# Investor Day Agenda

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Presenter/Spokesperson</th>
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<tbody>
<tr>
<td>7:30 AM</td>
<td><strong>BREAKFAST &amp; REGISTRATION</strong></td>
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<tr>
<td>8:00 AM</td>
<td>Welcome Remarks</td>
<td>Heather Miner, Head of Investor Relations</td>
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<td></td>
<td>Strategic Roadmap and Goals</td>
<td>David Solomon, Chairman &amp; CEO</td>
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<td></td>
<td>Executing our Strategy</td>
<td>John Waldron, President &amp; COO</td>
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<td>Financial Roadmap</td>
<td>Stephen Scherr, CFO</td>
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<td><strong>BREAK</strong></td>
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<tr>
<td>10:00 AM</td>
<td>Investment Banking</td>
<td>Gregg Lemkau</td>
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<td></td>
<td>Global Markets</td>
<td>James Esposito and Ashok Varadhan</td>
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<td>Asset Management</td>
<td>Tim O’Neill and Julian Salisbury</td>
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<td>Consumer &amp; Wealth Management</td>
<td>Eric Lane</td>
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<td>12:15 PM</td>
<td><strong>LUNCH (SKY LOBBY)</strong></td>
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<td>1:15 PM</td>
<td>International Strategy</td>
<td>Richard Gnodde</td>
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<td>Innovation</td>
<td>Marco Argenti and Stephanie Cohen</td>
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<td>A Conversation with David Solomon</td>
<td>David Solomon</td>
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<td>2:50 PM</td>
<td>Fixed Income Investor Relations</td>
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<td>The Future of Market Structure</td>
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<td>3:30 PM</td>
<td>Risk Management</td>
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<td>Sustainability</td>
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<td>4:00 PM</td>
<td><strong>RECEPTION WITH MANAGEMENT</strong></td>
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</table>
Our Strategic Direction

David Solomon
Chairman and Chief Executive Officer

January 29, 2020
Who We Are
OUR PURPOSE

We advance sustainable economic growth and financial opportunity
Drawing on over 150 years of experience working with the world’s leading businesses, entrepreneurs and institutions, we mobilize our people, culture, technologies and ideas to advance the success of our clients, broaden individual prosperity and accelerate economic progress for all
Successfully delivering on our purpose will drive shareholder returns
Our Core Values

Our core values have endured for 150 years, driven by a spirit of partnership

- Partnership
- Client Service
- Integrity
- Excellence
Our Competitive Advantages

Poised to execute from a position of strength

- Global Presence
- Deep Client Relationships
- Exceptional Talent
- Innovation
- World-Class Brand
- Risk Management
Our Evolution

Purpose
Core Values
Competitive Advantages

Transparent
Open
Dynamic
Long-term
Our Client Focus: Deliver One Goldman Sachs

- Asset Management
- Global Markets
- Investment Banking
- Consumer & Wealth Management

- Corporations and Governments
- Institutions
- Individuals
Where We Are Going
An Era of Transformation and Opportunity

- Digitization
- Consumerization
- Global Complexity
- Corporate Stewardship
A New Operating Approach

Client-Centric Organizational Structure
- Delivering One Goldman Sachs

Longer Term Operating Focus
- Multi-year financial planning process

Investing for Growth
- Improving existing businesses and building new businesses

Enhanced Accountability
- Transparency and performance targets
Clear Strategic Direction

- Grow and Strengthen Existing Businesses
  - Higher Wallet Share

- Diversify our Products and Services
  - More Durable Earnings

- Operate More Efficiently
  - Higher Margins and Returns
Strong Foundation

- Asset Management
- Investment Banking
- Global Markets
- Consumer & Wealth Management
Strengthening Our Core

- **Asset Management**: Deepen Partnerships with Asset Allocators
- **Investment Banking**: Expand Footprint
- **Global Markets**: Enhance Platforms | Increase Financing
- **Consumer & Wealth Management**: Grow Wealth Management
Evaluating Opportunities for Growth

**Strategic Criteria**
- Address a client need
- Capitalize on our foundational advantages
- Leverage adjacencies to incumbent businesses

**Financial Criteria**
- Produce more durable revenues
- Improve capital efficiency
- Enhance our funding profile

Driving a more durable and higher returning business mix
Four Areas of Focus

- Transaction Banking
- Third Party Alternatives
- Digital Consumer Bank
- Wealth Management
Leveraging Adjacencies to Expand Our Addressable Market

Third Party Alternatives

Asset Management

Global Markets

Transaction Banking

Investment Banking

Consumer & Wealth Management

Wealth Management

Digital Consumer Bank
A Commitment to Driving Value

Medium-term\(^1\) Financial Targets

- **ROE / ROTE**: >13% / >14%
- **Efficiency Ratio**: ~60%
- **CET1 Ratio**: 13-13.5%

New business growth positions Goldman Sachs to generate mid-teens or higher returns over longer-term\(^2\)
Why We Will Be Successful
Our People are our Greatest Asset

Aspirational for Campus Recruits

85K+ Campus applications for 2,600 positions

66% Of the 2019 Managing Director class started as analysts or associates

#1 Most attractive bank employer among business students

#7 Most attractive employer among business students

1 of 10 Companies listed every year on Fortune’s 100 Best Companies to Work For List, since its inception 22 years ago

Attractive to Experienced Talent

Invested in our People

21K (57%) Employees received leadership development in 2019
Diversity is a Strategic Imperative

Our clients care about the diversity of our organization and our efforts to advance diversity.

### 2018: Our Most Diverse Partner Class
- Women: 26%
- Asian, Black, Hispanic, Latino: 26%

### 2019: Our Most Diverse Partner Class
- Women: 29%
- Asian, Black, Hispanic, Latino: 32%

### 2019: Our Most Diverse Campus Analyst Class
- Women: 49%
- Asian, Black, Hispanic, Latino: 63%

### Campus Recruiting | Women Hires Trend
- 2017: 40%
- 2018: 44%
- 2019: 49%

### Managing Director Promotes | Women Promotes Trend
- 2015: 25%
- 2017: 24%
- 2019: 29%

### Partner Promotes | Women Promotes Trend
- 2014: 14%
- 2016: 23%
- 2018: 26%
Risk Management

Culture of Risk Management

Process and Structural Oversight

Continuous Improvement

Evolving Risk Profile

Reputational

Consumer Credit

Cybersecurity

Geopolitical
## Track Record of Change and Innovation

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<thead>
<tr>
<th></th>
<th>1960s</th>
<th>1980s</th>
<th>2000s</th>
<th>2010s</th>
<th>Current</th>
<th>2020s</th>
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<tbody>
<tr>
<td>Debt &amp; Equity U/W¹</td>
<td>Market Making</td>
<td>Debt &amp; Equity U/W</td>
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¹ Debt & Equity U/W: Underwriting and underwritten debt securities.
² UHNW: Ultra High Net Worth.
³ M&A Advisory: Mergers and acquisitions advisory services.

### Track Record of Change and Innovation

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<thead>
<tr>
<th>Decade</th>
<th>1960s</th>
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## Clear Strategic Direction

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<thead>
<tr>
<th>Grow and Strengthen Existing Businesses</th>
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<tr>
<td>Expand our global footprint: Investment Banking, Global Markets, Ultra High Net Worth</td>
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<tr>
<td>Increase financing activities</td>
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<td>Grow asset management</td>
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<tr>
<th>Diversify Our Products and Services</th>
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<tr>
<td>Build Transaction Banking</td>
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<tr>
<td>Grow third party Alternatives</td>
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<tr>
<td>Scale digital Consumer Banking, High Net Worth and Mass Affluent</td>
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<th>Operate More Efficiently</th>
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<tr>
<td>Increase organizational and process efficiency</td>
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<tr>
<td>Remix to lower cost deposit funding</td>
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<tr>
<td>Optimize capital footprint</td>
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<th>Higher Wallet Share</th>
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<th>More Durable Earnings</th>
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<tr>
<th>Higher Margins and Returns</th>
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Our Strategic Direction

David Solomon
Chairman and Chief Executive Officer

January 29, 2020
These notes refer to the financial metrics and/or defined term presented on:

Slide 18:
1. Medium-term refers to 3 year time horizon
2. Longer-term refers to 5+ year time horizon

Slide 20:
1. Source: Universum 2019
2. For incoming 2020 class

Slide 23:
1. U/W refers to underwriting
2. UHNW refers to ultra-high-net-worth clients (currently defined as >$10mm in investable assets)
3. M&A refers to mergers and acquisitions
Statements about the firm’s target metrics, including its target ROE, ROTE, efficiency ratio and CET1 capital ratios, and how they can be achieved, and statements about future operating expense (including future litigation expense), amount and composition of future Assets under Supervision, planned debt issuances, growth of deposits and associated interest expense savings, future geographic location of its employees, and the timing and profitability of its business initiatives, including its launch of new businesses or new activities, its ability to increase its market share in incumbent businesses and its ability to achieve more durable revenues and higher returns from these initiatives, are forward-looking statements, and it is possible that the firm’s actual results may differ, possibly materially, from the targeted results indicated in these statements.

Forward looking statements, including those about the firm’s target ROE, ROTE, efficiency ratio, and expense savings, and how they can be achieved, are based on the firm’s current expectations regarding its business prospects and are subject to the risk that the firm may be unable to achieve its targets due to, among other things, changes in the firm’s business mix, lower profitability of new business initiatives, increases in technology and other costs to launch and bring new business initiatives to scale, and increases in liquidity requirements. Statements about the firm’s target ROE, ROTE and CET1 capital ratios, and how they can be achieved, are based on the firm’s current expectations regarding the capital requirements applicable to the firm and are subject to the risk that the firm’s actual capital requirements may be higher than currently anticipated because of, among other factors, changes in the regulatory capital requirements applicable to the firm resulting from changes in regulations or the interpretation or application of existing regulations or changes in the nature and composition of the firm’s activities. Statements about the timing and benefits of business and expense savings initiatives, the level and composition of more durable revenues and increases in market share are based on the firm’s current expectations regarding its ability to implement these initiatives and may change, possibly materially, from what is currently expected. Due to the inherent uncertainty in these forward-looking statements, investors should not place undue reliance on the firm’s ability to achieve these results.

For a discussion of some of the risks and important factors that could affect the firm’s future business, results and financial condition, see “Risk Factors” in our Annual Report on Form 10-K for the year ended December 31, 2018. You should also read the cautionary notes on forward-looking statements in our Form 10-Q for the period ended September 30, 2019 and Earnings Results Presentation for the Full Year and Fourth Quarter 2019. For more information regarding non-GAAP financial measures such as ROTE, refer to the footnotes in the Earnings Release and Earnings Presentation for the Full Year and Fourth Quarter 2019 and information on the calculation of non-GAAP financial measures that is posted on the Investor Relations portion of our website: www.goldmansachs.com.

The statements in the presentation are current only as of January 29, 2020 and the firm does not undertake to update forward-looking statements to reflect the impact of subsequent events or circumstances.
Executing Our Strategy

John Waldron
President and Chief Operating Officer

January 29, 2020
Executing Our Strategy

Operating Approach

Execution in the Core Franchise
Investing for Growth
Operating Efficiency

Brand • One Goldman Sachs • Engineering • Talent
Investment Banking

M E A S U R I N G  O U R  P R O G R E S S

- Top 3 M&A and Equity ranking in every subsector globally
- Relationship status improvement
- Narrow ECM and DCM wallet share gaps
- Coverage of >1,700 new corporates
- Track sourcing of investment opportunities
- #1 in IB fees
- #1 in M&A Market Share
- #1 in Equity Market Share
- Top 4 Debt Market Share
Global Markets

Deepen Relationships with Institutional Clients
- Top 3 position with Top 100 clients

Increase Client Financing
- Increasing FICC financing revenues

Deploy Technology to Improve Client Experience
- Narrow Systematic/Quant wallet share gap
- Measure utilization of key platforms

Enhance Corporate Offerings

Optimize Resource Utilization

MEASURING OUR PROGRESS

- $700mm OpEx reduction in 3 years
- $250mm funding cost savings in 3 years
- ROE expansion from 7% to 10%+ in 3 years
Asset Management

Partner with Asset Allocators

- Consistent strong investment performance
- Morningstar rankings
- Measure quality of institutional client relationships

Deliver Holistic Solutions

- Organic long-term fee-based AUS growth
- Advisory / outsourced CIO revenues
- +$250bn of firmwide Traditional AUS inflows in 5 years

Innovate to Serve Client Needs

Invest in Institutional Sales Force

MEASURING OUR PROGRESS

- Measure quality of institutional client relationships
- Morningstar rankings
- Consistent strong investment performance
- Organic long-term fee-based AUS growth
- Advisory / outsourced CIO revenues
- +$250bn of firmwide Traditional AUS inflows in 5 years
**Consumer & Wealth Management**

**MEASURING OUR PROGRESS**

- **Organic Advisor Growth in Americas**
  - +20% Advisor headcount in Americas
  - Measure Advisor productivity
  - UHNW market share

- **Source Experienced PWA Hires in EMEA / APAC**
  - +50% Advisor headcount in EMEA / APAC
  - PWM lending penetration

- **Increase Lending to Private Wealth Clients**
  - C&WM margin to 20%+ at scale
Investing for Growth: Four Areas of Focus

- Transaction Banking
- Third Party Alternatives
- Digital Consumer Bank
- Wealth Management
Build Transaction Banking

5+ Year Opportunity

$50bn
Deposit Balances

$1bn
in Revenues

Strong Client Value Proposition

- Analytics and actionable insights
- Fast and easy onboarding
- Modern tools and simple processes
- Scalable client customization

Progress and Forward Plan

- Built 350 Person Team
- Processed >$3tn for Goldman Sachs in 5 Currencies
- Opened Deposit Accounts with over 25 Clients
- Full Platform Launch – 1H 2020

Strong Client Value Proposition

$50bn Deposit Balances
$1bn in Revenues

Progress and Forward Plan

Built 350 Person Team
Processed >$3tn for Goldman Sachs in 5 Currencies
Opened Deposit Accounts with over 25 Clients
Full Platform Launch – 1H 2020
Grow Third Party Alternatives

5-Year Opportunity

$100bn
Alternative Net Inflows\(^1\)

$4bn
Capital Reduction\(^2\)

Strong Client Value Proposition

- Global multi-asset class franchise
- Unique sourcing capabilities
- Experienced investment team
- Strong long-term track record

Progress and Forward Plan

- Unified 5 Investing Platforms
- Established Investing Teams Across Asset Classes
- Created Alternatives Capital Markets + Strategy Group
- Optimizing Capital Efficiency
Scale Digital Consumer Banking

5-Year Opportunity

- Grow to $125bn+ Consumer Deposit Balances
- Grow to $20bn+ Consumer Loan/Card Balances

Strong Client Value Proposition

Building products that are:
- Simple
- Transparent
- Valuable
- Personal
- Secure

Progress and Forward Plan

- Launched Marcus Deposits, Lending and Apple Card
- Building Integrated Digital Bank and Wealth Platform
- Growing Deposits, Lending and Card Balances
- Pursue Additional Products and Partnership Opportunities

Growing Deposits, Lending and Card Balances

Strong Client Value Proposition

Building products that are:
- Simple
- Transparent
- Valuable
- Personal
- Secure
Expand Wealth Offering

5-Year Opportunity

30 Corporate clients added annually

300k Employees added annually

Strong Client Value Proposition

- Advice-driven solutions
- Innovative digital capabilities
- Holistic offering
- Tailored to client needs

Progress and Forward Plan

- Complete Integration of United Capital
- Drive Synergies Between Ayco and United Capital
- Launch New Marcus Products
- Increase Digital Utilization
Deep Global Network of Client Relationships

Execution Priorities

- Grow PWM Advisors
- Grow IB Corporate Footprint
- Close Institutional Investor Wallet Share Gaps
- China 5-Year Plan

~$37bn Firmwide Revenues
~$15bn International Revenues¹

~100 Offices Globally
~40 International Offices¹

~38k Employees Globally
~18k International Employees¹

~38k Employees Globally

1

¹
Track Record of Building Businesses

Debt Underwriting

Net Revenues ($bn)

| Year | Net Revenues ($bn) | Change | Ranking | Method
|------|--------------------|--------|---------|--------
| 2011 | $1.2               | +84%   | 6       | High Yield
| 2019 | $2.1               |        | 2       | Institutional Loans

Asset and Wealth Management

Firmwide AUS ($bn)

| Quarter | Firmwide AUS ($bn) | Change | Ranking | Status
|---------|--------------------|--------|---------|--------
| 4Q99    | $285               | +6.5x  | Not Ranked | Current
| 4Q19    | $1,859             |        | Top 10   |
$1.3bn Run-rate Expense Savings in 3 Years

Drives Capacity for Investment

Streamlined Organization
- Pyramid evolution
- Business alignment of 7,500 engineering and operations individuals
- Embed organizational design capabilities

