

Full Year and Fourth Quarter 2022 Earnings Results Presentation

January 17, 2023

Results Snapshot

Net Revenues

2022	\$47.37 billion
4Q22	\$10.59 billion

Net Earnings

2022	\$11.26 billion
4Q22	\$1.33 billion

EPS

2022	\$30.06
4Q22	\$3.32

ROE¹

2022	10.2%
4Q22	4.4%

ROTE¹

2022	11.0%
4Q22	4.8%

Book Value Per Share

2022	\$303.55
2022 Growth	6.7%

Annual Highlights

2nd highest firmwide net revenues
2nd highest EPS

2nd highest net revenues in FICC and Advisory
Record net revenues in FICC financing and Equities financing

#1 in announced and completed M&A²

Record Management and other fees of \$8.78 billion
Record AUS^{3,4} of \$2.55 trillion

Financial Overview

Financial Results

	\$ in millions, except per share amounts				
	4Q22	vs. 3Q22	vs. 4Q21	2022	vs. 2021
Global Banking & Markets	\$ 6,519	(14)%	(14)%	\$ 32,487	(12)%
Asset & Wealth Management	3,561	(12)%	(27)%	13,376	(39)%
Platform Solutions	513	36%	171%	1,502	135%
Net revenues	10,593	(12)%	(16)%	47,365	(20)%
Provision for credit losses	972	89%	183%	2,715	661%
Operating expenses	8,091	5%	11%	31,164	(2)%
Pre-tax earnings	\$ 1,530	(59)%	(70)%	\$ 13,486	(50)%
Net earnings	\$ 1,326	(57)%	(66)%	\$ 11,261	(48)%
Net earnings to common	\$ 1,185	(60)%	(69)%	\$ 10,764	(49)%
Diluted EPS	\$ 3.32	(60)%	(69)%	\$ 30.06	(49)%
ROE ¹	4.4%	(6.6)pp	(11.2)pp	10.2%	(12.8)pp
ROTE ¹	4.8%	(7.2)pp	(11.6)pp	11.0%	(13.3)pp
Efficiency Ratio ³	76.4%	12.1pp	18.9pp	65.8%	12.0pp

Financial Overview Highlights

- 4Q22 results included EPS of \$3.32 and ROE of 4.4%
 - 4Q22 net revenues were lower YoY, reflecting significantly lower net revenues in Asset & Wealth Management and lower net revenues in Global Banking & Markets
 - 4Q22 provision for credit losses was \$972 million, reflecting provisions related to the credit card and point-of-sale loan portfolios, primarily from growth and net charge-offs, and individual impairments on wholesale loans
 - 4Q22 operating expenses were higher YoY, reflecting higher compensation and benefits expenses and higher non-compensation expenses
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- 2022 results included EPS of \$30.06 and ROE of 10.2%
 - 2022 net revenues were significantly lower compared to a record 2021, reflecting significantly lower net revenues in Asset & Wealth Management and lower net revenues in Global Banking & Markets
 - 2022 provision for credit losses was \$2.72 billion, reflecting growth in the credit card portfolio, the impact of broad macroeconomic and geopolitical concerns and net charge-offs
 - 2022 operating expenses were slightly lower YoY, reflecting lower compensation and benefits expenses, partially offset by higher non-compensation expenses

Global Banking & Markets

Financial Results

<i>\$ in millions</i>	4Q22	vs. 3Q22	vs. 4Q21	2022	vs. 2021
Investment banking fees	\$ 1,873	21%	(48)%	\$ 7,360	(48)%
FICC	2,687	(26)%	44%	14,676	38%
Equities	2,073	(24)%	(5)%	10,988	(6)%
Other	(114)	N.M.	N.M.	(537)	N.M.
Net revenues	6,519	(14)%	(14)%	32,487	(12)%
Provision for credit losses	6	(90)%	N.M.	468	N.M.
Operating expenses	4,223	—	3%	17,851	(9)%
Pre-tax earnings	\$ 2,290	(30)%	(35)%	\$ 14,168	(18)%
Net earnings	\$ 1,960	(27)%	(29)%	\$ 11,830	(15)%
Net earnings to common	\$ 1,856	(28)%	(30)%	\$ 11,458	(15)%
Average common equity	\$ 70,727	(2)%	10%	\$ 69,951	16%
Return on average common equity	10.5%	(3.9)pp	(6.0)pp	16.4%	(6.1)pp

