# Barclays US LLC

## 2018 Dodd-Frank Act Company-Run Stress Test Results

Supervisory Severely Adverse Scenario

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# A) Overview

- Barclays US LLC ("Barclays") is a wholly-owned subsidiary of Barclays Bank PLC and part of the Barclays PLC group of companies.

- Barclays is the intermediate holding company ("IHC") established in 2016 to comply with the US Dodd-Frank Wall Street Reform and Consumer Protection Act ("DFA"). It represents a subset of Barclays PLC's US businesses with a significant portion of the US corporate and investment banking business booked outside of the IHC.

- The DFA requires certain organizations, including Barclays, to conduct regular stress tests using a set of macroeconomic scenarios developed by the Board of Governors of the Federal Reserve System (the "FRB") and publicly disclose the results of these stress tests.

- Barclays projected results under the stressed macroeconomic conditions specified by the FRB. Results are forecast over a nine-quarter planning horizon beginning with the first quarter of 2018.

- This document, prepared in accordance with the disclosure requirements issued by the FRB, provides a summary of Barclays' methodologies and calculated results under the 2018 Supervisory Severely Adverse Scenario using Dodd Frank Act Stress Test ("DFAST") capital action assumptions.

- Barclays' calculated results differ from the Supervisory Stress Test results published by the FRB due to differences in stress testing methodologies and assumptions used.[1]

- The analysis represents estimates from forward-looking exercises that consider possible outcomes based on a hypothetical, materially adverse business environment. The analysis should not be viewed as a forecast of actual expected outcomes or otherwise used to make inferences about the actual future performance of Barclays, Barclays Bank PLC or the broader Barclays PLC group of companies.

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1 Information on the FRB's stress testing methodologies and results can be found at https://www.federalreserve.gov/newsevents/pressreleases/bcreg20180621a.htm

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# B) Description of the Supervisory Severely Adverse scenario

**Overview**

- The FRB's Supervisory Severely Adverse Scenario is characterized by a severe global recession that is accompanied by a global aversion to long-term fixed-income assets. As a result, long-term rates do not fall and yield curves steepen in the US, UK, EU, Japan and developing Asia. In turn, these developments lead to a broad-based and deep correction in global asset prices.

- Further detail can be found in the FRB's publicly released supervisory scenarios.[1]

**Supervisory Severely Adverse Macroeconomic Variables**

- US Real Gross Domestic Product declines cumulatively 7.5%.

- US unemployment rate peaks at 10%.

- Equity markets decline cumulatively 65%.

- Short-term rates fall, with the 3-month Treasury rate trough at 0.1%.

- Long-term rates are broadly unchanged throughout the scenario, with the 10-year Treasury rate unchanged at 2.4%.

- Spread of investment-grade corporate bond yields over the 10-year Treasury rate widens to 570 basis points.

- Real estate prices decline, with housing prices falling 30% and commercial real estate prices falling 40%.

- Severe recessions in the Euro area, UK, and Japan and a shallow and brief recession in developing Asia.

**Market Risk Components**

- For the 2018 Annual DFAST, Barclays estimated trading and counterparty losses using the interim supervisory market risk component methodology as specified by the FRB.[2]

- Losses on the market risk component are treated as an add-on to losses associated with the macroeconomic scenario.

1 https://www.federalreserve.gov/publications/2018-february-supervisory-scenarios-for-annual-stress-tests.htm
2 https://www.federalreserve.gov/newsevents/pressreleases/files/bcreg20180201a2.pdf

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# C) Results under Supervisory Severely Adverse scenario

## Capital ratios: Actual Q4 2017, Projected Q1 2018 to Q1 2020

| Regulatory Capital Ratio[1,2] | Actual Q4 2017 | Projected Stressed Capital Ratios[3] | | Regulatory Minimum |
|---|---|---|---|---|
| | | Ending | Minimum | |
| Common Equity Tier 1 Capital Ratio | 13.1% | 6.9% | 6.7% | 4.5% |
| Tier 1 Risk-Based Capital Ratio | 15.7% | 9.6% | 9.5% | 6.0% |
| Total Risk-Based Capital Ratio | 18.8% | 12.4% | 12.3% | 8.0% |
| Tier 1 Leverage Ratio | 8.2% | 5.2% | 5.2% | 4.0% |
| Supplementary Leverage Ratio | n/a[4] | 4.4% | 4.4% | 3.0% |

## Risk-Weighted Assets: Actual Q4 2017, Projected Q1 2020

| Item | Actual Q4 2017 | Projected Q1 2020 |
|---|---|---|
| Risk Weighted Assets[5]  ($bn) | 99.2 | 94.4 |

1 Projected stressed capital ratios indicate hypothetical estimates under an economic outcome that is significantly more severe than expected actual business conditions. The estimates are not intended to represent or forecast actual or expected business conditions.

