



**FIFTH THIRD BANCORP  
MARKET RISK DISCLOSURES**

For the year ended December 31, 2016

## ***The Market Risk Rule***

In order to better capture the risks inherent in trading positions the Office of the Comptroller of the Currency (OCC), jointly with the Board of Governors of the Federal Reserve System (FRB), and the Federal Deposit Insurance Corporation (FDIC) issued revised market risk based capital guidelines effective January 1, 2013. With more than \$1 billion in gross market value of trading assets and liabilities, Fifth Third Bancorp (together with its subsidiaries, FITB) is subject to the Federal Reserve's Market Risk Rule (MRR) and operates in compliance with its requirements.

The MRR defines market risk as the risk of loss on a position that could result from movements in market price. The MRR establishes regulatory capital requirements and sets out certain key market risk measurement and management techniques, including the need for calculating Value-at-Risk (VaR) and Stressed VaR (SVaR) for each covered position, stress testing, back testing and independent market risk management. It requires that market risk on all covered positions be computed on a consistent basis to facilitate the aggregation and management of market risks across all trading businesses. To increase transparency and improve market discipline, the MRR requires that we make quantitative and qualitative disclosures regarding the calculation of our capital charge for exposure to general market risk on a regular basis.

The Market Risk Management Group manages FITB's day-to-day market risk management program, which includes documented and enforced market risk policies and risk limits. Market Risk Management is governed by FITB's Market Risk Management Committee, which is ultimately accountable to the Risk and Compliance Committee of FITB's Board of Directors.

## ***Covered Positions***

FITB captures and aggregates all covered positions within a VaR framework. For this purpose, covered positions include all positions in FITB's trading account. Trading activities are primarily customer-driven and are materially comprised of interest rate derivatives (IRD), foreign exchange contracts (FX), commodity contracts and Fifth Third Securities (FTS) trading inventory. FITB also recently added a loan trading product to its portfolio; however, as of December 31, 2016 no principal trades have been executed, thus all market risk metric values are currently at zero. In compliance with the Volcker Rule, FITB is prohibited from engaging in short-term proprietary trading activities, subject to certain exemptions. While FITB has some exposure to other types of market risk including FX, commodity, equity and credit risk, interest rate risk is the primary source of market risk for the trading account.

Transactions entered into for the management of FITB's balance sheet risk are not covered positions for the purpose of MRR. Commercial customers enter into IRD trades with FITB and FITB typically enters into offsetting trades with approved bank counterparties to reduce or eliminate market risk. Similarly, FX and commodity price risk are generally minimal, as trades with customers are most often offset with opposite trades executed with approved bank counterparties. Market risk can result when offsetting trades are not executed at the same time as the customer trades, or when there is a mismatch in coupon payments or the maturity structure. Another risk arises from the non-linear price characteristics of options positions and their sensitivity to the volatility of the underlying rates or prices. FTS originates, underwrites and distributes fixed income securities through its sales and trading staff. Although the typical hold period is very short term, this is our only "long" portfolio and the main driver of VaR and risk-weighted assets (RWA). Inventory primarily consists of corporate and municipal bonds, agencies, mortgage backed securities, treasuries and treasury futures.

A documented, well-enforced program of trading limits prohibits certain potential covered-position exposures and helps reduce model complexity. Market risk limits are set independently but with the concurrence of the lines of business and are reviewed by senior management and the Board of Directors on at least an annual basis. Limits on quantitative risk measures, including VaR, are monitored on a daily basis and reported in dashboards along with limit exceptions, significant positions, and profit and loss attribution.

## ***Valuation***

Trading positions are generally valued on a mark-to-market basis using various third party pricing sources. For the positions that are priced using a model approach, procedures ensure that valuations are consistent with

observable market information. Trading positions are subject to independent price verification by Market Risk Management and are reported at fair value with changes reflected in income. For further information on the fair value of certain financial assets and liabilities see Note 26 to the Consolidated Financial Statements in FITB's Annual Report on Form 10-K for the year ended December 31, 2016. There have been no material changes to valuation policies, procedures and methodologies.

### **Value-at-Risk**

VaR is the market risk measurement technique used to estimate the potential future loss on a portfolio that can be expected over a given time horizon at a specified level of certainty or confidence interval. FITB uses a Historical VaR methodology, which compares the actual volatility of risk factors such as rates, spreads and prices to the historical sensitivity of those factors. It captures empirical correlations within and across risk categories. FITB addresses all significant price risks within its VaR model, including basis risk as well as directional market risks.

