April 28, 2017

Revised Plan for Reinvestments

Staff of the Board of Governors and the Federal Reserve Bank of New York[1]

The April 21, 2017 “Reinvestment Proposal” memo included a staff proposal to phase out reinvestments over 18 months by reducing the share of repayments of principal that would be reinvested in steps of 15 percentage points at quarterly intervals. That memo also included a discussion of setting fixed upper limits (caps) on the dollar amounts by which the Federal Reserve’s holdings of Treasury securities or agency MBS would be allowed to decline each month; such caps would limit the impact of the spikes in monthly maturities of Treasury securities or a possible surge in MBS prepayments (or both) on the decline in the SOMA portfolio. Feedback on that memo suggested that the combination of phasing out reinvestments in fixed percentage steps and also setting fixed dollar caps was unnecessarily complicated. Below, we present a revised plan that gradually reduces reinvestments by imposing a schedule of caps over time. The revised plan is simpler than the original proposal and should be substantially easier to communicate.

This revised plan focuses on shrinking the size of the portfolio in a gradual manner by setting and then slowly increasing caps on the amounts by which the Federal Reserve would reduce its holdings of Treasury securities, and of agency securities, each month. In order to reduce reinvestments gradually, the caps would start at low levels and increase in small increments each quarter over 1½ years. The terminal values of the caps would be maintained throughout the remainder of the balance sheet normalization period.

Details

Table 1 summarizes the features of the revised plan, assuming that the change in reinvestment policy takes effect in October 2017. (Table 2 reports the April 21 memo

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proposal for reference.) Instead of focusing public communications on the percent of repayments on securities that is reinvested (the "reinvestment share" reported in the April 21 memo), the revised plan would focus communications on the maximum dollar amount of monthly redemptions. The proposed cap on monthly redemptions is reported in column 1. We assume separate dollar caps for Treasury securities and agency securities, with the values of the caps increasing every three months.[2] The Treasury cap starts at $5 billion and gradually increases to $35 billion over 1½ years; thereafter, the cap remains at $35 billion until the size of the balance sheet is normalized and Treasury purchases are assumed to resume. The agency securities cap starts at $3 billion and gradually increases to $21 billion where it remains through the period of balance sheet normalization.

Columns 2 and 3 report the pattern of reinvestment and redemptions, respectively. Over the 18 months starting in October 2017, cumulative redemptions include $286 billion in Treasury securities and $166 billion in MBS, while cumulative reinvestments include $283 billion in Treasury securities and $95 billion in MBS. The quantity of redemptions during nearly all months the first year is projected to be constrained by the caps. Further out, the Treasury cap limits redemptions during most mid-quarter months.[3] Meanwhile, the agency securities cap is not expected to bind after September 2018, as projected principal repayments on MBS are smaller than the cap and there is minimal maturing agency debt. Of course, if a sudden large decline in interest rates caused a significant increase in prepayments, the agency security cap could again be binding and limit redemptions.

Figure 1 provides a graphical depiction of the reinvestments and redemptions. (Figure 2 shows the April 21 memo proposal for reference.) The red and blue bars above the line for zero represent redemptions of Treasury securities and MBS, respectively. Relative to the April 21 proposal, the monthly Treasury redemptions are somewhat smoother, reflecting binding caps on mid-quarter refunding dates; meanwhile, the MBS

[2] For the agency securities cap, the Desk would continue to reinvest the excess amount of proceeds from repayments from agency debt and agency MBS into agency MBS that is above the redemption cap.
[3] Treasury reinvestments average $25 billion in mid-quarter refunding months.

redemptions start out a bit larger reflecting the fact that the caps are a bit larger than the corresponding reinvestment shares but are not too different.[4]

"Refresh" of the Committee's communications about reinvestment

In the April 21, 2017 memo "Communicating a Plan for Ceasing or Phasing Out Reinvestment," the staff proposed draft bullets that the Committee could release ahead of a change in reinvestment policy that summarize operational plans for ceasing or phasing out reinvestment and shrinking the balance sheet. The revised plan discussed in this memo requires some alterations to the bullets laying out the details of the proposed plan. A draft of potential bullets appears below.

At the conclusion of their discussion of reinvestment, **[** all **]** participants agreed to augment the Committee's Policy Normalization Principles and Plans by providing the following additional details regarding the approach the FOMC intends to use to reduce the Federal Reserve's holdings of Treasury and agency securities once **[** economic and financial conditions make it appropriate to begin doing so **|** normalization of the level of the federal funds rate is well under way **]**.

