brokerage and other equities financing activities from securities lending to margin lending and swaps.
- Global Markets also breaks into market liquidity as follows:
  - Highly-liquid markets: executes a high volume of transactions for its clients including U.S. T-bills and large-cap S&P 500 stocks
  - Less-liquid markets: executes transactions for its clients seeking a higher spread than the highly-liquid markets. This includes mid-cap corporate bonds and mortgage-backed securities.

Asset Management (AM)

The second-largest segment accounts for one quarter of GS' revenue and compromises third-party distribution asset management in both traditional and alternative asset classes which generates revenues from management and other fees (29% of AM segment) and incentive fees (1%). This unit now encompasses Equity Investments and lending related to AM businesses which previously fell under the Investing & Lending unit.

- **Equity Investment (53% of AM segment)** – includes alternative investing in public and private equity investments, including corporate, real estate, and infrastructure entities.
- **Lending (16% of AM segment)** - consists of lending activities such as debt securities and loans backed by real estate.



Investment Banking (IB)

GS' most well-known unit serves clients globally in public and private sectors with long-lasting and strong relationships by offering advisory, underwriting, and corporate lending services for capital raising. GS' wide-range of clients differentiates the Company and aided its historic success in the investment banking business with clients ranging from governments, states, municipalities, and national and international corporations.

Global League Table Ranking

CY'10		CY'19
#2	Announced M&A	#1
#1	Completed M&A	#1
#2	Equity Underwriting	#1
#2	Common Stock Offering	#1
#6	High-Yield Debt	#2
#6	Institutional Loans	#2
#6	Investment Grade Debt ($+€)	#6

- **Underwriting (47% of IB segment)** - this business simply helps companies raise capital by matching the investor client's capital with another client from the public or private sector that needs financing. This segment's revenue includes public offering, acquisition financing, and derivative transactions related to the underwriting.
    - Equity underwriting (20% of IB segment): includes public offerings and private placements of common and preferred stock, and convertible and exchangeable securities.
    - Debt underwriting (29% of IB segment): includes debt instruments such as investment-grade and high-yield debt, bank loans and bridge loans of corporate, sovereign, municipal, and agency issues. It also includes the structuring of asset-backed securities.
- **Advisory (42% of IB segment)** - this core business includes strategic advisory services for mergers and acquisitions, divestitures, restructuring activities, spin-offs, and risk management. It also includes revenue from derivative transactions related to these clients' advisory needs.
- **Corporate Lending (11% of IB segment)** - this newly-added unit (previously under Investing & Lending) consist of lending activities to GS' corporate clients including middle-market lending, relationship lending, and acquisition financing revenues.

Consumer & Wealth Management (C&WM)

GS added a new consumer unit to its historic Wealth Management unit which comprises GS' digital retail banking and recently-launched Apple Credit Card, in addition to its Marcus brand. This addition demonstrates the Company's recent initiatives in digitalization while maintaining its traditional Wealth Management business.

- **Wealth Management (83% of C&WM segment)** - this unit provides investment and wealth advisory services to various clients ranging from institutions and high-net-worth individuals to retail investors worldwide. The unit manages clients' assets and investment strategies in equity, fixed-income, and alternative investments.
    - Management and other fees (67% of C&WM segment) come from asset management and providing investment and wealth advisory, financial planning and counseling, and executing brokerage transactions for high-net-worth individuals.
    - Incentive fees (15% of C&WM segment) are related to managing assets for WM clients.
    - Private Banking and Lending (2% of C&WM segment) which compromises lending and deposit-taking for Wealth Management clients.

Consumer Banking (17% of C&WM segment) - compromises *Marcus: by Goldman Sachs,* GS' digital private bank that offers unsecured loans and accepts deposits. The new unit also includes credit cards such as Apple Credit Card. Both Marcus and the Apple Card previously fell under Investing & Lending.

INDUSTRY OVERVIEW

Regulatory Overhangs

The financials sector is by far the most regulated sector, opening the door to a broad umbrella of regulations banks and financial institutions must operate under. Since the financial crisis, most of the regulations have centered on capital allocation and banks' ability perform under extreme economic and financial stress. The primary stress test is the Comprehensive Capital Analysis and Review (CCAR), which represents an annual stress-testing measure to ensure the largest U.S. bank holding companies (over $50B in assets) have adequate capital to operate through times of extreme economic and financial stress.

- CCAR acts as a firm-specific stress test based on the company's balance sheet, and was originally developed during the financial crisis as a method to ensure banks have sufficient capital to continue lending activities even in extreme economic scenarios. Each institution with assets over $50B must submit a capital allocation plan which demonstrates the firms' ability to operate in a variety of economic scenarios.
- The actual methodology of the stress test involves breaking down the different lending forms within a bank's asset structure to determine their investment grade and project out loss percentages in various economic scenarios. The analysis requires certain equity ratios meet minimum standards which are bank- and balance sheet-dependent.
- Banks argue the regulation uses economic scenarios that are too extreme, and believe the severe economic conditions could never possibly occur. This in turn feeds the argument that banks have to reserve higher levels of capital than are truly necessary.
- In the case a bank fails a CCAR test, the Fed can limit the firm's returns to shareholders. The results are used to determine the returns; if banks fail the review, the amount of capital that can be returned to shareholders is limited. On the other hand, su***ccessfully passing the CCAR allows a bank to raise the level of capital it can return to shareholders*** over a given year.

Looking to future regulations in process of implementation or development, the Current Expected Credit Loss (CECL) and Stress Capital Buffer (SCB) proposal will both impact financial institutions in the near future.

- The CECL method is a newly implemented way of measuring expected losses on financial instruments that is effective for public companies in fiscal years beginning after Dec. 15, 2019. Previously, under GAAP guidelines, allocation of loss provisions was only necessary when it the loss on a loan had already likely been incurred. CECL, on the other hand, ***requires that a loss provision must be made at the initiation of a loan.***
- CECL reporting is firm-specific, so each company has discretion over how it models projected future losses. The lack of a defined, uniform set of guidelines leads to differences in expected and actual loan loss provisions. In CY'12, when the methodology was originally written, it was estimated the four largest financial institutions would have to increase their respective provisions by a collective $56B. Following the most recent round of earnings calls, however, the total loss provision for those four firms as the regulation takes effect is only $10B.
- Expectations surrounding the provisions felt the guidelines would restrict the usable capital available to the largest banks as well as smaller institutions that provide credit. With management at the largest banks expecting loss provisions to come in lower than estimated at the outset of the new guidelines, concerns surrounding bank's ability to use capital should simmer down.
- The SCB is a proposal from the Fed that would simplify the capital requirement testing procedure for banks, moving away from a set percentage of assets reserved for capital towards a different amount for each firm depending on the risks faced by the firm's assets. The firms with higher levels of riskier assets, such as uncollateralized loans and trading assets, would face higher capital requirements under the proposed regulations. The SCB is expected to take effect in CY'20 stress testing.

Consumer Strength: Driving Tech Investment within Financial Services

With the current bull market entering its 130th consecutive month, consumer strength remains strong against a mostly-positive economic backdrop. Unemployment sits at 3.5%, a 50-year low, and the consumer confidence index reached 131.6 in Jan'20, the highest level in five months. The Expectations Index, a metric based on consumer's short-term outlook for the economy, also increased in Jan'20.

- In the broader macro environment, the manufacturing index rose to 50.9 in Jan'20, representing a +3.1 change from the previous month and the first time the index eclipsed 50, the border between expansion and contraction, in six months. Nominal wage growth, however, fell below 3% in Dec'19 for the first time since Sep'18. The Fed has in its recent meetings expressed dissatisfaction with recent wage growth but has not made any indication of changing rates to influence wages.
- Personal loans have seen an uptick in recent years, as the total balance of personal loans in the U.S. reached $156B, the highest level in 14 years and 3x the balance in CY'09. Over 20M people have an outstanding personal loan, an increase of ~6M people since CY'15. Even with the sharp growth, unsecured personal loans only represent ~1% of consumer debt in the U.S.
- Unsecured personal loans have a relatively high delinquency rate of 3.3%, which is greater than mortgage loans, auto loans, and credit cards at 1.5, 1.4, and 2.0%, respectively. The delinquency rate is expected to decrease moving into CY'20 to ~3.0% by 4Q'20.
- On the other end of consumer banking, deposits grew at a CAGR of 6% over the five years up to CY'19 to a total of $13.9T. The trend towards online banking and a general increase in the ease with which consumers can access their money will continue to increase overall deposits.

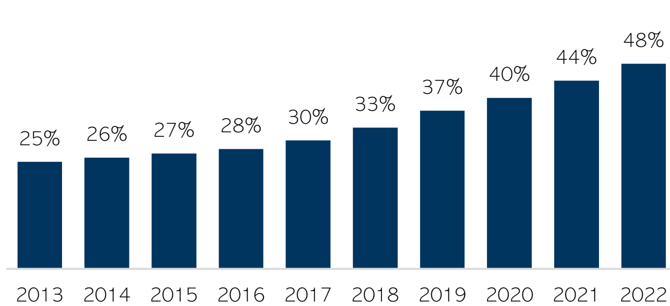
As the world embraces digitization and the advantages of technological implementation, overall spending on technology has skyrocketed, particularly in the financial services space. The infiltration of fintech firms into banking services and the need for banks to differentiate themselves to their clients has spearheaded the surge in spending in recent years. Since CY'13, US bank spending has grown at a CAGR of 4.6% to $105B in CY'19.

