

Comments on
**“Global Effective Lower Bound and
Unconventional Monetary Policy”
by Jing Cynthia Wu & Ji Zhang**

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The Broad Rationale for Central Bank Transparency

- Foster **accountability** to elected officials and the general public
- Foster the **effectiveness** of the central bank's decisions by clarifying its policy framework and strategy
- Foster the **efficiency** of the central bank's policy tools and operating procedures

QE Design Specifications

Asset Purchases

- **Composition**
(which securities?)
- **Overall Size**
(fixed or contingent?)
- **Pace**
(how quickly?)
- **Taper**
(gradual or abrupt?)

Normalization

- **Timing**
(when?)
- **Mode**
(runoff vs. sales?)
- **Pace**
(how quickly?)
- **End-Point**
(old vs. new normal?)

The Transmission Channel of QE

“The staff’s analysis...indicates that [asset purchases] affect **term premiums** and thus longer-term interest rates primarily via their effect on the **private sector’s expectations of the future path of the stock of longer-term securities that will be held by the Federal Reserve** (and thus not held by private agents).”

*FOMC Staff Memo on “Flow-Based Balance Sheet Policies:
Communication Issues and Macroeconomic Effects”
(August 2012)*

The Transmission Channel (contd.)

“...the modeling framework used here assumes that investors know with certainty the total size and exact path of purchases...In practice, investors’ assumptions about the total size of the program would likely evolve over time... as [they] acquire a better understanding of how the [FOMC] will actually respond—a learning process that would tend to reduce any differences in economic effects across policies.”

FOMC Staff Memo on “Options for Continuation of Open-Ended Asset Purchases in 2013” (Dec. 2012)

Cost-Benefit Analysis of QE

■ Benefits

- Did QE work thru the anticipated channels?
- Was QE effective in fostering the central bank's macroeconomic objective(s)?