2 Capital actions based on FRB DFA Capital Action instructions with first projection quarter (Q1 2018) reflecting actual capital actions taken; for second through ninth quarter (Q2 2018 - Q1 2020) capital actions include (a) common stock dividends equal to quarterly average of actuals paid in prior year; (b) payments on other capital instruments equal to stated dividend, interest or principal due in respective quarters; (c) no redemptions or repurchases; (d) no issuance of common or preferred stock, except for employee compensation or planned mergers and acquisitions.

3 The US Basel III standardized approach is used to calculate risk weighted assets for credit risk and market risk with respect to the Common Equity Tier 1 Capital Ratio, the Tier 1 Risk-Based Capital Ratio and the Total Risk-Based Capital Ratio. The numerator for Q4 2017 reflects the US Basel III transitional rules.

4 Compliance with the Supplementary Leverage Ratio was required from January 2018.

5 The US Basel III standardized approach is used to calculate both actual and projected risk weighted assets.

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# C) Results under Supervisory Severely Adverse scenario (continued)

## Projected Losses, Revenues and Net Income before Taxes: Projected Q1 2018 to Q1 2020

| Item[1] | $m | % of Average Assets[2] |
|---|---|---|
| Pre-Provision Net Revenue ("PPNR")[3,4] | 844 | 0.6% |
| Other Revenue | - | |
| *less* | | |
| Provisions | 5,263 | |
| Realized Losses/(Gains) on Securities (AFS/HTM)[5] | - | |
| Trading and Counterparty Losses[6] | 1,238 | |
| Other Losses/(Gains)[7] | 201 | |
| *equals* | | |
| **Net Income/(Losses) Before Taxes** | **(5,858)** | **(4.0%)** |
| **Memo Items** | | |
| Other Comprehensive Income | (8) | |
| *Other Effects on Capital ($m)* | Actual Q4 2017 | Q1 2020 |
| Accumulated Other Comprehensive Income in Capital ("AOCI")[8] | (28) | (16) |

1 Income statement categories used for the results conform to the FRB's definitions; classifications of revenue and expense items may differ from Barclays' financial disclosures.

2 Average Assets are the nine-quarter average of total assets (Q1 2018 – Q1 2020).

3 PPNR is equal to net interest income plus non-interest income, less non-interest expense, impairment losses for other intangible assets and operational risk losses.

4 Operational risk losses include an estimate for litigation expenses associated with a Department of Justice ("DoJ") civil action regarding residential mortgage-backed securities sold by Barclays between 2005 and 2007. On March 29, 2018, Barclays agreed to a settlement with DoJ that resolved all actual and potential civil claims by the DoJ regarding this matter.

5 Available for Sale ("AFS") and Held to Maturity ("HTM") securities.

6 Represents trading and counterparty losses estimated using the supervisory market risk component as specified by the FRB.

7 Includes goodwill impairment.

8 Certain aspects of AOCI are subject to transition arrangements for inclusion in projected regulatory capital. Q4 2017 value represents 80% of unrealized gains or losses on AFS securities and defined benefit pension plans and 100% for 2018-2020.

