

**Testimony of David M. Solomon
Chairman and Chief Executive Officer of Goldman Sachs
Before the U.S. House of Representatives
Committee on Financial Services**

Chairwoman Waters, Ranking Member McHenry, and members of the Committee, I appreciate the opportunity to discuss the changes our firm and the industry have put in place in the ten years since the financial crisis. As you may know, I am only months into my tenure as CEO and Chairman of Goldman Sachs, and I believe it is a core responsibility to engage with Congress and particularly this Committee on issues related to our industry and the broader economy.

Overview of Goldman Sachs

Goldman Sachs is a New York based global investment banking, securities and investment management firm with a relatively small and recently established but growing retail consumer banking arm. Our clients include pension plans and retirement funds, endowments and foundations, large and small businesses, state and local governments, start-ups, and high net worth individuals and retail consumers. This year marks the 150th anniversary of Goldman Sachs, and over the course of our history we have evolved considerably from a small enterprise to a global institution.

At Goldman Sachs, we direct people, capital and ideas on behalf of our clients to help them reach their goals. Specifically, as an investment bank, we advise companies on raising capital including by taking companies public, managing risks, and seeing opportunities for them to innovate and grow. We also help local and state governments finance their operations so they can invest in infrastructure (such as schools, hospitals and roads). As a market maker, we transact for our institutional clients in all key financial markets (including equities, bonds, currencies and commodities) so that capital flows, jobs are created and economies are strengthened. We help ensure markets are liquid and efficient to allow investors and companies to meet their needs, whether to invest, raise money, or manage risk. As an investment manager, we preserve and increase assets for institutions, including mutual funds, pension funds and foundations, as well as high net worth individuals.

We recently launched a retail banking franchise that while relatively small has been recognized for its consumer centric approach. However, compared to peers, we do not currently participate to a significant degree in broad-based retail or custody banking, or provide a full range of payment services, though pursuing new growth opportunities in these business areas is a strategic priority for the firm.

As of December 2018, we had 36,600 employees, with 54% based in the Americas. We have offices in over 30 cities in the United States and offices in over 30 countries around the world. GS Bank USA's principal office is located in New York City. The Bank operates two domestic branches, which are located in Salt Lake City, Utah and Draper, Utah. The Bank also has a foreign branch in London.

Reforms Since the Financial Crisis

The financial crisis was an incredibly difficult period for our country and our firm. We are grateful to Congress and the federal government for helping stabilize the economy through the Troubled Asset Relief Program (TARP). We held the government's \$10 billion investment in Goldman Sachs for approximately 8 months and repaid it in full, along with a 23% return for taxpayers.

As a result of Dodd Frank, Basel capital and liquidity and other market reforms, today the U.S. financial system is substantially safer and more resilient against failure or disruptions in critical services, and the largest financial institutions are more resolvable under stressed conditions without threatening the financial system or needing any government capital support. Financial institutions have significantly more capital and usable total loss-absorbing capacity (TLAC). They have also reduced the percentage of their liabilities that consist of short-term wholesale funding and other runnable liabilities, while at the same time significantly increasing the percentage of their assets consisting of cash and other high quality liquid assets. At Goldman Sachs, since the end of 2007:

- Our common equity has doubled in absolute terms (from \$40 billion to \$79 billion); as of 4Q18, our common equity tier 1 ratio exceeded 13% under both the Standardized and Advanced approaches
- Our gross leverage has decreased by 61% (26.2x to 10.3x)
- Our TLAC (i.e., loss-absorbing long-term debt and equity instruments) was 45.7% of our risk-weighted assets as of 4Q18, exceeding our January 2019 minimum requirement of 22.0%
- Our liquidity pool has more than tripled in absolute terms (from \$64 billion to \$233 billion) and increased roughly 5x as a percentage of our total assets (from 5% to 26%)
- Our deposit funding has increased nearly tenfold (from \$15 billion to \$158 billion)
- Our Level 3 assets, which are illiquid, have decreased by more than 50% (they were only 2.4% of our balance sheet as of 4Q18)

Additionally, the percentage of our total revenues generated within our Institutional Client Services segment, where we report our market-making revenues, has declined from 53% in 2012 to 37% in 2018. In 2018 our Investment Banking, Investing & Lending, and Investment Management segments each contributed between 19 and 23% of our total revenues, demonstrating the diversified nature of our franchise.