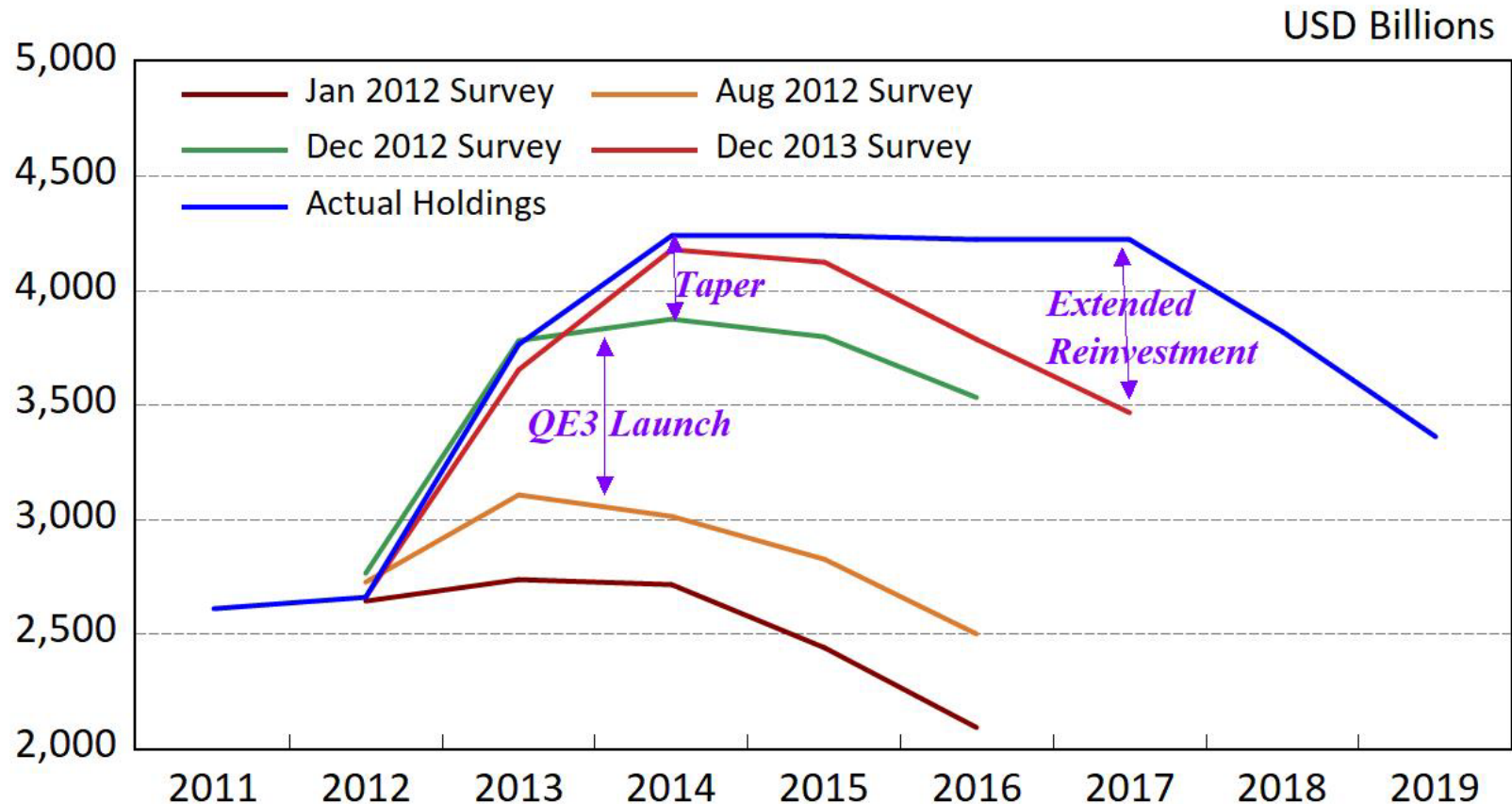
■ Costs

- By taking interest rate risk onto its balance sheet, how did QE affect the central bank's trajectory of net interest income?
- Did QE affect financial market functioning?
- Did QE induce imprudent risk-taking?

Learning about QE

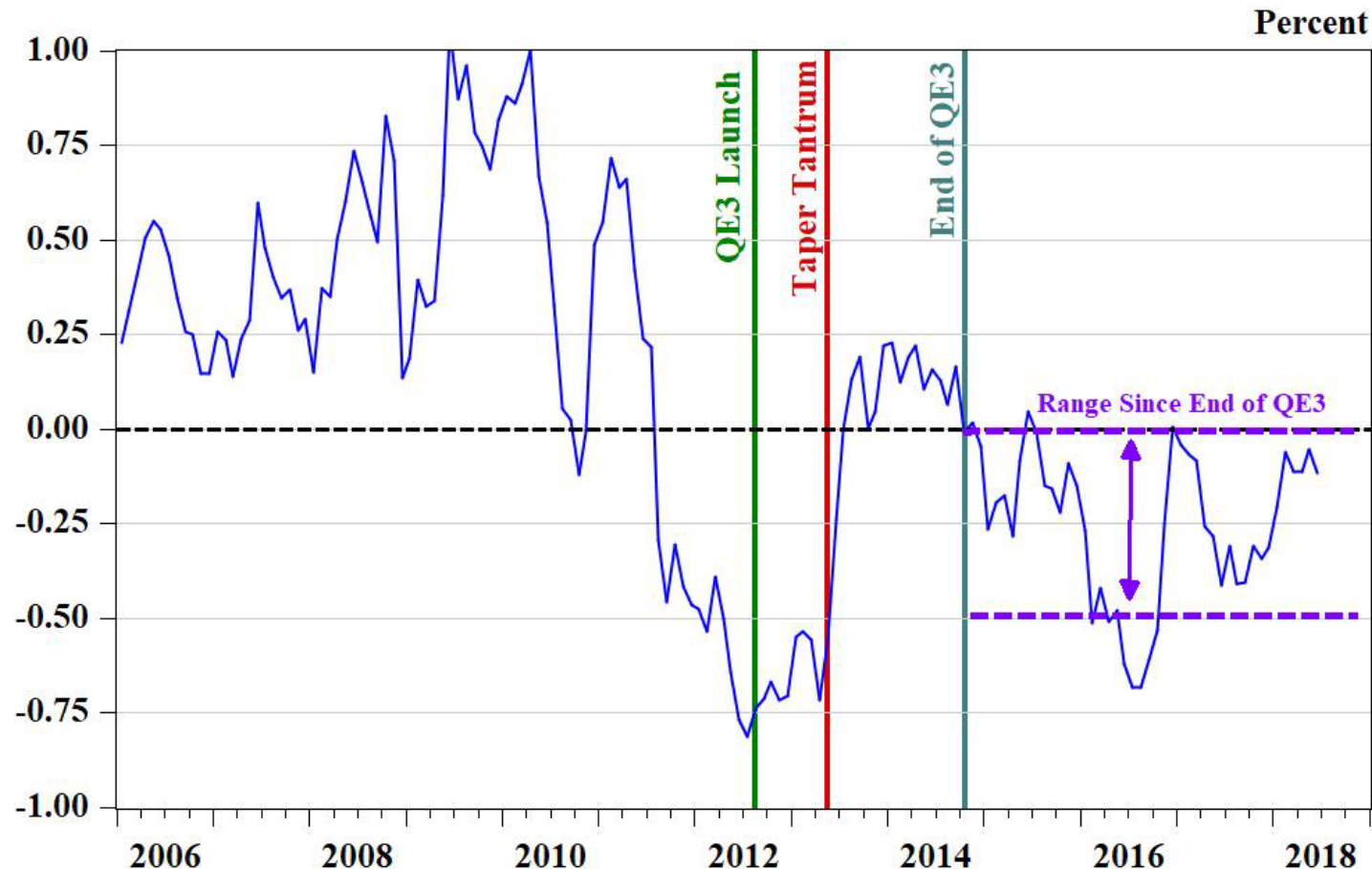
	<i>Ex Ante</i> (Autumn 2012)	<i>Ex Post</i> (Autumn 2018)
Size	\$0.6 to \$1.25 trillion	\$2 trillion
Taper of Purchases	Brief or None	Extended
End of Reinvestment	Around Time of First Rate Hike	Nearly 2 Years After Liftoff
Sale of MBS	Yes (over 3 to 5 years)	No
“New Normal” for Reserves	\$0.1 to \$0.5 trillion	\$0.4 to \$1 trillion

