

# Morgan Stanley

**Market Risk Capital Disclosures Report**

**For the Quarter Ended March 31, 2013**

# Morgan Stanley

## MARKET RISK CAPITAL DISCLOSURES REPORT

*For the quarter ended March 31, 2013*

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**1 Morgan Stanley**

Morgan Stanley is a global financial services firm that, through its subsidiaries and affiliates, provides its products and services to a large and diversified group of clients and customers, including corporations, governments, financial institutions and individuals. The Company is a financial holding company regulated by the Board of Governors of the Federal Reserve System (the “Federal Reserve”) under the Bank Holding Company Act of 1956, as amended. Unless the context otherwise requires, the terms “Morgan Stanley” or the “Company” mean Morgan Stanley (the “Parent”) together with its consolidated subsidiaries.

**2 Risk-based Capital Guidelines: Market Risk**

Morgan Stanley’s market risk capital disclosures contained in this report are required by Section 12 of *Risk-based Capital Guidelines: Market Risk*, published in the Federal Register (Vol. 77, No. 169) on August 30, 2012 (“market risk capital framework amendment”).

On January 1, 2013, the U.S. banking regulators’ final rules to implement the Basel Committee on Banking Supervision’s market risk capital framework amendment, commonly referred to as “Basel 2.5,” became effective. Basel 2.5 increased capital requirements for securitizations and correlation trading positions within the Company’s trading book, as well as incorporated add-ons for stressed Value-at-Risk (“VaR”) and incremental risk requirements. The Company’s risk-based capital and risk-weighted assets (“RWAs”) shown below for the quarter ended March 31, 2013 reflect the Basel 2.5 market risk capital framework amendment.

**3 Market Risk**

Market risk refers to the risk that a change in the level of one or more market prices, rates, indices, implied volatilities (the price volatility of the underlying instrument imputed from option prices), correlations or other market factors, such as market liquidity, will result in losses for a position or portfolio. Generally, the Company incurs market risk as a result of trading, investing and client facilitation activities, principally within the Institutional Securities business segment where the substantial majority of the Company’s market risk capital is generated. In addition, the Company incurs trading-related market risk within the Global Wealth Management Group business segment. The Asset Management business segment incurs principally Non-trading market risk primarily from capital investments in real estate funds and investments in private equity vehicles.

**3.1 Market Risk Capital Charge and RWAs**

The table below shows the total market risk capital charge and RWAs under Basel 2.5 market risk capital framework amendment categorized by component type.

<u>Components of Market Risk Capital Charge and RWAs</u>	<u>Quarter Ended</u>	
	<u>March 31, 2013</u>	
	<u>Capital Charge</u>	<u>RWAs</u>
	<small>(dollars in millions)</small>	
Regulatory VaR .....	\$ 887	\$ 11,093
Regulatory Stressed VaR .....	2,455	30,681
Incremental Risk Charge .....	1,626	20,321
Comprehensive Risk Measure .....	852	10,654
Total Model-based Charges .....	<u>\$ 5,820</u>	<u>\$ 72,749</u>
Securitization Charge .....	2,856	35,709
Correlation Surcharge .....	1,080	13,497
Other Standardized Charges .....	2,342	29,276
Total Standardized Charges .....	<u>\$ 6,278</u>	<u>\$ 78,482</u>
Total Market Risk .....	<u>\$ 12,098</u>	<u>\$ 151,231</u>

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For further information about the Company's regulatory capital requirements, see "Liquidity and Capital Resources—Regulatory Requirements—Capital" in Part I, Item 2 of the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2013 (the "Form 10-Q").

### **3.2 Model Methodology and Assumptions**

#### **Regulatory VaR**

The Company estimates VaR using a model based on volatility-adjusted historical simulation for general market risk factors and Monte Carlo simulation for name-specific risk in corporate shares, bonds, loans and related derivatives. The model constructs a distribution of hypothetical daily changes in the value of trading portfolios based on the following: historical observation of daily changes in key market indices or other market risk factors; and information on the sensitivity of the portfolio values to these market risk factor changes. The Company's VaR model uses four years of historical data with a volatility adjustment to reflect current market conditions.

The Company utilizes the same VaR model for both risk management purposes as well as regulatory capital calculations. The portfolio of positions used for the Company's Management VaR differs from that used for its Regulatory VaR, as it contains certain positions which are excluded from Regulatory VaR, as determined by regulatory capital requirements. Examples include loans that are fair valued and associated hedges, as well as counterparty credit valuation adjustments. Additionally, the Company's Management VaR excludes certain positions contained in its Regulatory VaR, such as hedges to counterparty exposures related to the Company's own credit spread.