Global Banking & Markets Highlights

- 4Q22 net revenues were lower YoY compared to a strong 4Q21
 - Investment banking fees reflected significantly lower net revenues in both Equity and Debt underwriting and lower net revenues in Advisory
 - FICC net revenues reflected significantly higher net revenues in both intermediation and financing
 - Equities net revenues reflected lower net revenues in intermediation, partially offset by higher net revenues in financing
 - Investment banking fees backlog³ decreased vs. 3Q22, primarily in Advisory
 - 4Q22 loan balance of \$108 billion
 - 4Q22 net interest income of \$633 million
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- 2022 net revenues were lower YoY compared to a strong 2021
 - Investment banking fees reflected significantly lower net revenues in both Equity and Debt underwriting and lower net revenues in Advisory
 - FICC net revenues reflected significantly higher net revenues in both intermediation and financing
 - Equities net revenues reflected lower net revenues in intermediation, partially offset by higher net revenues in financing
 - Other net revenues reflected significantly lower net gains from investments in equities and net mark-downs on acquisition financing activities
 - Investment banking fees backlog³ decreased significantly vs. 2021, primarily in Advisory and Debt underwriting

Global Banking & Markets – Net Revenues

Net Revenues

	Net Revenues					
<i>\$ in millions</i>	4Q22	vs. 3Q22	vs. 4Q21	2022	vs. 2021	
Advisory	\$ 1,408	45%	(14)%	\$ 4,704	(17)%	
Equity underwriting	183	(25)%	(82)%	848	(83)%	
Debt underwriting	282	(14)%	(70)%	1,808	(48)%	
Investment banking fees	1,873	21%	(48)%	7,360	(48)%	
FICC intermediation	1,974	(32)%	50%	11,890	36%	
FICC financing	713	(1)%	28%	2,786	47%	
FICC	2,687	(26)%	44%	14,676	38%	
Equities intermediation	1,109	(31)%	(17)%	6,662	(14)%	
Equities financing	964	(14)%	15%	4,326	8%	
Equities	2,073	(24)%	(5)%	10,988	(6)%	
Other	(114)	N.M.	N.M.	(537)	N.M.	
Net revenues	\$ 6,519	(14)%	(14)%	\$ 32,487	(12)%	

Global Banking & Markets Net Revenues Highlights

- 4Q22 Investment banking fees were significantly lower YoY compared to a record 4Q21
 - Advisory net revenues reflected a significant decline in industry-wide completed mergers and acquisitions transactions from elevated activity levels in 4Q21
 - Equity and Debt underwriting net revenues reflected a significant decline in industry-wide volumes
 - 4Q22 FICC net revenues were significantly higher YoY
 - FICC intermediation net revenues reflected significantly higher net revenues in interest rate products and commodities and higher net revenues in credit products, partially offset by significantly lower net revenues in currencies and mortgages
 - FICC financing net revenues primarily reflected significantly higher net revenues from secured lending
 - 4Q22 Equities net revenues were slightly lower YoY
 - Equities intermediation net revenues reflected lower net revenues in both derivatives and cash products
 - Equities financing net revenues primarily reflected increased client activity
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- 2022 Investment banking fees were significantly lower YoY compared to a record 2021
 - Advisory net revenues reflected a decline in industry-wide completed mergers and acquisitions transactions from elevated activity levels in 2021
 - Equity and Debt underwriting net revenues reflected a significant decline in industry-wide volumes
 - 2022 FICC net revenues were significantly higher YoY
 - FICC intermediation net revenues reflected significantly higher net revenues in interest rate products, currencies and commodities, partially offset by significantly lower net revenues in mortgages and lower net revenues in credit products
 - FICC financing net revenues primarily reflected significantly higher net revenues from secured lending
 - 2022 Equities net revenues were lower YoY
 - Equities intermediation net revenues reflected significantly lower net revenues in cash products and lower net revenues in derivatives
 - Equities financing net revenues primarily reflected increased client activity

Asset & Wealth Management

Financial Results

<i>\$ in millions</i>	4Q22	vs. 3Q22	vs. 4Q21	2022	vs. 2021
Management and other fees	\$ 2,248	–	10%	\$ 8,781	13%
Incentive fees	39	(30)%	(83)%	359	(42)%
Private banking and lending	753	12%	77%	2,458	48%
Equity investments	287	(60)%	(80)%	610	(93)%
Debt investments	234	(28)%	(67)%	1,168	(63)%
Net revenues	3,561	(12)%	(27)%	13,376	(39)%
Provision for credit losses	180	N.M.	150%	519	N.M.
Operating expenses	3,363	14%	17%	11,550	1%
Pre-tax earnings	\$ 18	(98)%	(99)%	\$ 1,307	(88)%
Net earnings	\$ 21	(98)%	(99)%	\$ 1,092	(87)%
Net earnings / (loss) to common	\$ (11)	N.M.	N.M.	\$ 979	(88)%
Average common equity	\$ 32,768	4%	6%	\$ 31,762	6%
Return on average common equity	(0.1)%	(11.3)pp	(19.1)pp	3.1%	(25.1)pp

