

## The Market Volatility of August 24, 2015: What Happened and Where Do We Go From Here?

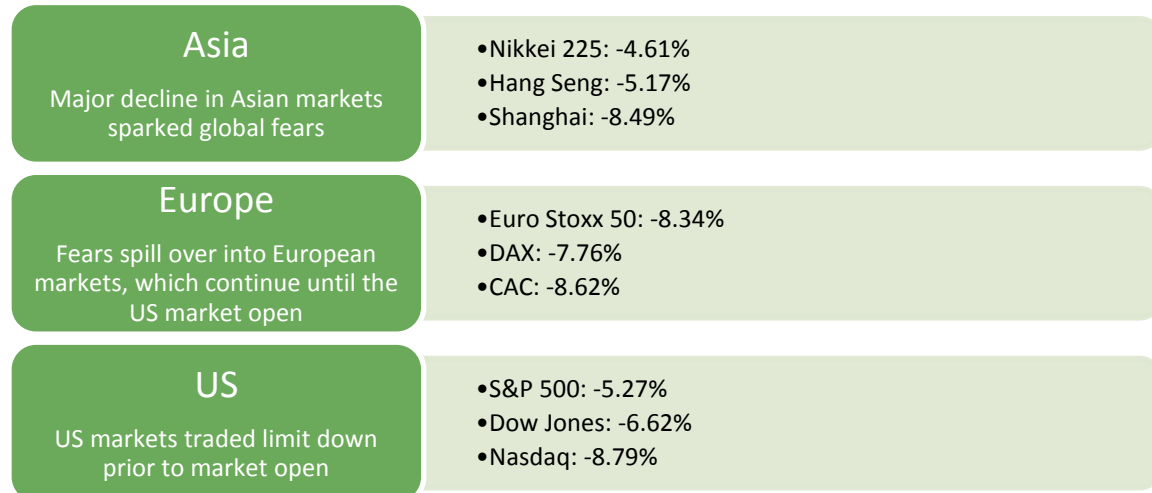
As of September 2, 2015

Given the significant pre-market volatility on Monday, August 24, 2015 there was considerable uncertainty as markets were set to open. The subsequent trading events experienced that morning were a result of the price discovery mechanism being delayed across all financial products, including ETFs. Approximately \$631 billion exchanged hands across all U.S. exchanges, nearly 2.3x the average daily figure.<sup>1</sup> In addition, ETFs accounted for nearly 40% of the total notional traded, SPDR ETFs accounted for 21%, including SPY which represented 15%.<sup>2</sup>

### What Triggered the Selloff?

The general economic malaise in China and other commodity-rich emerging markets has weighed on economic growth and prompted fears of a potential spillover into the developed world.<sup>3</sup> In the US, the potential for a spillover effect spooked investors, who worried that these events would further dampen the US' ability to see true economic liftoff, as the Federal Reserve has been signaling a desire to decouple monetary policy from the rest of the world.

**Figure 1: Market Performance – Monday, August 24, 2015**



Source: Bloomberg, as of 8/24/2015. Asia performance as of market close on 8/24/2015, Europe performance as of 9:30 AM EST on 8/24/2015, and U.S. performance at the low point at/or near the open on 8/24/2015.

### What Happened Next?

#### How the price discovery process developed...

- Futures on major indices traded limit down, which occurs when prices decline by their maximum allowable amount per day, prior to the 9:30am EST market open.<sup>4</sup>
- NYSE Rule 48 allows NYSE Designated Market Makers to open securities without the opening indication requirement and associated dissemination period.<sup>5</sup>

<sup>1</sup> NYSE Arca, Bloomberg, as of 9/2/2015.

<sup>2</sup> NYSE Arca, Bloomberg, as of 9/2/2015.

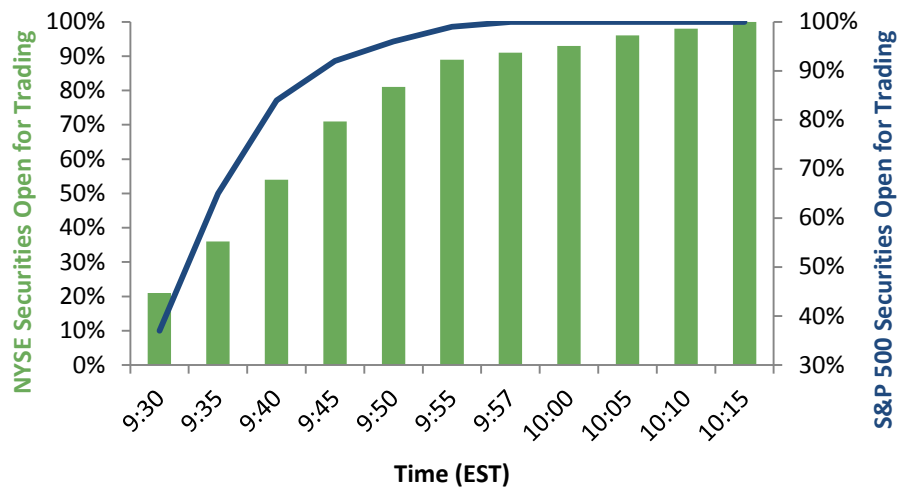
<sup>3</sup> As represented by the Bloomberg Commodity Index. Source: Bloomberg, SSGA, as of 8/24/2015.

<sup>4</sup> Bloomberg, CME Group, as of 8/24/2015.

<sup>5</sup> NYSE, nyse.com, as of 9/2/2015.