For regulatory capital purposes, VaR is computed at a 99% level of confidence over a one-day time horizon, scaled to a ten-day time horizon. The Company's Management VaR is computed at a 95% level of confidence over a one-day time horizon, which is a useful indicator of possible trading losses resulting from adverse daily market moves. For more information about the Company's Management VaR model and related statistics, see "Quantitative and Qualitative Disclosures about Market Risk—Risk Management—Market Risk" in Part II, Item 7A of the Company's Annual Report on Form 10-K for the year ended December 31, 2012 (the "Form 10-K") and Part I, Item 3 of the Form 10-Q.

#### **Regulatory Stressed VaR**

Regulatory Stressed VaR is calculated using the same methodology and portfolio composition as Regulatory VaR. However, Regulatory Stressed VaR is based on a continuous one year historical period of significant market stress, appropriate to the Company's portfolio. The Company's selection of the one year stressed window is evaluated on an ongoing basis.

#### **Incremental Risk Charge**

The Incremental Risk Charge ("IRC") is an estimate of default and migration risk of unsecuritized credit products in the trading book. The IRC model also captures recovery risk, and assumes that average recoveries are lower when default rates are higher. The IRC is calculated at a 99.9% level of confidence over a one-year time horizon. A constant level of risk assumption is imposed and ensures that all positions in the IRC portfolio are evaluated over the full one-year time horizon.

The IRC model differentiates the underlying traded instruments by liquidity horizons, with the minimum liquidity horizon set to 3 months. Lower rated issuers receive longer liquidity horizons of between 6 and 12 months. In addition to the ratings-based liquidity horizon, the Company also applies liquidity horizon penalties to positions that are deemed concentrated.

#### **Comprehensive Risk Measure**

The Comprehensive Risk Measure ("CRM") is an estimate of risk in the correlation trading portfolio, taking into account credit spread, correlation, basis, recovery and default risks. The CRM is calculated to a 99.9% level of confidence over a one-year time horizon, applying the constant level of risk assumption.

All positions in the CRM portfolio are given a liquidity horizon of 6 months.

Positions eligible for CRM are also subject to an 8% capital surcharge, which is referred to as the "Correlation Surcharge" in the Components of Market Risk Capital Charge and RWAs table in Section 3.1.

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**3.3 Model Limitations**

Regulatory VaR, Regulatory Stressed VaR, IRC and CRM numbers are not readily comparable across firms because of differences in the firms' portfolios, modeling assumptions and methodologies. In IRC and CRM, those differences may be particularly pronounced because of the long risk horizon measure by those models as well as the difficulty in performing backtesting. These differences can result in materially different numbers across firms for similar portfolios. As a result, the model-based numbers tend to be more useful when interpreted as indicators of trends in a firm's risk profile rather than as an absolute measure of risk to be compared across firms.

**3.4 Regulatory Approval of the Company's Models**

The Company's Regulatory VaR model, Regulatory Stressed VaR model, IRC model, and CRM model have all been approved for use by the Company's regulators.

**3.5 Market Risk Capital Disclosures for the Quarter Ended March 31, 2013**

The tables below present the Company's model-based market risk regulatory capital components for each of the Company's primary market risk exposures for the quarter ended March 31, 2013.

**Regulatory VaR**

	Daily 99% / One-Day Regulatory VaR			
	Quarter Ended March 31, 2013			
	Period End	Average	High	Low
	(dollars in millions)			
Interest rate .....	39 \$	64 \$	83 \$	37
Credit spread .....	51	52	57	47
Equity price .....	24	25	42	21
Foreign exchange rate .....	22	20	30	15
Commodity price .....	42	40	49	31
Less: Diversification benefit(1)(2) .....	(93)	(107)	N/A	N/A
Total Regulatory VaR .....	<u>85 \$</u>	<u>94 \$</u>	110 \$	80

- (1) Diversification benefit equals the difference between the total VaR and the sum of the component VaRs. This benefit arises because the simulated one-day losses for each of the components occur on different days; similar diversification benefits also are taken into account within each component.
- (2) N/A—Not Applicable. The minimum and maximum VaR values for the total VaR and each of the component VaRs might have occurred on different days during the quarter, and therefore the diversification benefit is not an applicable measure.

**Regulatory Stressed VaR**

	Daily 99% / One-Day Regulatory Stressed VaR			
	Quarter Ended March 31, 2013			
	Period End	Average	High	Low
	(dollars in millions)			
Total Regulatory Stressed VaR .....	256 \$	258 \$	321 \$	187

**Incremental Risk Charge**

	Quarter Ended March 31, 2013			
	Period End	Average	High	Low
	(dollars in millions)			
Total Incremental Risk Charge .....	1,626 \$	1,238 \$	1,626 \$	1,031

**Comprehensive Risk Measure**

	Quarter Ended March 31, 2013			
	Period End	Average	High	Low
	(dollars in millions)			
Total Comprehensive Risk Measurement .....	654 \$	860 \$	1,160 \$	654

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### **3.6 Regulatory VaR Validation**

One method of evaluating the reasonableness of the Company's VaR model as a measure of the Company's potential volatility of net revenue is to compare the VaR with the hypothetical buy-and-hold trading revenue. Assuming no intra-day trading, for a 99%/one-day VaR, the expected number of times that trading losses should exceed VaR during the year is two to three times, and, in general, if trading losses were to exceed VaR more than ten times in a year, the adequacy of the VaR model could be questioned. For days where losses exceed the VaR statistic, the Company examines the drivers of trading losses to evaluate the VaR model's accuracy relative to realized trading results.