Investment in Automation and Infrastructure
- Digital transformation
- Straight-through-processing
- Platform consolidation

Real Estate Strategy
- Strategic locations
- Campus consolidation

Integrated Expense Management
- Strategic technology capabilities
- Improved governance and transparency
- Holistic financial planning
One Goldman Sachs

Client-centricity drives everything we do – from organizational structure to talent deployment
One Goldman Sachs

Initial Phase

~30 Identified key clients with complex needs

>200 Dedicated Goldman Sachs professionals

97% Positive client feedback

Forward Plan

>100 Clients in expansion plan
One Goldman Sachs

Client Coverage
- Increasing collaboration
- Institutionalizing incentives
- Leveraging sourcing network

Thought Leadership
- Best-in-class intellectual capital
- Curated content
- Dedicated senior leadership

Digital Client Experience
- Digital delivery channels
- Unified platform experience
- Harmonized client analytics
Engineering Core to Execution Strategy

Investing for Growth

- Build, scale and operate new platform businesses
- Develop and extend differentiated services via API ecosystem
- Shape and enable One Goldman Sachs capabilities
- Ignite the innovative capacity of our people

Run the Bank

- Enhance foundational shared services
- Promote secure, flexible and resilient infrastructure
- Drive platform simplification

Metrics

Platform Engagement • Resiliency • APIs • Productivity • Cloud Usage

$4bn

2019 Engineering Spend

~47%

~53%
Enhancing Our World-Class Engineering Team

>80% Acceptance rate for full-time offers

40% of Engineers have PhDs or Advanced Degrees

Successfully hired Co-CIO and CTO

9K+ Engineers employed at Goldman Sachs

Growing Cutting-Edge Engineering Capabilities to Better Serve Clients
Incentives Align to Long-Term Shareholder Value

<table>
<thead>
<tr>
<th>Management Committee</th>
<th>Increased use of performance-based equity</th>
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<tr>
<td>Partnership</td>
<td>Long-term compensation closely tied to performance</td>
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<td>One Goldman Sachs</td>
<td>Incentivizing a client-centric and collaborative culture</td>
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<td>Firmwide</td>
<td>Pay-for-performance philosophy with long-term orientation</td>
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Executing Our Strategy

Operating Approach

- Execution in the Core Franchise
- Investing for Growth
- Operating Efficiency

Brand  ●  One Goldman Sachs  ●  Engineering  ●  Talent
Executing Our Strategy

John Waldron
President and Chief Operating Officer

January 29, 2020
End Notes

These notes refer to the financial metrics and/or defined term presented on:

Slide 8:
1. Growth shown net of realizations
2. Capital efficiencies across Alternatives in Asset Management

Slide 11:
1. Excludes the US and Canada from total international figures

Slide 12:
1. High Yield per Dealogic, Institutional Loans per Bloomberg
2. Data as of 3Q19. Competitor data compiled from publicly available Quarterly Earnings Releases and Supplements, eVestment database and Morningstar Direct. Where product classification (e.g. fixed income vs. alternatives) and portfolio management style (passive vs. active) were not explicit in competitors’ publicly available data, GS applied certain assumptions for purposes of making comparisons. Peer population represents key competitors tracked internally by product classification and portfolio management style

Slide 17:
1. Application programming interface

Slide 18:
1. Refers to acceptance rate for 2020 full-time positions as of January 2020
2. Includes Engineers and Strats
Cautionary Note on Forward-Looking Statements

Statements about the firm’s target metrics, including its target ROE, ROTE, efficiency ratio and CET1 capital ratios, and how they can be achieved, and statements about future operating expense (including future litigation expense), amount and composition of future Assets under Supervision, planned debt issuances, growth of deposits and associated interest expense savings, future geographic location of its employees, and the timing and profitability of its business initiatives, including its launch of new businesses or new activities, its ability to increase its market share in incumbent businesses and its ability to achieve more durable revenues and higher returns from these initiatives, are forward-looking statements, and it is possible that the firm’s actual results may differ, possibly materially, from the targeted results indicated in these statements.

Forward looking statements, including those about the firm’s target ROE, ROTE, efficiency ratio, and expense savings, and how they can be achieved, are based on the firm’s current expectations regarding its business prospects and are subject to the risk that the firm may be unable to achieve its targets due to, among other things, changes in the firm’s business mix, lower profitability of new business initiatives, increases in technology and other costs to launch and bring new business initiatives to scale, and increases in liquidity requirements. Statements about the firm’s target ROE, ROTE and CET1 capital ratios, and how they can be achieved, are based on the firm’s current expectations regarding the capital requirements applicable to the firm and are subject to the risk that the firm’s actual capital requirements may be higher than currently anticipated because of, among other factors, changes in the regulatory capital requirements applicable to the firm resulting from changes in regulations or the interpretation or application of existing regulations or changes in the nature and composition of the firm’s activities. Statements about the timing and benefits of business and expense savings initiatives, the level and composition of more durable revenues and increases in market share are based on the firm’s current expectations regarding its ability to implement these initiatives and may change, possibly materially, from what is currently expected. Due to the inherent uncertainty in these forward-looking statements, investors should not place undue reliance on the firm’s ability to achieve these results.

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Financial Roadmap

Stephen Scherr
Chief Financial Officer

January 29, 2020
Agenda

1 Targets

2 Drivers of Improved Profitability

- Revenue expansion opportunities
- Funding optimization
- Expense management
- Dynamic capital management

3 Key Takeaways
# A Commitment to Driving Value

**Medium-term\(^1\) Financial Targets**

<table>
<thead>
<tr>
<th>ROE / ROTE</th>
<th>Efficiency Ratio</th>
<th>CET1 Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;13% / &gt;14%</td>
<td>~60%</td>
<td>13-13.5%</td>
</tr>
</tbody>
</table>

New business growth positions Goldman Sachs to generate mid-teens or higher returns over longer-term\(^2\)
Drivers of Improved Profitability

2019 ROE

10.0%

10.6% ROTE¹

~75bps

~50bps

~75bps

~125bps

>14%

>13% ROTE

Litigation and Tax

Business Activity

Funding Optimization

Expense Efficiencies

Medium-term ROE

13.3%

D CET1 Ratio

13-13.5%

68.1%

Efficiency Ratio

~60%
Clear Strategic Direction Will Drive Business Growth

**Grow and Strengthen Existing Businesses**
- Expand our global footprint: Investment Banking, Global Markets, Ultra High Net Worth
- Increase financing activities
- Grow asset management

**Diversify Our Products and Services**
- Build Transaction Banking
- Grow third party Alternatives
- Scale digital Consumer Banking, High Net Worth and Mass Affluent

**Operate More Efficiently**
- Increase organizational and process efficiency
- Remix to lower cost deposit funding
- Optimize capital footprint

**New Initiatives**
- $1-2bn

**Funding Optimization**
- $1.0bn

**Expense Efficiency**
- $1.3bn

**Incumbent Business Growth**
- $2-3bn
Growth Initiatives to Generate Positive Returns

Forward Estimates: Pre-tax Income

- Transaction Banking + Consumer (ex-reserve build)
- Transaction Banking + Consumer

$1bn of pre-tax loss including reserve build
Disciplined Return on Investment Framework

Investment Philosophy

- Addresses a client need
- Capitalizes on our foundational advantages
- Leverages adjacencies to incumbent businesses
- Produces more durable revenues
- Enhances our funding profile
- Improves capital efficiency

<table>
<thead>
<tr>
<th>Initiative Type</th>
<th>Select Initiatives</th>
<th>Time Horizon</th>
<th>Financial Evaluation¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing Business</td>
<td>Growth in Investment Banking coverage</td>
<td>Up to 3 years</td>
<td>Return on risk-adjusted capital</td>
</tr>
<tr>
<td></td>
<td>Expansion of Private Wealth Management coverage</td>
<td></td>
<td>Cumulative and steady state PTI</td>
</tr>
<tr>
<td>Adjacent / New Business</td>
<td>Transaction Banking</td>
<td>3 to 5+ years</td>
<td>NPV analysis</td>
</tr>
</tbody>
</table>
Funding Optimization to Drive Improved Returns

Increasing high-quality deposits to improve funding diversification and generate $1.0bn in revenues through lower interest expense

Key Tenets of our Strategy

1. Further diversify funding mix via deposits
2. Enhance Asset-Liability Management
3. Optimize liquidity pool
Embracing the Bank Model

Increase Utilization of Bank Entities

- Capture lower cost funding
- Continue migration of businesses into bank entities
- Grow diversifying businesses with more durable revenues
- Facilitate increase in firmwide lending

Significant Asset Growth Opportunity

Percent of Total Assets in Bank Entities

- GS: ~25%
- U.S. Peer Average: ~65%+
- Held-for-Investment loans booked in GS bank entities: >80%

~$250bn in total assets across all Goldman Sachs’ bank entities
Optimizing our Unsecured Funding Mix via Deposit Growth

Improvement in unsecured funding mix to drive higher returns

<table>
<thead>
<tr>
<th>Year</th>
<th>Deposits</th>
<th>Wholesale Unsecured</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>69%</td>
<td>31%</td>
</tr>
<tr>
<td>2019</td>
<td>43%</td>
<td>57%</td>
</tr>
<tr>
<td>Medium-term</td>
<td>50%</td>
<td></td>
</tr>
</tbody>
</table>

Interest expense savings reflected in revenue growth

$100bn
Growth in deposits across channels

~30bps
Expected improvement in cost of funds

1 Expected improvement in cost of funds is based on various factors including market trends and economic conditions.
$1.3bn
Run-rate Expense Savings

Key Drivers
- Streamlined organization
- Investment in automation and infrastructure
- Centralized expense management
- Real estate strategy

3-year Expense Plan

Efficiency Ratio

<table>
<thead>
<tr>
<th>2019 Ratio</th>
<th>Business Growth (Revenues)</th>
<th>Funding Optimization</th>
<th>Business Growth (Expenses)</th>
<th>Expense Efficiencies</th>
<th>Litigation</th>
<th>Medium-term Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>68.1%</td>
<td>~600bps</td>
<td>~125bps</td>
<td>~450bps</td>
<td>~350bps</td>
<td>~250bps</td>
<td>~60%</td>
</tr>
</tbody>
</table>
Dynamic Expense Management Drives Earnings Stability

Alignment of expenses with revenues through pay-for-performance discipline results in low earnings volatility

Revenue Volatility¹

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>GS</td>
<td>12%</td>
<td>7%</td>
</tr>
<tr>
<td>U.S. Peer Average</td>
<td>10%</td>
<td>6%</td>
</tr>
</tbody>
</table>

Earnings Volatility¹

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>GS</td>
<td>37%</td>
<td>31%</td>
</tr>
<tr>
<td>U.S. Peer Average</td>
<td>81%</td>
<td>49%</td>
</tr>
</tbody>
</table>
Proven History of Prudent Capital Management

In the last 5 years, Goldman Sachs returned over $30bn of capital, 90%+ of the firm’s net income and grew BVPS more than peers.

Capital Management Philosophy

- Prudent capital management with evolving regulatory landscape
- Prioritize deploying capital to support client activity and grow our businesses
- Return excess capital in the form of dividends and buybacks

BVPS Growth vs. Peers¹


<table>
<thead>
<tr>
<th>Period</th>
<th>BVPS Growth vs. Peers</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 Year</td>
<td>GS: 86% U.S. Peer: 60%</td>
</tr>
<tr>
<td>5 Year</td>
<td>GS: 34% U.S. Peer: 31%</td>
</tr>
<tr>
<td>3 Year</td>
<td>GS: 20% U.S. Peer: 17%</td>
</tr>
</tbody>
</table>

1) CAGR: Compounded Annual Growth Rate
Disciplined and Dynamic Capital Management

Key Forward Drivers

- **Stress Capital Buffer**
  Improvement due to capital efficiencies of 50bps across Alternatives in Asset Management

- **G-SIB**
  Expected surcharge of 3% as we continue to grow balance sheet to support client financing activity

- **Management Buffer**
  Estimated buffer of 50-100bps to account for uncertainties, including potential volatility in the Stress Capital Buffer

CET1 Ratio

**Target:**
- 13-13.5%

- **Stress Capital Buffer**
  - 5.0%

- **G-SIB**
  - 3.0%

- **Minimum**
  - 4.5%
Capital Attribution and Segment Returns

Capital Framework

- Governed by regulatory constraints and internal risk measures
- Dynamically managed and responsive to changing binding constraints
- Active reallocation of capital towards higher-returning growth opportunities
- Fully cost-out businesses; no corporate center

Capital Attribution and Returns

<table>
<thead>
<tr>
<th>Capital Attribution ($bn)</th>
<th>2019 Returns</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Avg. 2019</td>
</tr>
<tr>
<td>Investment Banking</td>
<td>$11</td>
</tr>
<tr>
<td>Global Markets</td>
<td>$40</td>
</tr>
<tr>
<td>Asset Management</td>
<td>$22</td>
</tr>
<tr>
<td>Consumer &amp; Wealth Management</td>
<td>$6</td>
</tr>
<tr>
<td>Total</td>
<td>$79</td>
</tr>
</tbody>
</table>

(ROTE¹: 10.6%)
Global Markets Returns

Higher returns over the medium-term driven by:

- Resource optimization including funding, expense and capital efficiencies
- Redeployment of capital into ROE accretive activities including client financing

Cost of Capital

- 2019 ROE: ~7%
- Resource optimization and growth in client financing: ~3%
- Medium-term ROE: >10%

Global Markets and Investment Banking 2019 ROE

- Synergies with Investment Banking in delivering integrated execution solutions for clients
- Goldman Sachs’ ROE was burdened in 2019 by elevated litigation expenses

Including pro-rata allocation of parent/corporate capital
Prudently Managing Risk

Comprehensive Risk Management Infrastructure

Culture of Risk Management
- Disciplined risk-reward approach
- Deep bench of risk managers
- Consensus-driven decision making

Process and Structural Oversight
- Independent controls and governance
- Comprehensive stress testing
- Mark-to-market discipline

Continuous Improvement
- Cycle preparedness
- Reputational risk and compliance
- Cyber risk

Evolving Risk Profile

Market RWAs
- 2015: $104bn
- 2019: $65bn

Credit RWAs
- 2015: $430bn
- 2019: $499bn
Evolving Risk Profile

Continuous investment in risk management to address evolving business mix

Key Areas of Risk

- Consumer
  - Credit
  - Fraud
  - Increased cyber footprint
  - Operational resiliency
  - Privacy

- Transaction Banking

Mitigation

- Robust credit underwriting framework and processes
- Strong talent pool augmented by select hiring
- Best-in-class technology infrastructure and analytics
- Modern tools with no legacy platforms and streamlined processes
- Continuous innovation and investments to mitigate cyber risk
Key Takeaways

- Committed to Delivering on Our Financial Targets
- Leading Businesses with Multiple Opportunities for Revenue Growth Across the Franchise
- Optimizing Expenses and Capital
- Prudently Managing Risk
- Providing Investors Tools to Hold us Accountable
Financial Roadmap

Stephen Scherr
Chief Financial Officer

January 29, 2020
End Notes

These notes refer to the financial metrics and/or defined term presented on:

Slide 2:
1. Medium-term refers to 3 year time horizon
2. Longer-term refers to 5+ year time horizon

Slide 3, 14:
1. Return on average common shareholders’ equity (ROE) is calculated by dividing net earnings applicable to common shareholders by average monthly common shareholders’ equity. Return on average tangible common shareholders’ equity (ROTE) is calculated by dividing net earnings applicable to common shareholders by average monthly tangible common shareholders’ equity (tangible common shareholders’ equity is calculated as total shareholders’ equity less preferred stock, goodwill and identifiable intangible assets). Management believes that ROTE is meaningful because it measures the performance of businesses consistently, whether they were acquired or developed internally, and that tangible common shareholders’ equity is meaningful because it is a measure that the firm and investors use to assess capital adequacy. ROTE and tangible common shareholders’ equity are non-GAAP measures and may not be comparable to similar non-GAAP measures used by other companies.