U.S. Primary Dealers' Expectations about the Fed's Security Holdings



Source: Federal Reserve Bank of New York surveys of primary dealers; Federal Reserve Board H.4.1 data.

The U.S. Treasury Bond Term Premium



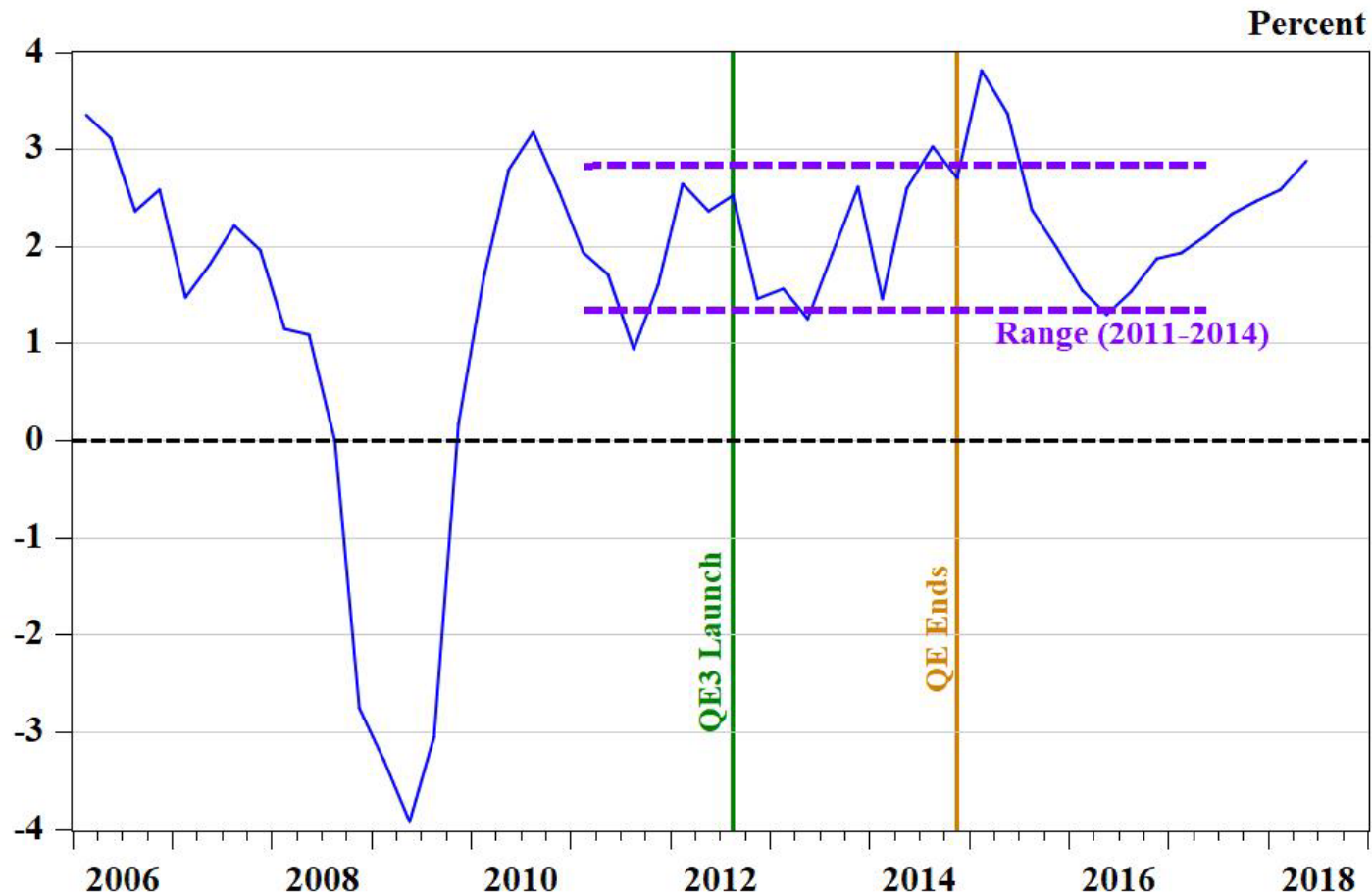
Source: Federal Reserve Board updates of Kim & Wright (2006) for term premium on 10-year constant maturity Treasury bond.

