Fixed Income Investor Presentation

Philip Berlinski, Global Treasurer
Sheara Fredman, Chief Accounting Officer and Controller

November 9, 2023
Committed to Our Strategy

- Grow and Strengthen Existing Businesses
- Diversify Our Products and Services
- Operate More Efficiently

Driving Credit Positives

- Enhanced Franchise Strength
  - +370bps wallet share gains in GBM since 2019YE\(^1\)

- More Stable, Durable Revenues and Earnings
  - >50% growth in Management & other fees since 2019YE\(^2\)

- Strong Capital Position
  - 14.8% Standardized CET1 ratio, 180bps buffer\(^3\); 68% reduction in HPI assets\(^4\) since 2019YE

- Increasingly Diversified Funding Mix
  - 112% growth in deposits since 2019YE

\(^1\) \(^2\) \(^3\) \(^4\)
Managing Key Risks in the Current Environment

- Deeply experienced first-line risk takers
- Independent risk oversight and control function
- Mark-to-market discipline and stress testing
- Disciplined risk-reward approach

1. Culture of risk management
2. Process and structural oversight
3. Continuous improvement

Since 4Q19
- >30% Increase in common shareholders’ equity
- >70% Increase in average global core liquid assets (GCLA)
- -11ppts Decrease in unsecured borrowings as % of total funding

Credit risk
Market risk
Operational risk
Liquidity risk
Capital risk
Reputational risk
Compliance risk
Climate risk
Model risk
Asset Quality & Credit Overview

Loan Portfolio Breakdown ($bn)

<table>
<thead>
<tr>
<th></th>
<th>3Q23</th>
<th>2Q23</th>
<th>3Q22</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate</td>
<td>37</td>
<td>38</td>
<td>40</td>
</tr>
<tr>
<td>Commercial real estate</td>
<td>26</td>
<td>28</td>
<td>30</td>
</tr>
<tr>
<td>Residential real estate</td>
<td>24</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>Securities-based</td>
<td>15</td>
<td>15</td>
<td>18</td>
</tr>
<tr>
<td>Other collateralized</td>
<td>55</td>
<td>54</td>
<td>49</td>
</tr>
<tr>
<td>Installment</td>
<td>6</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Credit cards</td>
<td>18</td>
<td>17</td>
<td>14</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Allowance for loan losses</td>
<td>(5)</td>
<td>(5)</td>
<td>(5)</td>
</tr>
<tr>
<td><strong>Total Loans</strong></td>
<td><strong>$178</strong></td>
<td><strong>$178</strong></td>
<td><strong>$177</strong></td>
</tr>
</tbody>
</table>

3Q23 Corporate Loans by Industry

- **TMT**: 26%
- **Industrials**: 17%
- **Real Est.**: 12%
- **Healthcare**: 10%
- **Consumer & Retail**: 10%
- **Natural Resources & Utilities**: 9%
- **Fin. Inst.**: 7%
- **Other Funds**: 4%

3Q23 Key Credit Metrics

- **2.9%**: ALLL to Total Gross Loans
- **1.7%**: ALLL to Gross Wholesale Loans
- **13.3%**: ALLL to Gross Consumer Loans
- **1.0%**: Annualized Net Charge-off Rate
- **0.4%**: Wholesale Annualized Net Charge-off Rate
- **5.1%**: Consumer Annualized Net Charge-off Rate
Strategic Asset Growth in Bank Entities

Assets in Bank Entities

<table>
<thead>
<tr>
<th>Year</th>
<th>GS Bank</th>
<th>GSIB</th>
<th>Percent of Firmwide Assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>25%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td>25%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2021</td>
<td>29%</td>
<td></td>
<td>+9ppts</td>
</tr>
<tr>
<td>2022</td>
<td>34%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Key Highlights

- Growing our bank footprint as a percent of our overall firm
- Central to the firm’s strategic objectives of strengthening existing businesses and diversifying business mix
- Optimizing the firm’s funding, liquidity and capital position
Increasingly Diversified Funding Mix

