## Flossbach von Storch RESEARCH INSTITUTE

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## AKTUELLER KOMMENTAR 27/6/2017

## What follows from the Fed's balance sheet normalization?

AGNIESZKA GEHRINGER

- Balance sheet normalization of the Fed could lead to a reduction by almost one third, or USD 1.3 trillion by mid-2020.
- Long-term Treasury yields are likely to rise by around 34 63 basis points as a result.

At its June-meeting, the Federal Open Market Committee (FOMC) gave details on how balance sheet will be reduced:

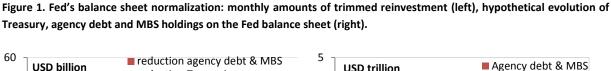
"For payments of principal that the Federal Reserve receives from maturing Treasury securities, the Committee anticipates that the cap will be \$6 billion per month initially and will increase in steps of \$6 billion at three-month intervals over 12 months until it reaches \$30 billion per month.

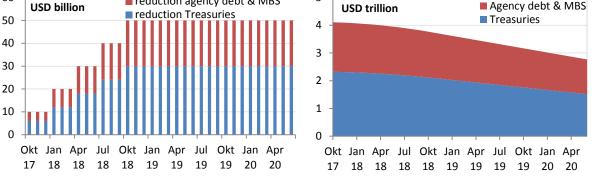
For payments of principal that the Federal Reserve receives from its holdings of agency debt and mortgage-backed securities, the Committee anticipates that the cap will be \$4 billion per month initially and will increase in steps of \$4 billion at three-month intervals over 12 months until it reaches \$20 billion per month. The Committee also anticipates that the caps will remain in place once they reach their respective maximums so that the Federal Reserve's securities holdings will continue to decline in a gradual and predictable manner until the Committee judges that the Federal Reserve is holding no more securities than necessary to implement monetary policy efficiently and effectively."<sup>1</sup>

Figure 1 illustrates the monthly amounts of reductions (left graph) and the possible path of the respective holdings in the balance sheet (right graph) under the assumption that the process starts in October 2017.

<sup>&</sup>lt;sup>1</sup> See "Addendum to the Policy Normalization Principles and Plans", FOMC, June 14, 2017, available at:

https://www.federalreserve.gov/newsevents/pressr eleases/monetary20170614c.htm.





Note: October 2017 and June 2020 are purely hypothetical for the beginning and the end of the balance sheet normalization.

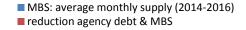
Source: Own elaboration (Flossbach von Storch Research Institute) based on the Fed's "Addendum to the Policy Normalization Principles and Plans"

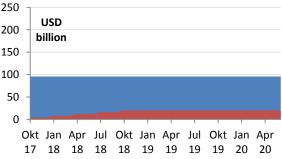
Figure 2 shows the loss in demand (demand gaps) based on the assumption that the supply of Treasuries and MBS will continue at the pace recorded on average between the end of 2014 (the end of QE) and the end of 2016.<sup>2</sup> To fill the gap created by the Fed, new demand needs to be mobilized, possibly through higher interest rates. A rough estimate can be obtained by looking at the estimated effects of different QE

programs implemented between 2009 and 2014 by the Fed, as shown in Table 1. The average cumulative reduction in Treasury yields due to the QE was in the range 80 – 148 basis points. Assuming that the Fed would implement the balance sheet reduction plan until mid-2020, this would result in about USD 800 billion reduction of its Treasury holdings, which is around 40% of the amount by which these



Figure 2. Demand gap in the Treasury and MBS market.





Source: Own elaboration (Flossbach von Storch Research Institute) based on the Financial Accounts of the United States (Z.1)

QE measure	Minimum effect	Maximum effect
LSAP 1	20	35
LSAP 2	12	25
MEP	17	28
LSAP 3	31	60
average	80	148

### Table 1. Average estimated cumulative effects (in basis points) of QE on Treasury yields

Note: LSAP 1, LSAP 2 and LSAP 3 are the three large-scale asset purchases conducted by the Fed in May 2009, November 2010 and September 2012, respectively. MEP (maturity extension program, known as "operation twist") was announced in September 2011. The minimums and maximums are based on the estimation results from different papers: **Krishnamurthy**, **A.**, **Vissing-Jorgensen**, **A.** (2011), The effects of quantitative easing on long-term interest rates, *Brookings Papers on Economic Activity*; **D'Amico**, **S.**, **King**, **T.** (2013), Flow and stock effects of large-scale treasury purchases: Evidence on the importance of local supply, *Journal of Financial Economics*, vol. 108, no. 2, p. 425-448; **D'Amico**, **S.**, **English**, **W.**, **Lopez-Salido**, **D.**, **Nelson**, **E.** (2012), The Federal Reserve's large scale asset purchase programs: Rationale and effects, *Economic Journal*, vol. 122, no. 564, p. 415-46; **Meaning**, **J.**, **Zhu**, **F.** (2011), The Impact of Recent Central Bank Asset Purchase Programmes, BIS Quarterly Review, Bank for International Settlements; **Meaning**, **J.**, **Zhu**, **F.** (2012), The impact of Federal Reserve's unconventional monetary policies, FEDS 2015-005, January; **Bonis**, **B.**, **Ihrig**, **J.**, **Wei**, **M.** (2017), The effect of the Federal Reserve's securities holdings on longer-term interest rates, FEDS Notes, Washington: Board of Governors of the Federal Reserve System.

Source: Own elaboration (Flossbach von Storch Research Institute)

holdings were expanded during the QE. Assuming that the withdrawal of QE has symmetrical effects to its expansion and that the estimates in Table 1 are scalable, this could result in an increase in Treasury yields by around 34 – 63 basis points.

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### SITE INFORMATION

*Publisher:* Flossbach von Storch AG, Research Institute, Ottoplatz 1, 50679 Cologne, Germany; Phone +49 221 33 88-291, research@fvsag.com, *Directors:* Dr. Bert Flossbach, Kurt von Storch, Dirk von Velsen; *Registration:* No. 30 768 in the Commercial and Companies Register held at Cologne District Court; *VAT-No.* DE200075205; *Supervisory authority:* German Federal Financial Services Supervisory Authority, Marie-Curie-Straße 24 – 28, 60439 Frankfurt / Graurheindorfer Straße 108, 53117 Bonn, www.bafin.de; *Authors:* Dr. habil. Agnieszka Gehringer; *Editorial deadline:* June 27, 2017