The table below presents average equity and a reconciliation of average common shareholders’ equity to average tangible common shareholders’ equity:

<table>
<thead>
<tr>
<th>AVERAGE FOR THE YEAR ENDED DECEMBER 31, 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unaudited, $ in millions</strong></td>
</tr>
<tr>
<td>Total shareholders’ equity</td>
</tr>
<tr>
<td>Preferred stock</td>
</tr>
<tr>
<td>Common shareholders’ equity</td>
</tr>
<tr>
<td>Goodwill and identifiable intangible assets</td>
</tr>
<tr>
<td>Tangible common shareholders’ equity</td>
</tr>
</tbody>
</table>

Slide 6: 1. PTI refers to pre-tax income; NPV refers to Net Present Value

Slide 8:
1. Source: SNL; includes U.S. bank entities for peers BAC, C, JPM, MS as of 3Q19; GS as of 4Q19, excludes affiliate assets

Slide 9:
1. Relative value of shift to deposits will change as credit spreads and overnight/term interest rates change
End Notes

Slide 11:
1. Annual revenue volatility calculated by dividing standard deviation of reported revenues by the average revenues over the period. Annual earnings volatility calculated by dividing standard deviation of reported net income to common by the average net income to common over the period. U.S. peers include BAC, C, JPM, MS

Slide 12:
1. Compares 3-year, 5-year, 10-year BVPS growth vs. 2019 BVPS; data per SNL

Slide 13:
1. Targets may change as regulatory landscape and firm business mix evolve; SCB reflects current proposal

Slide 15:
1. Compiled using publicly available information from peer filings

Slide 16:
1. As of December 31, 2015, the firm’s risk-weighted assets in accordance with the Standardized capital rules on a fully phased-in basis was a non-GAAP measure and may not be comparable to similar non-GAAP measures used by other companies. Management believes that the firm’s risk-weighted assets in accordance with the Standardized capital rules on a fully phased-in basis is meaningful because it is a measure that the firm and investors use when assessing capital adequacy. The table below presents reconciliations for the firm’s market and credit risk-weighted assets in accordance with the Standardized capital rules on a transitional basis to a fully phased-in basis as of December 31, 2015 (unaudited, $ in billions):

<table>
<thead>
<tr>
<th>Unaudited, $ in billions</th>
<th>As of December 31, 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market risk-weighted assets, transitional and fully phased-in basis</td>
<td>$104</td>
</tr>
<tr>
<td>Credit risk-weighted assets, transitional basis</td>
<td>$420</td>
</tr>
<tr>
<td>Credit risk transitional adjustments</td>
<td>$10</td>
</tr>
<tr>
<td>Credit risk-weighted assets, fully phased-in basis</td>
<td>$430</td>
</tr>
</tbody>
</table>
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What Drives Our Success

#1 Investment Bank in the world\(^1\), built through decades of investment in people, clients and culture

<table>
<thead>
<tr>
<th>Trusted Advisor of Choice</th>
</tr>
</thead>
<tbody>
<tr>
<td>World-Class Talent and Culture</td>
</tr>
<tr>
<td>Unparalleled Brand of Excellence</td>
</tr>
<tr>
<td>Highest-Quality Execution</td>
</tr>
<tr>
<td>Global Scale and Reach</td>
</tr>
</tbody>
</table>
Leadership Reinforced by Breadth, Depth and Consistency

Global League Table Ranking

<table>
<thead>
<tr>
<th>Year</th>
<th>Announced M&amp;A</th>
<th>Completed M&amp;A</th>
<th>Equity Underwriting</th>
<th>Common Stock Offerings</th>
<th>High-Yield Debt</th>
<th>Institutional Loans</th>
<th>Investment-Grade Debt ($+€)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>#2</td>
<td>#1</td>
<td>#2</td>
<td>#2</td>
<td>#6</td>
<td>#6</td>
<td>#6</td>
</tr>
<tr>
<td>2019</td>
<td>#1</td>
<td>#1</td>
<td>#1</td>
<td>#1</td>
<td>#2</td>
<td>#2</td>
<td>#6</td>
</tr>
</tbody>
</table>

>10,000 Clients Covered
Global Scale and Leadership Drive Opportunity

<table>
<thead>
<tr>
<th>Americas</th>
<th>EMEA</th>
<th>APAC</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;6,000 Clients</td>
<td>&gt;3,000 Clients</td>
<td>&gt;1,000 Clients</td>
</tr>
<tr>
<td>&gt;1,700 Bankers</td>
<td>&gt;850 Bankers</td>
<td>&gt;450 Bankers</td>
</tr>
<tr>
<td>#1 Announced M&amp;A</td>
<td>#1 Announced M&amp;A</td>
<td>#1 Announced M&amp;A</td>
</tr>
<tr>
<td>#1 Completed M&amp;A</td>
<td>#1 Completed M&amp;A</td>
<td>#1 Completed M&amp;A</td>
</tr>
<tr>
<td>#2 Equity Underwriting</td>
<td>#2 Equity Underwriting</td>
<td>#2 Equity Underwriting</td>
</tr>
</tbody>
</table>

>3,000 Bankers in 43 Offices
Broad Sector Leadership and Deep Expertise

<table>
<thead>
<tr>
<th>Sector</th>
<th>#1</th>
<th>#2</th>
<th>#3</th>
<th>#4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer and Retail</td>
<td>Announced M&amp;A</td>
<td>Completed M&amp;A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real Estate</td>
<td>Announced M&amp;A</td>
<td>Completed M&amp;A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tech, Media and Telecom</td>
<td>Announced M&amp;A</td>
<td>Completed M&amp;A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Institutions</td>
<td>Announced M&amp;A</td>
<td>Completed M&amp;A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural Resources</td>
<td>Announced M&amp;A</td>
<td>Completed M&amp;A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Healthcare</td>
<td>Announced M&amp;A</td>
<td>Completed M&amp;A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industrials</td>
<td>Announced M&amp;A</td>
<td>Completed M&amp;A</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Best-in-Class Financial Sponsor Relationships

Investment Banking Revenue from Financial Sponsor Clients ($bn)\(^1\)

![Bar chart showing Investment Banking Revenue from Financial Sponsor Clients ($bn) from 2010 to 2019.]

- **2010**: $1.0
- **2019**: $1.9

CAGR: ~7%

#1 Ranking with Financial Sponsor Clients\(^2\)

- M&A
- Equity Underwriting
- High-Yield Bonds

Holding period creates regular cadence of M&A and Issuance activity
World-Class Talent Underpinned by a Culture of Excellence

- 67% of 2018 Partner promotes started as campus hires
- >28,000 applications to 2019 summer programs for <500 filled positions
- 22 Years Average tenure of IB Executive Committee
- >70% Of global Partners have >15 years tenure

Spotlight on Diversity

- >50% Women in 2019 campus analyst class, up from 34% in 2017
- >4x Number of Black and Hispanic/Latino campus hires in 2019 vs. 2010

“What distinguishes Goldman Sachs from your competitors is the quality and talent of the individuals working on the account”
– Client Survey Feedback
Financial Advisory: Cornerstone of our Client Franchise

Cumulative Advisory Revenues Since 2010 ($bn)²

<table>
<thead>
<tr>
<th>Firm</th>
<th>Revenue ($bn)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GS</td>
<td>$26.3</td>
</tr>
<tr>
<td>JPM</td>
<td>$19.0</td>
</tr>
<tr>
<td>MS</td>
<td>$18.3</td>
</tr>
<tr>
<td>BAC</td>
<td>$12.8</td>
</tr>
<tr>
<td>C</td>
<td>$9.7</td>
</tr>
<tr>
<td>CS</td>
<td>$9.5</td>
</tr>
<tr>
<td>UBS</td>
<td>$7.5</td>
</tr>
<tr>
<td>DB</td>
<td>$6.6</td>
</tr>
</tbody>
</table>

Leadership in Largest and Most Complex Transactions

- **20 of 25**: Largest announced M&A transactions in 2019
- **#1**: In cross border deals since 2010
- **103**: Spin-offs since 2010, 27% more than the next advisor
- ~**225**: Public activism defense situations since 2010, 1.7x next advisor³
### Equity Underwriting: Leadership Driven by Innovation

<table>
<thead>
<tr>
<th>Leading global franchise across products and regions¹</th>
</tr>
</thead>
</table>

#### Cumulative Equity and Equity-Related Volume Since 2010 ($bn)²

<table>
<thead>
<tr>
<th>Bank</th>
<th>Volume ($bn)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GS</td>
<td>$678</td>
</tr>
<tr>
<td>MS</td>
<td>$621</td>
</tr>
<tr>
<td>JPM</td>
<td>$589</td>
</tr>
<tr>
<td>BAC</td>
<td>$474</td>
</tr>
<tr>
<td>C</td>
<td>$466</td>
</tr>
<tr>
<td>CS</td>
<td>$382</td>
</tr>
<tr>
<td>UBS</td>
<td>$380</td>
</tr>
<tr>
<td>DB</td>
<td>$358</td>
</tr>
</tbody>
</table>

- Consistent Leadership
- Landmark Transactions
- IPO Underwriter of Choice³
- Underpinned by Continuous Innovation
Debt Underwriting: Delivering Growth on Strength of Franchise

Execution of strategic focus driving revenue growth and improved competitive position

Debt Underwriting Net Revenues ($bn)

<table>
<thead>
<tr>
<th>Year</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenues ($bn)</td>
<td>$1.1</td>
<td>$1.2</td>
<td>$1.2</td>
<td>$2.7</td>
<td>$2.4</td>
<td>$2.1</td>
</tr>
</tbody>
</table>

League Table Rankings¹

<table>
<thead>
<tr>
<th>Category</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Yield</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Institutional Loans</td>
<td>11</td>
<td>6</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Investment Grade ($+€)</td>
<td>10</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>6</td>
</tr>
</tbody>
</table>

¹ Rankings are based on net revenues and are color-coded as follows:
- #1: Leading
- #2-4: Mid-range
- #5+: Lowest
Franchise-Enhancing Corporate Lending

Lending generates significant franchise benefits and is underpinned by diligent risk management

Relationship lending to build and deepen client relationships

World-class acquisition finance franchise to enable client transactions

Financing for smaller companies, with focus on risk-adjusted returns

Corporate Lending Total Credit Exposure

- 83% Funded
- 17% Unfunded
- 28% Secured
- 72% Unsecured

Natural Resources: 21%
Tech, Media, and Telecom: 20%
Diversified Industrials: 18%
Real Estate: 5%
Financial Institutions: 6%
Consumer and Retail: 13%
Healthcare: 13%
Other: 5%

Executing a Clear Strategy for Growth

- Continue to Grow Share in Core Business
- Expand Client Footprint
- Offer New Client Solutions: Transaction Banking
- Deliver the Firm: One Goldman Sachs
Continue to Grow Share in Core Business

Industry Wallet ($bn) and Goldman Sachs Fee Share:

- Each incremental 1% share is worth ~$750mm annual revenues.

Focus on Growing Wallet Share:

- Improve share in underpenetrated sectors and regions.
- Drive market share across volumes, deal count and revenues.
- Increase equity underwriting wallet share.
- Opportunistically capture acquisition financing wallet share.

<table>
<thead>
<tr>
<th>Year</th>
<th>Advisory</th>
<th>Equity</th>
<th>Debt</th>
<th>Goldman Sachs Fee Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>$18</td>
<td>$21</td>
<td>$27</td>
<td>$67</td>
</tr>
<tr>
<td>2019</td>
<td>$26</td>
<td>$15</td>
<td>$35</td>
<td>$76</td>
</tr>
</tbody>
</table>
Despite Leadership Position, Continued Room to Grow Share

Announced M&A League Table Ranking

<table>
<thead>
<tr>
<th>Industry</th>
<th>CRG</th>
<th>FIG</th>
<th>HC</th>
<th>IND</th>
<th>NR</th>
<th>RE</th>
<th>TMT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Americas</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>EMEA</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>APAC</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Tech, Media and Telecom

- **Tech**
- **Media**
- **Telecom**

Americas Technology

- Communications Technology
- Education Technology
- Hardware and Infrastructure
- Internet
- Semis and Electronics
- Software
- Technology Services
- Venture Capital

#1 #2-4 #5+
Expanding Our Client Footprint

Opportunity to improve fee share by increasing coverage

Goldman Sachs M&A Fee Share by Deal Size

- $>10bn: 18%
- $2-10bn: 16%
- $500mm-2bn: 10%

Goldman Sachs Americas/EMEA Coverage Rate by Client Size

- $>10bn: 95%
- $2-10bn: 80%
- $500mm-2bn: 44%

Our fee share for sufficiently-covered clients is consistent across all size segments.
### Attractive Addressable Market

Small Market Share Can Generate Meaningful Economics:

- **~$80bn**
  - U.S. Transaction Banking wallet

- **$5tn**
  - U.S. Corporate Deposits

### Benefits to Our Franchise and Shareholders

- **Stable, More-Durable Revenues**
- **Expense Savings**
- **Synergistic with Broader Strategy**
- **Funding Diversification**

### Strong Client Value Proposition

- Analytics and actionable insights
- Fast and easy onboarding
- Modern tools and simple processes
- Scalable client customization

---

Expected to be ROE and margin accretive in the long-term
Offer New Client Solutions: Transaction Banking

Welcome Anne, this is your daily snapshot.

Current balance

Total cash $3,282,525,312.29

On average you have excess cash of $200M, earn a potentially higher yield in a Goldman Sachs Money Market Fund

2 Notifications

1 hour ago
You have 1 payment pending approval

2 hours ago
Sally G. joined AcmeTxB, set up her entitlements

3 hours ago
ACME-NY-PAYROLL: 5 approvals awaiting action

3 hours ago
ACME-LA-VENDORS: 5 approvals awaiting action
“Spotify and I have been fortunate to have Goldman as partners every step of the way, from early days raising capital to going public to advice on strategic transactions”

– Daniel Ek, Founder and CEO
Core Competitive Advantages Driving Future Growth

<table>
<thead>
<tr>
<th>Trusted Advisor of Choice</th>
</tr>
</thead>
<tbody>
<tr>
<td>World-Class Talent and Culture</td>
</tr>
<tr>
<td>Unparalleled Brand of Excellence</td>
</tr>
<tr>
<td>Highest-Quality Execution</td>
</tr>
<tr>
<td>Global Scale and Reach</td>
</tr>
</tbody>
</table>

### Forward Goals

<table>
<thead>
<tr>
<th>#1 Investment Banking Fees¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1 M&amp;A Market Share</td>
</tr>
<tr>
<td>#1 Equity Market Share</td>
</tr>
<tr>
<td>Top 4 Debt Market Share</td>
</tr>
</tbody>
</table>

Expand Share with $500mm-2bn Clients

Deliver Transaction Banking

| $1bn Revenues in 5+ years | $50bn Deposits in 5+ years |
Investment Banking

Gregg Lemkau

January 29, 2020
End Notes

These notes refer to the financial metrics and/or defined term presented on:

Slide 1:
1. Based on cumulative publicly-disclosed Investment Banking revenues since 2015, per competitor public filings. Peers include Bank of America, Barclays, Citibank, Credit Suisse, Deutsche Bank, JPMorgan, Morgan Stanley and UBS. GS excludes Corporate Lending for comparability.

Slide 2:
1. Source: Dealogic; Institutional Loans per Bloomberg. Equity Underwriting refers to Equity and Equity-Related Offerings.

Slide 3:

Slide 4:

Slide 5:
1. Represents Advisory, Equity Underwriting and Debt Underwriting revenues; excludes Corporate Lending and Asset Management revenues.

Slide 7:
Source: Dealogic
1. Ranked #1 in Announced M&A 17 of 21 years since GS’ IPO and #1 in Completed M&A 20 of 21 years.
2. Source: Company filings; GS Investment Research 4Q19 estimates used for Deutsche Bank and Credit Suisse, who have not yet reported FY2019 results; all revenues and estimates converted to USD.
3. Activism market share per Factset SharkWatch.

Slide 8:
1. Only bank ranked #1 or #2 in Americas, EMEA and Asia since 2010.
2. Source: Dealogic.
3. Source: Dealogic; ranked #1 for initial public offerings of ≥$100mm since GS’ IPO.

Slide 9:
1. High Yield and Investment Grade per Dealogic, Institutional Loans per Bloomberg.
End Notes

These notes refer to the financial metrics and/or defined term presented on:

Slide 10:
1. Represents total notional commitments. Other includes special purpose vehicles and funds

Slide 12:
1. Source: Dealogic
2. Based on 2019 fee pool

Slides 13:

Slide 14:
1. Source: Dealogic 2015 – 2019
2. Represents coverage rate of public companies as of January 25, 2020 per internal Goldman Sachs coverage database, with client size measured by market capitalization
3. Internal Goldman Sachs classification based on frequency of GS coverage banker engagement

Slide 15:
1. McKinsey Global Cash Management Revenue Pools as of 2019

Slide 17:
Note: Third-party brands used in this presentation are the property of their respective owners and are not intended to imply an affiliation with or endorsement of Goldman Sachs or its products/services

Slide 18:
1. Sum of Advisory, Equity Underwriting and Debt Underwriting revenues
Cautionary Note on Forward-Looking Statements

Statements about the firm’s target metrics, including its target ROE, ROTE, efficiency ratio and CET1 capital ratios, and how they can be achieved, and statements about future operating expense (including future litigation expense), amount and composition of future Assets under Supervision, planned debt issuances, growth of deposits and associated interest expense savings, future geographic location of its employees, and the timing and profitability of its business initiatives, including its launch of new businesses or new activities, its ability to increase its market share in incumbent businesses and its ability to achieve more durable revenues and higher returns from these initiatives, are forward-looking statements, and it is possible that the firm’s actual results may differ, possibly materially, from the targeted results indicated in these statements.