Lessons from the Taper Tantrum

“Most dealers stated that a **change in perception** of or **heightened uncertainty** around the FOMC’s view of appropriate monetary policy were key factors in the rise in the 10-Treasury yield....Several dealers noted that technical and/or positioning factors exacerbated the moves...including flows related to **volatility** in the agency MBS market.”

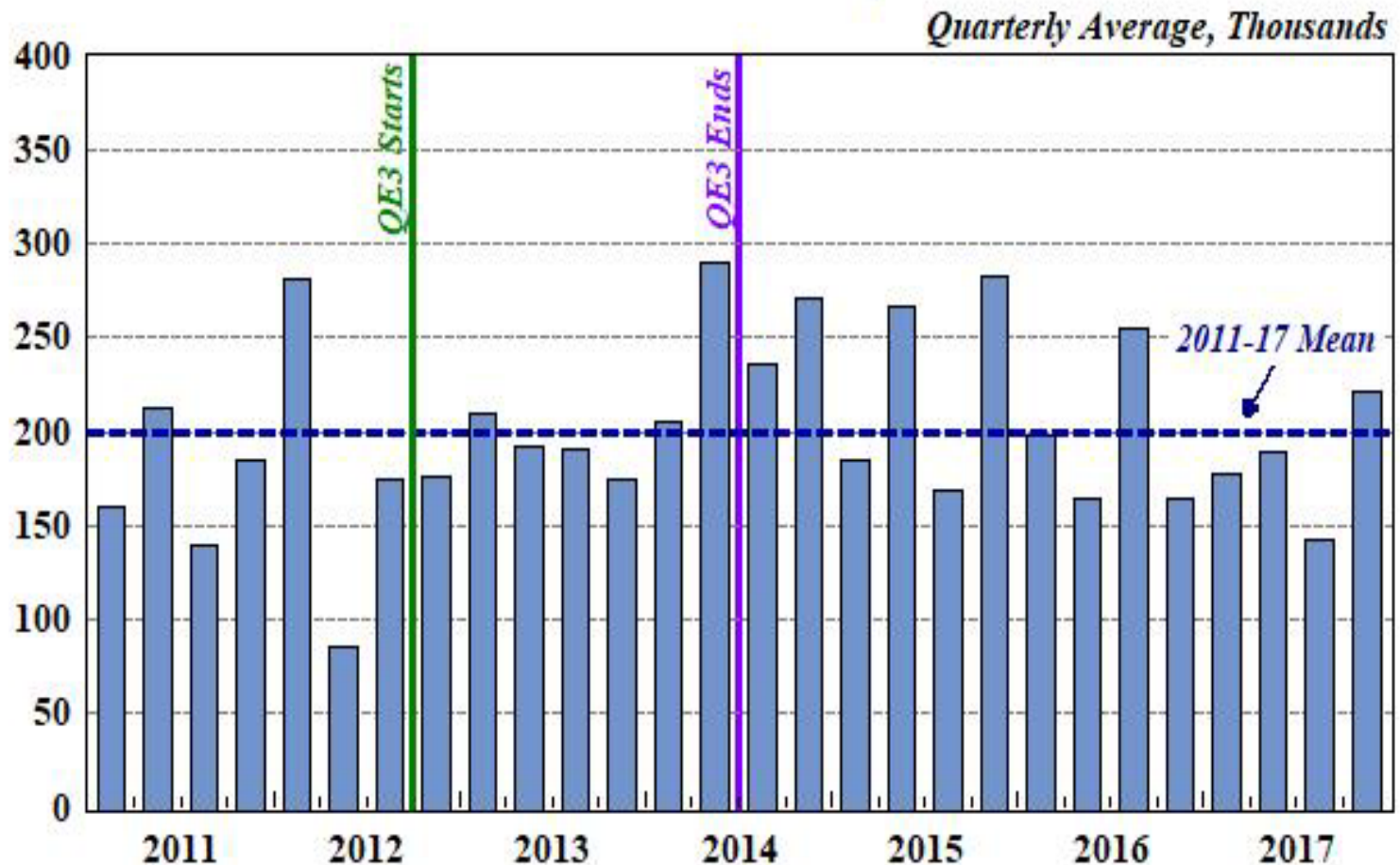
FRBNY Survey of Primary Dealers, June 2013