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# C) Results under Supervisory Severely Adverse scenario (continued)

Loan Loss Projections: Projected Q1 2018 to Q1 2020

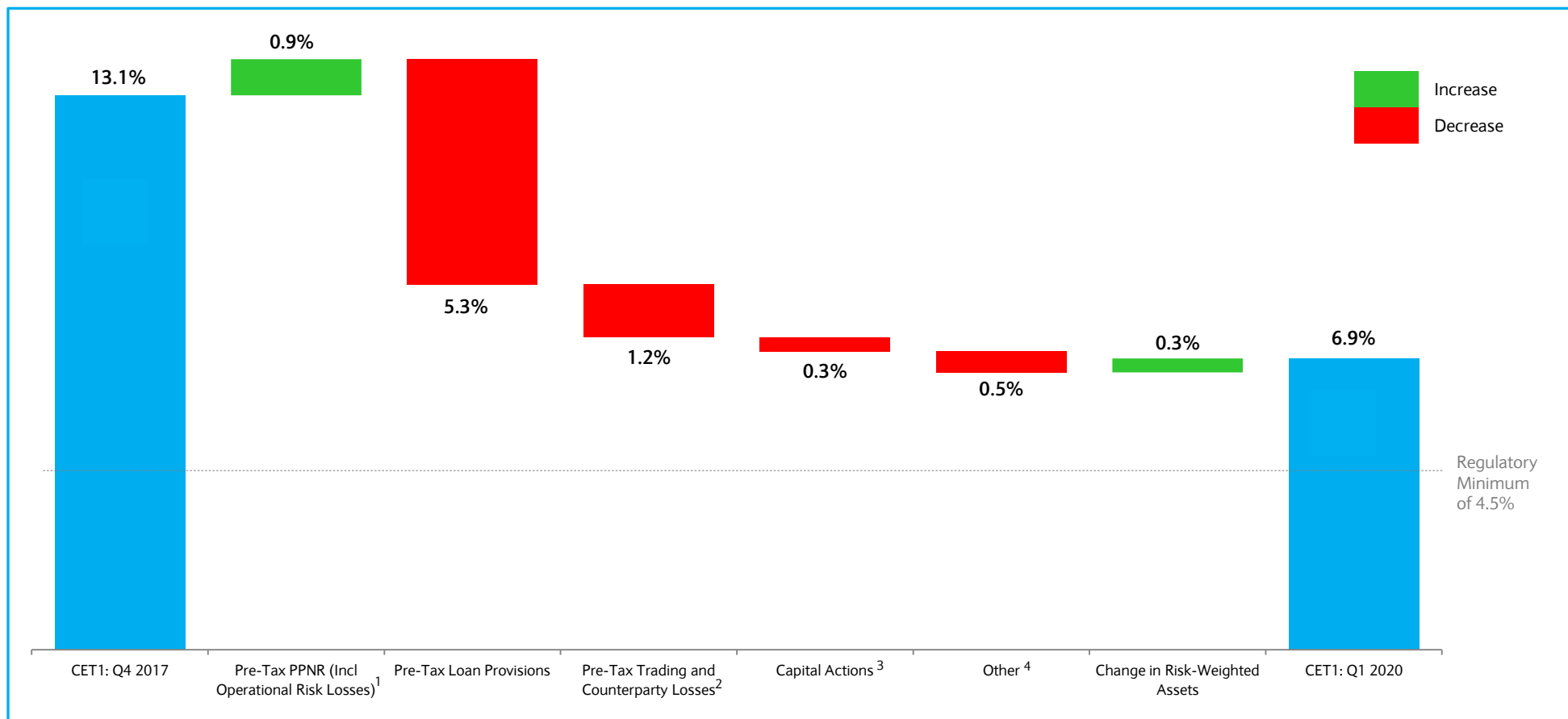| Loan Type | $m[1] | Portfolio Loss Rates |
|---|---|---|
| First Lien Mortgages, Domestic | - | |
| Junior Liens and Home Equity Lines of Credit, Domestic | - | |
| Commercial and Industrial | 40 | 28.2% |
| Commercial Real Estate, Domestic | - | |
| Credit Cards | 4,601 | 18.7% |
| Other Consumer[2] | 13 | 2.7% |
| Other Loans[3] | 34 | 0.4% |
| **Total Projected Loan Losses** | **4,688** | **13.5%** |

1 Average loan balances are calculated over the nine-quarter period (Q1 2018 – Q1 2020). Loans held for sale or measured at fair value are excluded from average loan balances.
2 Other Consumer represents retail installment loans.
3 Other Loans includes loans to depositories and other foreign banks (including intercompany loans to other Barclays entities), loans to purchase and carry securities and Municipal Tender Option Bond loans.