- According to a McKinsey Report, banks devote between 4.7% and 9.4% of their operating budgets to IT spending on average. Larger banks often have to align information technology (IT) investment around legacy systems that are slower and unable to support the newest technological advancements, a significant drawback against cloud-based fintech firms which have much higher technological agility. A limiting factor for banks as they venture into new technologies such as AI and cloud-based services will be those legacy systems which are more difficult to upgrade than up-to-date cloud-based platforms and slower to respond to change.

Beyond simply increasing overall IT spending, banks are increasing the share of spending designated for new investment, increasing the measure from 25% in CY'13 to a projected 48% in CY'22. New investment includes technology that focuses outside of managing recurring tasks and instead on providing value to customers.

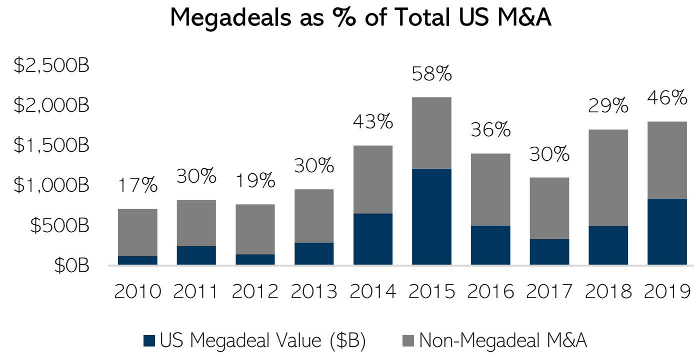
- The technology investment that optimizes returns for banks is the emphasis on aligning IT spending and innovation with the overall goals and visions of the firm. The highest-performing banks in the context of returns on IT spending are those who prioritize focusing IT investment for the strategic initiatives of the firm instead of day-to-day business operations.

% of IT Spending on New Technology



Capital Markets Outlook

Capital markets provide the backbone for the economy through debt and equity underwriting services as well as advisory services for mergers and acquisitions. Revenue for banking services is expected to increase at a 2.1% CAGR until CY'24 while the majority of banking fees, 62%, are collected in the U.S.



- Megadeal (>$10B) announcements dominated the M&A space in CY'19, which supported total deal value while deal count decreased. Global deal volume decreased 0.5% YoY to $4.1T even though deals valued over $250mm decreased 9% YoY due to the rise of megadeals from 41 to 47 in CY'19. Megadeals are highly volatile year-to-year in both volume and value and as such it is hard to predict how that slice of the M&A pie will perform, but executives are split evenly on where the activity will go heading into CY'20.
- Merger of Equals (MOE) deals have become more common as firms look to solidify existing segments and business operations instead of acquiring businesses in new markets. The number of MOE deals declined 18% YoY but global deal volume increased by 68% YoY, driven by a 180% increase in MOE deals in North America. Cross-sector deals have also seen a decrease in activity; making up 36% of M&A deals in CY'13 to making just 26% of deals in CY'18.
- Globally, cross-border deals are difficult to execute due to differing regulatory agencies and environments as well as inconsistent political climates. In CY'19, cross-border deal volume decreased 13% and made up just 26% of the global M&A market compared to 30% in CY'18. With Brexit coming into full effect in CY'20, deal activity across European borders is expected to decrease.
- Even though the economy is showing signs of strength, CEOs and investors alike are wary of a potential economic downturn following the longest bull market in U.S. history. According to an EY survey, 52% of CEOs plan to actively pursue M&A in the next 12 months and the primary factor in decision making will regard the firm's strategy within its sector. The CEO confidence index fell in 4Q'19 to 76.7, its lowest level since 4Q'16 and the eighth straight quarter of decline. The availability of capital, however, is expected to continue to fund transactions even in an uncertain economic environment.

Private Equity (PE) acquisitions are also expected to increase in CY'20. With ~$2T in dry powder and interest rates at three-year lows, analysts expect PE transaction growth will continue. PE firms acquired firms at increasing elevated valuations, with the average EV/EBITDA multiple reaching 11.5x, up from 7.7x in CY'09.

Initial Public Offerings (IPOs) were constantly in the news in CY'19 from long-standing brands like Levi's (LEVI) to ride-sharing unicorns Uber (UBER) and Lyft (LYFT). Other companies looking to IPO, such as WeWork, never made it to the public market.

- Overall, the CY'19 IPO market raised $53.9B in capital on 213 IPOs, representing a 20% decrease YoY in deals and a 10% YoY decrease in capital raised, even with 24 companies going public at valuations over $1B. Looking to CY'20, with economic uncertainty on the rise, IPOs are expected to have a weak year unless more certainty and stability appears in the market.

Fixed Income and equities trading revenues are generated from commissions. Fixed income generally performs best in periods of high economic uncertainty, while equities overperform in strong macroeconomic conditions. Fixed income trading experienced an excellent quarter to end CY'19, but due to the high volatility in trading volume it is difficult to project how trading will perform into the future.

UNDERVALUATION & THESIS

GS once leaned on the trading execution business of its Institutional Client Services segment to dominate the Street with its laser-focus on hedge funds and other speculative investors. A lack of competition and higher fees helped GS generate quick profits, while executives simultaneously scoffed at locking up capital for years through lending activities. This business model rose to prominence in the mid-00's and paid-off following an influx of new lucrative catalysts, including the dot-com bubble & private equity boom, stronger adoption for institutional investing, and a lack of regulation behind OTC derivative transactions.

- GS' tides began to shift in CY'08 when it underwent a structural transformation to become a bank holding company from an independent investment bank. Although GS would now face more stringent regulatory oversight from the Federal Reserve, it could tap into the Fed's Troubled Asset Relief Program (TARP), of which it borrowed $10B. Moving out of the crisis GS hoped to return to "business as usual," but struggled to operate with a handicap of regulations. In CY'10 GS eliminated its principal-strategies unit, which conducted proprietary trading, to better comply with the Volcker Rule. Additionally, more transparency created more market data accessibility, and GS lost the pricing power it once controlled. After shoving these issues under the rug for close to a decade, GS had to face the music come 4Q'17. The music for GS wasn't in-tune – debt-trading revenue tumbled 50% when the Institutional Client Services segment made up 29.2% of the total pie. ***This is when investors first began to push GS' multiple astray from its more diversified peers.***

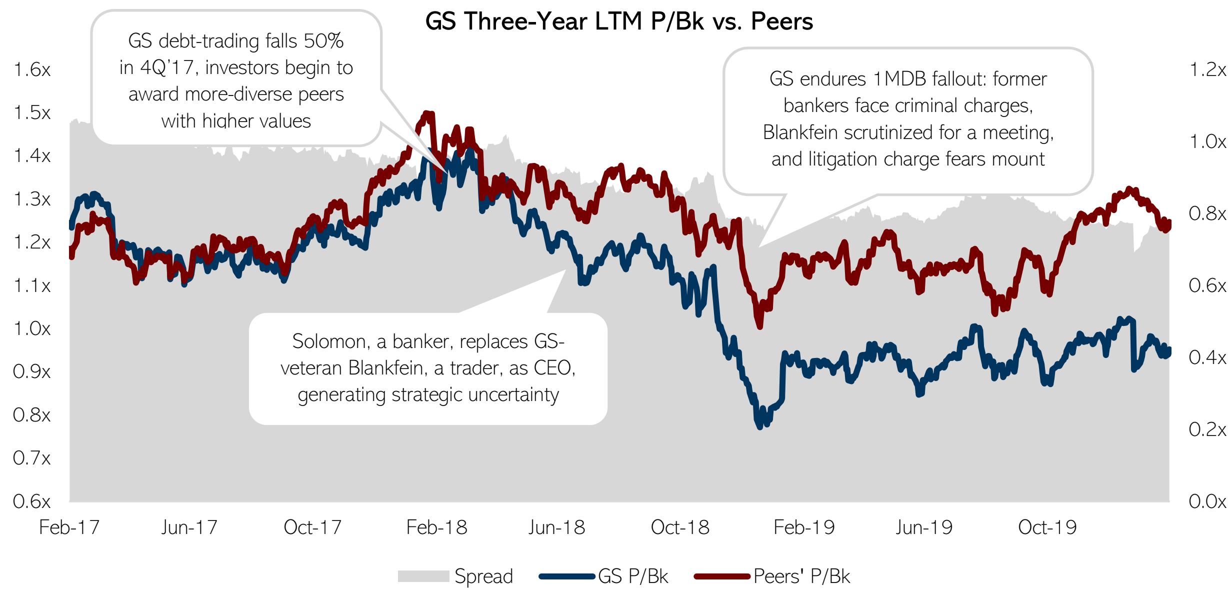
GS' multiple further drifted over a tumultuous summer, beginning with an over-emphasis on CY'18 CCAR results. In this review the Fed featured its toughest "Severely Adverse Scenario" for the stress-test in years. The conditions included an 8.9% GDP slump (from -7% between CY'15 to CY'17), 30% housing price contraction (from -24%) and a 40% commercial real estate decline (from -30%). Firms with larger trading and wealth management businesses (GS and MS) would weather more extreme theoretical losses, and heading into the review analysts expected GS to lower its shareholder distributions. During the review GS produced a 2.7% supplementary leverage ratio (3% regulatory minimum) though ***the Fed still rewarded GS with a "conditional non-objection" grade*** after considering the TCJA impact on tax asset values. ***This means GS could continue shareholder distributions*** equal to its two-year historic average ($5B share repurchases and $1.3B dividend payments).