The Company regularly conducts a comparison of its VaR-based estimates with buy-and-hold gains or losses experienced ("backtesting"). The Company had no backtesting exceptions during the quarter ended March 31, 2013.

### **3.7 Covered Positions**

**Composition of Trading Book:** During the quarter ended March 31, 2013, the Company had exposures to a wide range of interest rates, credit spread, equity prices, foreign exchange rates and commodity prices—and the associated implied volatilities and spreads—related to the global markets in which it conducts its trading activities. For more information about such exposures, see "Quantitative and Qualitative Disclosures about Market Risk—Risk Management—Market Risk—Sales and Trading and Related Activities" in Part II, Item 7A of the Form 10-K.

Covered positions include trading assets or liabilities held by the Company for the purpose of short-term resale or with the intent of benefiting from actual or expected price movements related to its market-making activities. In addition to positions deemed a trading asset or liability, the foreign exchange and commodity exposure of certain banking book assets are also considered covered positions under the Federal Reserve's market risk capital framework amendment.

The Company manages its covered positions by employing a variety of risk mitigation strategies. These strategies include diversification of risk exposures and hedging. Hedging activities consist of the purchase or sale of positions in related securities and financial instruments, including a variety of derivative products (*e.g.*, futures, forwards, swaps and options). Hedging activities may not always provide effective mitigation against trading losses due to differences in the terms, specific characteristics or other basis risks that may exist between the hedge instrument and the risk exposure that is being hedged. The Company manages the market risk associated with its trading activities on a Company-wide basis, on a worldwide trading division level and on an individual product basis. The Company manages and monitors its market risk exposures in such a way as to maintain a portfolio that the Company believes is well-diversified in the aggregate with respect to market risk factors and that reflects the Company's aggregate risk tolerance as established by the Company's senior management.

**Valuation Policies, Procedures, and Methodologies for Covered Positions:** For more information on the Company's valuation policies, procedures, and methodologies for covered positions (trading assets and trading liabilities), see Notes 2 (Significant Accounting Policies) and 4 (Fair Value Disclosures) to the consolidated financial statements in the Form 10-K and Note 4 (Fair Value Disclosures) to the condensed consolidated financial statements in the Form 10-Q.

## **4 Correlation Trading Positions and Securitization Exposures in the Trading Book**

A correlation trading position is a securitization position for which all or substantially all of the value of the underlying exposure is based on the credit quality of a single company for which a two-way market exists, or on commonly traded indices based on such exposures for which a two-way market exists on the indices. Hedges of correlation trading positions are also considered correlation trading positions. At March 31, 2013, the Company's aggregate CRM eligible correlation trading positions had a Net Market Value<sup>1</sup> of \$3,120 million and a Gross Exposure<sup>2</sup> of \$446,441 million.

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<sup>1</sup> Net Market Value represents the fair value for cash instruments and the replacement value for derivative instruments.

<sup>2</sup> Gross Exposure represents the fair value for cash instruments and the net bond equivalent market value for derivative instruments, adding together the absolute values of net long and net short positions.

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The Company also engages in securitization activities related to commercial and residential mortgage loans, corporate bonds and loans, municipal bonds and other types of financial instruments. The following table presents the Net Market Value and the Gross Exposure of the Company's aggregate on-balance sheet and off-balance sheet securitization positions by exposure type, inclusive of hedges, in the trading book:

<u>Exposures</u>	<u>At March 31, 2013</u>	
	<u>Net Market Value(1)</u>	<u>Gross Exposure(2)</u>
	(dollars in millions)	
Residential mortgages.....	\$ 2,848	\$ 3,805
Commercial mortgages.....	2,318	5,925
Corporate debt(3).....	1,226	9,388
Asset-backed securitizations and other.....	1,397	1,381
Total.....	<u>\$ 7,789</u>	<u>\$ 20,499</u>

- (1) Net Market Value represents the fair value for cash instruments and the replacement value for derivative instruments.  
(2) Gross Exposure represents the fair value for cash instruments and the net bond equivalent market value for derivative instruments, adding together the absolute values of net long and net short positions.  
(3) Includes correlation trading positions that are not CRM eligible.

For more information on the Company's securitization activities, see "Securitization Activities" in Note 7 (Variable Interest Entities and Securitization Activities) to the consolidated financial statements in the Form 10-K.