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# C) Results under Supervisory Severely Adverse scenario (continued)
## Common Equity Tier 1 Capital Ratio: Key Drivers, Q1 2018 to Q1 2020



1 Pre-Tax PPNR includes losses from operational risk events and impairment losses for other intangible assets. Operational risk losses include an estimate for litigation expenses associated with a DoJ civil action regarding residential mortgage-backed securities sold by Barclays between 2005 and 2007. On March 29, 2018, Barclays agreed to a settlement with the DoJ that resolved all actual and potential civil claims by the DoJ regarding this matter.
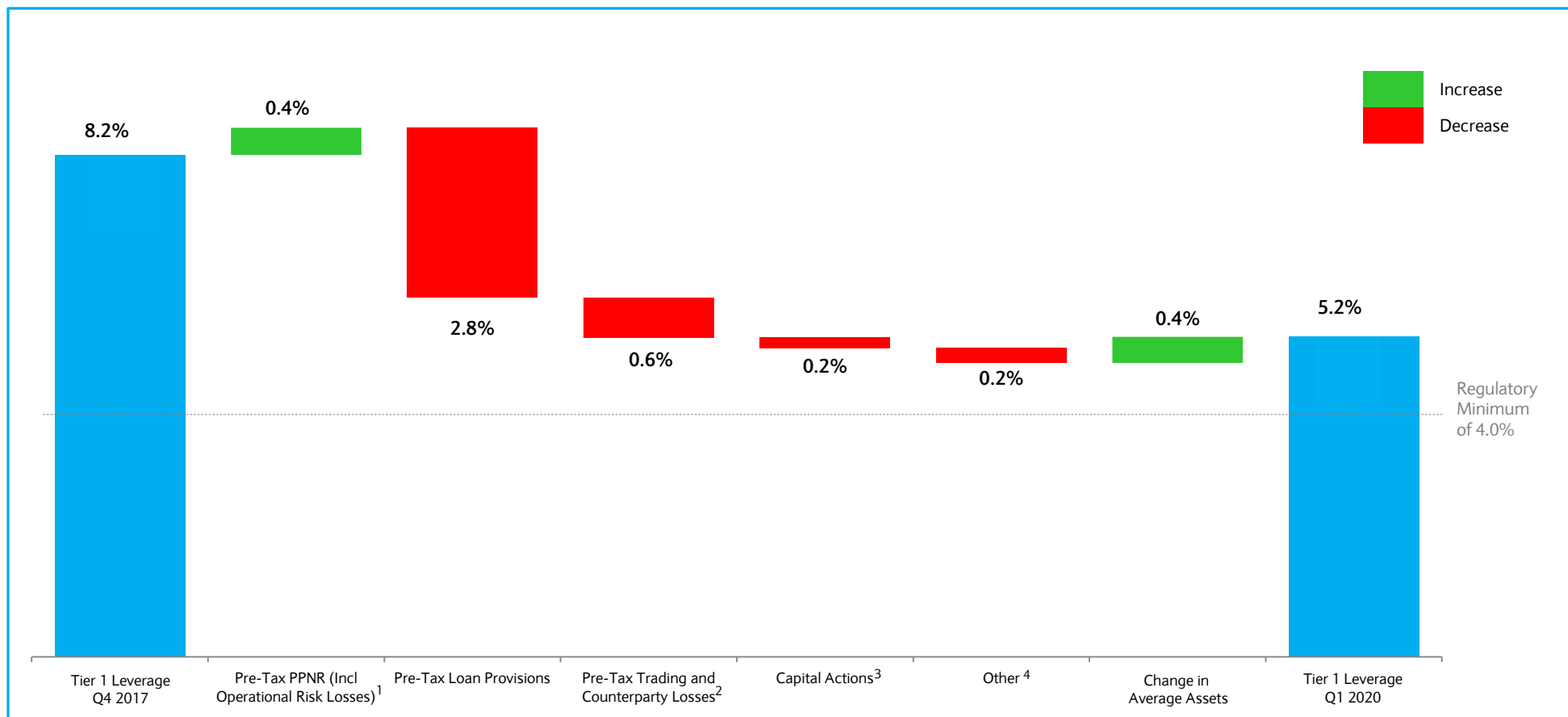
2 Represents trading and counterparty losses estimated using the supervisory market risk component as specified by the FRB.