- The fateful summer followed up with GS' 2Q'18 earnings announcement when then-CEO Lloyd Blankfein announced his resignation after twelve years in the position and 36 years at the firm. Waiting to take his place stood president and COO David Solomon, a GS veteran since CY'99. Even with strategic fears reverberating through market sentiment, we found solace in Solomon's strong track record, including his Investment Banking leadership ***driving the unit to out-earn fixed income trading for the first time ever in 4Q'17***.

The bulk of GS' selloff occurred in 2H'18 when it endured the fallout of its involvement with the 1Malaysia Development Bhd. fund. The fund originated in CY'09 to finance economic development projects in Kuala Lumpur. GS helped arrange three bonds for the fund between CY'12 and CY'13, raising $6.5B and earning $593mm in fees along the way. More pieces began to emerge in CY'15 when a report showed $681mm in then-Malaysian PM Najib Razak's personal bank account, prompting an international probe.

- Issues for GS began to mount in CY'16 when the FBI subpoenaed Tim Leissner, the former GS SE Asian chairman who resigned from the firm a month earlier, for money laundering and corruption. In Nov'18 and Dec'18, the DOJ and Malaysian government respectively charged Leissner and colleague Roger Ng for their involvement in the misallocation of the stolen 1MDB funds. Simultaneously, reports emerged proving Blankfein's attendance at a CY'09 meeting with Razak, Leissner, and Malaysian businessman Jho Low, who allegedly orchestrated the operation. GS now lacks an alibi for ignoring warning signs of theft, though it nears a settlement with the DOJ for under $2B (GS' SE Asian subsidiary will plead guilty, not the parent firm).

The poor actions of rogue employees do not reflect the broader culture of GS' International IB business, and given the scandal's lack of impact on the firm's top line with levers to mitigate a bottom-line scare (deep litigation reserves), investors are mispricing the threat of a one-time hiccup.



SCENARIO ANALYSIS

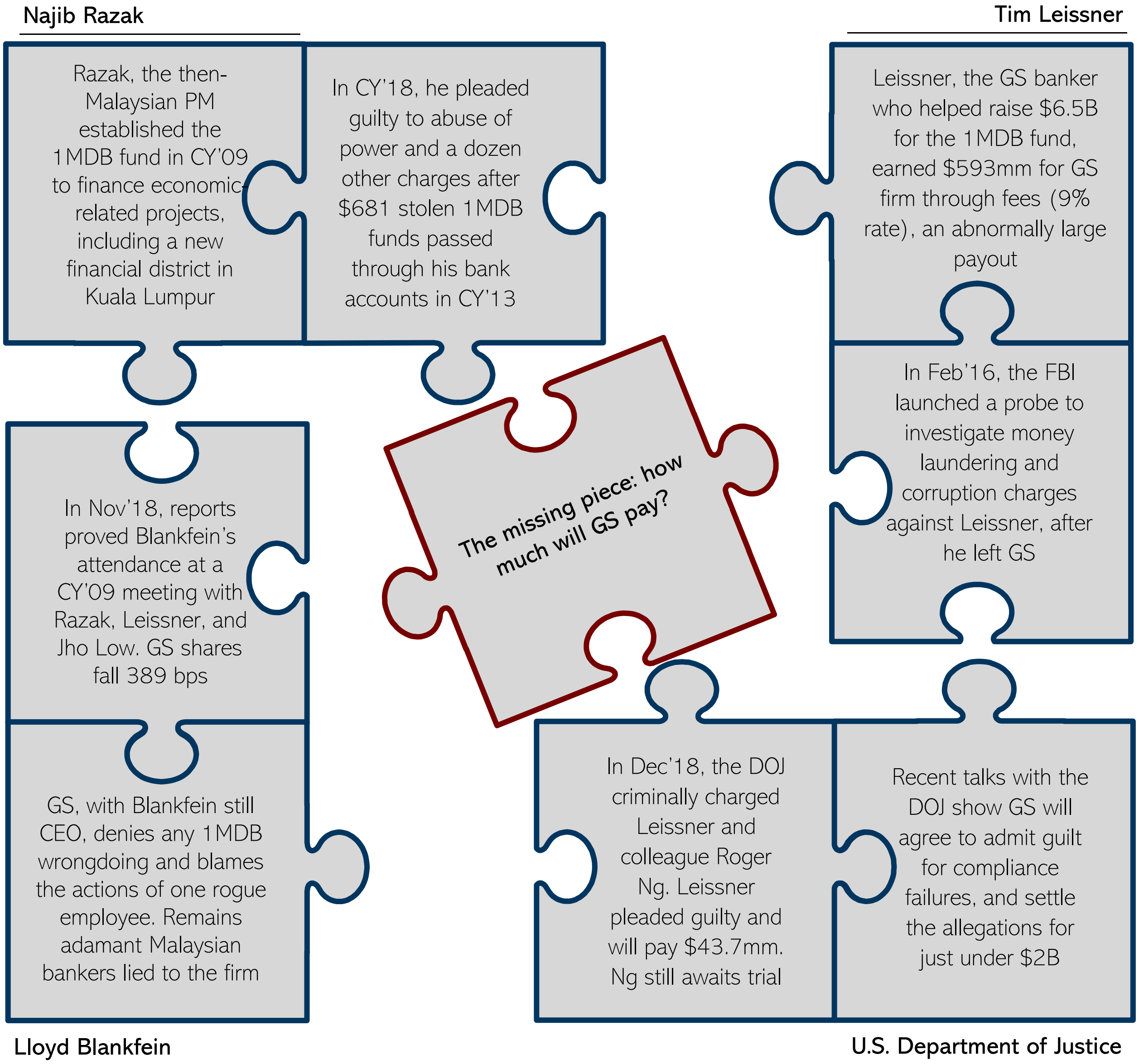
Bear Case Assumptions: ***Our Bear Case or Downside Scenario derives a price target of $183.00/share, representing a (24.4%) return from GS' closing price on Tuesday, February 5th.***

- We assume GS will trade at a target 0.81x LTM P/Bk, just off of where it traded in CY'11 following the financial crisis, after the firm realized losses from real estate loans and growth stalled with the broader economy.
- U.S. GDP ceases to grow, further contracting business investment expenditures and drying up equity and debt underwriting activities, combined with lower M&A volumes to weigh on IB revenues.
- The 1MDB scandal continues to hang over investor sentiment, negotiations with the DOJ fall through, and GS ends up paying a litigation charge larger than what sits in its reserves.
- GS' consumer lending products fail to resonate with consumers, forcing the firm to continue paying higher rates on long term borrowings, and limiting returns on its consumer banking investments.
- The new Wealth Management additions fail to attract mass-affluent deposits, and a lack of synergies weigh on management's PBT margins. Similar to consumer banking, slower deposit inflows limit incremental revenues.

Bull Case Assumptions: ***Our Bull Case or Upside Scenario derives a price target of $330.00/share, representing a +36.4% return from GS' closing price on Tuesday, February 5th.***

- We assume GS will trade at a target 1.31x LTM P/Bk, similar to its value in CY'18 before the 4Q'17 results broke and near its pre-crisis values as investors push it closer to it more-diversified peers.
- The Fed continues to exhibit its patient rhetoric, helping incentivize investment from consumers looking to lock in low rates. Unlike previous years, GS' newfound consumer banking initiatives help it leverage this lucrative market, helping the firm rake in lower-cost deposits to drive incremental revenues elsewhere.
- Investment Banking will find success in its new international markets, helping diversify its reliance on any one geography, while hot M&A and underwriting environments reflect a strong underlying economy.
- 1MDB-related headlines fade quickly, and GS either pays the litigation amount agreed upon with the DOJ (which its reserves could cover), or a lower-than anticipated price.

A One-Time Hiccup or Longer-Term Handicap? Putting Together the 1MDB Puzzle



After seeing GS' P/Bk multiple shed 81 bps since the broader mid-Jan'19 rebound, we essentially see the 1MDB debacle acting like a ceiling over GS' multiple, especially after the allegations entangled Blankfein and high settlement rumors began to emerge. We think this ceiling, however, lacks any structural support, given GS' stable positioning to weather any potential outcome. After taking a $1.1B litigation hit last quarter, GS has accumulated over $2B in its reserves from the past seven quarters. GS could settle with the DOJ on the planned, and "largely agreed" upon $2B settlement, ***without seeing any detrimental impact to its bottom line***. Regarding the top-line, GS witnessed a slower 2H'19, but ***has not realized any International-specific banking weakness***, as it maintained its #1 equity underwriting position alongside dominant M&A share. We think the largest risk exists with a payment to Malaysia, who still wants GS to pay criminal fines higher than the $2.7B estimated misappropriation. GS calls the charges "misdirected," and remains in contact with Malaysian PM Mahathir Mohamad, who in Nov'19 expressed interest in lowering the charges.