- At 9:35 AM EST, 35% of NYSE listed securities were open for trading. All NYSE listed cash equities were open by 10:15 AM. By 9:35 AM, 36% of S&P 500 securities listed on the NYSE were open for trading. It was not until 9:57 AM that all S&P 500 securities were open.

**FIGURE 2: Delayed Open of NYSE Listed Securities**



Source: Bloomberg, NYSE, SSGA, as of 8/24/15.

- Large market orders and sell stop orders were prevalent at or near the market open, leading to increased price volatility.
- Limit up/limit down volatility halts occurred in many equity securities and ETFs. These occur when security prices breach predetermined thresholds, and result in 5 minute trading halts.<sup>6</sup>
  - There were 1,250 unique occurrences of limit up/limit down trading halts on the NYSE.<sup>7</sup>
  - 304 of the limit up/limit down trading halts were in ETFs.<sup>8</sup>

### Impact on ETF Market Making and Liquidity

- Lack of constituent data, delayed opens and volatility halts led to wider than normal spreads in ETF products during early trading hours.
- Wide spreads led to further price dislocations and subsequently caused additional volatility halts in ETFs.

**Figure 3: Limit Up/Limit Down Volatility Halts in ETFs**

	# of Unique ETF Halts	% of Unique ETF Halts
<b>SPDR ETFs</b>	30	11%
<b>All Other ETFs</b>	278	89%

Source: NYSE, SSGA, as of 8/24/15.

The market volatility experienced on this day, in addition to wider than normal bid/ask spreads and less market depth, made it more challenging for market makers to provide liquidity. Typically, these are temporary events and the degree to which the spread widens tends to correlate to the perceived risk or volatility of the ETF's underlying securities.

<sup>6</sup> <https://www.nyse.com/products/etp-limit-up-limit-down>, as of 8/24/2015.

<sup>7</sup> NYSE, SSGA, as of 8/24/2015.

<sup>8</sup> NYSE, SSGA, as of 8/24/2015.

## Trading Best Practices

We strongly advocate the use of limit orders and discourage the use of market and stop orders. While limit orders do not guarantee execution, we believe they provide control over price level and allow investors to manage execution risk, which is particularly useful when volatility spikes.

SSGA has a long-standing commitment to market quality in our ETFs and has deep relationships within the trading community. Our SPDR Capital Markets team is in regular communication with market makers, exchanges and liquidity providers in an effort to monitor the market quality of our products. Should you have any questions on these events, or ETF trading in general, please call us at 866.787.2257.

## Going Forward

We appreciate that the heightened volatility witnessed across markets last week was not optimal. And, while this was not limited to ETFs, we believe there is room for improvement. As one of the industry's largest ETF providers we are committed to collaborating with the rest of the industry, including exchanges, issuers and other market participants. Our goal is to deliver the highest level of service to ETF investors and enhance the SPDR ETF client experience in all market environments. We will continue to evaluate the events from the week of August 24, 2015 and update you as more information becomes available.

---

**Should you have any additional questions please call us at 866.787.2257.**

---

ssga.com | spdrs.com

**FOR INVESTMENT PROFESSIONAL USE. Not for Use with the public.**

**State Street Global Advisors** One Lincoln Street, Boston, MA 02111-2900. T: +1 866.787.2257.

### Important Risk Information

This material or any portion thereof may not be reprinted or redistributed without the written consent of State Street Global Advisors.

ETFs trade like stocks, are subject to investment risk, fluctuate in market value and may trade at prices above or below the ETFs' net asset value. Brokerage commissions and ETF expenses will reduce returns.

The views expressed here are those of the Intermediary Business Group of State Street Global Advisors and are subject to change based on market and other conditions. It should not be considered a solicitation to buy or an offer to sell any security. It does not take into account any investor's particular investment objectives, strategies, tax status or investment horizon. There is no representation or warranty as to the current accuracy of such information, nor liability for decisions based on such information. Past performance is no guarantee of future results.

Standard & Poor's, S&P and SPDR are registered trademarks of Standard & Poor's Financial Services LLC (S&P); Dow Jones is a registered trademark of Dow Jones Trademark Holdings LLC (Dow Jones); and these trademarks have been licensed for use by S&P Dow Jones Indices LLC (SPDJI) and sublicensed for certain purposes by State Street Corporation. State Street Corporation's financial products are not sponsored, endorsed, sold or promoted by SPDJI, Dow Jones, S&P, their respective affiliates and third party licensors and none of such parties make any representation regarding the advisability of investing in such product(s) nor do they have any liability in relation thereto, including for any errors, omissions, or interruptions of any index.

State Street Global Advisors makes available many investment products that may not have investments in Chinese securities or investment exposure to the Chinese market. Please consult your investment professional and/or investment documents to determine Chinese securities exposure. Investments in any security involves market risk.

Distributor: State Street Global Markets, LLC, member FINRA, SIPC, a wholly owned subsidiary of State Street Corporation. References to State Street may include State Street Corporation and its affiliates. Certain State Street affiliates provide services and receive fees from the SPDR ETFs.

**Before investing, consider the funds' investment objectives, risks, charges and expenses. To obtain a prospectus or summary prospectus which contains this and other information, call 1 866 787 2257 or visit [spdrs.com](http://spdrs.com). Read it carefully.**

**Not FDIC Insured \* No Bank Guarantee \* May Lose Value**

© 2015 State Street Corporation - All Rights Reserved

IBG-16349