Gauging the Impact of QE3 on U.S. Real GDP Growth



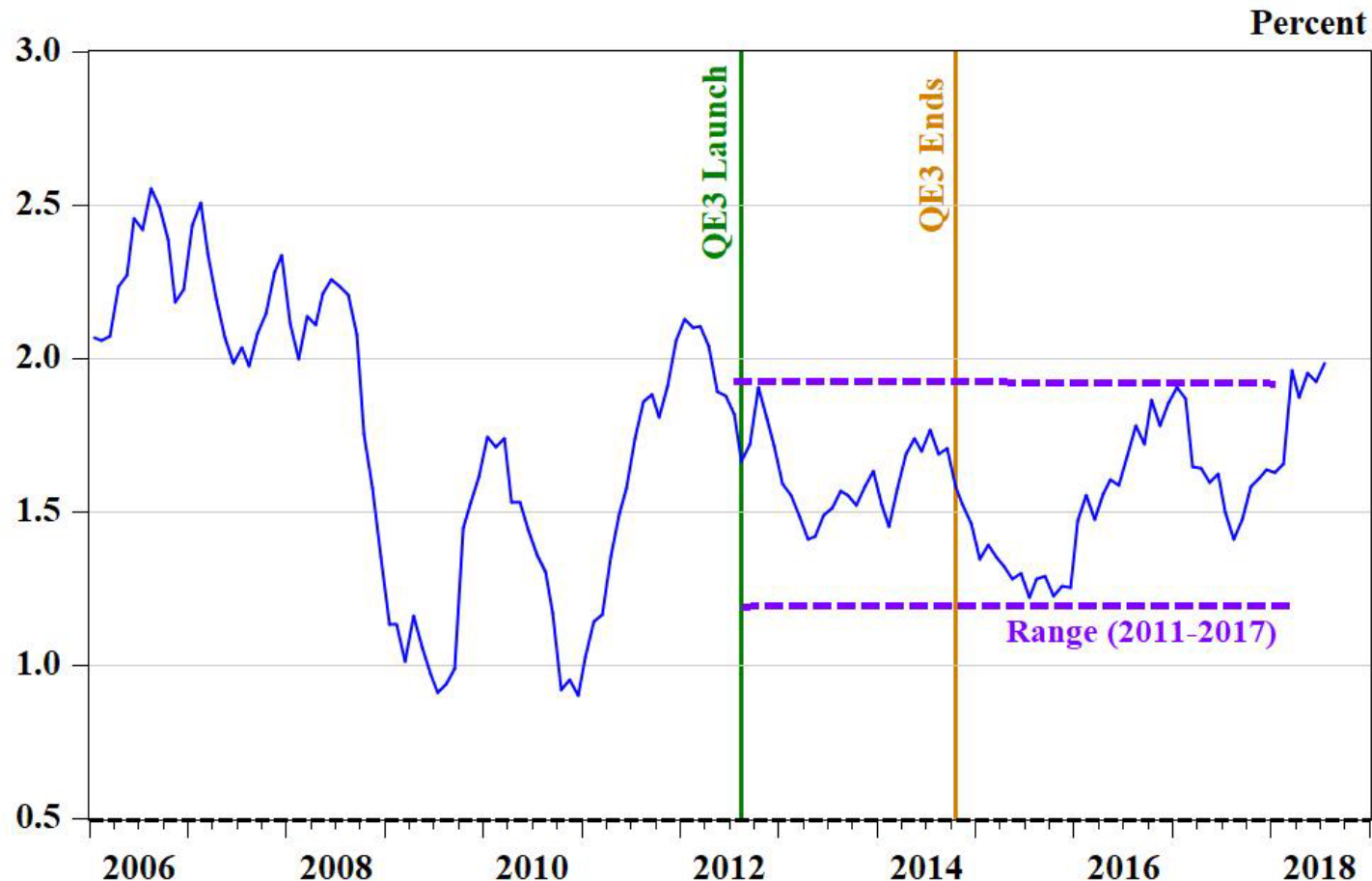
Source: U.S. Bureau of Economic Analysis (4-quarter chg, %)

Gauging the Impact of QE3 on Growth in U.S. Nonfarm Payrolls



Source: U.S. Bureau of Labor Statistics

Gauging the Impact of QE3 on U.S. Core PCE Inflation



Source: U.S. Bureau of Economic Analysis (4-quarter chg, %)

Transparency about the Potential Costs of QE to Taxpayers

<i>Degree of Transparency</i>	<i>Timing of Disclosure</i>	<i>Rationale</i>
None	no disclosure at all	<i>concerns about undue political interference</i>
Low	disclosure a few years after end of QE program	<i>facilitate “lessons learned”</i>
Moderate	disclosure while QE is underway	<i>facilitate program effectiveness</i>
High	disclosure in advance of QE program	<i>facilitate risk management</i>