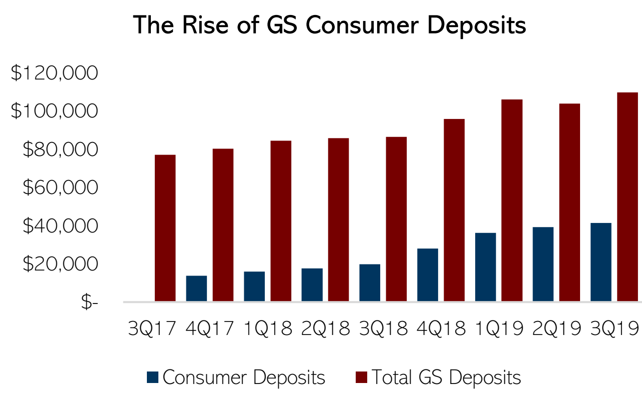
CATALYSTS AND DRIVERS

After a frustrating decade of underperformance relative to peers, David Solomon peered into GS' mirror to determine what needed to change. In the reflection, Solomon observed a trading-dominated firm struggling to cope in a post-crisis era amid tighter regulations and a battered public image. He determined that since GS faced regulations like a bank, it better start acting like one, and swiftly pushed its consumer initiatives to the forefront with an operating segment reshuffling and an unprecedented investor day. Although GS arrived late to the Main Street party, ***Solomon is taking the right steps to transform GS from a "vampire squid" to a diversified entity in closer alignment to its higher-valued peers, without neglecting the core banking and trading aspects of the firm.***

The Times They Are a-Changin'

A lack of funding from capital markets proved one of the core reasons behind the collapses of Bear Stearns and Lehman Brothers in CY'08, prompting regulators to urge investment bank survivors (GS) to diversify its capital with deposits from a commercial banking operation. GS' threefold vision focuses on funding expansion through ***expanding its Consumer Banking and Wealth Management deposit streams.***

Consumer Banking: Admit that the Waters Around you have Grown



- GS took its first consumer banking steps in Aug'15 when it purchased an online deposit platform from GE Capital Bank. Although a relatively small deal, GS acquired $16B in deposits and 140,000 retail customers, paving the way for its vision.
- Shortly after implementing GE's deposit platform, GS embarked on a mission to expand these deposits. It began to offer online savings accounts with a $1 minimum balance, and certificate of deposits for a $500 minimum – a stark turnaround from the high-net worth clientele GS historically focused on. To grow deposits in a competitive space, GS offered a 1.05% saving rate that topped that of BAC. C, JPM, and WFC. ***One year after the launch, GS had collected $1.8B new deposits from 20,000 new customers.***
- GS took another pivotal step in Oct'16 when it launched the online lending platform Marcus. The platform would target "prime" credit scores to offer loans up to $30,000. GS' advantage over online lending competition came from its ability to finance loans using deep deposits, allowing it to eliminate upfront or late fees, and maximize NII by holding loans to maturity.
- In Apr'18 the firm purchased Clarity Money, a personal finance management app used to expand Marcus' customizable offerings. The acquisition came with 1M members for Marcus, and the hire of its founder, Adam Dell. The digital storefront included features such as behavioral finance through machine learning, which Marcus reflected in the Jan'20 debut of its new app.
- The venture veered further off the beaten path in Feb'19 when it announced a partnership with Apple, Inc. to create a joint credit card to tap into AAPL's young and wealthy customer base. Solomon even regarded it as "the most successful credit card launch ever."

Within the next five years, GS ***expects to grow its consumer deposit balances to over $125B from $41.4B in 3Q'19, while its consumer loan balances (including credit card debt) tops $20B from $5.5B*** in its most recent filing. Management has expressed interest in finding new partnerships, linking the digital banking platform with the Wealth Management business, and expanding loans to mortgages, car loans, and insurance.

Wealth Management: Keep Your Eyes Wide, the Chance Won't Come Again

GS is no stranger to Wealth Management. Its Private Wealth Management business has managed, invested, and even lent funds to the uber-wealthy through its private bank – historically limiting its services to clients with a minimum account size of $10mm. Even after expanding to corporate investment management with its CY'03 Ayco acquisition, GS still controlled a fraction off the addressable management market. We think the story changed when GS purchased United Capital, a financial management company controlling $25B in assets with 220 financial advisers, for $750mm in Mar'19. ***GS is now well positioned to cover each base of the wealth management diamond – from employees & employers to the mass-affluent to high net worth individuals.***

- **Corporations:** Although Ayco has been a member of GS' portfolio for years, it has recently taken steps to branch out from solely working with funds from senior executives. The service currently works with 435 corporation and under 1M employees, but integration with the rest of the Wealth Management & Consumer brand will expose it to a **LT target of 1,500 corporations and 40M employees**. Management expects consistent growth of 30 new corporate relationships and 300,000 employees per year. GS will further integrate Ayco with the Marcus digital banking platform with plans to launch "Marcus@Work" to satisfy employee clients' saving and borrowing needs.
- **Mass-Affluent:** This market includes clients with assets between $100,000 and $1mm, a market CFO Stephen Scherr expects to span $9T total assets across ~20M U.S. households. To enter the space, GS will lean on Marcus where it plans a launch a digital wealth management tool – which will include Marcus' digital interface with human interaction features – sometime in FY'20.
- **Ultra-High Net Worth Individuals**: GS will still focus on the backbone of the segment given the consolidated nature of the industry (3% global share). This includes launching more advisors to bolster its existing 13,000 client count and $475B AUS. GS plans to hire 250 advisors over the next two years (800 today, 150 additions over the past five years), which would equate to 50% advisor growth in both the EMEA and APAC regions.

We think a combination of selective underwriting (740 avg. FICO score & 27.5% avg. approval rate) with synergies from the United Capital and Ayco integrations will help GS propel past heavy upfront costs (~$1.3B in Marcus losses between its launch and Oct'19) ***to reach management's 15% medium-term pre-tax margin target.***

And Don't Speak Too Soon, For the Wheel's Still in Spin

While we think GS has taken strides in developing its digital banking and consumer-oriented approach, we still sit in the early innings of the transformation. Consumer banking revenues made up just 16.5% of the new C&WM segment – and 2.6% of the entire firm – in 3Q'19, while Wealth Management took 13.2% of the total pie. Even if it takes time for these segments to drive GS' top-line, we think ***the near-term value exists in GS' ability to utilize lower-cost deposits elsewhere in the firm to maximize NII.***

- In FY'18, GS paid a 1.77% rate on its interest-bearing deposits (the cash Marcus and private Wealth management clients deposit in GS), well below the 1.96% paid on collateralized financings (securities loaned for financing purposes) and the 2.35% paid on long-term borrowings (debt). In short, ***even a slight uptick in deposits gives GS a lifeline to low-cost financing, allowing the firm to generate a wider margin on its interest income from lending activities.***
- If a heavier-weighting of cash deposits pushes the interest rate divergence between more expensive longer-term financing to 150 bps, GS can gain $150mm in incremental revenues for every $1B addition to deposits. LT, management expects to accumulate $125B consumer deposits, an $83B increase from current levels ($41.5B in 3Q'19). That means ***LT, this represents $1.3B incremental revenue opportunity***. ST, let's say GS captures just 1% of the $5T total domestic deposit industry ($50B). ***This still equates to $127.8mm in incremental revenue gains***. In essence, we're not saying GS' consumer banking needs to conquer the world. It just needs to conquer enough of the world to bring about low-cost funding stability.

Unlocking Wall Street's Black Box

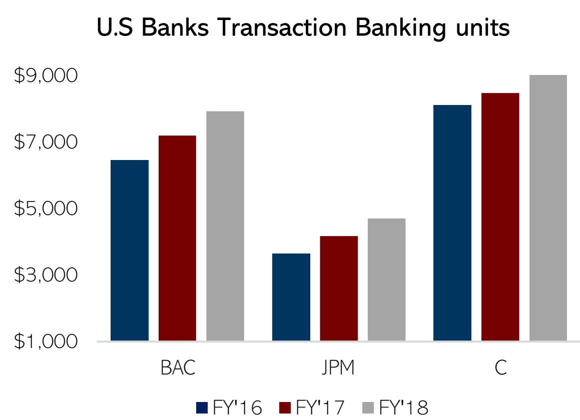
Expanding the "Goldman" Age

Investment Banking (IB) is in GS' DNA, representing its most distinguished business unit. GS ranks #1 or #2 in most IB measures, coming from decades of investments in its talents, clients, and culture. In order to maintain this successful performance and position the Company with industry trends and a higher competitive landscape, GS announced an initiative for its IB unit to achieve medium and LT growth. ***Although GS strives to emulate its peers through a revamped consumer-focused digital banking project, IB will still act as GS' bread-and-butter near-term service.*** GS announced the following plan for its IB unit, which we believe will boost the franchise's returns and put it on the proper LT track.

- GS plans to expand its IB business to new markets that it historically does not compete in to diversify its portfolio and increase its volume of deals, without neglecting its expertise with mega deals. GS expects to increase its client size in the middle market ($500mm-$2B) by 44% in the Americas and EMEA.
- As GS opens its doors to this crowded market, it will generate higher volumes of deals while diversifying and broadening its client coverage footprint, and increasing its product offerings. In addition, it enhances its corporate lending unit which it recently moved under IB from Investing & Lending. Lending to the middle-market will increase the deals volume in IB as corporate clients with loans are more likely to generate fees.
- To increase efficiency and cut costs, GS' plans to relocate its employees to offices with lower costs in India and Utah which ***ultimately can save the unit $1B.*** it is also planning to move 40% of its global staff outside its NY headquarter to offices in London, Dallas, Salt Lake City, Bangalore and Warsaw.