Asset & Wealth Management Highlights

- 4Q22 net revenues were significantly lower YoY, primarily reflecting significantly lower net revenues in Equity investments and Debt investments
 - Management and other fees reflected the inclusion of NN Investment Partners (NNIP) and a reduction in fee waivers on money market funds
 - Incentive fees were significantly lower, primarily driven by harvesting in 4Q21
 - Private banking and lending net revenues primarily reflected higher deposit spreads, as well as higher loan and deposit balances
 - Equity investments net revenues reflected significantly lower net gains from investments in private equities
 - Private: 4Q22 ~\$770 million, compared to 4Q21 ~\$1,900 million
 - Public: 4Q22 ~\$(485) million, compared to 4Q21 ~\$(455) million
 - Debt investments net revenues reflected net mark-downs compared with net mark-ups in 4Q21 and significantly lower net interest income
 - 4Q22 loan balance of \$56 billion, of which \$37 billion related to Private banking and lending
 - 4Q22 private bank and direct-to-consumer deposits of \$226 billion
 - 4Q22 net interest income of \$928 million
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- 2022 net revenues were significantly lower YoY, primarily reflecting significantly lower net revenues in Equity investments and Debt investments
 - Management and other fees reflected the inclusion of NNIP and a reduction in fee waivers on money market funds
 - Incentive fees were significantly lower, primarily driven by harvesting in 2021
 - Private banking and lending net revenues primarily reflected higher deposit spreads, as well as higher loan and deposit balances
 - Equity investments net revenues reflected significantly lower net gains from investments in private equities and significant mark-to-market net losses from investments in public equities
 - Private: 2022 ~\$2,080 million, compared to 2021 ~\$8,825 million
 - Public: 2022 ~\$(1,470) million, compared to 2021 ~\$(30) million
 - Debt investments net revenues reflected net mark-downs compared with mark-ups in 2021 and lower net interest income

Assets Under Supervision

AUS Rollforward^{3,4}

<i>\$ in billions</i>	4Q22	3Q22	4Q21	2022	2021
Beginning balance	\$ 2,427	\$ 2,495	\$ 2,372	\$ 2,470	\$ 2,145
Long-term AUS net inflows / (outflows)	22	9	22	50	130
Liquidity products	11	18	42	16	98
Total AUS net inflows / (outflows)	33	27	64	66	228
Acquisitions / (dispositions)	–	4	–	316	–
Net market appreciation / (depreciation)	87	(99)	34	(305)	97
Ending balance	\$ 2,547	\$ 2,427	\$ 2,470	\$ 2,547	\$ 2,470