Ex Ante Assessments of Cumulative Net Interest Earnings (2012-2025)

<i>Size of QE3</i>	<i>Interest Rate Scenario</i>	
	<i>Benchmark Path</i>	<i>Benchmark Path + 1% Post-Liftoff</i>
None	\$630 billion	\$680 billion
\$0.75 trillion	\$590 billion	\$600 billion
\$1.25 trillion	\$530 billion	\$500 billion

Source: FOMC Staff Memo on “Options for Continuation of Open-Ended Asset Purchases in 2013” (circulated to FOMC in Dec. 2012; released to the public in Feb. 2018)

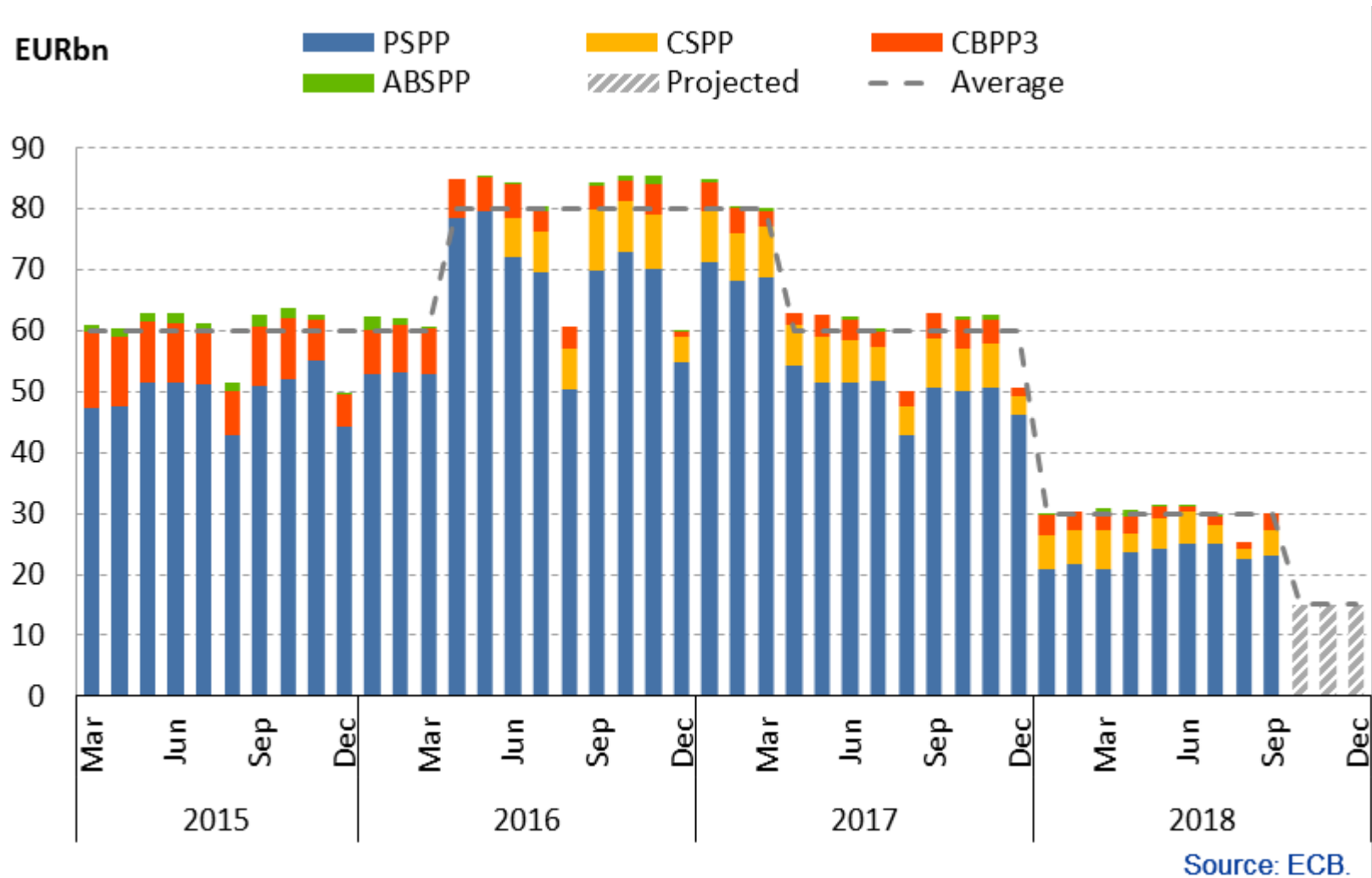
Ex Ante Assessments of the Cost of QE3

(difference in net interest earnings from baseline)

<i>Size of QE3</i>	<i>Interest Rate Scenario</i>	
	<i>Benchmark Path</i>	<i>Benchmark Path + 1% Post-Liftoff</i>
\$0.75 trillion	\$40 billion	\$80 billion
\$1.25 trillion	\$100 billion	\$180 billion
\$2.0 trillion	\$140 billion?	\$260 billion?