Transaction Banking

- TB might not act as GS' most attractive and eye-catching segments, but it still serves a purpose at any bank. TB covers the daily operations of the bank and includes cash management and trade finance. This business offers a reliable source of recurring revenues that has been embraced by major banks.
- In CY'19, GS completed the initial build-out of TB which processed $2T of payments platform, with the full rollout for third-party clients expected in 1H'20. ***GS plans to grow its wallet share by launching this digital banking platform, which for every 1% incremental gain in wallet share will increase in $750mm annual revenues.***



- Although this initiative represents a small market share for GS', ***it still boosts stable and recurring revenues, diversifies funds, and adds synergies with GS' main strategy.*** The U.S. TB wallet is expected to be ~$80B, while U.S. Corporate Deposits are forecasted to be $5B. We view this as an attractive market GS can compete in that will better position the firm for future trends in the financial industry.
- The digital website will offer clients the opportunity to engage and invest in GS' other businesses like Money Market funds which will increase the synergies between GS' units. ***The long-term goal for GS is to add $1B in revenues and $50B in deposits in the next five years.*** ROE and margins, with a combination of top-line gains and expense efficiencies, are expected to be accretive in the long-term.

PEER GROUP ANALYSIS

Bank of America Corp. (BAC) is one of the largest banks by assets in the U.S. that offers saving accounts, deposits, mortgages, credit and debit cards, insurance, and online banking services. Its core businesses are consumer and small business banking, corporate banking, credit cards, mortgage lending, and asset management. In 2009, Bank of America acquired Merrill Lynch which made it one of the largest wealth management companies with ~$2.4T AUM. Most of BAC's revenue in FY'18 was generated in the U.S. (89%) and (11%) internationally.

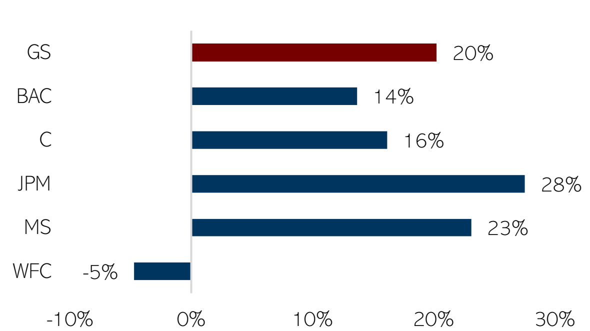
Citigroup Inc. (C) is a holding financial services company that serves consumer and corporate customers. Citi owns operations in investment banking, retail brokerage, corporate banking, and cash management products and services worldwide. The Company trades in 160+ countries, has 200M+ customer accounts and $1.9T in assets. In FY'19, (47% of revenue) came from the U.S., (22%) from Asia, (17%) from EMEA, and (14%) from Latin America. Citi operates in two main segments: Institutional Clients Group (54%) and Global Consumer Banking (46%).

J.P. Morgan Chase & Co. (JPM) is a leading global financial services company. JPM provides investment banking, securities services, asset management, private banking, and commercial banking to corporations, institutions, and individuals. JPM is the largest U.S. bank with 5000+ branches in ~25 states. In its asset management unit, JPM holds $2.7T in AUM. JPM revenues breakdown for FY'19 is: Consumer & Community Banking (47%), Corporate & Investment Banking (32%), Asset & Wealth Management (12%), Commercial Banking (8%).

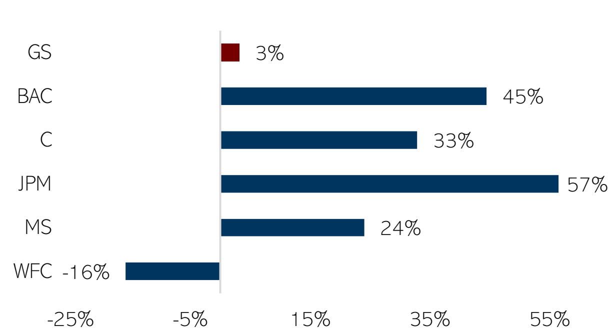
Morgan Stanley (MS) is a global financial holding company that provides investment banking and other financial services to various corporations, governments, financial institutions, and individuals. MS operates in 42 countries and is well-known for its investment banking and sales and trading businesses. MS operates through three main segments: Institutional Securities (49% of FY'19 revenue), Wealth Management business (42 %), and Investment Management (9%).

Wells Fargo & Company (WFC) is a financial services company that offers banking, insurance, investments, mortgage, leasing, credit cards, and consumer finance. Wells Fargo Banks is one of the top five U.S. banks with 7800+ location in all 50 states and 35+ countries. WFC has $1.9T in assets, $950B+ in loans, and $1.3T in deposits. In FY'19, WFC generated net revenues from: Community Banking (53%), Wholesale Banking (33%), Wealth & Investment Management (20%).

1-Year Performance



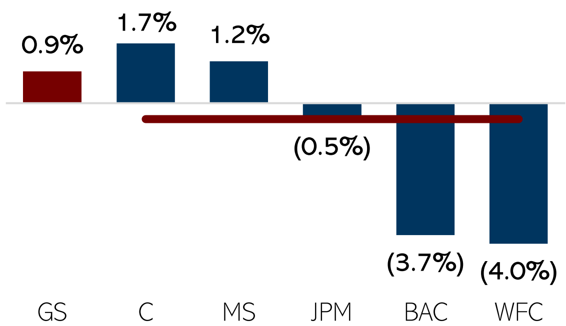
3-Year Performance



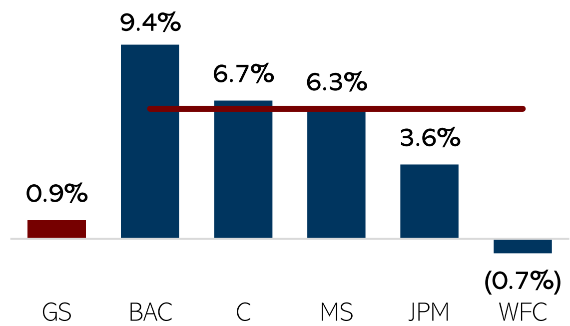
Company		Market Statistics		Growth Analysis				Margin Analysis					
		Market	Enterprise	Net Revenues		EPS		Profit Margin		Price/Book Value		Price / Earnings	
	Ticker	Cap	Value	LTM	2020E	LTM	2020E	LTM	2020E	LTM	2020E	LTM	2020E
The Goldman Sachs Group, Inc.	GS	$88,120	$249,120	(0.2)%	0.9%	(8.2)%	9.4%	15.7%	23.3%	0.9x	1.1x	10.1x	9.7x
Bank of America Corp.	BAC	291,327	-	0.0%	0.8%	3.8%	9.4%	30.0%	29.6%	1.2x	1.2x	11.9x	10.9x
Citigroup Inc.	C	158,832	360,918	3.5%	0.2%	27.3%	(10.2)%	18.8%	23.3%	0.9x	0.9x	9.0x	8.8x
J.P.Morgan Chase & Co.	JPM	418,313	-	6.1%	2.2%	15.7%	(2.6)%	31.5%	28.7%	1.8x	1.7x	12.8x	12.3x
Morgan Stanley	MS	85,138	205,327	3.3%	(2.9)%	10.4%	3.9%	16.8%	20.3%	1.2x	1.1x	10.1x	9.7x
Wells Fargo & Company	WFC	194,813	-	(1.6)%	(6.4)%	(0.7)%	10.6%	23.0%	23.4%	1.2x	1.2x	11.7x	11.5x
High		$418,313	$360,918	6.1%	2.2%	27.3%	10.6%	31.5%	29.6%	1.8x	1.7x	12.8x	12.3x
Mean		206,091	271,788	1.8%	(0.9)%	8.0%	3.4%	22.6%	24.8%	1.2x	1.2x	10.9x	10.5x
Median		176,823	249,120	1.6%	0.5%	7.1%	6.6%	20.9%	23.4%	1.2x	1.1x	10.9x	10.3x
Low		85,138	205,327	(1.6)%	(6.4)%	(8.2)%	(10.2)%	15.7%	20.3%	0.9x	0.9x	9.0x	8.8x

Company		General Statistics		Returns Analysis			Basel III Capital Ratios					Credit Profile	
	Ticker	Tax Rate	Beta	ROIC	ROE	ROA	CET1	Tier 1 Capital	SLR	Total Cap Ratio	Efficiency Ratio	Moody's	Fitch
The Goldman Sachs Group, Inc.	GS	17.4%	1.26	1.7%	9.4%	0.9%	9.5%	11.00%	5.00%	13.00%	67.50%	A3	A
Bank of America Corp.	BAC	14.4%	1.23	4.0%	10.7%	1.2%	11.4%	12.90%	6.60%	15.20%	48.10%	A2	A+
Citigroup Inc.	C	12.3%	1.29	3.5%	10.3%	1.0%	11.6%	13.20%	6.27%	13.50%	53.00%	A3	A
J.P.Morgan Chase & Co.	JPM	19.4%	1.09	4.7%	14.9%	1.4%	12.3%	14.10%	6.30%	15.50%	57.42%	A2	AA-
Morgan Stanley	MS	15.7%	1.29	1.8%	10.8%	0.9%	16.3%	18.50%	6.30%	20.90%	73.00%	A3	A
Wells Fargo & Company	WFC	18.8%	1.94	4.2%	10.6%	1.0%	9.0%	10.50%	5.00%	15.96%	69.10%	A2	A+
High		19.4%	1.94	4.7%	14.9%	1.4%	16.3%	18.50%	6.60%	20.90%	73.00%		
Mean		16.3%	1.35	3.3%	11.1%	1.1%	11.7%	13.37%	5.91%	15.68%	61.35%		
Median		16.5%	1.28	3.8%	10.7%	1.0%	11.5%	13.05%	6.29%	15.35%	62.46%		
Low		12.3%	1.09	1.7%	9.4%	0.9%	9.0%	10.50%	5.00%	13.00%	48.10%		