Funding Mix Evolution

- Deposits
- Unsecured Borrowings
- Collateralized Financings
- Equity

<table>
<thead>
<tr>
<th></th>
<th>4Q19</th>
<th>3Q23</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deposits</td>
<td>13%</td>
<td>11%</td>
</tr>
<tr>
<td>Unsecured Borrowings</td>
<td>37%</td>
<td>26%</td>
</tr>
<tr>
<td>Collateralized Financings</td>
<td>22%</td>
<td>27%</td>
</tr>
<tr>
<td>Equity</td>
<td>28%</td>
<td>36%</td>
</tr>
</tbody>
</table>

Tenets of Our Funding Strategy

- Diversified funding mix across various products, issuing entities, currencies, tenors and investor types
- Maintain a sufficiently liquid balance sheet
- Dynamically manage funding profile based on characteristics and liquidity profile of our assets
Issuance Strategy and Plan

YTD Benchmark and Preferred Issuance

- YTD 2023 benchmark issuance has been significantly lower compared to 2022
  - $6.75bn of USD issuance with a WAM\(^1\) of ~6 years
- Called $4.1bn of outstanding benchmark debt year-to-date
- Issued $0.5bn of preferred stock net of redemptions
- In 2024, we expect to revert to a more normalized level of issuance

Non-benchmark Issuance

- ~$142bn of unsecured non-benchmark debt securities outstanding as of 3Q23
  - Includes structured debt and commercial paper
  - Issued across various entities
  - Provides access to institutional and retail channels

Benchmark Debt and Preferred Stock Issuances vs. Maturities ($bn)

- YTD 2023 benchmark issuance has been significantly lower compared to 2022
  - $6.75bn of USD issuance with a WAM\(^1\) of ~6 years
- Called $4.1bn of outstanding benchmark debt year-to-date
- Issued $0.5bn of preferred stock net of redemptions
- In 2024, we expect to revert to a more normalized level of issuance

Potential Outflows\(^2\)

- Offers structured debt and commercial paper
- Issued across various entities
- Provides access to institutional and retail channels

<table>
<thead>
<tr>
<th>Year</th>
<th>Benchmark Debt Issuance</th>
<th>Liability Management</th>
<th>Preferred Stock Issuance</th>
<th>Potential Benchmark Debt Maturities</th>
<th>Debt Eligible to be Par Called</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>$22.5</td>
<td>$5.4</td>
<td>$19.5</td>
<td>$30.3</td>
<td>$19.4</td>
</tr>
<tr>
<td>2019</td>
<td>$27.2</td>
<td>$19.5</td>
<td>$22.0</td>
<td>$30.3</td>
<td>$22.3</td>
</tr>
<tr>
<td>2020</td>
<td>$21.8</td>
<td>$22.0</td>
<td>$62.2</td>
<td>$27.9</td>
<td>$22.3</td>
</tr>
<tr>
<td>2021</td>
<td>$27.9</td>
<td>$62.2</td>
<td>$30.3</td>
<td>$27.9</td>
<td>$22.3</td>
</tr>
<tr>
<td>2022</td>
<td>$22.3</td>
<td>$30.3</td>
<td>$27.9</td>
<td>$62.2</td>
<td>$8.3</td>
</tr>
<tr>
<td>YTD</td>
<td>$19.4</td>
<td>$30.3</td>
<td>$8.3</td>
<td>$30.3</td>
<td>$35.2</td>
</tr>
<tr>
<td>2023</td>
<td>$8.3</td>
<td>$35.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2024</td>
<td>$35.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^1\) WAM: Weighted Average Maturity
\(^2\) Potential Outflows
Stable and Diversified Deposits