Dodd Frank has undoubtedly made the system safer. Because of the substantial progress in adapting to this regulatory environment, we are confident that we would withstand a very substantial market shock, and the Federal Reserve's rigorous stress tests affirm that. The U.S. has the most stringent stress testing regime in the world. Stress tests are one of many reforms that our firm and our industry have implemented and support with respect to critical areas such as capital, liquidity and risk management. Additionally, and consistent with Dodd-Frank's resolution plan requirements, we believe that we could be resolved without threatening the U.S. financial system or needing government support despite our substantially greater resilience against failure.

Reduced Complexity

Since 2009, we have devoted substantial resources across the firm to not only improve the resilience and resolvability of Goldman Sachs, but also to reduce complexity in our structure and make our firm more efficient. We have taken several key initiatives since the crisis that have reduced our complexity:

- We reduced the total number of our legal entities by over 20% (from ~1,700 entities in 2010 to ~1,350 entities as of 4Q2018)
- We sold several non-core businesses and activities including:
 - our Americas reinsurance and European insurance businesses
 - our hedge fund administration business
 - our electronic trade management platform
 - our mortgage servicing business
 - our investments in several commodities-related businesses that hold physical commodities, including a metals warehouse, a coal extraction facility and power generation plants
- We sold our investment in the Industrial and Commercial Bank of China
- Pursuant to Volcker Rule requirements, and before the final rule went into effect, we exited all of our proprietary trading businesses

Moreover, in accordance with good risk management practices as well as the spirit of Dodd-Frank's Section 165 resolution plan requirements, when we have sought to enter new businesses or make an acquisition, we subject all decisions to our New Activities Committee, as well as other processes to ensure that the new business or acquisition would be properly capitalized, have sufficient funding support and would not unduly impede our resolution plan.

Enhancements to Business Standards and Practices

In addition to the significant reforms ushered in by Dodd Frank, we decided to make a number of other important enhancements as it relates to our business standards and practices. In 2010, we undertook a three-year review of the firm's business standards and practices, the most extensive review in the firm's 150-year history. The effort was led by a team of approximately 450 partners and 1,900 managing directors. It represented tens of thousands of hours of discussion, analysis, planning, execution, and, importantly, training and professional development which, alone, totaled approximately 100,000 hours. Ultimately, we implemented recommendations in six critical areas:

1. Client relationships and responsibilities
2. Conflicts of interest
3. Structured products
4. Transparency and disclosure
5. Committee governance
6. Training and professional development

While we have long prioritized a strong, independent, well-resourced global compliance and control function, we continue to make investments to make our compliance program even stronger. For example, since 2009, we significantly increased the number of our global Compliance professionals across the firm by 141% and we continue to look for efficiency through the use of various means, including compliance technology.

The changes we made are part of a much larger, ongoing commitment by our firm to strengthen the institution to withstand times of crisis, while continuing to be self-aware, to learn the right lessons from our experiences, and to operate with the utmost integrity in all our activities. We know we must meet the high expectations of our clients, shareholders, employees, regulators, and Congress as well as the broader public.

Consumer Finance Business: Marcus by Goldman Sachs

As it relates to our business strategy since the financial crisis, Goldman Sachs recently entered the consumer financial services market. In 2016, we launched our digital consumer platform called Marcus by Goldman Sachs because we saw an opportunity to serve consumers through

consumer-centric products that are simple and transparent. We set out to build our consumer business from a clean sheet of paper. In designing Marcus, we spoke with more than 10,000 people across the country to understand their banking needs. Value, simplicity and transparency are at the core of our consumer products, which is based on this feedback.

Marcus offers online savings accounts and certificates of deposits. Because we are not operating with an expensive branch infrastructure, we are able to offer simple products with attractive rates when compared to other traditional banks. For example, our U.S. savings account offers a current Annual Percentage Yield of 2.25% with no minimum balance and no fees including no monthly fees, no transaction fees and no overdraft fees.