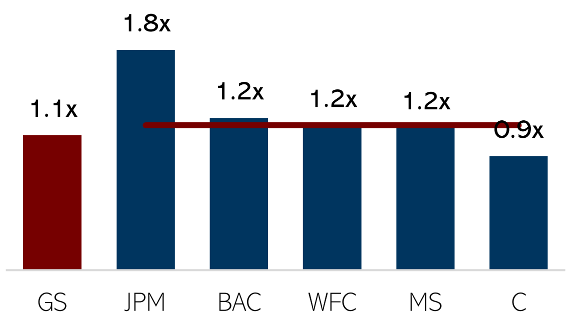
Revenue Growth



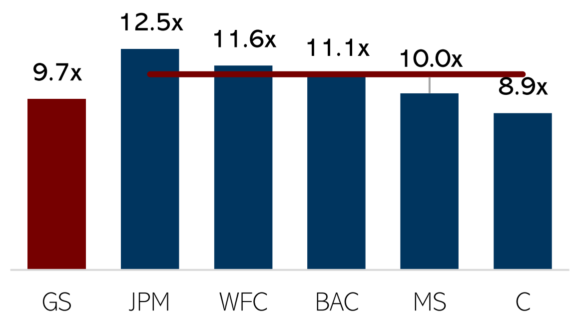
EPS Growth



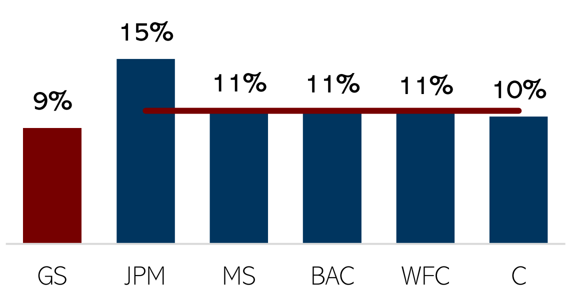
NTM P/Bk



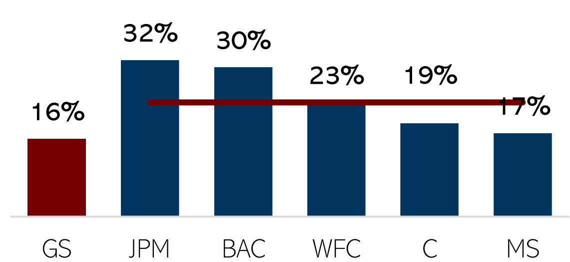
NTM P/E



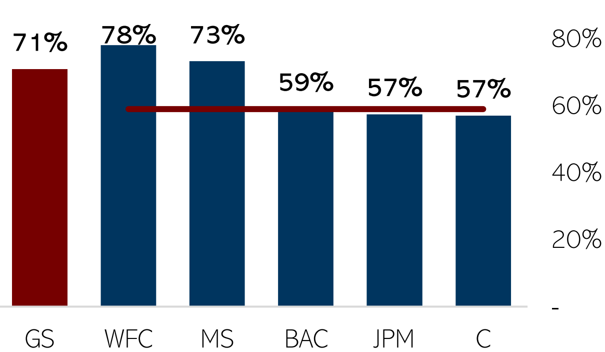
Return on Equity



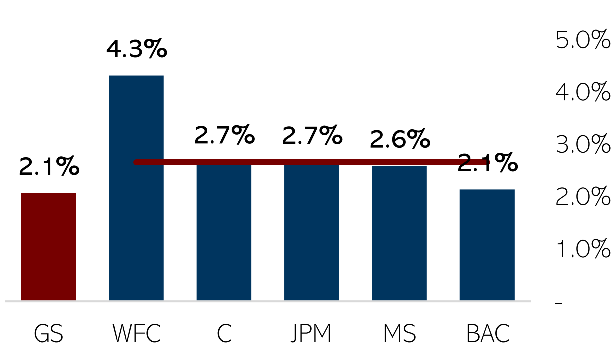
Profit Margin



Efficiency Ratio



Dividend Yield



RISKS TO INVESTMENT THESIS AND ECONOMIC MOATS

Risks to the Investment Thesis

- **Reluctance of consumers to shift to GS' platforms:** In order for GS to reach our implied price target, we expect its consumer banking segment to find success in attracting mass deposits. In CY'18 only 4% of consumers switched their primary bank, down from 8% in CY'16. The slow pace of change could pose a headwind to the expansion of GS' consumer banking services. The platform was designed with user-friendly capabilities in mind, so we believe the user interface will not pose a factor in slow consumer attraction, the overall slow pace of bank change will act as the largest hindrance to growth in this segment.
- **Culture Clash:** A central aspect of GS' story revolves around its conversion from a traditional investment bank and trading powerhouse to a more diversified bank with strength across a wider range of financial services, particularly consumer banking and wealth management. Integration of these sectors into one cohesive unit could become one of the largest challenges facing GS during this transitionary period. The cultures surrounding trading and investment banking differ significantly from those in wealth management and consumer banking and successful collaboration between these segments will be crucial in determining the outcome of GS' rebranding and revamping efforts. Industry reports note that one of the starkest challenges facing firms that try to make technological advancements is the cultural difference between business segments and we recognize the potential clash as a legitimate risk facing GS.
- **Potentially Tarnished International Banking Business from 1MDB:** Investor fears surrounding the 1MDB scandal are twofold: a larger than expected litigation charge and a decline in investment banking business in the SE Asian region. The expectation for the litigation charge currently sits between $2B and $4B, but the final settlement could end up as high as $7.5B. We do not think GS will pay more than $4B in litigation charges, but acknowledge a higher-than-anticipated charge could materially alter GS' bottom line and impact its ability to reach fair value. GS saw a drop in revenues from Asia in FY'16, but those revenues have since held steady.
- **Failure to meet guidance given during Investor Day:** Much of the future growth and increase in value we see for GS revolves around the firm meeting the goals and expectations outlined in its Investor Day presentation, particularly the 13% ROE mark. That would mark a stark improvement from the current 9% ROE the firm generates, although litigation expenses for FY'19 weighed on the firm's profit. We believe that GS will meet the goals set forth in its investor day presentation as the firm tends to surpass its guidance, however its valuation will likely suffer if no progress towards the goals outlined in the investor day is seen within the next few quarters, as we expect investors to price in progress, not solely the final result.

Economic Moats

- **Dominance in its Traditional Business Segments:** As GS expands into the realm of consumer banking, it still retains the strength of its IB and Market Making segments. GS currently ranks #1 in IB fees, M&A market share, and equity underwriting. GS has also made strides into high-yield debt and institutional loans, increasing its standing in those respective markets from sixth to second from CY'10 to present. Its banking ranks in the top 3 in every subsector and has positioned itself as a global leader. In the case of weak growth in its consumer banking segment, its immense strength in investment banking will buoy the firm.
- **Global Brand and Client Relationship Strength:** Goldman Sachs is an established, globally-recognized brand with a wide-reaching network of client relationships. The investment banking market, which GS excels in, is primarily accessed through a bank's network of relationships. Since GS has such strong outstanding relationships with a broad range of clientele, its banking division should continue to thrive in any environment. Further, the bank has established and long-standing relationships such that for some firms, GS is the only bank they will consider for capital raises or advisory services. These relationships protect GS from incoming investment banks attempting to steal market share because securing a deal is one thing, but stealing a deal is a whole other animal, especially when that animal is GS.