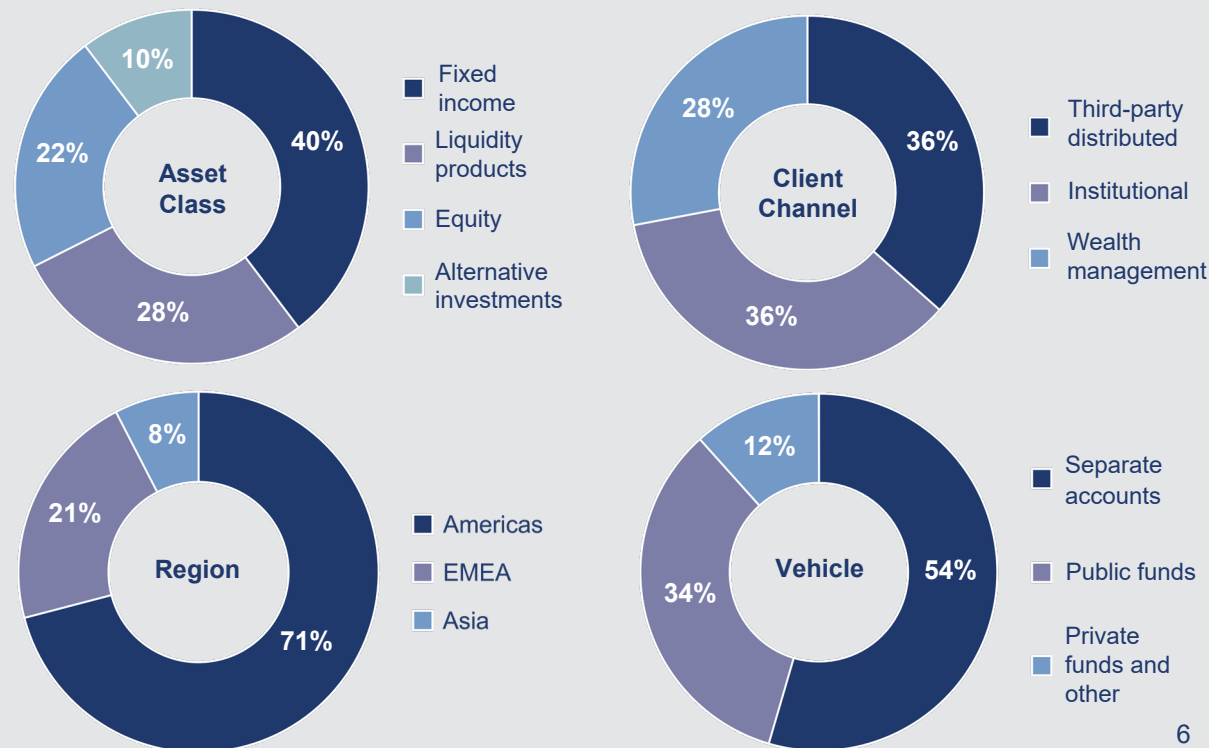
AUS by Asset Class^{3,4}

<i>\$ in billions</i>	4Q22	3Q22	4Q21
Alternative investments	\$ 263	\$ 256	\$ 236
Equity	563	516	613
Fixed income	1,010	955	940
Long-term AUS	1,836	1,727	1,789
Liquidity products	711	700	681
Total AUS	\$ 2,547	\$ 2,427	\$ 2,470

AUS Highlights^{3,4}

- During the year, AUS increased \$77 billion to a record \$2.55 trillion
 - Net inflows from acquisitions / (dispositions) of \$316 billion, substantially all from the acquisition of NNIP
 - Long-term net inflows of \$50 billion and liquidity products net inflows of \$16 billion
 - Net market depreciation of \$305 billion, driven by fixed income and equity assets
- During the quarter, AUS increased \$120 billion, reflecting net market appreciation of \$87 billion, long-term net inflows of \$22 billion and liquidity products net inflows of \$11 billion

4Q22 AUS Mix^{3,4}



Asset & Wealth Management – Alternative Investments

Alternative Investments AUS and Effective Fees

\$ in billions	4Q22	
	Average AUS	Effective Fees (bps)
Corporate equity	\$ 93	86
Credit	42	79
Real estate	19	69
Hedge funds and other	64	59
Funds and discretionary accounts	218	75
Advisory accounts	42	16
Total alternative investments AUS	\$ 260	66

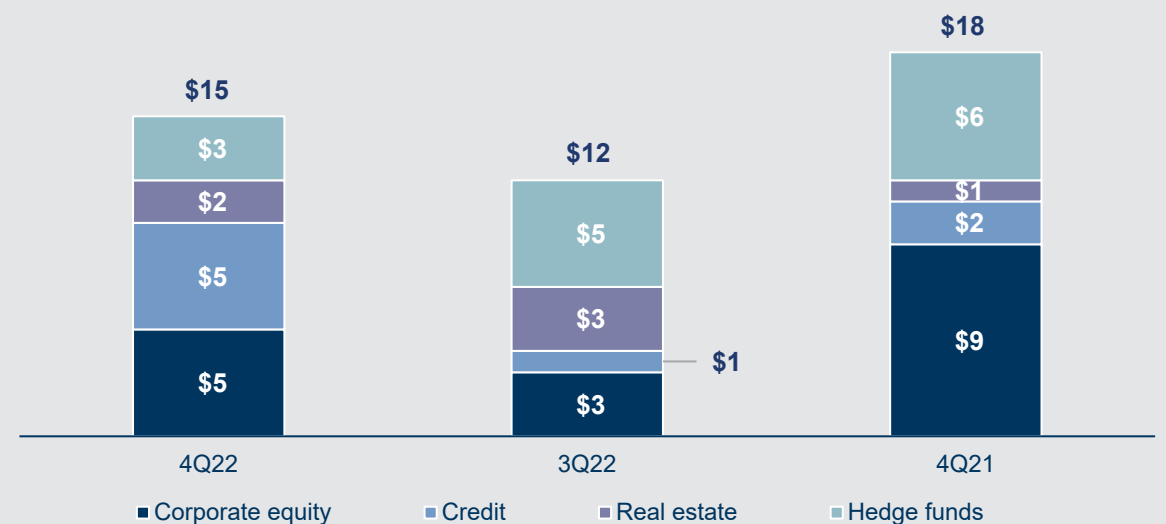
On-Balance Sheet Alternative Investments⁴

\$ in billions	4Q22	4Q21
Equity securities	\$ 15	\$ 18
Loans	19	22
Debt securities	12	13
CIE investments and other	13	15
Total	\$ 59	\$ 68

Alternative Investments Highlights⁴

- 2022 Management and other fees from alternative investments were \$1.85 billion (including \$492 million in 4Q22), up 27% from 2021
- During the year, alternative investments AUS increased \$27 billion to \$263 billion
- 2022 gross third-party alternatives fundraising across strategies was \$72 billion (including \$15 billion raised in 4Q22)
 - \$179 billion raised since the end of 2019
- During the year, on-balance sheet alternative investments declined by \$9 billion to \$59 billion, including \$2 billion in 4Q22

Alternatives Fundraising (\$ in billions)