Marcus also provides no-fee, fixed rate personal loans that provide consumers an alternative to borrowing on credit cards. These loans range from \$3,500 to \$40,000 and are generally used to consolidate higher-interest rate debt but can also be used as an alternative to credit cards or other higher rate debt for a broad range of purposes such as home improvements or special occasions. Also, because we fund our personal loans from our own balance sheet, we can provide more flexibility to consumers, allowing them to select from various monthly payment and loan length options.

Marcus also provides personal financial management tools through its Clarity Money App. Clarity Money is available for free to all consumers and is designed to provide consumers with the opportunity to view their accounts across financial institutions in one place allowing them to understand the full picture of their financial situation, from paying down bills to managing debt.

As of the end of 2018, we had more than 3 million customers across our loans, deposits and personal financial management products, and we attracted \$35 billion of deposits in the U.S. and UK, which is an important component of diversifying our funding.

In addition, we are currently partnering with Apple on a credit card (the Apple Card). The product is currently in development and testing phase. We expect that it will be available to consumers this summer. Similar to our other Marcus products, the Apple Card is meant to be simple, transparent, secure and on the side of the customer.

Investing in Underserved Communities through the GS Urban Investment Group

In line with our firm's broader efforts to drive economic growth for and alongside our clients, Goldman Sachs has committed approximately \$7.8 billion through our Urban Investment Group (UIG) to benefit underserved people and places. Since UIG was founded in 2001, it has invested in over 350 projects across the country, including in New York City, Newark, New

Orleans, Detroit and Salt Lake City, bringing affordable housing, quality schools, new jobs, and growth capital for small businesses to neighborhoods in need. Approximately 80% of UIG's investments are located in or serve minority communities.

Overall, UIG's investments have facilitated the creation and preservation of more than 31,000 housing units – the majority of which are affordable to low, moderate, and middle-income families – as well more than 2,200,000 square feet of community facility space and more than 9,600,000 square feet of commercial, retail and industrial space.

For example, through our UIG, Goldman Sachs has:

- Financed one of the largest redevelopment projects in the United States, transforming 177 acres once home to railway yards and coal dumps in South Baltimore into a large mixed-use transformative development that will create approximately 80,000 new jobs, 14 million square feet of new, mixed-use buildings, and public infrastructure that includes 2.5 miles of restored waterfront and more than 40 acres of public green space. To ensure this project will be an asset for the surrounding community, project partners held extensive discussions with more than 180 stakeholders from the local community and entered into a Memorandum of Understanding with the City of Baltimore
- Financed the acquisition and pre-development of an underutilized site in Jamaica, Queens to be created into a \$425 million development of a mixed-use, mixed-income community, including 650 affordable housing units and 18,000 square feet of community facilities space
- Led the recapitalization and was the lead investor to stabilize the largest black-owned bank in the United States, Carver Federal Savings Bank, allowing it to continue its critical role as one of the only capital providers in low income neighborhoods throughout New York City
- Financed the development or renovation of K-12 school facilities, which annually serve nearly 9,000 students, the majority of whom qualify for free or reduced lunch. GS-financed schools are located in Brooklyn, Camden, Harlem, Los Angeles, Newark, New Orleans, and Salt Lake City. Many of the schools financed also provide services to the surrounding community, including healthy cooking and dieting classes and affordable summer youth programming

While UIG's loans and investments contribute to Goldman Sachs Bank USA's Community Reinvestment Act (CRA) performance – we've received three consecutive Outstanding CRA

ratings (the highest possible) from the Federal Reserve since we became a bank holding company – we view this work as more than a compliance obligation. We started investing in underserved areas in 2001, well before we had a regulatory obligation to do so, because we strongly believed it made sense to invest in areas that others had overlooked and deploy our capital to make a real difference in these communities.

The firm has significantly increased its investing in underserved neighborhoods since the financial crisis. Between 2001 and 2008, the UIG invested approximately \$341 million. Since then, UIG has invested over \$7 billion, and is now investing over \$1 billion annually. Before the financial crisis, our single largest community development investment was \$32 million; since the crisis, it is nearly \$500 million.