For each trading portfolio, VaR is calculated on a daily basis using a 99% one-tailed confidence level. The 10-day VaR is calculated using the actual 10-day historical changes in risk factors; we do not scale the 1-day VaR to calculate the 10-day VaR because scaling assumes that daily portfolio returns are independent and identically distributed. When this assumption is violated, the square root of time approximate is not appropriate. The model uses a rolling historical observation period of 750 business days and the market data is updated and validated on a daily basis.

### **Stressed VaR**

FITB uses the same internal VaR models to calculate a stressed VaR-based measure (SVaR), subject to the same confidence level and holding period, but with model inputs calibrated to historical data from a continuous 12-month period that reflects a period of significant financial stress. The SVaR supplements the VaR metric by mitigating the pro-cyclicality of the minimum capital requirements for market risk. The same time frame is used to calculate SVaR for each sub-portfolio and aggregate SVaR must be no less than the aggregate VaR.

The stress period selected is directly linked to the composition and directional basis of the current trading portfolio. FITB reviews the appropriateness of the 12-month stress period on a regular basis, considering changes in trading exposure, product offerings, business model, risk appetite, hedging strategy, etc. Market Risk Management maintains policies and procedures that describe how the stress period is calibrated, including empirical support for the current period.

As depicted in Chart 1 below, FITB's 10 Day VaR was significantly higher in Q3-2016 than in Q4-2016. As of 12/31/16, 91% of FITB's RWA related to market risk is held in the FTS portfolio. Markets related to this portfolio experienced a significant amount of volatility post-election. This, combined with overall higher levels of municipal bond inventory being held during Q4, led to the increased 10 Day VaR levels shown in Chart 1.

**TABLE 1: VaR-Based Metrics**

<i>60 Days Ended December 31, 2016 (\$ in thousands)</i>	<b>FTS</b>	<b>FX</b>	<b>Commodity</b>	<b>IRD</b>	<b>Loan Trading</b>	<b>Aggregate<sup>2</sup></b>
Low VaR <sup>1</sup>	621	35	52	11	-	852
High VaR	2,726	154	327	19	-	3,034
Mean VaR	1,547	60	172	15	-	1,793
Period End VaR	1,466	66	107	18	-	1,656
Low Stressed VaR	2,304	40	52	15	-	2,624
High Stressed VaR	4,744	139	317	22	-	4,983
Mean Stressed VaR	3,128	84	163	18	-	3,394
Period End Stressed VaR	2,416	62	126	21	-	2,624

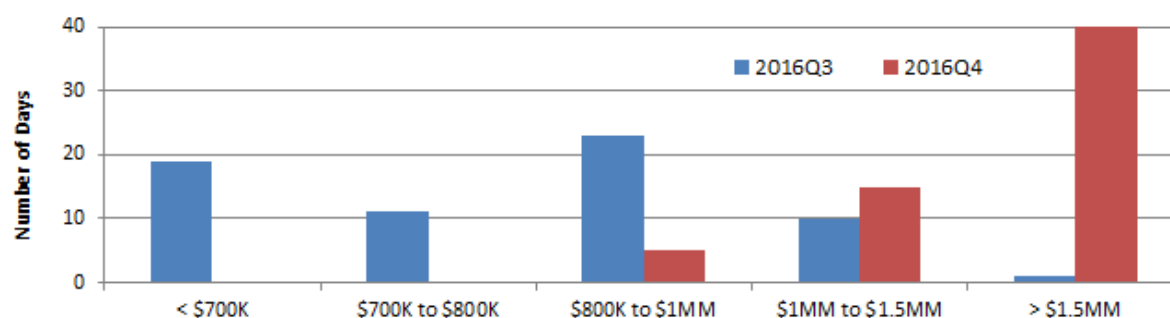
<sup>1</sup> 99% confidence, 10-day hold period

<sup>2</sup> Because low and high VaR/SVaR may occur on different days for different trading areas, low and high for the aggregate portfolio will not equal the sum of the individual components

**Table 2: VaR by Risk Class**

Quarter Average for December 31, 2016 (Dollars in thousands)	1 Day 99% VaR	10 Day 99% VaR	10 Day 99% SVaR
Interest Rate Risk	41	(1,122)	477
Credit Spread Risk	(364)	(408)	(3,518)
Equity Price Risk	(3)	(22)	(83)
Residual Risk	(8)	5	(18)
Foreign Exchange Risk	(20)	(59)	(85)
Commodity Price Risk <sup>1</sup>	(11)	(172)	(163)
<b>Grand Total</b>	<b>(365)</b>	<b>(1,777)</b>	<b>(3,391)</b>

<sup>1</sup> Due to scaling that takes place during the SVaR calculation, SVaR for Commodities tends to be higher than the VaR.