Platform Solutions

Financial Results

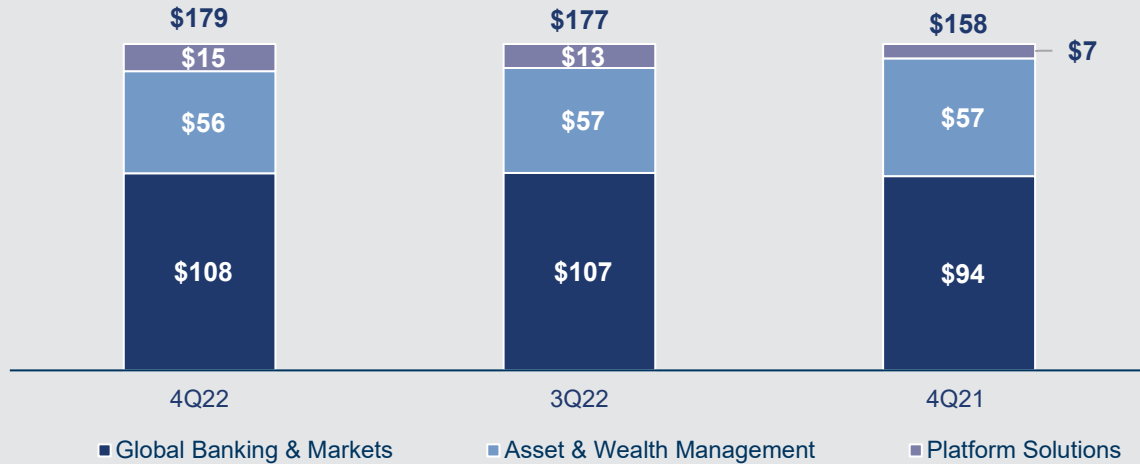
<i>\$ in millions</i>	4Q22	vs. 3Q22	vs. 4Q21	2022	vs. 2021
Consumer platforms	\$ 433	49%	246%	\$ 1,176	177%
Transaction banking and other	80	(9)%	25%	326	51%
Net revenues	513	36%	171%	1,502	135%
Provision for credit losses	786	69%	173%	1,728	148%
Operating expenses	505	(4)%	66%	1,763	78%
Pre-tax earnings / (loss)	\$ (778)	N.M.	N.M.	\$ (1,989)	N.M.
Net earnings / (loss)	\$ (655)	N.M.	N.M.	\$ (1,661)	N.M.
Net earnings / (loss) to common	\$ (660)	N.M.	N.M.	\$ (1,673)	N.M.
Average common equity	\$ 4,046	3%	89%	\$ 3,574	101%
Return on average common equity	(65.2)%	(13.9)pp	(5.3)pp	(46.8)%	0.6pp

Platform Solutions Highlights

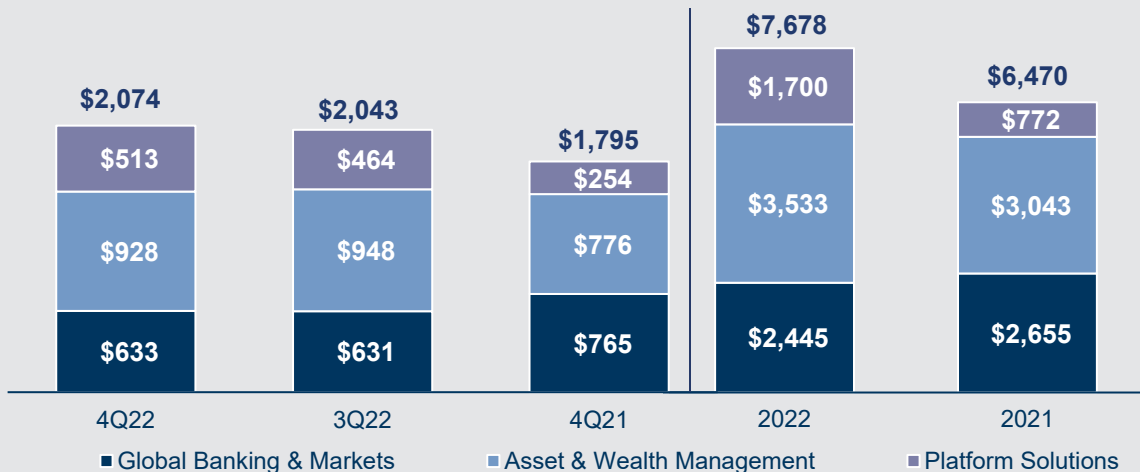
- 4Q22 net revenues were significantly higher YoY
 - Consumer platforms net revenues primarily reflected significantly higher credit card balances
 - Transaction banking and other net revenues reflected higher deposit balances
 - 4Q22 provision for credit losses primarily reflected portfolio growth and net charge-offs
 - 4Q22 select data:
 - Loan balance of \$15 billion
 - Net interest income of \$513 million
 - Active Consumer platforms customers of 13.4 million
 - Transaction banking deposits of \$70 billion
-
- 2022 net revenues were significantly higher YoY
 - Consumer platforms net revenues primarily reflected significantly higher credit card balances
 - Transaction banking and other net revenues reflected higher deposit balances
 - 2022 provision for credit losses primarily reflected growth in the credit card portfolio and net charge-offs