Goldman Sachs Impact on Society and Our Communities: Launch With GS, 10,000 Women, 10,000 Small Businesses and GS Gives

Last year, we announced Launch With GS, a \$500 million commitment to invest in women-led companies and investment managers. Through this effort, we are harnessing our deep investment expertise to narrow the gender investing gap in three ways: committing firm capital in women-founded, owned or led businesses, directing client capital to invest in women-centered investing firms, and creating an ecosystem to help build future investment opportunities. We recently announced our first \$100 million of investments have been made in women-led companies through this program. These companies are transforming healthcare, revolutionizing entertainment, delivering personal care essentials and democratizing big data. Looking ahead, we will expand our Launch with GS initiative to include businesses founded, owned or led by people of color.

A dedication to service and a commitment to using our expertise and convening power to help address broader issues has long been a core element of our culture. Over the course of many years, we have developed innovative and meaningful philanthropic programs that have improved business education and provided access to capital for thousands of women entrepreneurs and small businesses. In the last ten years, we have committed more than \$2.5 billion to initiatives that provide more access to capital, training and broader community support.

Since the launch of our 10,000 Women initiative in 2008, we have invested over \$150 million to help women entrepreneurs across 56 countries, providing practical business education, mentoring, networking and access to capital. Most recently, we have democratized access to

business education on a global scale through the introduction of online business education courses.

Through our 10,000 Small Businesses program, launched in 2010, we have committed \$500 million to provide education by partnering with community colleges, business support services, and greater access to capital to thousands of small businesses across all 50 states, Puerto Rico and DC. To date, we have graduated 8,200 small business owners, with 78% of graduates reporting revenue increases and 57% adding jobs within 30 months of graduation. I am particularly proud that Goldman Sachs is one of the largest private contributors to community colleges in the United States.

As a key element of the firm's overall impact investing platform, we established in 2007 our GS Gives program to coordinate, facilitate and encourage global philanthropy by our most senior leaders – partners. Since its inception, GS Gives has made more than \$1.9 billion in grants and partnered with 6,000 non-profit organizations in 90 countries around the world. In 2018, GS Gives granted over \$154 million to over 2,300 non-profit organizations.

GS Gives underscores our commitment to philanthropy through diversified and impactful giving, harnessing the collaborative spirit of the firm's partnership, while also inspiring our firm's next generation of philanthropists. Each year we ask our partners to make recommendations of non-profit organizations to receive grants from the firm's contributions to GS Gives. These organizations must be consistent with GS Gives' mission of fostering innovative ideas, solving economic and social issues, and enabling progress in underserved communities globally.

Diversity

Diversity is one issue that is central to our broader ability to compete. Since becoming CEO, I have been vocal about the importance of advancing our firm's diversity, including with respect to gender, race, sexual orientation, gender identity, veterans and disability or whatever contributes to who we are. Effectively serving a broad and diverse set of clients means having an appreciation and understanding of their different experiences, interests and values, and we are committed to building a team capable of that critical work. I believe a core part of my tenure as CEO will be defined by our progress on this front. I believe that we should have a company that looks like the regions and communities where our clients do business.

Board Diversity

At the top of our organization, we have made progress in recent years and have more diverse representation on our Board of Directors. To most effectively carry out its duties, we believe

that the composition of our Board must reflect an appropriate diversity – broadly defined – of demographics, viewpoints, experiences and expertise. We have been, and will continue to be, committed to diversity on our Board, and in recent years, have maintained a particular focus in our director searches on diverse candidates. Our Governance Committee considers a number of demographics and other factors, including race, gender, ethnicity, sexual orientation, culture, nationality and work experiences (including military service), seeking to develop a Board that, as a whole, reflects diverse viewpoints, backgrounds, skills, experiences and expertise.

The last three people to join our Board as directors have been women: Dr. Drew Faust, Vice Admiral Jan Tighe (Ret. U.S. Navy) and Ellen Kullman. Our Board currently consists of 13 directors, with 2 directors retiring on the eve of our May 2 annual meeting. Of our 11 continuing directors, based on self-identified characteristics, our Board includes: four directors who are women, our Lead Director who is black, one director who is of Indian descent, one director with career service in the military and three directors who are non-U.S. or dual citizens. Three of our Board leadership roles are filled by directors that are diverse by race or gender (our Lead Director/Governance Committee Chair, Compensation Committee Chair and incoming Public Responsibilities Committee Chair). Overall, our Board is 54% diverse by race, gender or sexual orientation.