Forward looking statements, including those about the firm’s target ROE, ROTE, efficiency ratio, and expense savings, and how they can be achieved, are based on the firm’s current expectations regarding its business prospects and are subject to the risk that the firm may be unable to achieve its targets due to, among other things, changes in the firm’s business mix, lower profitability of new business initiatives, increases in technology and other costs to launch and bring new business initiatives to scale, and increases in liquidity requirements. Statements about the firm’s target ROE, ROTE and CET1 capital ratios, and how they can be achieved, are based on the firm’s current expectations regarding the capital requirements applicable to the firm and are subject to the risk that the firm’s actual capital requirements may be higher than currently anticipated because of, among other factors, changes in the regulatory capital requirements applicable to the firm resulting from changes in regulations or the interpretation or application of existing regulations or changes in the nature and composition of the firm’s activities. Statements about the timing and benefits of business and expense savings initiatives, the level and composition of more durable revenues and increases in market share are based on the firm’s current expectations regarding its ability to implement these initiatives and may change, possibly materially, from what is currently expected. Due to the inherent uncertainty in these forward-looking statements, investors should not place undue reliance on the firm’s ability to achieve these results.

For a discussion of some of the risks and important factors that could affect the firm’s future business, results and financial condition, see “Risk Factors” in our Annual Report on Form 10-K for the year ended December 31, 2018. You should also read the cautionary notes on forward-looking statements in our Form 10-Q for the period ended September 30, 2019 and Earnings Results Presentation for the Full Year and Fourth Quarter 2019. For more information regarding non-GAAP financial measures such as ROTE, refer to the footnotes in the Earnings Release and Earnings Presentation for the Full Year and Fourth Quarter 2019 and information on the calculation of non-GAAP financial measures that is posted on the Investor Relations portion of our website: www.goldmansachs.com.

The statements in the presentation are current only as of January 29, 2020 and the firm does not undertake to update forward-looking statements to reflect the impact of subsequent events or circumstances.
What Drives Our Success

Our ambition is to have the preeminent Global Markets client franchise with industry leading returns

We are one of three market franchises with deep and consistent global scale across both FICC and Equities

- #2 in Institutional Client Franchise
- #3 in reported revenues

Exceptional and experienced talent enables:
- Global and deep client relationships
- Superior risk intermediation
- Scalable, client-centric technology platforms
Global Markets Opportunities Arising from Secular Change

Secular Forces
- Regulatory Changes
- Technological Innovation

Impact
- Lower Market Liquidity
- Higher Capital Consumption
- Active to Passive Shift
- Changing Competitive Dynamics

Opportunities
- Expand Risk Intermediation Advantage
- Increase Client Financing Activities
- Enhance Client Experience

Growing Share and Returns
### Historical Business Model

- Business selection guided by measuring returns on a per trade basis
- Skewed focus towards a portion of a client’s risk intermediation wallet
- Concentrated on servicing the most complicated needs of sophisticated clients
- Limited client access to our market leading risk analytics and pricing tools used by our own traders (e.g. SecDb)

### New Business Model

- Build holistic, long-term client relationships by adopting a portfolio approach to generating higher returns
- Grow our financing capabilities across FICC and Equities
- Pair bespoke derivative intermediation with cash and electronic capabilities
- Goldman Sachs Marquee
Disciplined Response to Change Drives Top 3 Ranking

Global Markets Revenues ($bn)

<table>
<thead>
<tr>
<th>Year</th>
<th>Intermediation</th>
<th>Financing</th>
<th>Attributed Capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>15.8</td>
<td>22%</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>15.0</td>
<td>24%</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>12.3</td>
<td>26%</td>
<td>20%</td>
</tr>
<tr>
<td>2018</td>
<td>14.4</td>
<td>28%</td>
<td>30%</td>
</tr>
<tr>
<td>2019</td>
<td>14.8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reduction in firmwide market risk RWAs¹ (2019 vs. 2015) -40%

Reduction in attributed capital (2019 vs. 2015) -20%

Competitive Landscape

<table>
<thead>
<tr>
<th>Rank</th>
<th>2019E Revenues ($bn)²</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>18.3</td>
</tr>
<tr>
<td>2</td>
<td>15.4</td>
</tr>
<tr>
<td>3</td>
<td>14.8</td>
</tr>
<tr>
<td>4</td>
<td>13.7</td>
</tr>
<tr>
<td>5</td>
<td>12.9</td>
</tr>
<tr>
<td>6</td>
<td>6.4</td>
</tr>
<tr>
<td>7</td>
<td>6.2</td>
</tr>
<tr>
<td>8</td>
<td>6.0</td>
</tr>
<tr>
<td>9</td>
<td>5.9</td>
</tr>
<tr>
<td>10</td>
<td>5.0</td>
</tr>
</tbody>
</table>

¹ Reduction in firmwide market risk RWAs
² 2019E: Estimated

Intermediation
Financing
Attributed Capital

15.8 15.0 12.3 14.4 14.8
Action Plan

- Optimize Resource Consumption
- Deepen and Broaden Client Base
- Increase Client Financing
- Leverage Risk Expertise to Provide Scalable Liquidity
- Enhance Client Experience
Optimize Resource Consumption

Progress since 2015

Reduce Operating Expenses

- $300mm
  Reduction in expenses excl. litigation

Optimize Funding

- $200mm
  2019 funding efficiencies

Deliver Capital Efficiencies

- 40%
  Reduction in firmwide market risk RWAs

- 20%
  Reduction in attributed capital

Our medium-term plan

Identified expense opportunities

- $700mm

Further funding optimization

- $250mm

Capital reallocated to accretive opportunities

~ $2bn
Path to Higher Returns

~150bps from resource optimization initiatives

2019 ROE  |  Litigation  | Expense Efficiencies  | Funding Optimization  | Client Initiatives  | Medium-Term ROE

+50bps ROTE

~125bps

~100bps

~50bps

~100bps

>11% ROTE

>10%
Goldman Sachs Ranked #2 Globally\(^1\)

<table>
<thead>
<tr>
<th>Category</th>
<th>Overall</th>
<th>Asset Managers</th>
<th>Hedge Funds</th>
<th>Banks &amp; PSE(^2)</th>
<th>Insurance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>#2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equities</td>
<td>#3</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Cash</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Derivatives</td>
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<td>Prime</td>
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<td>Futures</td>
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<tr>
<td>FICC</td>
<td>#2</td>
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<td></td>
<td></td>
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<tr>
<td>G10 Rates</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>G10 FX</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Emerging Markets</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Securitized Products</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G10 &amp; EM Flow Credit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commodities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Significant Upside in Closing Client Gaps

$1.2bn gap to #1 bank\(^3\)

GS Share\(^1\)

- 2014: #2
- 2015: 7.9%
- 2016: 8.3%
- 2017: 8.5%
- 2018: 9.4%

Top 3 - #2 - #2
4-7 - #2 - #2
8+ - #2 - #2

Deepen and Broaden Client Base
Increase Client Financing in FICC

**Industry Wallet Composition** ($bn)

<table>
<thead>
<tr>
<th></th>
<th>Financing Wallet</th>
<th>Intermediation Wallet</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>82</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>77</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>70</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>76</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>69</td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>65</td>
<td></td>
</tr>
</tbody>
</table>

2018 vs. 2013
-31%

**Financing Percent of Total Revenues**

- Financing: 19%
- Intermediation: 81%

2018 vs. 2013
- Financing: +10%
- Intermediation: -31%

Revenue gap to U.S. peer average in 2018

$1.4bn

**Opportunity to grow FICC financing revenues**

- Mortgage warehouse lending
- Repurchase agreements
- Secured lending
Increase Client Financing in Equities

**Industry Gross Balances**\(^1\) ($tn)

<table>
<thead>
<tr>
<th>Year</th>
<th>Fundamental</th>
<th>Systematic</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>3.4</td>
<td>3.0</td>
</tr>
<tr>
<td>2018</td>
<td>5.9</td>
<td>8.9</td>
</tr>
</tbody>
</table>

\(+70\%\) \(+190\%\)

**Systematic Wallet Growth**\(^2\) ($bn)

<table>
<thead>
<tr>
<th>Year</th>
<th>Systematic</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>1.8</td>
</tr>
<tr>
<td>2018</td>
<td>3.6</td>
</tr>
</tbody>
</table>

\(+100\%\)

~$1bn Revenue gap with systematic clients\(^3\)

**Building a strategic platform to execute in 50 global markets**

- Cash or Synthetic
- Direct Market Access or Algorithmic
- 99%+ Straight-Through-Processing Rate
## Leverage Risk Expertise to Provide Scalable Liquidity

Combining Historical Strengths with Client-Focused Technology

<table>
<thead>
<tr>
<th>Corporate Bonds (~75% Electronic)</th>
<th>Client Challenge</th>
<th>Solution</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-trade transparency</td>
<td>Systematic Credit</td>
<td>#1 IG Systematic</td>
</tr>
<tr>
<td></td>
<td>Execution certainty</td>
<td></td>
<td>A Market Leader in Portfolio Trading</td>
</tr>
<tr>
<td></td>
<td>Liquidity mismatch</td>
<td></td>
<td>($120bn+ executed since inception)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Commodities (~80% Electronic)</th>
<th>Client Challenge</th>
<th>Solution</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Liquidity fragmentation</td>
<td>eAron</td>
<td>Unique Offering</td>
</tr>
<tr>
<td></td>
<td>Minimal aggregation</td>
<td></td>
<td>Combined Goldman Sachs</td>
</tr>
<tr>
<td></td>
<td>Limited algorithms &amp; analytics</td>
<td></td>
<td>Liquidity, Algorithms</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&amp; Market Access</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Equities (~99.9% Electronic)</th>
<th>Client Challenge</th>
<th>Solution</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Liquidity fragmentation</td>
<td>Institutional Principal</td>
<td>#1</td>
</tr>
<tr>
<td></td>
<td>Transaction costs</td>
<td>Facilitation</td>
<td>Provider of Institutional</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Principal Liquidity</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(&gt;$2tn of liquidity supplied in 2019)</td>
</tr>
</tbody>
</table>
Enhance Client Experience
Holistic Client Coverage through the Trade Lifecycle

Before: Multiple Contacts
Sales, Trading & Strats
  Analysis, Pricing & Risk
Technology
  Execution & Trade Processing
Operations
  Onboarding & Trade Management

Current: Client Aligned
Global Markets
  Processing teams aligned by client

Future: Digital Interface

Organize

Autowired

Pre-Trade
Trade
Post-Trade

APIs

Client
What is Marquee?

- Marquee is Goldman Sachs’ digital storefront for institutional client services.
- Powered by a cross-asset infrastructure and informed by decades of innovation, this intuitive platform unlocks the power of Goldman Sachs to deliver access to global financial markets and risk management capabilities, content and data.

Enhance Client Experience
Marquee Unlocks the Power of Goldman Sachs

Unlock the power of Goldman Sachs.
marquee.gs.com
Leading Market Maker Delivering One Goldman Sachs

Global Markets-Enabled Product Multiplier Case Study

- Merger Advisory: 1.0
- Acquisition Bridge Financing: 1.6
- Capital Markets Takeout Financing: 1.2
- Derivative Hedging: 0.3

Multiplier Effect: 4x
Exceptional Talent and Client Focus

Experienced Leadership

- **72%**
  Trading Partners / Managing Directors with Goldman Sachs since 2008

- **18 years**
  Average experience of Sales and Trading Partners / Managing Directors

Diverse and Talented Community

- **48%**
  Women campus hires in 2019, up from 32% in 2017

- **93%**
  Analyst acceptance rate

- **>90%**
  Retention rate of top performers

Goldman Sachs Client

“Our GS team is so good it’s like they work for us: they’re part of our investment process”
Path Forward: Keys To Success

World-Class Market Making Franchise With Exceptional Talent

| Global and deep client relationships | Superior risk intermediation | Scalable, client-centric technology platforms |

Strategic Priorities

| Optimize resource consumption | Deepen and broaden client base | Increase client financing | Leverage risk expertise to provide scalable liquidity | Enhance client experience |
Global Markets

Jim Esposito and Ashok Varadhan

January 29, 2020
These notes refer to the financial metrics and/or defined terms presented on:

Slide 1:
1. Source: Coalition institutional client analytics for FY2018. Institutional clients only. Analysis excludes captive and non-core products

Slide 4:
1. RWAs are risk weighted assets
2. US banks: externally reported revenues adjusted for disclosed one-off items (Tradeweb gains of ~$335mm in JPM and $355mm in C) and fully-taxable equivalent adjustments of $2.259mm in JPM. European banks: externally reported revenues adjusted for disclosed one-off items for 9M19 and FY2019 for UBS (Tradeweb gains of $338mm in UBS, €101mm in DB and £126mm in BARC, $90mm gain from the net impact of treasury operations and hedging counterparty risk in BARC and a change in the valuation of an investment of €(37)mm in 3Q19 and €36mm in 1Q19 in DB); DB excludes Equities revenues generated in 1H19; Goldman Sachs Global Investment Research trading revenue estimates used for 4Q19, except for UBS; all revenue estimates have been converted to dollars for consistency, using a quarterly average of their respective conversion rates

Slide 7:
1. Return on average common shareholders’ equity (ROE) is calculated by dividing net earnings applicable to common shareholders by average monthly attributed common shareholders’ equity. Attributed tangible common shareholders’ equity is calculated as attributed common shareholders’ equity less attributed goodwill and identifiable intangible assets. Return on average tangible common shareholders’ equity (ROTE) is calculated by dividing net earnings applicable to common shareholders by average monthly attributed tangible common shareholders’ equity. Management believes that ROTE is meaningful because it measures the performance of businesses consistently, whether they were acquired or developed internally. Attributed tangible common shareholders’ equity and ROTE are non-GAAP measures and may not be comparable to similar non-GAAP measures used by other companies.

The table below presents a reconciliation of average attributed common shareholders’ equity to average attributed tangible common shareholders’ equity:

<table>
<thead>
<tr>
<th>Unaudited, $ in millions</th>
<th>Average for the year ended December 31, 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attributed common shareholders’ equity</td>
<td>40,060</td>
</tr>
<tr>
<td>Attributed goodwill and identifiable intangible assets</td>
<td>(2,803)</td>
</tr>
<tr>
<td>Attributed tangible common shareholders’ equity</td>
<td>37,257</td>
</tr>
</tbody>
</table>
End Notes

These notes refer to the financial metrics and/or defined terms presented on:

Slide 8:
2. PSE includes Pensions, Sovereigns and Endowments
3. JPM Investor Day, February 26, 2019

Slide 9:
1. Source: Coalition competitor analytics. Industry wallet includes the Coalition index banks (BAC, BARC, BNPP, C, CS, DB, GS, HSBC, JPM, MS, SG, UBS). Analysis according to the Coalition standard taxonomy

Slide 10:
1. Gross balances calculation based upon estimated industry AUM published by Hedge Fund Research, Inc. (HFR) multiplied by leverage estimated from the Goldman Sachs client universe. Fundamental fund balances vary with market conditions
2. Source: Coalition institutional client analytics. Wallet includes cash execution and cash and synthetic financing wallet for leading systematic clients
3. Source: Coalition institutional client analytics, 2018. Wallet includes equities revenues for leading systematic clients

Slide 11:
1. Goldman Sachs electronic tickets as a percentage of total:
   - ~75% of US credit
   - ~80% of principal delta one trades in energy and metals
   - ~99.9% of US cash equities
2. US over-the-counter equities trades, 10,000+ shares and $200,000+ notional. Source: FINRA, October – November 2019

Slide 15:
1. Includes sales, trading, strats and cross-divisional roles
Cautionary Note on Forward-Looking Statements

Statements about the firm’s target metrics, including its target ROE, ROTE, efficiency ratio and CET1 capital ratios, and how they can be achieved, and statements about future operating expense (including future litigation expense), amount and composition of future Assets under Supervision, planned debt issuances, growth of deposits and associated interest expense savings, future geographic location of its employees, and the timing and profitability of its business initiatives, including its launch of new businesses or new activities, its ability to increase its market share in incumbent businesses and its ability to achieve more durable revenues and higher returns from these initiatives, are forward-looking statements, and it is possible that the firm’s actual results may differ, possibly materially, from the targeted results indicated in these statements.

Forward looking statements, including those about the firm’s target ROE, ROTE, efficiency ratio, and expense savings, and how they can be achieved, are based on the firm’s current expectations regarding its business prospects and are subject to the risk that the firm may be unable to achieve its targets due to, among other things, changes in the firm’s business mix, lower profitability of new business initiatives, increases in technology and other costs to launch and bring new business initiatives to scale, and increases in liquidity requirements. Statements about the firm’s target ROE, ROTE and CET1 capital ratios, and how they can be achieved, are based on the firm’s current expectations regarding the capital requirements applicable to the firm and are subject to the risk that the firm’s actual capital requirements may be higher than currently anticipated because of, among other factors, changes in the regulatory capital requirements applicable to the firm resulting from changes in regulations or the interpretation or application of existing regulations or changes in the nature and composition of the firm’s activities. Statements about the timing and benefits of business and expense savings initiatives, the level and composition of more durable revenues and increases in market share are based on the firm’s current expectations regarding its ability to implement these initiatives and may change, possibly materially, from what is currently expected. Due to the inherent uncertainty in these forward-looking statements, investors should not place undue reliance on the firm’s ability to achieve these results.