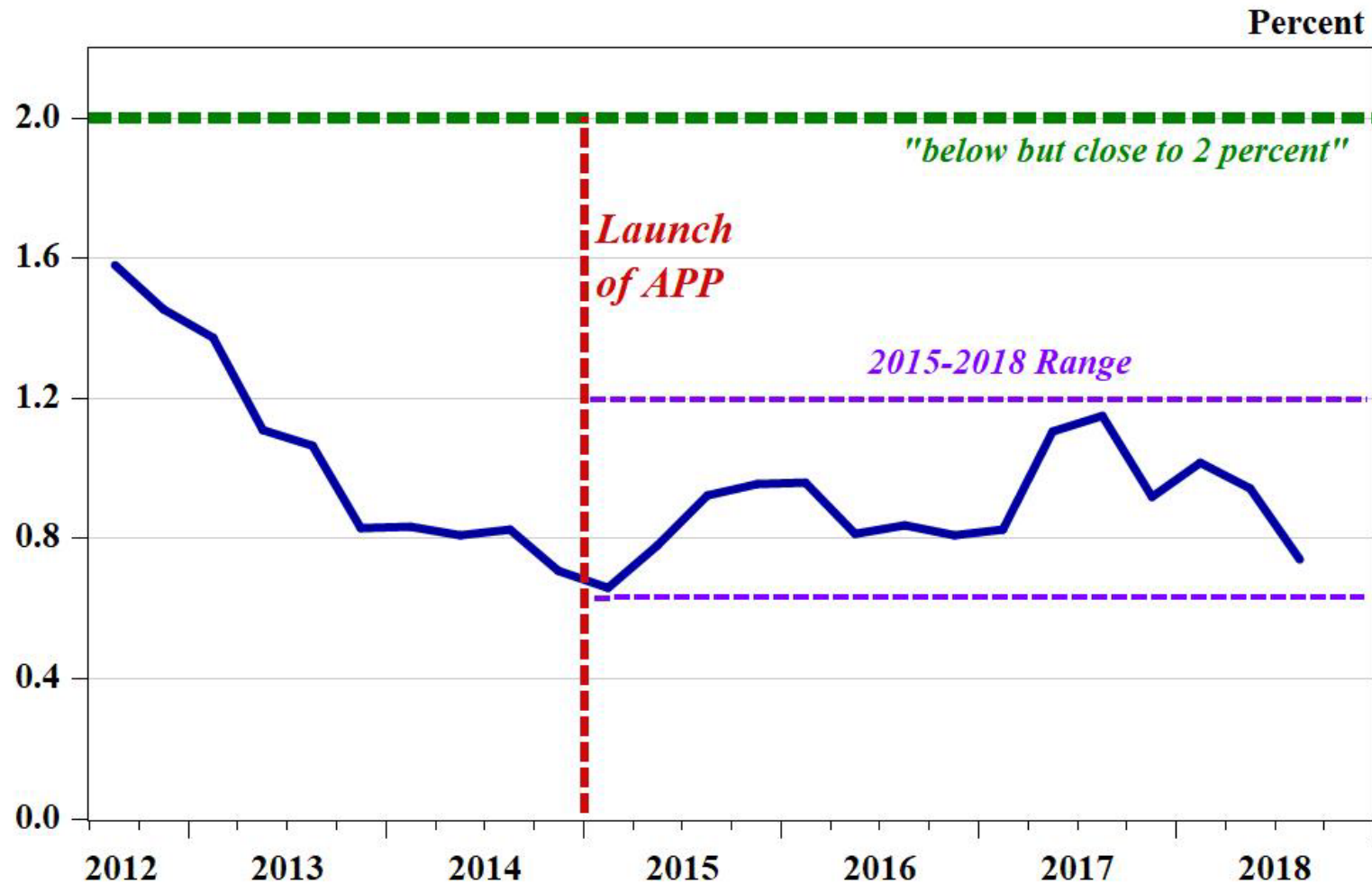
Source: FOMC Staff Memo on “Options for Continuation of Open-Ended Asset Purchases in 2013” (circulated to FOMC in Dec. 2012; released to the public in Feb. 2018); note that the final row is merely a speculative guess.