Diversity of Senior Leaders

Having a diverse Board is not enough to achieve where we want to be on our diversity efforts. Our most recent partner class had the highest percentage of women and black partners in our history. We also added three women to our Management Committee since I became CEO, bringing the total on the Committee to seven women. However, more work needs to be done to enhance the diversity of our senior leaders across the firm, and we are working to improve these efforts.

Recent Diversity Initiatives

When I became CEO, we created a Global Diversity Committee (with some of our most senior leaders) to specifically focus on developing and promoting diverse business leaders and developing better recruiting strategies for diverse candidates. We recently announced a new set of goals so that we continue to improve our diversity efforts across the firm. The fundamental task is to build our diverse pipeline from analyst to partner – that is the work that leadership at the firm has been focused on and where we still need to do better.

We are undertaking new initiatives aimed at increasing the representation of diverse communities at all levels across the firm. This includes increasing the representation of our

analyst and entry-level associate new joiners — which represents more than 70% of our annual hiring — to 50% women, 11% Black professionals and 14% Hispanic/Latino professionals in the Americas. We have already started to make progress. We hired an exceptional campus analyst class this year and achieved a significant increase in the representation of women globally, black professionals in the Americas, and Hispanic/Latino professionals in the Americas. We are also exploring new ways to increase representation of the LGBT, disabled and veterans communities.

Additionally, to increase the representation of all diverse communities across all levels at the firm, we are requiring businesses to interview two or more qualified diverse candidates for each open role. We will hold senior managers in each business group accountable in advancing these goals, particularly as an important part of pay and promotion decisions, including by tying compensation awards to efforts made to meet these goals.

Additionally, we have a range of initiatives in place to increase diverse representation at all levels while fostering inclusion:

- Recruiting the best, most diverse talent by leveraging technology and engaging with new media outlets to search for people in new ways. Our aim is to engage with the broadest possible range of candidates, including pipeline programs designed to attract people who might never otherwise look to pursue a career in financial services
- We now use video interviews for all first-round interactions with candidates, which allows any candidate for any school (including community colleges) to apply. In 2015 we interviewed students from 798 schools around the world, compared with 1,268 for our most recent incoming class
- In the United States, where historically the majority of our student hires came from target schools, the opposite is now true: More students are hired from “non-target” schools.
- Building and sustaining an inclusive work environment requires building a common language, skills and accountability. Our diversity and inclusion curriculum includes offerings that increase awareness of the diverse backgrounds and experiences of our people. Most recently, we launched Identity Matters: Race & Ethnicity in the Workplace, a classroom curriculum which addresses inclusion barriers with a focus on race and ethnicity
- Enhancing the experience of our diverse professionals at every phase of their career, in all the regions where we do business. Examples include our Women VP Sponsor Programs, which support our highest performing Vice Presidents to assume larger

leadership roles, and our Asian Talent Initiative, which resulted in noticeable increased promotion rates for our Asian professionals

In 2018, we enhanced our efforts to recruit top, diverse talent by introducing several new programs and extending proven programs. We launched our inaugural Hispanic/Latino Leadership Summit to enhance connectivity with Hispanic/Latino students, particularly those attending Hispanic-Serving Institutions. The Summit featured career workshops, skills training, networking and on-site interviews for participants.

In addition, we expanded our efforts to source black talent from Historically Black Colleges and Universities (HBCUs). We now recruit black talent through on-campus and marketing efforts from the more than 100 HBCUs all across this country. We are proud that we were the first company across the industry to host a three-day summit at our firm exclusively for HBCU students (in 2017 and again in 2018). In 2018, in addition to skills-building workshops and networking, more than 100 students from 35 HBCUs were ultimately selected to attend our three-day summit and interview for analyst positions at the firm, resulting in our hiring of over 20 interns and new analysts from HBCUs.

Fundamental change takes time. We want to think creatively and take the right measures to embed a more diverse workforce across every facet of diversity; otherwise, we put in jeopardy our relevance to our clients and the markets we serve.

Promoting the Use of Diverse Contractors and Vendors

In 2018, we reaffirmed our commitment to our vendor diversity and inclusion strategy through our Vendor Diversity Program, which began in 2000 and seeks to drive opportunities with small and minority business owners. We continue to discover and partner with exceptional businesses through the program in our efforts to achieve a supply chain that reflects the diversity of our people and clients. For example, in New York, we spent more than \$300 million with minority- and women-owned businesses while constructing our global headquarters, which was the most successful project in the history of New York State's Minority- and Women-Owned Business Enterprise Program at the time.