- Diversified by tenor and deposit channel including consumer, private bank, corporate, deposit sweep programs, institutional and brokered CDs
  - 25% are time deposits
- 66% of our total US deposits are FDIC insured and 27% of our non-US deposits are insured by non-US programs as of 3Q23
  - 92% of US consumer deposits are insured
- Deposits make up 58% of unsecured funding liabilities as of 3Q23, above the 50% target\(^1\), reducing reliance on higher-cost unsecured debt
- Substantially all deposits are interest-bearing

Deposit Composition:
- Private bank 23%
- Consumer 37%
- Transaction Banking 17%
- Deposit sweep programs 8%
- Brokered CDs 8%
- Other 7%

Total Deposits: $403bn
Conservative Liquidity Risk Management

**Liquidity Principles**

- **Excess Liquidity:** Prefund estimated potential liquidity needs in a short-term stressed environment

- **Asset-Liability Management:** Conservative asset and liability management designed to ensure stability of financing

- **Stress Testing:** Rigorous and conservative stress tests underpin our excess liquidity and asset-liability management frameworks (e.g., MLO)

- **Contingency Funding Plan:** Maintain a contingency funding plan to provide a framework for analyzing and responding to a liquidity crisis or market stress

**Robust Liquidity Position**

- 125% Average Daily Liquidity Coverage Ratio in 3Q23
- 117% Average Daily Net Stable Funding Ratio in 3Q23
- $406bn Average GCLA in 3Q23
- $316bn Average Eligible HQLA in 3Q23
Dynamic Capital Management

**Standardized CET1 Ratio**

<table>
<thead>
<tr>
<th>Year</th>
<th>Base Minimum</th>
<th>G-SIB</th>
<th>SCB</th>
<th>Management Buffer</th>
</tr>
</thead>
<tbody>
<tr>
<td>4Q20</td>
<td>6.6%</td>
<td>1.1%</td>
<td>14.7%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>13.6% minimum requirement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Changes</td>
<td>3.1%</td>
<td>-3.0%</td>
<td>14.8%</td>
<td>13.0% minimum requirement</td>
</tr>
</tbody>
</table>

**Capital Management Philosophy**

- Invest in accretive opportunities
- Pay a sustainable dividend
- Return excess capital via buybacks
- Target Standardized CET1 ratio in excess of regulatory minimum by 50-100bps

**-110bps reduction in SCB**
Basel 3 Reforms Would Add to GS’ Already Strong Capital Position

GS Common Equity Growth Over Time ($bn)

2013: Basel 3 Implementation

2020: Stress Capital Buffer

2025 - 2028: Basel 3 Reforms

Industry Common Equity Growth Over Time

Leverage

2007: 26.2x
2017: -53%
2022: 12.3x
2025-2028: 12.3x
Basel 3 Reforms Would Change Requirements for All RWA Components

Increased RWAs Across All Components

- Derivatives
- Securities Financing Transactions
- Equity Investments
- Commitments, Guarantees and Loans
- Other Credit RWAs
- Market RWAs

Fully Additive Components

- Credit Valuation Adjustment
- Operational RWAs
Potential Basel 3 Reform Implications

- Increases cost of credit across the industry
- Decreases competitiveness of US capital markets business
- Drives activity to the shadow banking industry
Successfully Executing Our Strategic Plan

- Material progress in executing our credit-positive strategy
- Strong capital and liquidity position
- Increasingly diversified funding mix
- Track record of superior risk management
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End Notes

Note: All data as of the end of 3Q23, unless otherwise indicated.

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

Slide 1:
1. Total wallet share growth between year-end 2019 and year-end 2022 based on reported revenues for Advisory, Equity underwriting, Debt underwriting, FICC and Equities. Total wallet includes GS, MS, JPM, C, BAC, DB, BARC, UBS and CS
2. 3Q23YTD revenues annualized
3. 13.0% Standardized CET1 minimum requirement as of October 1, 2023
4. HPI assets refers to Historical Principal Investments, which includes consolidated investment entities (CIEs) and other legacy investments the firm intends to exit over the medium-term (medium-term refers to a 3-5 year time horizon from year-end 2022)