For a discussion of some of the risks and important factors that could affect the firm’s future business, results and financial condition, see “Risk Factors” in our Annual Report on Form 10-K for the year ended December 31, 2018. You should also read the cautionary notes on forward-looking statements in our Form 10-Q for the period ended September 30, 2019 and Earnings Results Presentation for the Full Year and Fourth Quarter 2019. For more information regarding non-GAAP financial measures such as ROTE, refer to the footnotes in the Earnings Release and Earnings Presentation for the Full Year and Fourth Quarter 2019 and information on the calculation of non-GAAP financial measures that is posted on the Investor Relations portion of our website: www.goldmansachs.com.

The statements in the presentation are current only as of January 29, 2020 and the firm does not undertake to update forward-looking statements to reflect the impact of subsequent events or circumstances.
Asset Management

Tim O’Neill and Julian Salisbury

January 29, 2020
What Drives Our Success

World-class active asset manager providing holistic solutions to a wide array of investors

- Global scale across full spectrum of asset classes
- Power of Goldman Sachs sourcing and distribution
- Strong investment performance track record
- Ability to leverage balance sheet
## Global Scale Across Traditional and Alternatives

**$2.3 Trillion Firmwide Investment Platform\(^{1,2}\)**

<table>
<thead>
<tr>
<th>Category</th>
<th>Rank(^3):</th>
<th>Gap to Leader(^3):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquidity</td>
<td>#4</td>
<td>~$300bn</td>
</tr>
<tr>
<td>Fixed Income</td>
<td>#4</td>
<td>~$1 trillion</td>
</tr>
<tr>
<td>Equity</td>
<td>#10</td>
<td>~$800bn</td>
</tr>
<tr>
<td>Alternatives</td>
<td>#4</td>
<td>~$200bn</td>
</tr>
<tr>
<td>Brokerage</td>
<td>NM</td>
<td>NM</td>
</tr>
</tbody>
</table>

Complete offering from money markets to private assets

---

\(^{1}\) Includes all products and services

\(^{2}\) Excludes equities

\(^{3}\) Rank and gap to leader based on market cap as at December 31, 2022

\(\text{NM} = \text{Not Material} \)
Delivered Through Broad Distribution Channels

Firmwide

- **$2.3tn** Total Assets
  - Fee-Earning ~$1.9tn
  - Brokerage ~$280bn
  - Non-Fee Earning ~$130bn

Asset Management

- **$1.9tn** AUS
  - Wealth Management ~$560
  - 3rd Party Distributed ~$610bn
  - Institutional ~$680bn

- **$1.3tn** AUS

Franchise Built Over 30+ Years; Difficult to Replicate Breadth and Depth

Legend:
- Traditional / Alternatives

1980s
- Fixed Income
- Liquidity Solutions
- Private Equity

1990s
- Fundamental Equity
- Quantitative Equity
- Asia Special Situations
- Growth Equity
- Mezzanine Funds
- Open-Architecture
- Real Estate Equity
- Secondary Private Equity

2000s
- Advisory
- Insurance Solutions
- Pension Solutions
- Alternative Energy
- Global Special Situations
- General Partner Stakes
- Infrastructure
- Senior Loan Fund
- Specialty Lending
- Multi-Asset Funds

2010s
- ESG¹ and Impact Investing
- ETFs
- Model Portfolios
- Retirement Advisory
- Smart Beta
- Stable Value
- Target Date Funds
- Co-Investment Funds
- Credit BDCs
- Real Estate Credit
Global Presence Driving Unique Opportunities

Average Partner tenure of ~19 years

- **Americas**
  - ~800 Investment Professionals
  - 76% of firmwide AUS
  - Investing since 1980s

- **EMEA**
  - ~200 Investment Professionals
  - 15% of firmwide AUS
  - Investing since 1990s

- **APAC**
  - ~200 Investment Professionals
  - 9% of firmwide AUS
  - Investing since 1990s
Track Record of Generating Strong Investment Returns: Traditional

| Portion of Goldman Sachs Mutual Fund AUS Performing in the Top 50% of Morningstar Funds<sup>1</sup> |
|---|---|---|---|
| **3-Years** | **5-Years** | **10-Years** |
| Equity | Fixed Income | Quantitative | Equity | Fixed Income | Quantitative | Equity | Fixed Income | Quantitative |
| 62% | 66% | 61% | 52% | 73% | 79% | 72% | 88% | 89% |

**Total Funds**
- 65%
- 69%
- 83%

Consistent and persistent track record across traditional investment products
Track Record of Generating Strong Investment Returns: Alternatives (Principal Strategies)

**Corporate Equity**

- **MSCI World**
  - Net IRR: 5.4%
  - Gross IRR: 15.5%
  - Gross IRR: 21.1%

**Real Estate Credit**

- **Bloomberg Barclays CMBS Index**
  - Net IRR: 5.0%
  - Net IRR: 9.8%
  - Gross IRR: 13.6%
  - Gross IRR: 14.4%

**Corporate Credit**

- **Since Inception**
  - S&P Leveraged Loan + BAML US High Yield
    - Net IRR: 7.5%
    - Gross IRR: 8.9%
- **Post-Crisis**
  - S&P Leveraged Loan + BAML US High Yield
    - Net IRR: 4.9%
    - Gross IRR: 9.8%

**Open Architecture Private Assets**

- **MSCI World**
  - Net IRR: 7.8%
  - Net IRR: 11.0%
  - Gross IRR: 14.4%

Note: Past performance does not guarantee future results, which may vary.
Resulting in Significant Asset Growth as We Deepen Client Relationships

Significant Firmwide AUS Growth Over the Past 5 Years
$ in billions

2014 AUS $1,178
LTFB\(^1\) Growth $502
Liquidity $202
Net Inflows $102
$179 Appreciation

2019 AUS $1,859

Active LTFB Organic Growth\(^2\) (2014 - 2019)

Goldman Sachs 22%
JPMorgan 18%
BlackRock 12%
Alliance Bernstein 7%
Allianz (PIMCO) 6%
T.Rowe 4%
Morgan Stanley 4%
Legg Mason -2%
Federated -4%
UBS -4%
Invesco -9%

Represents Top 10 Public Active Managers

\(^1\) LTFB = Liquidity-Through-Forward Basis
\(^2\) Represents Top 10 Public Active Managers
One Goldman Sachs: Power of our Investment Sourcing Network

- Consumer & Wealth Management
- Investment Banking
- Asset Management
- Global Markets

**Access to Capital**
- UHNW Clients
- Institutional Clients
- Goldman Sachs

**Investment Sourcing**
- Corporate Relationships
- Partnering with Clients
- Global Footprint

**Intellectual Capital**
- Operational Expertise
- Market Insights
- Exit Strategies
Executing a Clear Strategy for Growth

- Partner with asset allocators to deliver holistic solutions
- Innovate to serve evolving client needs
- Grow 3rd party Alternatives
- Leverage balance sheet as a strategic asset
- Optimize capital
Continuing to Deliver for Our Clients, Fueling Continued AUS Growth

Firmwide View

Significant asset growth achieved

Clear path to continued growth

$ in billions, unless otherwise noted

<table>
<thead>
<tr>
<th>Year</th>
<th>AUS</th>
<th>5-Year Growth</th>
<th>2019 AUS</th>
<th>Traditional Net Inflows</th>
<th>Alternatives Net Inflows</th>
<th>Longer-term AUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>$1,178</td>
<td>$681</td>
<td>$1,859</td>
<td>$250</td>
<td>$100</td>
<td>~$2.2 trillion</td>
</tr>
</tbody>
</table>

1. Net inflows
2. Estimate

Split across Private Equity, Credit, Real Estate and Open Architecture
5-Year Growth Plan: Diversified Capabilities Support Broad-Based Growth

### Traditional

- **Equity**: ~40%
- **Fixed Income**: ~60%
- **Total**: $250bn

### Alternatives

- **Corporate Equity**: ~35%
- **Private Credit**: ~25%
- **Real Estate**: ~15%
- **Multi-Asset & Other**: ~25%
- **Total**: $100bn
Partnering with Asset Allocators to Deliver Holistic Solutions

- Pensions
- Insurers
- Sovereign Wealth Funds
- Corporates
- Financial Intermediaries
- Endowments & Foundations
- Holistic Advice
- Market Views
- Risk Mgmt.
- Asset Allocation
- Asset Liability Mgmt.
- Outsources CIO
- Hedging
Continue to Innovate to Serve Evolving Client Needs

Shift from Active to Passive

ETF and ActiveBeta
$26bn AUS
22 ETFs
Cost Effective
Competitive with Passive

Integration of ESG

ESG and Impact Investing
$74bn AUS
Turnkey Solutions
Public and private markets
Acquired Capabilities
Via Imprint Capital

Seamless Digital Execution

Liquidity Investment Solutions
API Connectivity
Cash Solutions Proprietary liquidity platform
Expertise Digital portal backed by Goldman Sachs team

Continue to Innovate to Serve Evolving Client Needs
Top 5 Alternative Asset Manager with Full Asset Class Capabilities

Real Estate
- Real Estate Equity (Core to Opportunistic)
- Real Estate Credit

Credit
- Senior Secured Lending
- Mezzanine Financing
- Special Situations

Private Equity
- Mid-to-Large Cap Buyouts
- Growth Equity
- Infrastructure
- Secondaries

Hedge Funds / Multi-Asset
- Firm-Managed Strategies
- Manager Selection
- Outsourced CIO

Alternative Assets: $320bn¹
Prudently Leveraging Our Balance Sheet

Benefitting Our Clients
- Aligned Interests
- Investment Sourcing

Benefitting Our Shareholders
- Incubation of New Strategies
- Meaningful Revenue Contribution

Diversified Across Various Dimensions

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>Investments</th>
<th>Geography</th>
<th>Vintage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Portfolio</td>
<td>Equity</td>
<td>Americas</td>
<td>2012 or Earlier</td>
</tr>
<tr>
<td>($62bn)²</td>
<td>Portfolio</td>
<td>50%</td>
<td>29%</td>
</tr>
<tr>
<td></td>
<td>excluding</td>
<td>APAC</td>
<td>2013 - 2015</td>
</tr>
<tr>
<td></td>
<td>CIEs ($22bn)</td>
<td>33%</td>
<td>31%</td>
</tr>
</tbody>
</table>

- RE Credit 19%
- Credit 31%
- Private Equity 27%
- Other 2%

- ~1,000 Investments

- 2012 or Earlier 29%
- 2013 - 2015 31%
- 2016 - Present 40%
## Goldman Sachs On Balance Sheet Investments

### Equity Investments

<table>
<thead>
<tr>
<th>Year</th>
<th>Asset Yield(^1)</th>
<th>Asset Yield(^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>15.4%</td>
<td>6.5%</td>
</tr>
<tr>
<td>2018</td>
<td>13.2%</td>
<td>6.7%</td>
</tr>
<tr>
<td>2019</td>
<td>13.8%</td>
<td>5.4%</td>
</tr>
</tbody>
</table>

\(^1\) Based on net revenues

\(^2\) Based on net revenues, net of expenses related to consolidated investments

### Lending

<table>
<thead>
<tr>
<th>Year</th>
<th>Asset Yield(^1)</th>
<th>Asset Yield(^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>8.2%</td>
<td>6.5%</td>
</tr>
<tr>
<td>2018</td>
<td>7.4%</td>
<td>6.7%</td>
</tr>
<tr>
<td>2019</td>
<td>5.4%</td>
<td>4.4%</td>
</tr>
</tbody>
</table>

\(^1\) Based on net revenues

\(^2\) Based on net revenues, net of provision for credit losses

---

**Strong On Balance Sheet Investment Performance**
3rd Party Growth and Balance Sheet Remix Opportunity

(Pro Forma Simulation)

Growth in 3rd Party Funds

- **Current (2019)**
  - ~$1.9tn Fee-Earning AUS (Firmwide)
  - ~$6.3bn Management and Other Fees and Incentive Fees (Firmwide)
  - ~$6.2bn On-Balance Sheet Revenues (Asset Management)
  - ~$22bn Attributed Common Equity (Asset Management)

5-Year Growth Plan

- +2% Annual Mkt. Appreciation
- +$350bn Organic AUS Growth
- +$1.6bn Assuming Stable Fee Rate (32bps) and Incentive Fees
- Remix Equity to Credit Lower Revenues and Risk
- -$4bn Capital Reduction

Longer-term

- ~$2.4tn Fee-Earning AUS
- Improved Revenue Durability
- New Capacity for Growth
Improving Revenue Durability and Returns Over Time

FY 2019 AM Segment Revenue Composition

Longer-Term AM Segment Revenue Composition (Illustrative)

Grow Management and Incentive Fees and Lending

Equity Investments
Lending
Management and Incentive Fees
End Notes

These notes refer to the financial metrics and/or defined term presented on:

Slide 2:
Note: Values reflect firmwide investment assets, including assets in Asset Management and Consumer & Wealth segments
1. Includes non-fee-earning assets in Alternatives of ~$130bn, which are not included in reported Assets Under Supervision
2. Includes brokerage assets of ~$280bn, which are not included in reported Assets Under Supervision
3. Data as of 3Q19. Competitor data compiled from publicly available Quarterly Earnings Releases and Supplements, eVestment database, and Morningstar Direct. Where product classification (e.g. fixed income vs. alternatives) and portfolio management style (passive vs. active) were not explicit in competitors’ publicly available data, GS applied certain assumptions for purposes of making comparisons. Peer population represents key competitors tracked internally by product classification and portfolio management style

Slide 3:
1. Non-fee earning assets of ~$130bn includes Goldman Sachs balance sheet investments, employee funds, leverage, cost vs. fair value on Alternatives funds, and unfunded capital commitments

Slide 4:
1. ESG refers to Environmental, Social, and Governance

Slide 5:
1. Regional AUS includes Asset Management and Consumer & Wealth Management segments, excluding brokerage and non-fee earning assets

Slide 6:
Note, past performance does not guarantee future results, which may vary
1. Represents global funds. Source: Morningstar. Data of December 31, 2019
End Notes

These notes refer to the financial metrics and/or defined term presented on:

Slide 7:

Note: Past performance does not guarantee future results, which may vary.

1. Performance is based on net asset values as of 9/30/19 for Corporate Equity, Corporate Credit, and Real Estate Credit strategies. Performance is calculated by pooling the cash flows and calculating the IRR of the resulting cash flow stream on a capital-weighted basis for fee-paying investors. The information on which this performance is based is unaudited and reflects best available estimates, and therefore may be subject to change. Gross performance is based on aggregated cash flows without deduction for fees, carried interest, or fund expenses and includes leverage from fund-level credit facilities (which may enhance investor returns). Net performance is based on aggregated cash flows with deduction for fees, carried interest and fund expenses and includes leverage from fund-level credit facilities (which may enhance investor returns).

2. Index performance is calculated using the Modified PME approach, net of reasonable index transaction costs proxied to ETF expense ratios. Public Market Equivalent (PME), or the Index Comparison Method, is a methodology for calculating private market benchmark returns by using private fund cash flows and public market index returns. It is not possible to invest directly in an index, and the simulation seeks to provide a basis for comparing index returns with fund returns by mirroring the timing and amounts of cash flows of the fund to the index. The indices chosen for comparison were selected because we believe that they represent the closest public market alternative to investing in each of the applicable principal strategies.

3. Reflects weighted average performance of Corporate Equity strategy since 2000 and specifically includes GSCP 2000, GSCP V, GSCP VI, the Pre-CPVII portfolio and WSCP VII. The Pre-CPVII portfolio represents all investments over $100mm made by the balance sheet and managed accounts between 2012 and 2016 (post-GSCP VI, but pre-WSCP VII). The benchmark is MSCI World Total Return Index.

4. Reflects weighted average performance of all Senior Credit and Mezzanine vehicles managed by MBD since inception and since post-crisis, as applicable. Post-crisis reflects the following vehicles that were raised since 2009: BSLP 2013, BSLP III, SCP, SCP II, GSMP VI and GSMP VII. Senior Credit and Mezzanine strategies are benchmarked separately against S&P Global Leveraged Loan and BAML US High Yield Master II Total Return indices before aggregation.

5. Reflects weighted average performance of all Real Estate Credit funds managed by MBD since inception and since post-crisis, as applicable. Post-crisis reflects the following funds that were raised since 2009: RECP II and RECP III. The benchmark is Bloomberg Barclays CMBS Total Return Index.