The Vendor Diversity Program is paramount to Goldman Sachs for three reasons: One, it helps us provide the best possible solutions to clients by bringing talented, experienced professionals into our network. Two, it drives growth opportunities for these businesses. And third, it is a chance for us to break down barriers that still exist for minority business owners – and that is critical for a healthy society. However, we believe we can always do better, and we have set

2020 targets accordingly, including reporting our business with diverse vendors, and increasing that business by 50% from our 2020 baseline.

Use of Diverse Asset Managers

Our asset management division works with over 20 external asset managers that are majority women-owned or ethnically diverse-owned firms. These firms manage equity, fixed income, hedge fund and private equity assets for Goldman Sachs institutional and private clients. In addition, the Goldman Sachs external manager selection team has begun to pilot a diversity due diligence questionnaire which asks its overall population of managers for data and information on each firm's diversity and inclusion metrics and practices.

Moreover, in 2018, our asset management group repositioned one of our Government money market funds to effect greater diversity and inclusion. Through our GS Financial Square Federal Instruments Fund, we are seeking to include firms that are women, minority and veteran owned broker-dealers in our trading partners. Disclosures will be added to the monthly fact sheet to allow investors to track how much of the fund's trading volume is being executed via women, minority and veteran owned broker-dealers. In the last year, approximately 65% of the fund's purchase transactions were placed with diverse-owned broker-dealers. The fund is approximately \$1 billion and we hope to expand it significantly in the coming years.

Use of Diverse Broker-Dealers

Goldman Sachs is one of the largest issuers of corporate bonds in the investment grade capital markets. In the last 10 years, we have employed a range of diverse firms on every new USD benchmark financing we have issued for ourselves, representing \$149 billion of aggregate issuance. We have endeavored to be inclusive across all diverse firm types with strong representation from Black, Hispanic, disabled veteran and women owned and operated firms.

The majority of these transactions have included four diverse firms, with some including as many as 12. Over this period, we have asked 22 different diverse firms to join our underwriting syndicate. We are proud to support these firms and their underwriting and distribution businesses. We manage our relationships with diverse firms on a continuous basis and regularly review our partner firms based on numerous criteria, including the commitment each makes to their community, the proportion of their staff that is representative of their demographic, and their distribution abilities.

Sustainability

We are a financial institution, operating in global markets, with a global client base — and we have a real opportunity to lead by example in how we run our organization, and to drive sustainable outcomes for our clients and for our communities.

That is why I am proud of our established track record of focusing on environmental matters. In fact, we were the first major U.S. bank to come forward in 2005 with a comprehensive Environmental Policy Framework, where we acknowledged the scientific consensus that climate change is real and that it is one of the most significant environmental challenges of the 21st century. Our Framework includes a plan to support the deployment of renewable energy and the transition to a low-carbon economy. At the end of 2018, we reached \$80 billion in our goal to finance or invest \$150 billion in clean energy by 2025, and we have a 100% renewables goal to meet our global electricity needs by 2020. These initiatives are very much market driven, good for business and a way for us to help our clients transition to a low carbon future, and we are staying the course.

Going Forward

Looking ahead, we also see tremendous opportunity to deploy our investing capital and expertise around core themes that define the country's success and progress, including the environment, health care, education, and infrastructure among other areas.

In the invitation from Chairwoman Waters to confirm my participation as a witness for this hearing, you asked us to include a discussion of (among the items described above) our approach to cybersecurity and protecting consumer data, our compensation and clawback policies, our arbitration provisions in certain contracts, and enforcement actions.

Cybersecurity

Cybersecurity is one of my top priorities. Like every firm, we face a steady stream of attempted cyberattacks every day, including from highly sophisticated adversaries. Our Board of Directors is equally focused on cybersecurity as a principal risk facing the firm. As a reflection of this commitment, Vice Admiral (ret.) Jan Tighe, formerly Deputy Chief of Naval Operations for Information Warfare, recently joined the Goldman Sachs Board (as described above), and Phil Venables, our former Chief Information Security Officer, recently joined the Goldman Sachs Bank USA Board.