Slide 3:
1. Industry names shortened for pie chart: Technology, Media & Telecommunications (TMT), Diversified Industrials, Real Estate, Financial Institutions
2. At amortized cost

Slide 4:
1. Excludes affiliated assets

Slide 6:
Note: Data on this slide is as of October 31, 2023, unless otherwise indicated
1. WAM refers to weighted average maturity
2. Numbers are based on the earliest possible outflow date. Potential outflows for 2023 and 2024 are as of October 31, 2023. Potential outflows for 2023 include $14.3bn of contractual maturities and $5.1bn of liability management (including the $1bn redemption of GS Series J Preferred stock). Potential outflows for 2024 include $12.5bn of contractual maturities and $22.7bn of debt eligible to be par called

Slide 7:
1. 3-year target set at Investor Day 2020

Slide 9:
1. CET1 minimum requirement and component pieces effective as of October 1, 2023
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), efficiency ratio targets and expense savings initiatives, the impact of Russia’s invasion of Ukraine and related sanctions and other developments on the firm’s business, results, financial position and liquidity, fundraising initiatives and amount and composition of future Assets under Supervision and related revenues, anticipated asset sales, increases in wallet share, planned debt issuances, growth of deposits and other funding, asset liability management and funding strategies and associated interest expense savings, the timing and profitability of its business initiatives and narrowing of its consumer business initiatives, its ability to increase its market share in incumbent businesses and its ability to achieve more durable revenues and higher returns from these initiatives, the future state of our liquidity and regulatory capital ratios and our prospective capital distribution (including dividends and repurchases), 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, CET1 capital ratios and expense savings, and how they can be achieved, are based on the firm’s current expectations regarding its business prospects, capital requirements and our ability to sell assets 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, increases in liquidity requirements and lower revenues and asset sales than expected due to, among other factors, changes in economic or market conditions. Statements about the projected growth of the firm’s deposits and other funding, asset liability management and funding strategies and associated interest expense savings are subject to the risk that actual growth and savings may differ, possibly materially from that currently anticipated due to, among other things, changes in interest rates 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 or its expectations around the sale of assets. Statements about the timing, profitability, benefits and other prospective aspects of business and expense savings initiatives, the achievability of medium and long-term targets, 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 achieve these targets and goals and may change, possibly materially, from what is currently expected. Statements about the impact of Russia’s invasion of Ukraine and related sanctions and other developments on the firm’s business, results, financial position and liquidity are subject to the risks that hostilities may escalate and expand, that sanctions may increase and that the actual impact may differ, possibly materially, from what is currently expected. Statements about the future state of our liquidity and regulatory capital ratios (including our SCB and G-SIB surcharge), and our prospective capital distributions (including dividends and repurchases), are subject to the risk that our actual liquidity, regulatory capital ratios and capital distributions may differ, possibly materially, from what is currently expected due to, among other things, the need to use capital to support clients, increased regulatory requirements resulting from changes in regulations or the interpretation or application of existing regulations, results of applicable supervisory stress tests, changes to the composition of our balance sheet and the impact of taxes on share repurchases. Statements about the estimated impact of proposed, but not finalized, capital rules are subject to change as we continue to analyze the proposals and are subject to the risk that the final rules may differ from the proposed rules, our assets and liabilities may change, and we may underestimate the actual impact of the final rules. 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 information about some of the risks and important factors that could affect the firm’s future results, financial condition and liquidity and the forward-looking statements above, see “Risk Factors” in Part I, Item 1A of the firm’s Annual Report on Form 10-K for the year ended December 31, 2022. You should also read the cautionary notes on forward-looking statements in the firm’s Annual Report on Form 10-K for the year ended December 31, 2022 and on the firm’s Quarterly report on Form 10-Q for the quarter ended September 30, 2023.

The statements in the presentation are current only as of November 9, 2023 and the firm does not undertake to update forward-looking statements to reflect the impact of subsequent events or circumstances.