6. Open Architecture Private Assets performance reflects all commingled client vehicles of the Private Equity Partners (first fund 1997), Private Equity Manager (first fund 2011), Vintage (first fund 1998), Petershille (first fund 2007), and Private Equity Co-investment Partners (first fund 2014) series of funds raised since 2000. These funds are closed to new investors. Performance is calculated by pooling the asset-weighted cash flows and 6/30/2019 asset valuations and calculating the IRR of the resulting cash flow stream. The information on which this performance is based is unaudited and reflects best available estimates, and therefore may be subject to change. Gross performance is based on the cash flows between the funds and their investments and do not deduct GSAM-related fees, carried interest, or GSAM vehicle expenses, but do deduct any management fees, carried interest, or expenses from third-party managers. Net performance is based on the aggregated cash flows of the fee-paying investors in the funds and includes GSAM-related fees, carried interest and vehicle expenses. Net performance figures also reflect the impact of all GSAM fund-level and underlying manager-level credit facilities, the reinvestment of proceeds from the sale of underlying funds and/or portfolio companies, cash management, and hedging, which may enhance investor returns. Investor returns may be lower without these activities, but leverage will magnify the loss of capital to investors if investments experience negative performance.
These notes refer to the financial metrics and/or defined term presented on:

Slide 8:
1. LTFB refers to long-term fee based assets, including equity, fixed income, and alternatives
2. Reflects cumulative organic growth from YE2014 through YE2019 where applicable (excluding acquisitions), calculated as active LTFB net sales divided by 2014 LTFB AUS. Competitor data compiled from publicly available Quarterly Earnings Releases and Supplements, eVestment database, and Morningstar Direct. Competitor data reflects most recently available Quarterly Earnings Releases as of 1/22/2020; eVestment data as of Q3 2019; Morningstar Direct data as of 12/31/2019 for US-Domiciled Funds and 11/30/2019 for Non-US Domiciled Funds. Where product classification (e.g. fixed income vs. alternatives) and portfolio management style (passive vs. active) were not explicit in competitors’ publicly available data, GS applied certain assumptions for purposes of making comparisons. Peer population represents key competitors tracked internally by product classification and portfolio management style

Slide 11:
1. Growth shown net of realizations
2. Plus or minus net market appreciation, acquisitions, dispositions, and changes in Goldman Sachs’ on balance sheet investments

Slide 14:
1. ESG and impact investing AUS includes mandates where there is an explicit ESG or impact objective in the investment guidelines

Slide 15:
1. Includes non-fee-earning assets in Alternatives

Slide 16:
1. Total asset management investment portfolio includes ~$71bn of balance sheet assets less ~$9bn of non-recourse debt, primarily attributable to our Consolidated Real Estate Equity Investments
2. Equity portfolio of $22bn excludes all Consolidated Investment Entities, which total ~$17bn and are funded with liabilities of ~$9bn, substantially all of which were non-recourse

Slide 17:
1. Asset yield equals net revenues related to equity investments divided by average on balance sheet equity investments. A second version of this metric reflects a deduction for expenses related to Consolidated Investment Entities
2. Asset yield equals lending-related net revenues divided by average on balance sheet credit investments. A second version of this metric reflects a deduction for provision for credit losses

Slide 18:
Cautionary Note on Forward-Looking Statements

Statements about the firm’s target metrics, including its target ROE, ROTE, efficiency ratio and CET1 capital ratios, and how they can be achieved, and statements about future operating expense (including future litigation expense), amount and composition of future Assets under Supervision, planned debt issuances, growth of deposits and associated interest expense savings, future geographic location of its employees, and the timing and profitability of its business initiatives, including its launch of new businesses or new activities, its ability to increase its market share in incumbent businesses and its ability to achieve more durable revenues and higher returns from these initiatives, are forward-looking statements, and it is possible that the firm’s actual results may differ, possibly materially, from the targeted results indicated in these statements.

Forward looking statements, including those about the firm’s target ROE, ROTE, efficiency ratio, and expense savings, and how they can be achieved, are based on the firm’s current expectations regarding its business prospects and are subject to the risk that the firm may be unable to achieve its targets due to, among other things, changes in the firm’s business mix, lower profitability of new business initiatives, increases in technology and other costs to launch and bring new business initiatives to scale, and increases in liquidity requirements. Statements about the firm’s target ROE, ROTE and CET1 capital ratios, and how they can be achieved, are based on the firm’s current expectations regarding the capital requirements applicable to the firm and are subject to the risk that the firm’s actual capital requirements may be higher than currently anticipated because of, among other factors, changes in the regulatory capital requirements applicable to the firm resulting from changes in regulations or the interpretation or application of existing regulations or changes in the nature and composition of the firm’s activities. Statements about the timing and benefits of business and expense savings initiatives, the level and composition of more durable revenues and increases in market share are based on the firm’s current expectations regarding its ability to implement these initiatives and may change, possibly materially, from what is currently expected. Due to the inherent uncertainty in these forward-looking statements, investors should not place undue reliance on the firm’s ability to achieve these results.

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What Drives Our Success

We provide unparalleled advice and product experience to help individuals through all stages of their financial journeys.

- **Our Brand Signifies Credibility and Excellence**
- **Unwavering Commitment to Serving Our Clients**
- **Our Ability to Deliver the Entire Firm**
- **Advice-Led Technology-Enabled Client Solutions**
Serving Clients Across the Wealth Spectrum to Expand Our Addressable Market

<table>
<thead>
<tr>
<th>Customer Segment</th>
<th>Wealth Management</th>
<th>Consumer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ultra-High Net Worth (UHNW)</td>
<td>$&gt;10mm$ (investable assets)</td>
<td>High Net Worth (HNW)</td>
</tr>
<tr>
<td>Assets / Avg. Income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S. Market Size¹ (investable assets / deposits)</td>
<td>$10tn / $1.5tn$</td>
<td>$18tn / $3.1tn$</td>
</tr>
<tr>
<td>Goldman Sachs Wealth Market Share¹</td>
<td>~7%</td>
<td>&lt;1%</td>
</tr>
</tbody>
</table>

Advisor-Led | Digitally-Enabled

¹ Figures are as of 2020.
Our Client and Firm Investment Assets

Firmwide

- Total Assets: ~$2.3tn
- Institutional: ~$680bn
- Brokerage Assets: ~$280bn
- Wealth Management: ~$560bn
- 3rd Party Distributed: ~$610bn
- Non-Fee Earning: ~$130bn

Consumer & Wealth Management

- Total Assets: ~$840bn
- UHNW Fee Based AUS: ~$475bn
- HNW Fee Based AUS: ~$85bn
- Brokerage: ~$280bn
- Wealth Management: ~$560bn

Wealth Management

- Non-Fee Earning: ~$130bn

Institutional

- ~$680bn

Brokerage

- ~$280bn

Wealth Management

- ~$560bn

3rd Party Distributed

- ~$610bn

Non-Fee Earning

- ~$130bn

Loans / Card

- $28

Deposits

- $56

- Wealth Management
- Consumer
Long-Term Track Record of Growth

$5.2bn
Revenues

>90%
Management Fees or NII

Advisors

>50% Growth
~1,400

~900
2014

>40% Growth
~$840

~$590
2014

Client Assets ($bn)\(^1\)


Deposits ($bn)

+3x
$116

$60
2019

$35
2014

$56
2019

Wealth Management
Consumer
Executing a Clear Strategy for Growth

1. Growing Our Premier UHNW Wealth Business Globally
   - Increase advisors and capture embedded client opportunity

2. Expanding Our HNW Platform
   - Leverage corporate relationships and expand HNW franchise reach

   - Scale existing products, introduce new channels and launch new products
Leading Ultra-High Net Worth Platform

Leading Global Business in Fragmented Market

~800 advisors
~13,000 clients
~$3.5bn revenues
~$55mm avg. account size
~$475bn of AUS
>85% management fees or NII
~14 years avg. tenure per advisor
>$4mm advisor productivity

Growing Our ~3% Global Market Share
### Increase Scale via Global Advisor Growth

**Targeting 3-Year Global Advisor Growth of ~30% via ~250 new Private Wealth Advisors**

<table>
<thead>
<tr>
<th>Region</th>
<th>Advisors</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Americas</td>
<td>+20%</td>
<td>Organic talent development</td>
</tr>
<tr>
<td>EMEA</td>
<td>+50%</td>
<td>Experienced lateral hires with significant existing client business</td>
</tr>
<tr>
<td>APAC</td>
<td>+50%</td>
<td>Sourcing experienced hires with high growth potential</td>
</tr>
</tbody>
</table>

**Goldman Sachs UHNW AUS Mix**

- Americas: 84%
- EMEA: 11%
- Asia: 5%

1. Goldman Sachs UHNW AUS Mix
Capturing Embedded Opportunity with Existing Clients

Client Assets

- Brokerage: 33%
- HNW Fee Based AUS: 10%
- UHNW Fee Based AUS: 57%

~$840bn of Client Assets

~$475bn of UHNW AUS

Increase client returns via diversification

Lending Penetration

$28bn of Total WM Loans

- U.S. Penetration: 27%
- International Penetration: 8%

Liquidity: 16%
Fixed Income: 34%
Equity: 36%
Alts: 14%
Integrated Corporate Client Service through Ayco

Providing corporate clients and their employees a holistic wealth offering

- Financial counseling and family office
  - Full service integrated offering

- Personalized financial planning via dedicated advisor
  - Digital wealth, wellness and budgeting

- Live coaching
  - High-value banking products

Goldman Sachs Footprint

<table>
<thead>
<tr>
<th>Broader Employees</th>
<th>C-Suite</th>
</tr>
</thead>
<tbody>
<tr>
<td>~435 Corporations</td>
<td>&gt;1mm U.S. Employees</td>
</tr>
</tbody>
</table>

Target Opportunity

<table>
<thead>
<tr>
<th>Senior Level Executives</th>
<th>~1,500 Corporations¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>~40mm Est. Global Employees²</td>
<td></td>
</tr>
</tbody>
</table>

Total Market

| ~16,000 Corporations³ | ~50mm Est. U.S. Employees⁴ |
2 High Net Worth Expansion

High growth, U.S.-focused business in expansion mode

~600 advisors
~40,000 clients
~$85bn of AUS

~$0.9bn revenues
>95% management fees or NII

Present in 28 of top 30 U.S. metro areas¹

Growing from our <1% U.S. Market Share²
Building a Leading Digital Consumer Bank

Building the consumer bank of the future to address the spending, borrowing and saving needs for millions of customers and help them take control of their financial lives.

Our Vision

Our Criteria

Our Value Proposition

Demonstrating we are “on your side” through products that are:

- Simple
- Transparent
- Valuable
- Personal
- Secure
### Progress Three Years In

<table>
<thead>
<tr>
<th>Customers</th>
<th>Deposit Balances</th>
<th>Loan / Card Balances</th>
<th>Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.2mm</td>
<td>$12bn</td>
<td>$0.2bn</td>
<td>$2mm¹</td>
</tr>
<tr>
<td>~5mm</td>
<td>$60bn</td>
<td>~$7bn</td>
<td>~$860mm</td>
</tr>
<tr>
<td>2019</td>
<td>2019</td>
<td>2019</td>
<td>2019</td>
</tr>
</tbody>
</table>
Creating an Integrated Platform

- **Products**
  - Spend: Checking (2021)
  - Borrow: Credit Cards, Loans, Savings
  - Save: Invest / Wealth (2020)

- **Channels**
  - Direct Marketing
  - Financial Tools
  - Merchants at Point of Sale
  - Corporates (via Ayco)

- **Brand**
  - Marcus: Savings
  - Marcus: Insights
  - Marcus: Pay
  - Marcus: @Work

- **Partnerships**
  - Corporate Relationships: Partner / Co-Brand
Marcus by Goldman Sachs

Good morning. Remember that time is money.

- B. Franklin

Savings: $84,150.00

Online Savings-3059: $37,026.00

Certificate of Deposit-0124: $47,724.00

Online Savings-3059
Available balance: $20,032.00

Interest earned YTD: $339.60

Deposit from Bank-4321: $5,706.00

Interest Paid: $28.30

Make a transfer
Consumer Credit Risk Management

**Holistic Approach**

- Governance and Expertise
- Foundational Credit Decision Framework
- Risk-Focused Product Design
- Modern Technology Infrastructure

**Disciplined Risk Appetite**

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offer Presentment / Approval Rate</td>
<td>~25-30%</td>
</tr>
<tr>
<td>Avg. FICO Score at Origination</td>
<td>~740</td>
</tr>
<tr>
<td>Current Balances</td>
<td>~$7bn</td>
</tr>
</tbody>
</table>

Designed to drive resiliency and through-the-cycle performance
# Driving Higher Margins in Consumer & Wealth Management

## C&WM Metrics (2019)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net Revenues</strong></td>
<td><strong>$5.2bn</strong></td>
</tr>
<tr>
<td><strong>Pre-tax Earnings</strong></td>
<td><strong>$0.2bn</strong></td>
</tr>
<tr>
<td><strong>Pre-tax Margin</strong></td>
<td><strong>5%</strong></td>
</tr>
</tbody>
</table>

## 5-Year Consumer Opportunity

- **Grow to $125bn+**
  - Consumer Deposit Balances
- **Grow to $20bn+**
  - Loan / Card Balances
- **$700mm - $900mm**
  - Pre-tax Income ex-reserves

## C&WM Segment Forward Pre-tax Margin

<table>
<thead>
<tr>
<th></th>
<th>FY19</th>
<th>Medium-term</th>
<th>At scale</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre-tax Margin</strong></td>
<td><strong>5%</strong></td>
<td>~15%</td>
<td>&gt;20%</td>
</tr>
</tbody>
</table>
Consumer & Wealth Management

Eric Lane

January 29, 2020
End Notes

Note: Data as of 2019YE except where otherwise noted

These notes refer to the financial metrics and/or defined term presented on:

Slide 2:
1. UHNW market share reflects GS client assets in the Americas and personal financial assets of >$30mm. HNW market share reflects GS client assets in the US and personal financial assets between $1mm and $10mm. Source: McKinsey Wealth Pools, 2018. Market share calculated using GS total client assets figures. Deposits are included in investable asset figures and include retail current account deposits, savings deposits and term deposits

Slide 3:
1. Non-Fee Earning assets of ~$130bn includes Goldman Sachs balance sheet investments, employee funds, leverage, cost vs. fair value on Alternatives funds and unfunded capital commitments

Slide 4:
1. Client assets include Wealth Management AUS and brokerage assets

Slide 6:
1. Reflects both self-sustaining and non-self-sustaining advisors
2. Reflects self-sustaining advisors only
3. Based on total global UHNW market size of $26tn in investable assets per McKinsey Wealth Pools, 2018. Market share calculated using GS UHNW client assets figures. Deposits are included in investable asset figures and include retail current account deposits, savings deposits and term deposits

Slide 7:
1. Targeted growth from 2019YE through 2022YE

Slide 8:
1. Loans include bank loans, mortgages and GS Select; excludes Margin. Penetration measures PWM accounts with bank loan / mortgage products vs. total accounts by region

Slide 9:
1. Target corporations include existing corporate clients and prospects
2. Due to limited data availability of U.S. employee count, global employee estimate is included. Ayco target market is U.S.-only today. Source: 2019 Fortune 1000 & Forbes America's Largest Private Companies 2019 Ranking
3. Number of U.S. firms that are Corporations or S-Corporations with 500+ employees. Source: U.S. Census Bureau, 2016 Statistics of U.S. Businesses (SUSB) Annual Data Tables by Establishment Industry
End Notes

These notes refer to the financial metrics and/or defined term presented on:

Slide 10:
1. Source: U.S. Census Bureau
2. Based on total U.S. HNW market size of $18 trillion in investable assets per McKinsey Wealth Pools, 2018. Market share calculated using GS HNW client assets figures. Deposits are included in investable asset figures and include retail current account deposits, savings deposits and term deposits

Slide 12:
Note: Graphs not to scale
1. 2016 revenue does not include results from Consumer deposit-taking activities

Slide 15:
1. Metrics are across total loan and card portfolios and dollar-weighted; FICO at origination is account-weighted
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International Strategy

Richard Gnodde
Chief Executive Officer | Goldman Sachs International

January 29, 2020
Growth of International Footprint
A Remarkable, Organic Growth Story

<table>
<thead>
<tr>
<th></th>
<th>1990</th>
</tr>
</thead>
<tbody>
<tr>
<td>REVENUES$^1$</td>
<td>$0.7bn</td>
</tr>
<tr>
<td>HEADCOUNT$^1$</td>
<td>(~1,500)</td>
</tr>
<tr>
<td>OFFICES$^1$</td>
<td>8</td>
</tr>
</tbody>
</table>
Growth of International Footprint
A Remarkable, Organic Growth Story

<table>
<thead>
<tr>
<th>REVENUES¹</th>
<th>1990</th>
<th>2019</th>
<th>GROWTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0.7bn</td>
<td></td>
<td>~$15bn</td>
<td>+22x</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HEADCOUNT¹</th>
<th>1990</th>
<th>2019</th>
<th>GROWTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>~1,500</td>
<td></td>
<td>~17,800</td>
<td>+12x</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OFFICES¹</th>
<th>1990</th>
<th>2019</th>
<th>GROWTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td></td>
<td>41</td>
<td>+5x</td>
</tr>
</tbody>
</table>
Deep International Footprint: Differentiated in Reach and Share

The scale and breadth of our international businesses position us to better serve our clients.