Net Interest Income and Loans

Loans by Segment⁴ (\$ in billions)



Net Interest Income by Segment (\$ in millions)



Loans by Type⁴

	\$ in billions		
	4Q22	3Q22	4Q21
Corporate	\$ 40	\$ 40	\$ 37
Commercial real estate	29	30	29
Residential real estate	23	24	25
Securities-based lending	17	18	17
Other collateralized lending	52	49	38
Installment	6	5	4
Credit cards	16	14	8
Other	2	2	4
Allowance for loan losses	(6)	(5)	(4)
Total Loans	\$ 179	\$ 177	\$ 158

Metrics

3.2%
ALLL to Total Gross Loans, at Amortized Cost

1.7%
ALLL to Gross Wholesale Loans, at Amortized Cost

13.5%
ALLL to Gross Consumer Loans, at Amortized Cost

Net Interest Income & Loans Highlights

- Net interest income increased 16% YoY for 4Q22 and 19% YoY for 2022, both primarily reflecting higher loan balances and rates
- Total loans increased \$21 billion, up 13% during 2022, primarily reflecting growth in other collateralized lending and credit cards
 - ~80% of gross loans were secured as of 4Q22
- Total allowance was \$6.32 billion (including \$5.54 billion for funded loans), up ~\$1.97 billion YoY
 - \$3.27 billion for wholesale loans, \$3.04 billion for consumer loans
- Provision for credit losses of \$2.72 billion in 2022, up from \$357 million in 2021
- 2022 net charge-offs of \$726 million for a net charge-off rate of 0.5%, up 20bps YoY
 - Wholesale net charge-off rate of 0.2%, up 10bps YoY
 - Consumer net charge-off rate of 2.8%, up 50bps YoY

Expenses

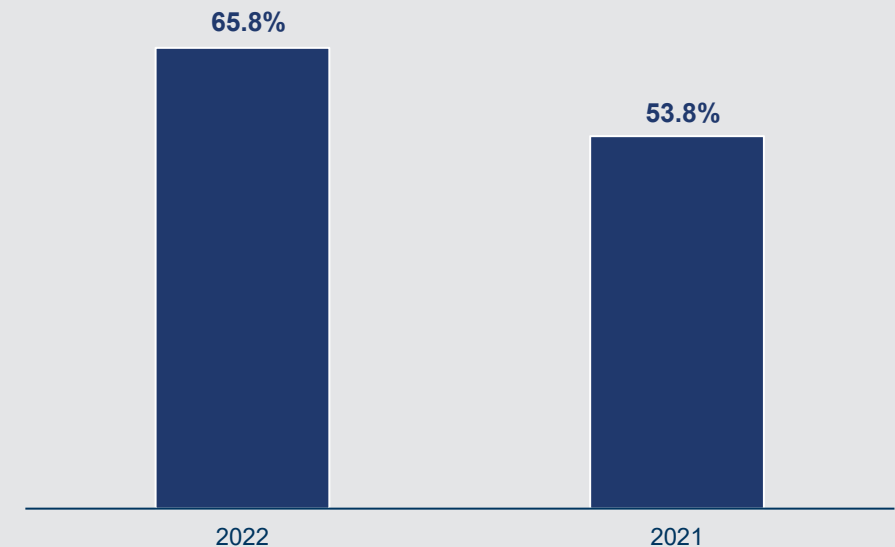
Financial Results

<i>\$ in millions</i>	4Q22	vs. 3Q22	vs. 4Q21	2022	vs. 2021
Compensation and benefits	\$ 3,764	4%	16%	\$ 15,148	(15)%
Transaction based	1,434	9%	21%	5,312	13%
Market development	216	9%	12%	812	47%
Communications and technology	481	5%	12%	1,808	15%
Depreciation and amortization	727	9%	49%	2,455	22%
Occupancy	261	2%	3%	1,026	5%
Professional fees	495	6%	(3)%	1,887	15%
Other expenses	713	(3)%	(26)%	2,716	(1)%
Total operating expenses	\$ 8,091	5%	11%	\$ 31,164	(2)%
Provision for taxes	\$ 204	(70)%	(81)%	\$ 2,225	(59)%
<i>Effective Tax Rate</i>				16.5%	<i>(3.5)pp</i>