VALUATION ANALYSIS

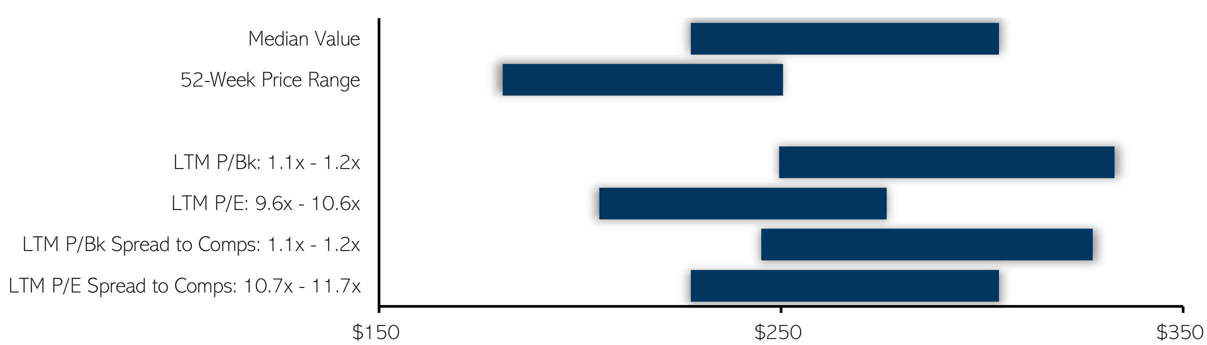
Multiples Assumptions

Our base case scenario implies a 1.12x LTM P/Bk multiple, representing the three-year average multiple GS historically trades relative to peers. 1.8% FY'20 revenue growth reflects a strong macro environment (management expects 3%+ global GDP growth over the next two years via their 4Q'19 comments), supported by new international markets for Investment Banking, and more digitization slashing costs and driving margins in Global Markets. The Consumer Banking & Wealth Management initiatives, although still a blossoming portion of total revenues, will begin to bear fruit through lower-rate deposits offsetting higher-rate LT borrowings in our investment horizon. Regarding the 1MDB fiasco, our base case thesis expects continued dialogue with the DOJ and an agreement on a ~$2B deal, without an impact to earnings given GS' deep litigation pockets. This base case results in a $285.00/share price target, representing a +17.8% return from GS' closing price on Tuesday, February 4th.

LTM P/Bk Spread to Comps

	1.0x	1.1x	1.1x	1.2x	1.2x
$203	(14.2%)	(10.0%)	(5.8%)	(1.6%)	2.7%
$229	(3.4%)	1.3%	6.0%	10.8%	15.5%
$254	7.3%	12.6%	17.8%	23.1%	28.3%
$280	18.0%	23.8%	29.6%	35.4%	41.1%
$305	28.8%	35.1%	41.4%	47.7%	54.0%

Goldman Sachs Group Inc. - Valuation Summary



Valuation Method	Downside	Delta	Upside
LTM P/E Spread to Comps: 10.7x - 11.7x	227.59	76.6	304.19
LTM P/Bk Spread to Comps: 1.1x - 1.2x	245.09	82.4	327.51
LTM P/E: 9.6x - 10.6x	204.77	71.5	276.30
LTM P/Bk: 1.1x - 1.2x	249.52	83.4	332.93
52-Week Price Range	180.73	69.73	250.46
Median Value	$227.59	$76.60	$304.19
Implied Return (%)	*(5.9%)*		*25.7%*

FINANCIAL ANALYSIS

Revenue Breakdown

In FY'19 and 4Q'19 earnings results, GS announced its new revenue breakdown by segments aforementioned in Business Overview. The new segmentation unlocked the Investing & Lending segment which had various sub-segments and revenue lines that now fall under the other segments. We see this providing more clarity and less complexity for investors to evaluate GS and lower the risk of human error. In addition, it makes GS more comparable to its Wall Street peers which was not the case for Goldman's history before Mr. Solomon.

- In FY'19, GS net revenues came in at $36.55B, slightly lower than FY'18 of $36.62B but a record high since FY'10. This fiscal year net revenue included 4Q'19 net revenues of $9.96B, the second highest fourth quarter since 2007. We expect net revenues to reach records high in FY'20 ~$36.5-$37.5B, in-line with the Street.

Global Markets Revenues

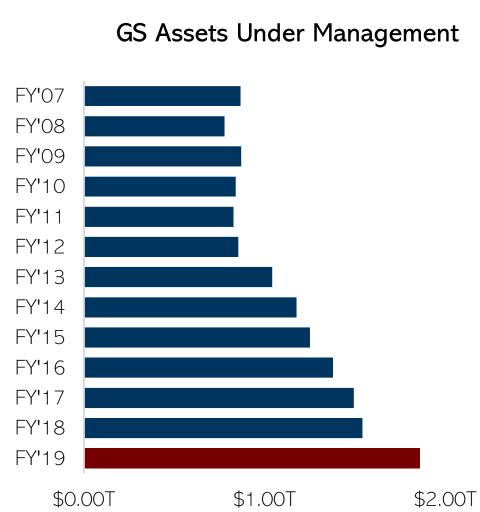
In FY'19, GS' new largest segment by revenue came in at $14.78B, representing a 2.0% growth YoY. We expect the largest segment to advance by 2.4% in FY'20 from growth in client relationships, enhancing the products and services offerings.

- In the FICC unit, revenues advanced by 6.0% YoY to $7.39B driven by higher FICC intermediation revenues $6.01B, 5.0% YoY from higher demand on commodities, mortgages, and interest rate products, offset by lower currencies and credit products trading. FICC Financing appreciated to $1.38B, 10% YoY from higher structured credit financing, further aiding the growth on FICC unit.
- In the Equity unit, revenues of $7.39B overall were down (-1% YoY). The Equity intermediation unlike FICC came in (7%) lower YoY due to slow in derivatives trading, offset by higher cash products. The slowdown in the Equity intermediation unit YoY was offset by elevated Equities financing by 9.0% of $3.02.

Asset Management Revenues

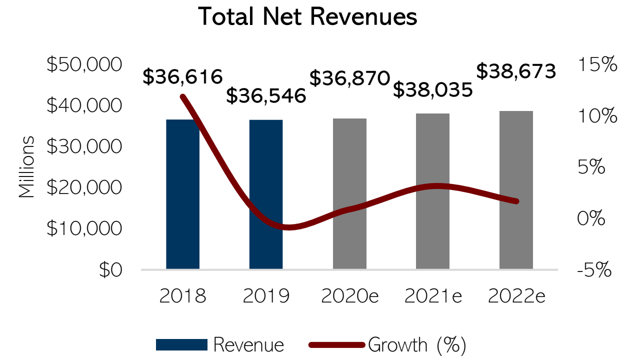
In FY'19, the second-largest segment by revenue was flat at $8.97B YoY with improving revenues from Equity investments that were offset by significantly lower Incentive fees and Lending revenues.

- In the Equity investment sub-segment, net revenue escalated by 13.0% to $4.77 primarily from higher net gains in investing in public equities and offset by lower gains in private equity investments.
- The (10.0%) drop in the Lending net revenue YoY was primarily due to lower net gains in debt instrument investments.
- In 4Q'19, Asset Management net revenues leaped by 52.0% from 4Q'18 and 85.0% greater than 3Q'19 driven by growth in Equity investments, Lending, and management and other fees that were offset by lower Incentive fees that fell by (66.0%) YoY and (33.0%) QoQ in 4Q'19.
- We expect this segment to fall in the next fiscal year by (7.9% YoY) due to slumping Incentive fees and an industry-wide trend to shift to passive investments. However, from the massive growth we saw in the last quarter, we remain confident in this segment given Goldman's growth in AUM the recent growth in Alternatives and the upcoming initiative of third-part Alternative GS announced during the Investor Day.



Investment Banking Revenues

In FY'19, GS' DNA segment saw softness in net revenues which came in at $7.60B, implying a (7.0%) fall YoY. This slowdown was primarily stemming from the Underwriting and Financial Advisory businesses, partially offset by a growth in Corp. Lending of 7.0%.



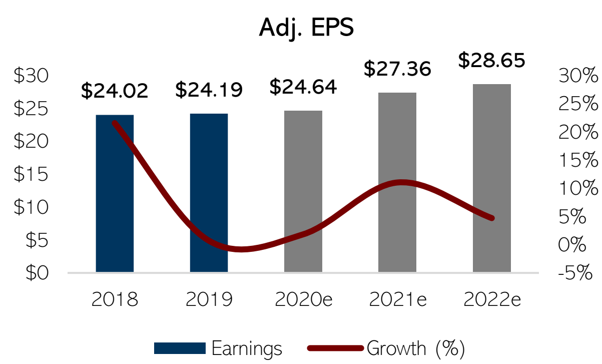
- The Underwriting franchise generated $3.60B in net revenues (10.0% down YoY), which represent the highest IB sub-segment by revenue. The Debt Underwriting unit depreciated by (10.0%) due to lower investment-grade and leveraged finance activity. The Equity Underwriting unit, declined by (9.0%) reflected an industry-wide slowdown in M&A transactions.
- We expect this segment to rebound in FY'20 by 7.1% primarily from increasing the product offering and its expansion into small- and mid-cap markets. We are also confident in the addition of transaction banking that will take effect on revenues in the long-term.

Consumer & Wealth Management Revenues

- In FY'19, the C&WM net revenues of $5.20B slightly increased by 1.0% YoY. We expect this unit to soar by 7.0% next two fiscal years from the addition of new deposits internationally, the development of *Marcus, synergies from United Capital,* and normal wealth management growth.
- In WM, net revenues dropped by (5.0%) YoY to $4.34B, largely due to lower Incentive fees (down 82.0%) and partially due to lower Private Banking and lending (down 5%). This slow growth was offset by a growth in Management and other fees of 6.0% including the acquisition of United Capital, which increased AUM.
- In the newly-added Consumer unit, net revenues soared by 41.0% YoY in FY'19 primarily due to higher net interest income (NII) reflecting the jump in deposit balances.