~40% Firmwide Revenues ($bn)

By Region:
- Asia: $4.7
- EMEA: $9.7
- LatAm: $0.8

By Segment (EMEA & Asia):
- Investment Banking: 16%
- Asset Mgmt: 31%
- Consumer & Wealth Mgmt: 5%
- Global Markets: 48%

28% Pre-tax Margin

~45% Headcount

- ~40% Female
- ~100 Languages
- ~140 Nationalities
Deliver the Firm: One Goldman Sachs
A Local Client Accessing Global Capabilities

Global Markets

Investment Banking

Consumer & Wealth Management

Asset Management

Financing
- UHNW Clients
- Institutional Clients
- Goldman Sachs

Advisory & Underwriting
- Asset Divestitures
- Green Bond Issuance
- Strategic Advice

Investing
- Sustainable Investing Opportunity
Deliver the Firm: One Goldman Sachs
A Global Client Accessing Local Capabilities

Global Markets

Asset Management

Investment Banking

Consumer & Wealth Management

Trusted Advisor

Cross-border Acquisitions
Corporate Restructuring
Asset Sales / Divestitures
JV Formation

Long-term Financier

Lead IPO Underwriter
Bond and Loan Issuance

Provider of Intellectual Capital

Market Insights
Entry / Exit Strategies
Strategic Advice
Leading Global Investment Banking and Market Making Franchise Enabled by our International Footprint

<table>
<thead>
<tr>
<th>Investment Banking</th>
<th>EMEA</th>
<th>Asia Pacific</th>
<th>Latin America</th>
</tr>
</thead>
<tbody>
<tr>
<td>M&amp;A</td>
<td></td>
<td>#1</td>
<td></td>
</tr>
<tr>
<td>Equity Underwriting</td>
<td></td>
<td>#2</td>
<td></td>
</tr>
<tr>
<td>High Yield Debt</td>
<td></td>
<td>#4</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Global Markets</th>
<th>FICC</th>
<th>#2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Equities</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Asset Management</th>
<th>Alternatives</th>
<th>Leading Platform</th>
</tr>
</thead>
<tbody>
<tr>
<td>GSAM</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Consumer &amp; Wealth Management</th>
<th>Private Wealth</th>
<th>Growing Platform</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Firmwide Strategy Consistent Globally

<table>
<thead>
<tr>
<th>Grow and Strengthen Existing Businesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment Banking client expansion</td>
</tr>
<tr>
<td>Grow in new geographies</td>
</tr>
<tr>
<td>Wealth Management penetration</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Diversify Our Products and Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Build Transaction Banking</td>
</tr>
<tr>
<td>Grow third party Alternatives</td>
</tr>
<tr>
<td>Scale Consumer Banking</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Operate More Efficiently</th>
</tr>
</thead>
<tbody>
<tr>
<td>Invest in automation and digitization</td>
</tr>
<tr>
<td>Streamline organizational structure</td>
</tr>
<tr>
<td>Grow strategic locations</td>
</tr>
</tbody>
</table>
Substantial and Growing Footprint in Developed Markets

**Continental Europe**

- Longstanding presence in large and diverse region – Goldman Sachs well positioned to benefit from competitive dynamics and development of EU capital markets
- Evolving structure of European bank balance sheets creating commercial opportunities
- Market share opportunities as large competitors reposition
- Incremental push to complete EU Banking and Capital Markets Union, stimulating cross-border activity
- Significant growth in EU-27 headcount, moving coverage closer to our clients
Substantial and Growing Footprint in Developed Markets

Japan

Japan is one of the highest revenue contributors in the APAC region with opportunity to grow our strong franchise.

- Leading international bank in well-developed and significant market
- Engage in transformational domestic transactions, as well as cross-divisional focus on Alternatives products
- Grow market share through rollout of systematic execution platform with competitive pricing
- Facilitate transaction banking for global clients
China: Expand Footprint Across Developing Markets

GS China Background

25+ Years Onshore in China
Established in 1994

#1 Foreign Firm
in Equity and M&A

$10bn Invested in China
Principal Investments over the last 25 years

Shifting Landscape

Acceleration of Capital Markets Reforms
Rebalancing of Funding from Banking System to Capital Markets
Structural Change in Asset Management

$100bn+
Estimated Industry Revenue Pool by mid-2020s

Significant Opportunities

1 Increase in foreign inflows to onshore trading markets
2 Increase in cross-border Investment Banking activities
3 Expand Private Wealth and Asset Management franchises

Achieve 100% ownership of our business

China is a major focus area with an increasing addressable market and opportunity set
Alternative Investment Platform Operating at Scale

Well-diversified portfolio and pipeline of alternative investments with track record of delivering strong returns

>400
Investment professionals based across 18 countries outside the U.S.

>50%
of 3rd party capital raised from international investors

~$110bn
of alternative assets internationally

~35%
of global alternative assets

>$20bn
of alternative assets invested in developing markets
Alternative Investment Platform

Well-diversified portfolio and pipeline of alternative investments with track record of delivering strong returns
Alternative Investment Platform to Scale Further

~$100bn Alternatives Net Inflows Global Long-term Target\(^1\)

Our international franchise will be a critical contributor in achieving our firmwide targets
Unique Wealth Management Capabilities with Room to Increase Share

Global UHNW Investable Assets ($tn)¹

$9
$8
~1%

~$26tn Global Assets

<1%

~7%

Americas
EMEA
Asia

GS market share²

Medium-term Expectations
Goal to hire ~250 new Private Wealth Advisors globally

- Advisor growth to achieve scale in key geographies: China, Germany, U.K. and Switzerland
- Investing in platform capabilities, e.g. Swiss bank and China onshore RMB

+50%
EMEA
+50%
APAC
# Key Takeaways

<table>
<thead>
<tr>
<th>Continue to grow longstanding franchises</th>
<th>Scale Alternatives and Wealth Management Businesses</th>
<th>Operating Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintain leading position and strengthen our footprint in Europe, Japan, and China</td>
<td>Focus on fundraising to scale our third party alternative assets under supervision and addressing the under-penetrated UHNW space</td>
<td>Continue to improve efficiency in line with the firm, including growth in strategic locations</td>
</tr>
</tbody>
</table>
These notes refer to the financial metrics and/or defined term presented on:

Slide 1:
1. Excludes the U.S. and Canada from total international figures

Slide 2:
1. Excludes the U.S. and Canada from total international figures

Slide 3:
1. International revenues by segment and pre-tax margin are non-GAAP presentations and may not be comparable to similar non-GAAP presentations used by other companies. We believe that calculating these measures on this basis is meaningful because it is consistent with the way management views our international businesses. Pre-tax margin excludes U.S. and Canada figures and is calculated including $820mm of total net revenues and $254mm of total pre-tax earnings from Latin America, with Latin America using the pre-tax margin for the Americas.

Slide 4:
Note: Third-party brands used in this presentation are the property of their respective owners and are not intended to imply an affiliation with or endorsement of GS or its products/services.

Slide 5:
Note: Third-party brands used in this presentation are the property of their respective owners and are not intended to imply an affiliation with or endorsement of GS or its products/services.

Slide 6:
1. Source: Dealogic rankings for 2015 to 2019
2. Source: Coalition institutional client analytics for FY2018. Institutional clients only. Analysis excludes captive and non-core products

Slide 10:
1. Source: Dealogic; from 1994 to 2019
2. Includes investments in the firm and clients
3. Source: Based on GIR estimates; industry pool primarily domestic

Slide 11:
1. Includes 3rd party capital committed in recent MBD Funds. Recent MBD Funds include Loan Partners III, Real Estate Credit Partners III, Mezzanine Partners VII, Capital Partners VII, China Coop Fund and Infrastructure Partners III as of 3Q19; includes open architecture 3rd party capital as of 2Q19 from most recent completed fundraises for core funds currently earning management fees (PEM 2018, Vintage VII, Petershill Private Equity, Private Equity Co-Investment Partners II).
End Notes

Slide 12:
Note: Third-party brands used in this presentation are the property of their respective owners and are not intended to imply an affiliation with or endorsement of GS or its products/services

Slide 13:
1. Growth shown net of realizations

Slide 14:
1. Represents global personal financial assets >$30mm Source: McKinsey Wealth Pools; Includes cash deposits, investments, life insurance and pensions / retirement assets
2. GS market share reflects client assets from our Wealth Management business as of 2019YE
Cautionary Note on Forward-Looking Statements

Statements about the firm’s target metrics, including its target ROE, ROTE, efficiency ratio and CET1 capital ratios, and how they can be achieved, and statements about future operating expense (including future litigation expense), amount and composition of future Assets under Supervision, planned debt issuances, growth of deposits and associated interest expense savings, future geographic location of its employees, and the timing and profitability of its business initiatives, including its launch of new businesses or new activities, its ability to increase its market share in incumbent businesses and its ability to achieve more durable revenues and higher returns from these initiatives, are forward-looking statements, and it is possible that the firm’s actual results may differ, possibly materially, from the targeted results indicated in these statements.

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A Culture of Innovation

Marco Argenti
Co-Chief Information Officer

Stephanie Cohen
Chief Strategy Officer

January 29, 2020
The Potential of Platforms

- Build leading technology
- Externalize these services
- Developers are first class citizens
Innovation is Fundamental to Our Strategy

- Unique Position in the Innovation Economy
- Dynamic Approach
- Strength in Execution
Innovation is Fundamental to Our Strategy

Building platforms that benefit the firm, our clients and our shareholders
Unique Position in the Innovation Economy
Unique Position in the Innovation Economy

- Global Markets
- Investment Banking
- Asset Management
- Consumer & Wealth Management
Pace of Innovation Requires a Dynamic Approach

Driving a more durable and higher returning business mix
Pace of Innovation Requires a Dynamic Approach

Driving a more durable and higher returning business mix
Pace of Innovation Requires a Dynamic Approach

Direct Marketing

Financial Tools App

Merchants at Point-of-Sale

Corporate (via Ayco)

Corporate Relationships

Partner Ecosystem

Checking

Cards

Loans

Savings

Invest/Wealth

Banking-as-a-Service

Build

Buy

Invest

Partner

Individual Clients
Strength in Execution | Global Markets

- **ALGORITHMS**
- **SMART ORDER ROUTERS**
- **DIRECT MARKET ACCESS**

Trading Platform

- **External Liquidity**
  - Bilateral Relationships
  - Exchanges
  - Dark Pools

- **Internal Liquidity**
  - Equity & FICC
  - Systematic Market Making

- **Systematic Clients**
- **Fundamental Hedge Funds**
- **Broker Dealers**
One Goldman Sachs as a Platform

GOLDMAN SACHS PLATFORM

- Risk
- Analytics
- Payments
- Data
- Custody
- Clearing
- Advice

Internal

Corporations and Governments

Institutions

External

Individuals
Goldman Sachs | From Service Provider…to Platform

Simplify the complex services we provide to clients into component pieces
Driving Value for the Firm, Our Clients and Our Shareholders

Build technology platforms as its own first customer

Drive scale advantages and fee-based revenues

Internal developers access the same APIs as clients
Innovation at Goldman Sachs – Key Takeaways

We have a unique position in the innovation economy

We have a dynamic framework and proven track record

We have a client-centric platform strategy

Innovation will drive value for our clients, communities and shareholders
A Culture of Innovation

Marco Argenti
Co-Chief Information Officer

Stephanie Cohen
Chief Strategy Officer

January 29, 2020
End Notes

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Slide 5:

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Slide 8:

Note: Includes products under development
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Fixed Income Investor
Breakout Session

Beth Hammack, Rajashree Datta, Carey Halio

January 29, 2020
Panelist Overview

Beth Hammack
Global Treasurer

Carey Halio
CEO of Goldman Sachs Bank USA
and Deputy Treasurer

Rajashree Datta
Global Head of Liquidity Risk
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#gsfi
Role of Corporate Treasury

Corporate Treasury supports the firm’s strategic priorities

**Liability Businesses**
- Marcus
- Private Wealth Management
- Global Markets
- Transaction Banking

**Corporate Treasury Responsibilities**
- Receive Funding Rate
- Sell Marginal Funding
- Resource Allocation
- Asset-Liability Management
- Pay Funding Rate
- Buy Marginal Funding
- Funding Risk Management
- Liquidity Risk Management

**Asset Businesses**
- Marcus
- Private Wealth Management
- Global Markets
- Investment Banking
- Asset Management
Funding and Liquidity Management

Key Tenets of our Strategy

1. Further diversify funding mix via deposits
2. Enhance Asset-Liability Management
3. Optimize liquidity pool

Target State

Increasing high-quality deposits to improve funding diversification and generate $1.0bn in revenues through lower interest expense.
Spotlight on Funding Mix Transformation

Strategic deposit growth will diversify mix and improve funding costs

2015
- Deposits: 31%
  - Wholesale Unsecured: 69%

2019
- Deposits: 43%
  - Wholesale Unsecured: 57%

Medium-term
- Deposits: 50%
  - Wholesale Unsecured: 50%

+ $92bn
+ $100bn

Consumer
Private Bank
Institutional
Brokered CDs
Sweep Program

Central Channels

Strategic Business Channels
Liquidity Risk Management

We maintain a conservative liquidity framework relative to peers

- Liquidity pool management based on our Modeled Liquidity Outflow (MLO)
  - MLO assesses the firm’s potential liquidity risks under a combination of very conservative market-wide and firm-specific stressed scenarios
- Methodologies continuously refined to reflect changes in markets and our business mix
- Global Core Liquid Assets (GCLA) are generally a subset of High Quality Liquid Assets (HQLA) as it reflects a more conservative set of assets

Average Liquidity Coverage Ratio Trend

<table>
<thead>
<tr>
<th></th>
<th>1Q18</th>
<th>2Q18</th>
<th>3Q18</th>
<th>4Q18</th>
<th>1Q19</th>
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<tr>
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<td>134%</td>
<td>133%</td>
<td>134%</td>
<td>127%</td>
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<tr>
<td>U.S. Peer Average</td>
<td>121%</td>
<td>120%</td>
<td>120%</td>
<td>118%</td>
<td>117%</td>
<td>116%</td>
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<td>118%</td>
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<tr>
<td>100% Requirement</td>
<td>134%</td>
<td>133%</td>
<td>134%</td>
<td>127%</td>
<td>121%</td>
<td>120%</td>
<td>120%</td>
<td>117%</td>
</tr>
</tbody>
</table>

We maintain a conservative liquidity framework relative to peers.
LIBOR Transition

We are committed to ensuring a seamless transition for our clients, the marketplace and our firm

Leadership Accountability

- Appointed a Chief LIBOR Transition Officer and established a centralized LIBOR transition program in early 2018

Meeting Investor Needs

- Issued over $2bn of floating rate notes which are not reliant on LIBOR

Manageable LIBOR Exposure

- Majority of our LIBOR exposures in derivatives, where we expect a reasonably orderly transition given industrywide ISDA protocols

Outstanding Vanilla Debt and Preferred Shares Referencing USD LIBORs ($bn)\(^1\)

- Total Debt $39.7
- Total Preferred Shares $9.4
- $5.3bn of debt will mature before 2022

1 Total includes $1bn of preferred shares which are not referenced to LIBOR.
End Notes

These notes refer to the financial metrics and/or defined term presented on:

Slide 5:
1. Relative value of shift to deposits will change as credit spreads and overnight/term interest rates change
2. Medium-term refers to 3 year time horizon

Slide 6:
1. 4Q19 liquidity coverage ratio (LCR) is preliminary
2. GCLA includes U.S. Treasuries and agencies and other highly liquid government bonds. HQLA, as defined by the U.S. Liquidity Coverage Ratio, includes additional sovereign bonds, equities, and corporate bonds, subject to criteria set forth in the rule
3. U.S. peers include commercial banking peers JPM, BAC, C and WFC

Slide 7:
1. Represents debt and preferred shares outstanding as of December 2019
Cautionary Note on Forward-Looking Statements

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The Future of Market Structure
Breakout Session

Ezra Nahum, Elizabeth Martin, Amy Hong

January 29, 2020
Panelist Overview

Ezra Nahum
Head of Global Markets Engineering and Operations

Elizabeth Martin
Global Head of Equities Electronic Execution Services

Amy Hong
Global Head of Market Structure Strategy
Ask a Question

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Market Structure Evolution: Catalysts and Secular Trends