Expense Highlights

- 2022 total operating expenses decreased slightly YoY
 - Compensation and benefits expenses down 15%, reflecting a decline in operating performance compared with a strong 2021
 - Non-compensation expenses were higher, reflecting:
 - Inclusion of NNIP and GreenSky
 - Higher transaction based expenses
 - Higher technology expenses
- 2022 effective income tax rate was 16.5%, down from 20.0% for 2021, primarily due to an increase in the impact of permanent tax benefits, partially offset by changes in the geographic mix of earnings

Efficiency Ratio³



Capital and Balance Sheet

Capital^{3,4}

	4Q22	3Q22	4Q21
Standardized CET1 capital ratio ⁵	15.1%	14.3%	14.2%
Advanced CET1 capital ratio ⁵	14.4%	14.6%	14.9%
Supplementary leverage ratio (SLR)	5.8%	5.6%	5.6%

Selected Balance Sheet Data⁴

<i>\$ in billions</i>	4Q22	3Q22	4Q21
Total assets	\$ 1,442	\$ 1,556	\$ 1,464
Deposits	\$ 387	\$ 395	\$ 364
Unsecured long-term borrowings	\$ 247	\$ 240	\$ 254
Shareholders' equity	\$ 117	\$ 119	\$ 110
Average GCLA ³	\$ 409	\$ 417	\$ 353

Capital and Balance Sheet Highlights

- Standardized CET1 capital ratio increased YoY
 - Decrease in credit RWAs and an increase in CET1 capital, reflecting net earnings in excess of share repurchases and dividends, partially offset by an increase in market RWAs
- Advanced CET1 capital ratio decreased YoY
 - Increase in credit and market RWAs, partially offset by an increase in CET1 capital, reflecting net earnings in excess of share repurchases and dividends
- Returned \$6.70 billion of capital to common shareholders during the year
 - 10.1 million common shares repurchased for a total cost of \$3.50 billion³
 - \$3.20 billion of common stock dividends
- Deposits increased \$23 billion YoY, reflecting growth in transaction banking, private bank and direct-to-consumer deposits
- BVPS increased 6.7% YoY, driven by net earnings

Book Value

<i>In millions, except per share amounts</i>	4Q22	3Q22	4Q21
Basic shares ³	350.8	352.3	348.9
Book value per common share	\$ 303.55	\$ 308.22	\$ 284.39
Tangible book value per common share ¹	\$ 279.66	\$ 284.80	\$ 270.91

Cautionary Note Regarding Forward-Looking Statements

This presentation contains “forward-looking statements” within the meaning of the safe harbor provisions of the U.S. Private Securities Litigation Reform Act of 1995. Forward-looking statements are not historical facts or statements of current conditions, but instead represent only the firm’s beliefs regarding future events, many of which, by their nature, are inherently uncertain and outside of the firm’s control. It is possible that the firm’s actual results, financial condition and liquidity may differ, possibly materially, from the anticipated results, financial condition and liquidity in these forward-looking statements. 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 below, see “Risk Factors” in Part I, Item 1A of the firm’s Annual Report on Form 10-K for the year ended December 31, 2021.

Information regarding the firm’s assets under supervision, capital ratios, risk-weighted assets, supplementary leverage ratio, balance sheet data and global core liquid assets (GCLA) consists of preliminary estimates. These estimates are forward-looking statements and are subject to change, possibly materially, as the firm completes its financial statements. Statements regarding (i) estimated GDP growth and interest rate and inflation trends, (ii) the impact of the COVID-19 pandemic on the firm’s business, results, financial position and liquidity, (iii) the timing, profitability, benefits and other prospective aspects of business initiatives, business realignment and the achievability of medium- and long-term targets and goals, (iv) the future state of the firm’s liquidity and regulatory capital ratios (including the firm’s stress capital buffer and G-SIB buffer), (v) the firm’s prospective capital distributions (including dividends and repurchases), (vi) the firm’s future effective income tax rate, (vii) the firm’s Investment banking fees backlog and future results, (viii) the firm’s planned 2023 benchmark debt issuances, and (ix) the impact of Russia’s invasion of Ukraine and related sanctions and other developments on the firm’s business, results and financial position, are forward-looking statements. Statements regarding estimated GDP growth and interest rate and inflation trends are subject to the risk that actual GDP growth and interest rate and inflation trends may differ, possibly materially, due to, among other things, changes in general economic conditions and monetary and fiscal policy. Statements about the effects of the COVID-19 pandemic on the firm’s business, results, financial position and liquidity are subject to the risk that the actual impact may differ, possibly materially, from what is currently expected. Statements about the timing, profitability, benefits and other prospective aspects of business initiatives, business realignment and the achievability of medium and long-term targets and goals are based on the firm’s current expectations regarding the firm’s ability to effectively implement these initiatives and realignment and achieve these targets and goals and may change, possibly materially, from what is currently expected. Statements about the future state of the firm’s liquidity and regulatory capital ratios (including the firm’s stress capital buffer and G-SIB buffer), as well as its prospective capital distributions, are subject to the risk that the firm’s actual liquidity, regulatory capital ratios and capital distributions may differ, possibly materially, from what is currently expected. Statements about the firm’s future effective income tax rate are subject to the risk that the firm’s future effective income tax rate may differ from the anticipated rate indicated, possibly materially, due to, among other things, changes in the tax rates applicable to the firm, the firm’s earnings mix or profitability, the entities in which the firm generates profits and the assumptions made in forecasting the firm’s expected tax rate, and potential future guidance from the U.S. IRS. Statements about the firm’s Investment banking fees backlog and future results are subject to the risk that transactions may be modified or may not be completed at all, and related net revenues may not be realized or may be materially less than expected. Important factors that could have such a result include, for underwriting transactions, a decline or weakness in general economic conditions, an outbreak or worsening of hostilities, including the escalation or continuation of the war between Russia and Ukraine, continuing volatility in the securities markets or an adverse development with respect to the issuer of the securities and, for financial advisory transactions, a decline in the securities markets, an inability to obtain adequate financing, an adverse development with respect to a party to the transaction or a failure to obtain a required regulatory approval. Statements regarding the firm’s planned 2023 benchmark debt issuances are subject to the risk that actual issuances may differ, possibly materially, due to changes in market conditions, business opportunities or the firm’s funding needs. Statements about the impact of Russia’s invasion of Ukraine and related sanctions and other developments on the firm’s business, results and financial position 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.