3 Capital actions based on FRB DFA Capital Action instructions with first projection quarter (Q1 2018) reflecting actual capital actions taken; for second through ninth quarter (Q2 2018 - Q1 2020) capital actions include (a) common stock dividends equal to quarterly average of actuals paid in prior year; (b) payments on other capital instruments equal to stated dividend, interest or principal due in respective quarters; (c) no redemptions or repurchases; (d) no issuance of common or preferred stock, except for employee compensation or planned mergers and acquisitions.

4 Represents impact from tax including Deferred Tax Assets, goodwill impairment, AOCI and impact of change from US Basel III transitional to fully-phased rules.

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# C) Results under Supervisory Severely Adverse scenario (continued)

## Tier 1 Leverage Ratio: Key Drivers, Q1 2018 to Q1 2020



1 Pre-Tax PPNR includes losses from operational risk events and impairment losses for other intangible assets. Operational risk losses include an estimate for litigation expenses associated with a DoJ civil action regarding residential mortgage-backed securities sold by Barclays between 2005 and 2007. On March 29, 2018, Barclays agreed to a settlement with the DoJ that resolved all actual and potential civil claims by the DoJ regarding this matter

2 Represents trading and counterparty losses estimated using the supervisory market risk component as specified by the FRB.

3 Capital actions based on FRB DFA Capital Action instructions with first projection quarter (Q1 2018) reflecting actual capital actions taken; for second through ninth quarter (Q2 2018 - Q1 2020) capital actions include (a) common stock dividends equal to quarterly average of actuals paid in prior year; (b) payments on other capital instruments equal to stated dividend, interest or principal due in respective quarters; (c) no redemptions or repurchases; (d) no issuance of common or preferred stock, except for employee compensation or planned mergers and acquisitions.

4 Represents impact from tax including Deferred Tax Assets, goodwill impairment, AOCI and impact of change from US Basel III transitional to fully-phased rules.

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# D) Types of risks included in Dodd-Frank stress-testing

The risks described below are the most material to Barclays' business activities and included in DFAST.

**Credit Risk**

- The risk of loss from the failure of clients, customers or counterparties to fully honor their obligations to the firm, including the payment of principal, interest, collateral or other obligations.
- Increased counterparty risk, particularly for hedge fund clients, stemming from instantaneous market shocks that could result in uncollateralized exposure.
- Higher retail credit losses and associated loan loss provisions from deterioration in the US macroeconomic environment, particularly in employment, consumer debt levels, and residential real estate metrics.

**Treasury and Capital Risk**

- Capital Risk: The risk that the firm has an insufficient level or composition of capital to support its normal business activities and to meet its regulatory capital requirements under normal operating environments or stressed conditions, both actual and as defined for internal planning or regulatory testing purposes.
- Liquidity Risk: The risk that Barclays is unable to meet its contractual or contingent obligations or that it does not have the appropriate amount, tenor and composition of funding and liquidity to support its assets.
- Interest rate risk in the banking book: The risk that Barclays is exposed to capital or income volatility because of a mismatch between the interest rate exposures of its non-traded assets and liabilities.
- The risk of declining pre-provision net revenue from lower deal and transaction volumes, trading activity levels, spreads earned and other sources of revenue streams.
- The risk from affiliate relationships, notably with Barclays' parent entity and dependencies on the parent's creditworthiness.
- The risk from reduced revenue opportunities or increased capital constraints as a result of changes in the regulatory environment, the emergence of geopolitical risks or other changes in the competitive landscape.

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# D) Types of risks included in Dodd-Frank stress-testing (continued)

**Market Risk**

- The risk of loss arising from potential adverse changes in the value of the firm's assets and liabilities from fluctuation in market variables including interest rates, foreign exchange, equity prices, commodity prices, credit spreads, implied volatilities and asset correlations.
- The risk of unexpected losses on residual trading inventory positions, both from sudden adverse directional systemic moves as well as more sector or name-specific idiosyncratic events, including default.

**Operational Risk**

- The risk of loss to Barclays from inadequate or failed processes or systems, human factors or external events including fraud where the root cause is not due to credit or market risks.
- The risk of business disruption from technology outages or system errors and the associated cost to remediate issues given high transaction volumes and reliance on complex technology and data management systems.
- The risk of data breaches, including loss of sensitive data; increased frequency and severity of cyber attacks.