1. Increased Regulation

2. Technology Development

Continuum of Market Structure Evolution

3. Changing Landscape
Market Structure Evolution: Catalysts and Secular Trends

1. Increased Regulation

2. Technology Development

Continuum of Market Structure Evolution

3. Changing Landscape
Market Structure Evolution: Catalysts and Secular Trends

1. Increased Regulations

- Dodd Frank
- MM Reform
- U.S. Stay Rule
- Volcker Rule 2.0
- Reg NMS

2. Global / Non-U.S. Regulations
- Brexit
- MAR
- MiFID II
- Margin Rules
- ESMA

U.S. Regulations

Market Participants

Global / Non-U.S. Regulations
Example of a Vanilla Interest Rate Swap Trade

Pre-Trade and Execution

HK-based Client → Trading Venue (SEF)

Post-Trade and Position Management

HK-based Client → CCP → Goldman Sachs International → Trading Venue (SEF)

Risk Management

CCP → CCP → Goldman Sachs Bank USA

Increasingly complex and dynamic regulatory environment…

…driving the need for global scale in technology and efficiencies in execution and downstream services

Market Structure Evolution: Catalysts and Secular Trends
Market Structure Evolution: Catalysts and Secular Trends

Continuum of Market Structure Evolution

1. Increased Regulation
2. Technology Development
3. Changing Landscape
Market Structure Evolution: Catalysts and Secular Trends

Technology Development

Data is Growing¹

Data in zettabytes (ZB)

<table>
<thead>
<tr>
<th>Year</th>
<th>2009</th>
<th>2013</th>
<th>2016</th>
<th>2019E</th>
<th>2022E</th>
<th>2025E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data (ZB)</td>
<td>0.8</td>
<td>3</td>
<td>6</td>
<td>175</td>
<td>175</td>
<td>175</td>
</tr>
</tbody>
</table>

CAGR: 40%

Execution Speed is Increasing²

<table>
<thead>
<tr>
<th>Year</th>
<th>2009</th>
<th>2015</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed Improvement</td>
<td>~3,000x Faster</td>
<td>~1,000 Micros</td>
<td>10 Micros</td>
</tr>
</tbody>
</table>

¹ Data is growing at a CAGR of 40%.
² Execution speed is increasing by approximately 3,000x faster.
Market Structure Evolution: Catalysts and Secular Trends

1. Increased Regulation

2. Technology Development

Continuum of Market Structure Evolution

3. Changing Landscape
Market Structure Evolution: Catalysts and Secular Trends

### Significant Growth in Passive AUM¹

- **Passive Equity AUM ($bn)**
- **Passive Fixed Income AUM ($bn)**
- **Passive % of Global Equity AUM (RHS)**
- **Passive % of Global Fixed Income (RHS)**

**$10.7tn in passive funds globally**

**$19.1tn in active funds globally**

---

¹ CAGR: Compound Annual Growth Rate
Evolving Our Business for the Future

Secular Forces

Regulatory Changes

Technological Innovation

Impact

Lower Market Liquidity

Higher Capital Consumption

Active to Passive Shift

Changing Competitive Dynamics
Leveling the playing field with a best in class technology foundation centered on delivering value to clients.

Client-centric Global Equities Execution Platform

Growth in Systematic
Systematic Wallet\(^1\) ($bn)

<table>
<thead>
<tr>
<th>Year</th>
<th>Value ($bn)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>$1.8</td>
</tr>
<tr>
<td>2018</td>
<td>$3.6</td>
</tr>
</tbody>
</table>

\(2x\) Growth

Client value drivers

- Global footprint
- Multi-service
- Flexible swap or cash format
- Quantitative execution

Foundations

- High performance post trade capabilities
- Integrated unique liquidity
- Integrated securities lending capacity
- Customizable

- Flexibility
- Speed
- Resiliency
- Scale

1. Systematic Wallet refers to the growth in systematic execution volume over the specified period.
Goldman Sachs Ecosystem

- **Pricing Capabilities**
  - Bond Pricing Engine
  - Trading Talent
  - Algo
  - Marquee
  - >6 million price updates daily across 32,000 CUSIPs
  - GS liquidity in over 15,000 CUSIPs
  - Pricing over 10,000 inquiries daily

- **Execution and Risk Management**
  - Single Bond Execution
  - Portfolio Trades
  - Bond ETFs

- **Services**
  - Order/Execution Management Systems
  - Multilateral Venues
  - Bilateral APIs

- **Clients**
  - Pre-trade transparency
  - Ease of execution
  - Workflow benefits
Evolving Our Business for the Future

Secular Forces

- Regulatory Changes
- Technological Innovation

Impact

- Lower Market Liquidity
- Higher Capital Consumption
- Active to Passive Shift
- Changing Competitive Dynamics

Opportunities

- Expand Risk Intermediation Advantage
- Increase Client Financing Activities
- Enhance Client Experience

Growing Share and Returns
End Notes

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Slide 8:
1. Source: IDC, “The Digital Universe in 2020” and “Data Age 2025”
2. Reflects internal execution speed for a vanilla US Cash Equity

Slide 10:
1. Source: Morningstar; Based on worldwide retail funds across Open-Ended and ETF investment types as of November 2019

Slide 12:
1. Source: Coalition institutional client analytics. Wallet includes cash execution and cash and synthetic financing wallet for leading systematic clients
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Risk Management
Breakout Session

Brian Lee, Sheara Fredman, Karen Seymour, Sarah Smith

January 29, 2020
Panelist Overview

Brian Lee
Chief Risk Officer

Karen Seymour
General Counsel

Sarah Smith
Chair of Global Compliance

Sheara Fredman
Chief Accounting Officer
Ask a Question

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#gsrisk
Risk Management at Goldman Sachs

- Culture of Risk Management
- Process and Structural Oversight
- Continuous Improvement
Risk Management at Goldman Sachs

Culture of Risk Management

Continuous Improvement

Process and Structural Oversight

Culture of Risk Management

- Disciplined risk-reward approach
- Deep bench of risk managers
- Consensus-driven decision making
Risk Management at Goldman Sachs

Culture of Risk Management

Process and Structural Oversight

Continuous Improvement

Process and Structural Oversight

- Independent controls and governance
- Comprehensive stress testing
- Mark-to-market discipline

Mark-to-market discipline
Risk Management at Goldman Sachs

Culture of Risk Management

Process and Structural Oversight

Continuous Improvement

1. Risk Appetite and Cycle Preparedness
2. Capital Adequacy and Prudential Regulation
3. Cybersecurity Risk
4. Reputational Risk and Compliance
Risk Appetite and Cycle Preparedness

Managing Across the Risk Continuum

- Severity and Asset Correlation

- Frequency

High Severity

Severely Adverse
Risk Appetite and Cycle Preparedness

Severity and Asset Correlation

Low Severity

- BAU
  - Consumer Credit
  - Credit Spread Widening
  - Equity Price Volatility

- Adverse
  - Brexit
  - Trade War
  - Oil Shock

- Severe
  - Global Financial Crisis
  - CCAR
  - Liquidity Risk

Frequency

+ Severely Adverse

- Low Severity
2 Prudently Managing Capital
Adapting to New Regulations and Conservatively Positioned for Growth

Resilient Capital Ratios (Standardized CET1)\(^1\)

<table>
<thead>
<tr>
<th>Quarter</th>
<th>3Q17</th>
<th>YE17</th>
<th>YE18</th>
<th>YE19</th>
<th>Target</th>
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</thead>
<tbody>
<tr>
<td>CET1%</td>
<td>13.0</td>
<td>11.9</td>
<td>13.3</td>
<td>13.3</td>
<td>13.0-13.5</td>
</tr>
</tbody>
</table>

$4.4bn Impact from Tax Reform

Dynamic Capital Management
In-Line with Target Capital Levels

Continuous Adaptation to Capital Requirements

Past
- Basel III
- G-SIB
- SCB

Future
- FRTB
- SA-CCR
- SLR

2 Resilient Capital Ratios (Standardized CET1)

Prudently Managing Capital
Adapting to New Regulations and Conservatively Positioned for Growth

Future

Past

2 Resilient Capital Ratios (Standardized CET1)
Mitigating Cyber Risks

Key Priority: Protect the Firm and Our Clients

1. **Identify**
   - Emerging threats and critical data

2. **Protect**
   - Security controls, penetration tests and “bug bounty” program

3. **Detect**
   - Cyber threats, leveraging tools and shared information

4. **Respond**
   - To events quickly and effectively

5. **Recover**
   - Rapidly restore applications and critical data

Continue to invest to maintain operational resilience
Reputational Risk and Compliance

Continuously Improving from a Solid Foundation

Key Focus Areas

- **Reputational Risk**
  - Comprehensive Reputational Risk Framework & training
  - Establishment of regional vetting groups for transactions
  - Enhanced regional supervision framework

- **Insider Threat**
  - Establishment of Insider Threat and Conduct Committee
  - Increased supervision and supervisory metrics
  - Heightened profile of whistleblower program

- **Surveillance**
  - Sophisticated search tools
  - Innovative technology
  - Targeted electronic surveillance

- **Conduct**
  - Tone from the top
  - Consequences of misconduct
  - Chairman’s Forum
Risk Management
Breakout Session

Brian Lee, Sheara Fredman, Karen Seymour, Sarah Smith

January 29, 2020
End Notes

These notes refer to the financial metrics and/or defined term presented on:

Slide 9:

1. As of September 30, 2017 and December 31, 2017, the firm’s capital ratios on a fully phased-in basis were non-GAAP measures and may not be comparable to similar non-GAAP measures used by other companies. Management believes that the firm’s capital ratios on a fully phased-in basis are meaningful because they are the measures that the firm and investors use to assess capital adequacy. The table below presents reconciliations, for the Standardized approach, of common equity tier 1 and risk-weighted assets on a transitional basis to a fully phased-in basis as of September 30, 2017 and December 31, 2017 (unaudited, $ in billions)

<table>
<thead>
<tr>
<th>Standardized CET1 Ratio</th>
<th>As of September 30, 2017</th>
<th>As of December 31, 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common equity tier 1, transitional basis</td>
<td>$71.9</td>
<td>$67.1</td>
</tr>
<tr>
<td>Transitional adjustments</td>
<td>(0.2)</td>
<td>(0.1)</td>
</tr>
<tr>
<td>Common equity tier 1, fully phased-in basis</td>
<td>$71.7</td>
<td>$67.0</td>
</tr>
<tr>
<td>Risk-weighted assets, transitional basis</td>
<td>$540</td>
<td>$556</td>
</tr>
<tr>
<td>Transitional adjustments</td>
<td>13</td>
<td>8</td>
</tr>
<tr>
<td>Risk-weighted assets, fully phased-in basis</td>
<td>$553</td>
<td>$564</td>
</tr>
<tr>
<td>Common equity tier 1 ratio, transitional basis</td>
<td>13.3%</td>
<td>12.1%</td>
</tr>
<tr>
<td>Common equity tier 1 ratio, fully phased-in basis</td>
<td>13.0%</td>
<td>11.9%</td>
</tr>
</tbody>
</table>
Cautionary Note on Forward-Looking Statements

Statements about the firm’s target metrics, including its target ROE, ROTE, efficiency ratio and CET1 capital ratios, and how they can be achieved, and statements about future operating expense (including future litigation expense), amount and composition of future Assets under Supervision, planned debt issuances, growth of deposits and associated interest expense savings, future geographic location of its employees, and the timing and profitability of its business initiatives, including its launch of new businesses or new activities, its ability to increase its market share in incumbent businesses and its ability to achieve more durable revenues and higher returns from these initiatives, are forward-looking statements, and it is possible that the firm’s actual results may differ, possibly materially, from the targeted results indicated in these statements.

Forward looking statements, including those about the firm's target ROE, ROTE, efficiency ratio, and expense savings, and how they can be achieved, are based on the firm's current expectations regarding its business prospects and are subject to the risk that the firm may be unable to achieve its targets due to, among other things, changes in the firm’s business mix, lower profitability of new business initiatives, increases in technology and other costs to launch and bring new business initiatives to scale, and increases in liquidity requirements. Statements about the firm's target ROE, ROTE and CET1 capital ratios, and how they can be achieved, are based on the firm’s current expectations regarding the capital requirements applicable to the firm and are subject to the risk that the firm’s actual capital requirements may be higher than currently anticipated because of, among other factors, changes in the regulatory capital requirements applicable to the firm resulting from changes in regulations or the interpretation or application of existing regulations or changes in the nature and composition of the firm's activities. Statements about the timing and benefits of business and expense savings initiatives, the level and composition of more durable revenues and increases in market share are based on the firm's current expectations regarding its ability to implement these initiatives and may change, possibly materially, from what is currently expected. Due to the inherent uncertainty in these forward-looking statements, investors should not place undue reliance on the firm’s ability to achieve these results.

For a discussion of some of the risks and important factors that could affect the firm’s future business, results and financial condition, see “Risk Factors” in our Annual Report on Form 10-K for the year ended December 31, 2018. You should also read the cautionary notes on forward-looking statements in our Form 10-Q for the period ended September 30, 2019 and Earnings Results Presentation for the Full Year and Fourth Quarter 2019. For more information regarding non-GAAP financial measures such as ROTE, refer to the footnotes in the Earnings Release and Earnings Presentation for the Full Year and Fourth Quarter 2019 and information on the calculation of non-GAAP financial measures that is posted on the Investor Relations portion of our website: www.goldmansachs.com.

The statements in the presentation are current only as of January 29, 2020 and the firm does not undertake to update forward-looking statements to reflect the impact of subsequent events or circumstances.
Sustainability
Breakout Session

Asahi Pompey, Margaret Anadu, John Goldstein

January 29, 2020
Panelist Overview

Asahi Pompey  
Global Head of Corporate Engagement and President of Goldman Sachs Foundation

Margaret Anadu  
Head of Urban Investment Group

John Goldstein  
Head of Sustainable Finance Group
Ask a Question

Submit a question via the app

Submit a question via email

PLEASE EMAIL THE ADDRESS BELOW:

events@gs.com

WITH SUBJECT:

#gsesg
OUR PURPOSE

We advance sustainable economic growth and financial opportunity

DRIVING OUR PURPOSE THROUGH FIVE KEY SUSTAINABILITY THEMES

Drive Sustainable Growth

Increase Financial Empowerment

Advance Environmental Progress

Invest in Our People

Manage Responsibly
A Commercial Approach To Sustainable Finance

$750bn

Sustainable Finance by 2030

CLIMATE TRANSITION

INCLUSIVE GROWTH

Waste and Materials
Clean Energy
Food and Agriculture
Sustainable Transport
Ecosystem Services
Financial Inclusion
Accessible and Affordable Education
Communities
Accessible and Innovative Healthcare
Sustainable Finance Group: Mobilizing Expertise Across the Firm

Growing commercial opportunity to address full spectrum of our clients’ ESG needs

**Investor**
- Drive Stakeholder Value Through Investments
- ESG Treasury / Cash Management

**Business**
- ESG Products and Services
- Strategic M&A

**Issuer**
- Profusion of Ratings and Reporting
- Green Bonds and ESG-linked Capital

**Operator**
- Community Engagement
- Diversity Initiatives

**Employer**
- Attract, Retain, and Engage Talent
- Provide Additional Resources
Urban Investment Group

UIG’s unique commitment to building deep relationships within our communities creates differentiated commercial opportunities that are accretive to firmwide returns

A Flexible Investing Approach Leads to…

- Equity
- Debt
- Tax Credit Equity

...A Wide Range of Impacts

- Sustainable Transport
- Financial Inclusion
- Accessible and Affordable Education
- Communities

- NYC Bikeshare: Largest investor in launch of privately financed bike program
- Climb Credit: Largest capital provider to student lender
- Port Covington: Lead Investor transforming 177 acres in Baltimore
Urban Investment Group

1. Innovative Solutions for a Range of Clients
2. Experienced Team and a Proven Strategy
3. Well Positioned to be a First Mover

$8.5bn Invested to date
19 years Of investing in underserved areas
300+ Investments made to date

$2.8bn development financed in opportunity zones
2017: financed public housing energy retrofits through largest ever energy performance contract
2016: financed world’s largest indoor aeroponic farm
2012: lead investor in the first social impact bonds in the US
Corporate Engagement: Unlocking Economic Empowerment

Focused efforts on two signature entrepreneurship programs, partner giving and employee volunteerism.

**Community Engagement**
- Volunteer days through Community TeamWorks (CTW)
- 452k

**10,000 Women**
- Countries
- 100+

**10,000 Small Businesses**
- U.S. Total employees
- 175k+

Need-based scholarships through GS Gives
- U.S. Total revenues
- $12bn

Capital catalyzed with partners
- $1.4bn
Sustainability
Breakout Session

Asahi Pompey, Margaret Anadu,
John Goldstein

January 29, 2020
End Notes

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Slide 4:
Note: The target includes financing, investing and advisory activity across our businesses

Slides 6 & 7:
Note: Third-party brands used in this presentation are the property of their respective owners and are not intended to imply an affiliation with or endorsement of Goldman Sachs or its products/services
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