Footnotes

- Return on average common shareholders' equity (ROE) is calculated by dividing net earnings (or annualized net earnings for annualized ROE) applicable to common shareholders by average monthly common shareholders' equity. Return on average tangible common shareholders' equity (ROTE) is calculated by dividing net earnings (or annualized net earnings for annualized ROTE) 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. Tangible book value per common share (TBVPS) is calculated by dividing tangible common shareholders' equity by basic shares. Management believes that tangible common shareholders' equity and TBVPS are meaningful because they are measures that the firm and investors use to assess capital adequacy and that ROTE is meaningful because it measures the performance of businesses consistently, whether they were acquired or developed internally. Tangible common shareholders' equity, ROTE and TBVPS 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 and ending common shareholders' equity to average and ending tangible common shareholders' equity:

<i>Unaudited, \$ in millions</i>	AVERAGE FOR THE		AS OF		
	THREE MONTHS ENDED DECEMBER 31, 2022	YEAR ENDED DECEMBER 31, 2022	DECEMBER 31, 2022	SEPTEMBER 30, 2022	DECEMBER 31, 2021
Total shareholders' equity	\$ 118,244	\$ 115,990	\$ 117,189	\$ 119,290	\$ 109,926
Preferred stock	(10,703)	(10,703)	(10,703)	(10,703)	(10,703)
Common shareholders' equity	107,541	105,287	106,486	108,587	99,223
Goodwill	(6,319)	(5,726)	(6,374)	(6,288)	(4,285)
Identifiable intangible assets	(1,976)	(1,583)	(2,009)	(1,963)	(418)
Tangible common shareholders' equity	\$ 99,246	\$ 97,978	\$ 98,103	\$ 100,336	\$ 94,520

- Dealogic – January 1, 2022 through December 31, 2022.
- For information about the following items, see the referenced sections in Part I, Item 2 “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in the firm’s Quarterly Report on Form 10-Q for the period ended September 30, 2022: (i) Investment banking fees backlog – see “Results of Operations – Investment Banking” (ii) assets under supervision – see “Results of Operations – Assets Under Supervision” (iii) efficiency ratio – see “Results of Operations – Operating Expenses” (iv) basic shares – see “Balance Sheet and Funding Sources – Balance Sheet Analysis and Metrics” (v) share repurchase program – see “Capital Management and Regulatory Capital – Capital Management” and (vi) global core liquid assets – see “Risk Management – Liquidity Risk Management.”

For information about risk-based capital ratios and the supplementary leverage ratio, see Note 20 “Regulation and Capital Adequacy” in Part I, Item 1 “Financial Statements (Unaudited)” in the firm’s Quarterly Report on Form 10-Q for the period ended September 30, 2022.

- Represents a preliminary estimate for the fourth quarter of 2022 and may be revised in the firm’s Annual Report on Form 10-K for the year ended December 31, 2022.
- In the third quarter of 2022, based on regulatory feedback, the firm revised certain interpretations of the Capital Rules underlying the calculation of Standardized RWAs and Advanced RWAs. As of December 31, 2021, this change would have increased both Standardized RWAs and Advanced RWAs by approximately \$6 billion to \$683 billion and \$654 billion, respectively. These increases would have reduced the firm’s Standardized CET1 capital ratio of 14.2% by 0.1 percentage points and Advanced CET1 capital ratio of 14.9% by 0.2 percentage points.