**CHART 1: Distribution of Daily 99% Confidence 10-Day Hold VaR Statistics for the Total Trading Portfolio**

### Specific Risk Measure

Specific risk is the risk of loss on a position that could result from factors other than broad market movements such as event risk, credit/default risk and idiosyncratic risk. FITB calculates the specific risk charge using the standardized measurement method, which measures specific risk pursuant to fixed risk weights as prescribed by the MRR.

### Capital Adequacy

FITB assesses capital adequacy on a regular basis, based on actual and estimated positions in both baseline and stressed scenarios. Multiple risk measures are aggregated to arrive at the total market risk based component of the regulatory capital calculation, or Market Risk – Risk Weighted Assets. For more information on FITB's regulatory capital calculation, see "Capital Management" and "Non-GAAP Financial Measures" section of Management's Discussion and Analysis of Financial Condition and Results of Operations in FITB's Annual Report on Form 10-K for the year ended December 31, 2016. The following table summarizes the minimum capital requirement and RWA for market risk. Per policy, correlation trading is not allowed and as of December 31, 2016 FITB's covered positions did not contain any on- or off-balance sheet securitization positions as defined by the MRR. As such the calculation does not include incremental or comprehensive risk charges.

**TABLE 3: Market Risk Capital and Risk Weighted Assets**

As of December 31, 2016 (\$ in thousands)	VaR <sup>1</sup>	SVaR <sup>2</sup>	Specific Risk	Capital Charge	RWA
FTS Inventory	4,640	9,384	1,604	15,629	195,360
FX Contracts	179	253	-	432	5,400
Commodity Contracts	515	489	-	1,004	12,556
Commercial Customer IRDs	45	55	-	100	1,248
Loan Trading	-	-	-	-	-
<b>Grand Total</b>	<b>5,379</b>	<b>10,181</b>	<b>1,604</b>	<b>17,165</b>	<b>214,563</b>

<sup>1</sup> 10-day hold, 99% confidence regulatory VaR-based Capital Charge

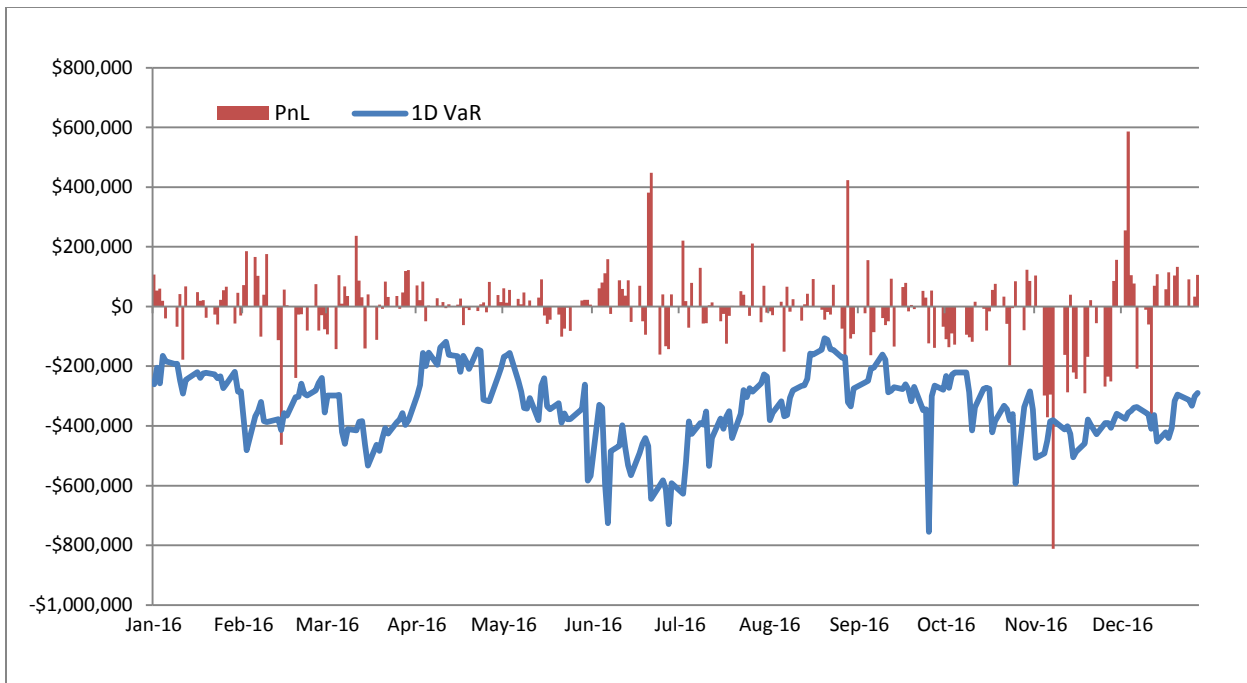
<sup>2</sup> 10-day hold, 99% confidence regulatory Stressed VaR-based Capital Charge

## Back Testing Results

FITB back tests the internal VaR models against the subsequent hypothetical or clean P&L on a daily basis using 99% confidence level non-scaled 1-day hold VaR. Clean P&L assumes that end-of-day positions remain constant over the next business day (therefore excluding fees, commissions, reserves, net interest income and intraday trading), and also reflects changes in instrument liquidity and reduced marketability of unique positions. FITB also calculates the p-value of the gain or loss each day, that is the probability of observing a profit less than or a loss greater than the clean P&L calculation based on the internal VaR model. The p-value statistic provides information regarding the appropriateness of the entire P&L distribution and adds an explanatory power to the VaR metric.