Earnings

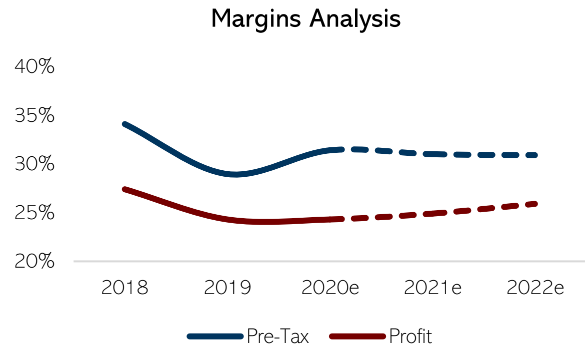
- For FY'19, GS reported net income of $8.9B and EPS of $23.64 per diluted share, down from $10.0B and $25.73 in revenue and EPS, respectively, from FY'18.
- 4Q'19 EPS was $4.69 vs. estimates of $5.52, a 15% miss and the largest for GS since 2011. The unexpected decrease was due to a $1.1B litigation charge related to the 1MDB scandal.



- From FY'18 to FY'19, investment banking revenues fell 3% and since the bank underwent a realignment of its revenue segments between the two years, it is difficult to pinpoint exactly which segments weighed down on earnings. The $1.1B litigation charge only affected 4Q'19 earnings, but all four quarters in FY'19 saw a decrease in earnings YoY.
- Excluding the legal expense from the 1MDB scandal in 4Q'19, GS would have posted earnings of $7.64 per share, which would have beaten analyst estimates by $2.12, or 38%. GS' share price doesn't swing significantly with earnings announcements, with an average absolute price change of only 2.4%.

Margins

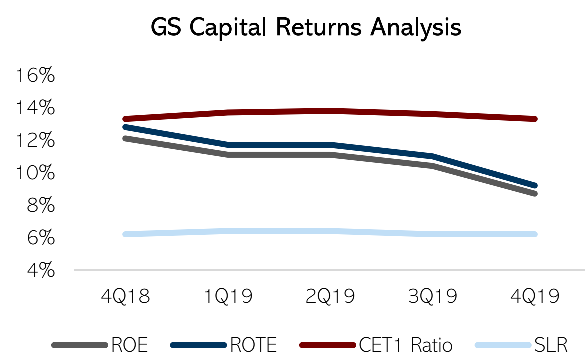
- From FY'18 to FY'19, GS saw its profit margin contract slightly from 27.4% to 24.3%. Excluding the litigation charge in 4Q'19 regarding 1MDB, the profit margins are comparable. The profit margin for GS in FY'18 was the highest it had been for the Company since FY'09.



- Net interest margin (NIM) is the difference between the rate a bank can charge for loans and the rate the bank must pay for its capital. This ratio is particularly important to banks which operate heavily in the lending segment, as GS is expanding into. GS saw its NIM increase to 0.59 in FY'19, up from 0.52 in FY'18.
- Looking towards the future, the increase in deposits will directly decrease the interest expense for GS since the 1.70% offered for consumer savings accounts is still lower than the average rate that GS pays on interest expense. The trend of increasing deposits will lead to less-costly funding and in turn will increase the margins for GS.
- Within a bank, the efficiency ratio represents the proportion of expenses to revenue, meaning a lower efficiency translates to more of the top-line reaching the bottom-line. GS' efficiency ratio increased from 60.6% in FY'18 to 65.0% in FY'19, but we expect that this ratio will stabilize as the bank continues technology spending and its funding sources become cheaper.

Capital Returns

- With $74.9B in CET1 capital and $564B risk-weighted assets, GS finished FY'19 with a 13.3% CET1 capital ratio, well above the firm's 4.5% regulatory minimum. Its supplementary leverage ratio finished at 6.2%, also exceeding the 5.0% requirement.



- With the excess capital GS can participate in shareholder distributions, and in FY'19 the firm repurchased $5.3B worth of common shares outstanding, and paid $1.5B in common stock dividends. In the CY'19 CCAR, GS proved its ability to weather a "severely adverse [economic] scenario," and bumped its quarterly dividend from $0.85/share to $1.25/share, alongside the authorization of a $7B share repurchase program (from a $5B program in CY'18). This helped reaffirm out strength in GS' ability to maintain strong distribution activities after the firm's SLR failed to meet minimum levels in the CY'18 CCAR.
- In 4Q'19 the firm generated a 10% ROE (from 12.1% in 4Q'18) and a 10.6% ROTE (from 12.8%). Both returns saw a ~150 bps impact from that quarter's $1.1B 1MDB-related litigation expense, and we have little future concern as our base case scenario implies GS reaches the alleged $2B settlement with the DOJ.
- We expect shareholder distribution momentum to remain strong, as Solomon's new strategy of driving digitalization and cutting costs, especially among the Global Markets segment, translates to stronger earnings and returns. Management laid out medium-term 13% ROE and 14% ROTE targets, as well as a 13% to 13.5% target CET1 ratio range.

APPENDIX

Exhibit I: GS Track Record of Innovation and Change:

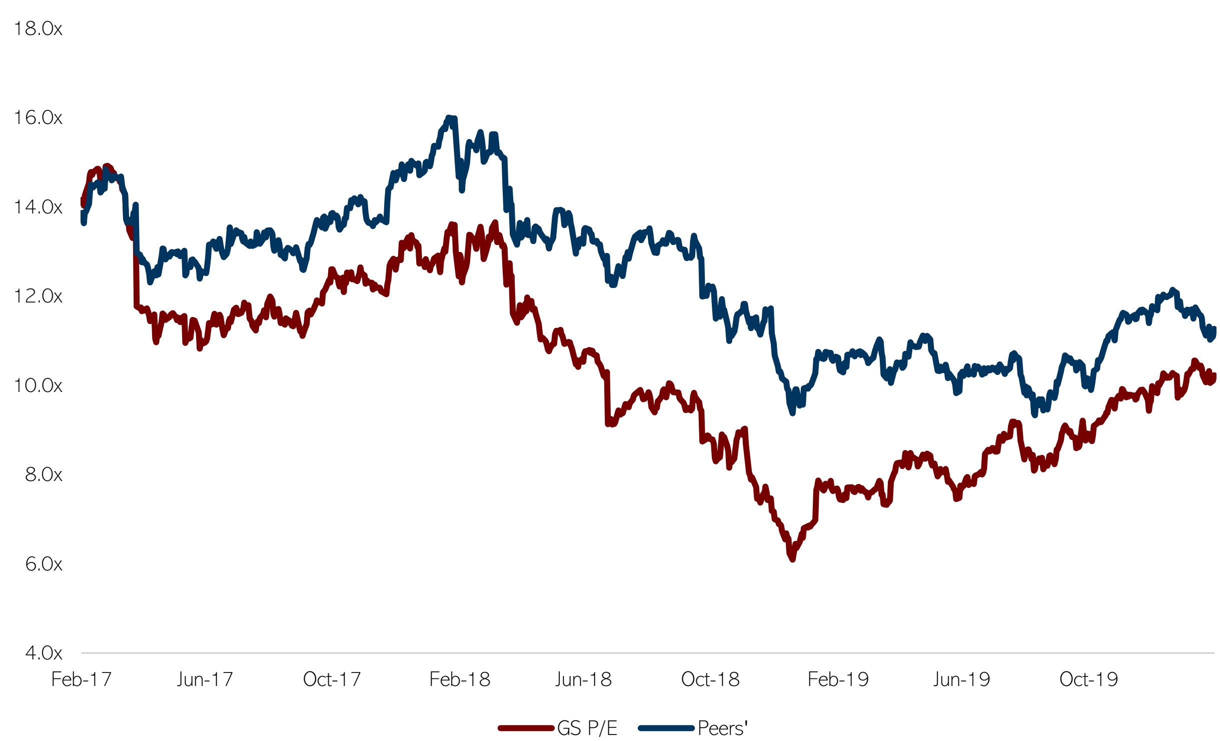
1960s	1980s	2010s	Current	2020s
				Banking-as-a-Service
				Transaction Banking
			Credit Card	Credit Card
			Digital Wealth	Digital Wealth
		Consumer Banking	Consumer Banking	Consumer Banking
		Financial Counseling	Financial Counseling	Financial Counseling
	Alternatives	Alternatives	Alternatives	Alternatives
	UHNW Wealth	UHNW Wealth	UHNW Wealth	UHNW Wealth
	Commodities	Commodities	Commodities	Commodities
	M&A Advisory	M&A Advisory	M&A Advisory	M&A Advisory
Debt & Equity UW	Debt & Equity UW	Debt & Equity UW	Debt & Equity UW	Debt & Equity UW
Market Making	Market Making	Market Making	Market Making	Market Making

Exhibit II: Portfolio Correlation:

	GS	MS	MTG	HLI	FSK	ICE	IAI	XLF
GS	100%	85%	48%	54%	33%	14%	83%	87%
MS	85%	100%	51%	60%	35%	11%	82%	87%
MTG	48%	51%	100%	38%	36%	10%	51%	59%
HLI	54%	60%	38%	100%	31%	7%	62%	62%
FSK	33%	35%	36%	31%	100%	10%	37%	44%
ICE	14%	11%	10%	7%	10%	100%	40%	26%
IAI	83%	82%	51%	62%	37%	40%	100%	90%
XLF	87%	87%	59%	62%	44%	26%	90%	100%

Exhibit III: GS Two-Year Median LTM and NTM P/Bk:

Exhibit IV: GS Three-Year LTM P/E vs. Peers



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- Provide students with hands-on investment management experience
- Enable students to work in a team-based setting in consultation with investment professionals.
- Connect student participants with nationally recognized money managers and financial institutions

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