The ECB's Asset Purchase Programme



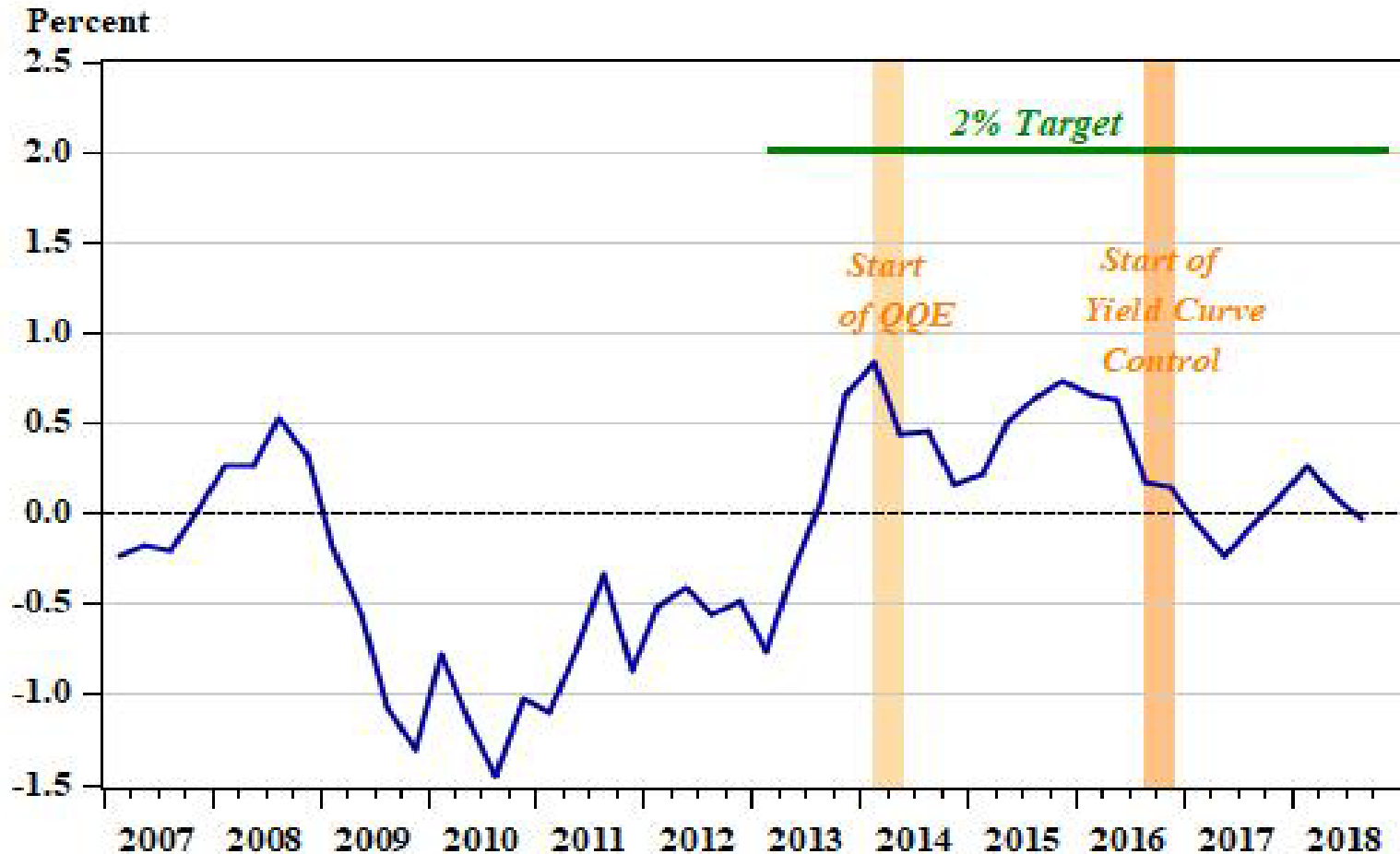
Euro Area Core Inflation

Core HICP Inflation (excluding food & energy)



The Recent Japanese Experience

Core-Core CPI Inflation (ex. food & energy)



Tentative Conclusions about QE

- QE can play a crucial role in **mitigating financial disruptions** in the midst of a crisis.
- By contrast, using QE to provide monetary stimulus appears to have only **muted benefits** and may incur substantial **fiscal costs**.
- Moreover, avoiding adverse effects on financial market functioning may impose **binding constraints** on the design of QE.
- These conclusions suggest that central banks should develop new tools (such as **digital cash**) for mitigating severe adverse shocks.

The Rationale for Digital Cash

- **An account-based system can provide an efficient and secure medium of exchange.**
- **Partnerships with commercial banks can foster innovation, preserve privacy, and promote financial stability.**
- **Graduated transfer fees can prevent arbitrage with paper cash and eliminate the ELB.**
- **The interest rate on digital cash can serve as the primary tool of monetary policy.**
- **The central bank can foster true price stability.**