We take very seriously our responsibilities to our customers to secure their financial data and to maintain the services upon which our clients rely. To maintain our customer's trust, we are focused on four main areas.

First, we work together across the financial sector and between government and industry to understand the adversaries who are targeting our institutions. We share information regularly with our industry and government partners to identify new threats and protect our systems from their techniques. Going forward, we continue to encourage even more information sharing between the financial sector and the U.S. Government.

Second, we actively identify and fix vulnerabilities in our network. We recently expanded our bug bounty program to benefit from the specialized expertise possessed by many security researchers to find possible vulnerabilities before potential attackers.

Third, the protection and responsible use of client data is deeply engrained in our culture and nowhere is that more critical and visible than the expansion of our consumer businesses. Our goal is always to consider privacy regulations as a floor rather than a ceiling when implementing privacy protections for customer data.

Fourth, we are focused on ensuring the resiliency and continuity of critical firm functions under all conditions. While it is impossible to prevent all incidents, we conduct regular tests of our business continuity plans and approaches to rapidly restore key systems in the event of a catastrophic event.

But we cannot solve the cybersecurity issue alone, which is why I am encouraged by the FBI and a number of strong regulators across the financial sector that stipulate cybersecurity and other controls to reduce the risk of major incidents. We continue to support the need for harmonization of regulations, domestically and globally, including through use of the Financial Sector Cybersecurity Profile as a common approach to assessing cybersecurity maturity across the industry.

Protecting Data of Goldman Sachs Customers

In addition to our cybersecurity measures, protecting consumer data is a critical priority and it certainly has been a central area of focus for us as we develop Marcus. While Marcus is new, the Firm's focus on protecting client data and confidences is not. In fact, protecting confidential information, such as a consumer's personal financial data, is one of the core principles that we live by at Goldman Sachs. That core principle is deeply wound into our DNA and helps to shape how we think of data protection as a firm.

Compensation Policies

Our Compensation Principles guide our Compensation Committee in its review of compensation for the most senior employees at our firm, including the Committee's determination of the compensation of our executive officers. In general, our Compensation Principles require that the more senior you become at Goldman Sachs, the more your total compensation is tied to the long-term health of the firm. For example, our senior executives across the firm receive the vast majority of their total compensation in the form of deferred equity (approximately 60-70%) that cannot be sold until five years after it is granted, which is tied directly to the long-term health of Goldman Sachs. Ultimately, we have successfully realigned our incentive and risk-taking structure to ensure short-term risk taking is not rewarded.

Our people are paid based on the performance of the firm as a whole, their group's performance and their individual performances (including based on nonfinancial factors such as compliance, teamwork and culture). Moreover, our Compensation Principles, which apply to all of our employees, specifically include:

- Paying for Performance. Firmwide compensation should directly relate to firmwide performance over the cycle
- Encouraging Firmwide Orientation and Culture. Employees should think and act like long-term shareholders, and compensation should reflect the performance of the firm as a whole

- Discouraging Imprudent Risk-Taking. Compensation should be carefully designed to be consistent with the safety and soundness of our firm. Risk profiles must be taken into account in annual performance reviews, and factors like liquidity risk and cost of capital should also be considered
- Attracting and Retaining Talent. Compensation should reward an employee's ability to identify and create value, but the recognition of individual performance should be considered in the context of the competitive market for talent

With respect to gender pay, we believe men and women in similar roles with similar performance should be paid equally, and each year we review pay equity across the firm to ensure that happens. Our previous analysis indicates that women at the firm on average made 99% of what men earned.

In addition to our Compensation Principles, in reviewing compensation for our most senior employees, our Compensation Committee is guided by our Compensation Framework, which more broadly governs the variable compensation process for employees who could expose the firm to material amounts of risk (such as our executive officers).