Each quarter, FITB identifies the number of exceptions that have occurred over the last 250 business days, where the actual daily loss exceeded the corresponding daily VaR measurement. With a 99% confidence interval, it is expected that actual losses would exceed VaR one out of 100 trading days, or two to three times per year, on average. The following graph shows a comparison of the 99% 1-day VaR calculation to the daily clean P&L for the same positions. Over the past year there have been two backtesting exceptions for the overall portfolio of covered positions. The first exception occurred from the February 17, 2016 VaR calculation, arising from FITB's FTS portfolio. A change in the construction of FITB's municipal curves was implemented on this date which in turn impacted FITB's securities pricing and caused a daily P&L loss that exceeded the daily VaR by \$49,427, triggering the backtesting exception. The second occurred on August 30<sup>th</sup>, 2016, resulting in a daily P&L loss that exceeded the daily VaR by \$17,033. This backtesting exception was due to the way that FITB's data provider pulls in their observable market prices. There was a large issuance that day of Louisiana GOs that were rated AA- but trade more like an A. Because these bonds were rated AA-, they were included in the AA- curve and skewed the results. The data provider chose not to restate the results and as a result, a backtesting exception occurred. A third backtesting exception occurred on November 14<sup>th</sup>, 2016. On this day, municipal bonds sold off significantly and widened against Treasuries (10 year municipal benchmark sold off 20 basis points on this day). This widening resulted in a daily P&L loss that exceeded the daily VaR by \$431k.

**CHART 2: Total Trading Portfolio 1-Day Regulatory VaR versus Clean P&L**



## Stress Testing

Since VaR cannot incorporate all possible risk outcomes and can understate the risk associated with severe events, stress testing helps capture sudden and dramatic changes in a portfolio's value given abnormal market conditions. On at least a monthly basis, FITB estimates the maximum loss for each trading portfolio by hypothesizing the portfolio's gain or loss given the recurrence of historical events and the occurrence of forward looking hypothetical scenarios. All covered positions are captured in stress test models. Current positions and risk exposures are combined with the historical and hypothetical factor returns, taking into account historical correlations and volatilities among asset classes and risk factors. The model captures significant non-linearity within covered positions and explicitly considers instrument-level liquidity stresses.

We attempt to identify reasonably feasible but severe market scenarios, considering the composition of covered positions and the nature of business strategies. For example, the Fifth Third Securities portfolio is most vulnerable to rising interest rates and periods of illiquidity. To stress this book we apply various shocks to yield curves and credit spreads. In FX and Commodities we stress spot rates, forward curves and volatility surfaces. FITB uses stress test results to actively monitor market risk in its trading portfolios; results are communicated to senior management and limit violations are escalated. The models assume portfolios remain static; they do not capture how management would adjust positions if sudden, significant changes in market conditions were to occur.

Stress testing for the trading portfolio is also incorporated in firm-wide stress testing. The risk factors are the same in both models but the values used in the firm-wide scenarios are updated to align with internal and regulatory guidance. In the individual trading portfolio stress tests, hypothetical shocks are instantaneous and current positions are held constant. The firm-wide analysis requires a forecast over a longer time horizon and may include certain assumptions about growth and changes in trading strategy.

#### ***Model Validation***

It is the policy of FITB to have financial and quantitative models reviewed and validated by internal or external resources that are independent of development, implementation and operation of the model. The Model Risk Management Group (MRMG) evaluates the conceptual framework used by the VaR and the SVaR models, the assumptions underlying the models and the sufficiency and completeness of the risk factors and historical market data used in the models. MRMG also performs independent validation of results when new models are implemented or existing methodology is changed. In addition, at least annually, an internal audit function independent of business line management and risk management assesses the effectiveness of the controls supporting market risk measurement systems, processes and management activities.

#### ***Disclosure Attestation***

The Board of Directors and Senior Management are responsible for establishing an effective internal control structure over financial reporting, including disclosures required by the MRR. This disclosure is submitted in conjunction with the quarterly Form 10-Q and annual Form 10-K filings.