**Conduct Risk**

- The risk of detriment to customers, clients, market integrity, competition or Barclays from the inappropriate supply of financial services, including instances of willful or negligent misconduct.
- The risk of detriment to clients from cultural or strategic decisions resulting in legal fines and/or settlements and increased regulatory scrutiny.

**Other Risks**

- Barclays further considers and manages a range of other risks that could be significant in capital planning and capital adequacy assessment processes including Legal Risk, Model Risk and Reputation Risk.

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# E) Description of methodologies used for forecasting

**Overview of Estimation Methodologies**

- Barclays uses an interconnected network of models to simulate business performance over nine quarters, under both baseline and stressed market conditions.
- Outputs from this simulation process include income statement, balance sheet and resource consumption metrics, as well as capital and leverage ratios.

**Pre-Provision Net Revenue**

- PPNR is equal to net interest income plus non-interest income, less non-interest expense, operational risk losses and impairment losses for other intangible assets.
- The income components of PPNR are derived using methodologies informed by macroeconomic variables and/or expert judgment. These are estimated at a business or segment level.
- The non-interest expense components of PPNR use estimation methods that reflect the current cost base and incorporate a defined set of management actions which reduce variable costs in stressed scenarios. These are estimated at a legal entity level.
- The operational risk loss components of PPNR include legal losses, non-legal losses (such as credit card fraud) and idiosyncratic events. They use estimation methods informed by macroeconomic variables, historical experience and expert judgment.

**Risk-Weighted Assets**

- Risk-weighted assets comprise two components for Barclays:
  - The standardized approach, which is used for credit, counterparty credit and specific market risk exposures.
  - Modeled market risk, which is used for general market risk exposures.
- Projections under the standardized approach are calculated using spot risk-weighted asset infrastructure, augmented by models that project key inputs such as collateral mix and credit ratings.
- Projections under the modeled market risk approach are calculated using approaches that link risk-weighted asset components to changes in market variables such as equity or rates volatility.

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# E) Description of methodologies used for forecasting (continued)

**Retail and Wholesale Credit Loss Provisions**

- Retail loss provisions reflect the credit characteristics of Barclays' credit card and installment loan portfolios:
  - The models used for this metric are informed by macroeconomic variables such as unemployment, Housing Price Index and interest rates, customer behavior and credit bureau attributes.
  - Probability of default, exposure at default and loss given default calculations are performed either at a loan or portfolio level.
  - Net credit loss forecasts are used to determine loan loss reserve build or release over the forecast horizon.
- Wholesale losses are not considered material for Barclays.
- Both retail and wholesale loss provisions are calculated using balance sheet forecasts as inputs.

**Market Risk Components**

- For the 2018 Annual DFAST, Barclays estimated trading and counterparty losses using the interim supervisory market risk component methodology as specified by the FRB.
- Losses on the market risk component are treated as an add-on to losses associated with the macroeconomic scenario.

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**Note on forward-looking statements:**

This announcement contains certain forward-looking statements within the meaning of Section 21E of the US Securities Exchange Act of 1934, as amended, and Section 27A of the US Securities Act of 1933, as amended. Barclays cautions readers that no forward-looking statement is a guarantee of future performance and that actual results or other financial condition or performance measures could differ materially from those contained in the forward-looking statements. These forward-looking statements can be identified by the fact that they do not relate only to historical or current facts. Forward-looking statements use words such as 'may', 'will', 'seek', 'continue', 'aim', 'anticipate', 'target', 'projected', 'expect', 'estimate', 'intend', 'plan', 'goal', 'believe', 'achieve', or other words of similar meaning. These statements and estimates are based on the current assumptions, beliefs and expectations of Barclays' management. By their nature, forward-looking statements involve risk and uncertainty because they relate to future events and circumstances.

Subject to obligations under applicable law and regulation, Barclays undertakes no obligations to update publicly or review any forward-looking statements, whether as a result of new information or otherwise.

The reader should, however, consult any additional disclosures that Barclays has made or may make in documents it has published or may publish via the Regulatory News Service of the London Stock Exchange and/or has filed or may file with the US Securities and Exchange Commission.

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