In addition, the Committee considers the following factors in determining the amount and form of compensation to be awarded to each of our executive officers:

- Stakeholder feedback, including specific feedback received from shareholders and other constituents and the results of our Say on Pay votes
- Chief Risk Officer input and risk management
- Market for talent
- Regulatory considerations

Clawback Provisions

In addition, the firm has a longstanding practice of including robust recapture (or clawback) provisions in compensation awards that, among other things, help ensure appropriate accountability among executives and other employees. This includes potential recapture for conduct that constitutes "cause" or certain "risk" violations. The firm's definition of "cause" is designed to reinforce to the firm's employees the importance of following the firm's policies and procedures and protecting the firm, its reputation and its business interests, by covering a variety of inappropriate conduct, including:

- Conviction in a criminal proceeding on certain misdemeanor charges, or on a felony or an equivalent charge

- Engaging in employment disqualification conduct under applicable law
- Willfully failing to perform his or her duties to the firm
- Violating any securities or commodities laws, rules or regulations of any relevant exchange or association of which the firm is a member
- Violating our policies concerning hedging, pledging or confidential or proprietary information, or materially violating any other of our policies

Beginning with awards granted in respect of the firm's 2009 fiscal year, the firm's incentive compensation award agreements have also included a "risk" provision that may result in the forfeiture of an employee's incentive compensation award if the employee, during the relevant fiscal year, participated in the structuring or marketing of any product or service, or participated on behalf of the firm or any of its clients in the purchase or sale of any security or other property, in any case without appropriately considering the risk to the firm or the broader financial system. Beginning in 2012, we made clear that this provision could, depending on the circumstances, include participation in a supervisory capacity.

The Board and Compensation Committee recently approved a new forfeiture provision in the 2018 year-end equity-based awards granted to our executive officers that provides our Board with the flexibility to reduce the size of the award granted to any executive officer prior to payment and/or forfeit the underlying delivered Shares at Risk if it is later determined that the results of a specified investigation would have impacted year-end compensation decisions for any such executive officer.

Median Compensation

In accordance with SEC rules, we calculated and disclosed the ratio between my 2018 compensation, and the median of the 2018 compensation of all of our other employees. For 2018, this ratio was approximately 151:1.

Arbitration Provisions

A central principle underlying the design and development of our Marcus products and servicing approach for our U.S. consumers is that the consumer is at the center of everything we develop. We believe that we have pro-U.S. consumer arbitration provisions for our Marcus consumers, which balance our simple and transparent Marcus product characteristics with the increased efficiency, cost-savings, flexibility and privacy afforded by arbitration. For example:

- **Consumers may opt out of the arbitration clause completely by calling a toll-free telephone number within 90 days after account opening**

- **We clearly and prominently disclose to each of our Marcus consumers the arbitration clause and their ability to opt out; this language is in all caps on the first page of each Marcus consumer agreement**
- **Consumers may also pursue claims in small claims court rather than in arbitration**
- Our approach is also designed to address a common concern raised regarding small dollar claims by providing that, if the consumer ultimately receives an award greater than our last settlement offer (i.e. last offer made before the arbitrator is selected), we will pay the greater of that amount or \$10,000 plus reasonable attorney and expert fees
- We encourage early dispute resolution by encouraging mediation prior to arbitration
- We agree to pay the cost of the mediator
- The consumer may select for his/her arbitration hearing to take place in the judicial district where he/she lives
- Consumers can choose whether they would like to have their arbitration heard before the Judicial Arbitration and Mediation Services, Inc. (JAMS) or American Arbitration Association (AAA). We will pay all fees of JAMS or AAA

In addition to our Marcus agreements, we have employment-related arbitration agreements as a broker dealer through FINRA for employees who carry registrations. We also have arbitration agreements directly between the firm and our employees.

Enforcement Matters Involving Goldman Sachs Group, Goldman Sachs & Co, and Goldman Sachs Bank USA

Based on our internal payment records, Goldman Sachs paid approximately \$3.5 billion to state and federal regulators and self-regulatory organizations in connection with potential regulatory actions and approximately \$4.2 billion in settlements of civil actions, totaling approximately \$7.7 billion over the past 10 years.

Goldman Sachs paid a substantial portion of the \$7.7 billion (\$3.25 billion) to state and federal regulators/federal agencies in connection with the Mortgage Task Force settlement in 2016 relating to mortgage underwriting activities in 2005 through 2007. We also agreed to provide \$1.8 billion in consumer relief to borrowers in the form of debt forgiveness and grants paid to housing organizations as part of that settlement.

Thank you for the opportunity to present the changes we've undertaken in the last ten years and I'd be happy to answer any questions you have.