- The Committee intends to reduce the Federal Reserve's holdings of securities by gradually reducing its reinvestment of repayments of principal on securities held in the System Open Market Account.
    - Specifically, the Committee intends to set a cap on the amount of the Federal Reserve's holdings of maturing Treasury securities that will be allowed to roll off each month; the Committee anticipates that the cap will increase from $5 billion to $35 billion in equal quarterly steps over 1½ years.
    - Similarly, the Committee intends to reinvest in agency MBS, each month, principal repayments that the Federal Reserve receives from its holdings of agency debt and mortgage-backed securities only to the extent that such repayments exceed a specified cap; the Committee anticipates that the cap will increase from $3 billion to $21 billion per month in equal quarterly steps over 1½ years.
    - 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.

[4] Relative to the April 21 reinvestment share proposal without caps, this alternative's cumulative 18-month redemptions are about $29 billion less for Treasuries and nearly $35 billion more for MBS.

- The Committee currently anticipates gradually reducing the quantity of reserve balances to a level appreciably below that seen in recent years but large enough to enable routine fluctuations in the demand for reserves, or in autonomous factors that affect the supply of reserve balances, to be absorbed without significant fluctuations in the effective federal funds rate and without frequent open market operations to adjust the level of reserves.

OR

- The Committee anticipates gradually reducing the supply of reserve balances to a level appreciably smaller than in recent years but larger than before the financial crisis.

- The Committee is prepared to adjust details of its planned approach to reducing the Federal Reserve's securities holdings in light of unexpected economic and financial developments. In particular, the Committee is prepared to increase or fully resume reinvestments if a future deterioration in the economic outlook warrants a **[** sizable **]** reduction in the Committee's target for the federal funds rate.

[All **]** participants also agreed that the Committee will use changes in the target range for the federal funds rate as its primary means for adjusting the stance of monetary policy. However, the Committee is prepared to use its full range of tools, including adjusting the size and composition of its balance sheet, if future economic conditions warrant a more accommodative stance of monetary policy than can be achieved solely by reducing the federal funds rate.

Table 1: Increasing Caps over 1½ years (revised staff proposal)

Column		1		2		3		4	
Months		Redemption Caps		Reinvestments		Redemptions		Maturing/Prepaying Securities	
		Billions of $							
		Tsy	MBS/Agy	Tsy	MBS	Tsy	MBS/Agy	Tsy	MBS/Agy
Oct-17	1	5	3	3.7	11.9	5.0	3.0	8.7	14.9
Nov-17	2			13.9	16.8	5.0	3.0	18.9	17.4
Dec-17	3			12.5	12.3	5.0	3.0	17.5	15.3
Jan-18	4	10	6	20.9	7.5	10.0	6.0	30.9	13.5
Feb-18	5			38.6	7.6	10.0	6.0	48.6	13.6
Mar-18	6			21.2	8.8	10.0	6.0	31.2	14.8
Apr-18	7	15	9	19.7	6.1	15.0	9.0	34.7	15.1
May-18	8			39.7	5.7	15.0	9.0	54.7	14.7
Jun-18	9			15.5	10.9	15.0	9.0	30.5	17.9
Jul-18	10	20	12	11.5	3.6	20.0	12.0	31.5	15.6
Aug-18	11			24.0	2.5	20.0	12.0	44.0	14.5
Sep-18	12			0.0	1.0	19.0	12.0	19.0	13.0
Oct-18	13	25	15	0.0	0.0	23.9	12.9	23.9	12.9
Nov-18	14			34.2	0.0	25.0	13.2	59.2	13.2
Dec-18	15			0.0	0.0	18.2	13.3	18.2	13.3
Jan-19	16	30	18	0.0	0.0	14.7	11.9	14.7	11.9
Feb-19	17			27.8	0.0	30.0	12.0	57.8	12.0
Mar-19	18			0.0	0.0	24.7	13.1	24.7	13.1
Apr-19	19	35	21	0.0	0.0	30.6	13.4	30.6	13.4
May-19	20			25.2	0.0	35.0	13.1	60.2	13.1
Jun-19	21			0.0	0.0	23.5	14.0	23.5	14.0
Jul-19	22			0.0	0.0	22.1	13.8	22.1	13.8
Aug-19	23			35.0	0.0	35.0	13.1	70.0	13.1
Sep-19	24			0.0	0.0	14.2	12.0	14.2	12.0
Oct-19	25			0.0	0.0	16.2	11.9	16.2	11.9
Nov-19	26			14.1	0.0	35.0	12.3	49.1	12.3
Dec-19	27			0.0	0.0	12.1	12.2	12.1	12.2
Jan-20	28			0.0	0.0	16.1	11.1	16.1	11.1
Feb-20	29			22.5	0.0	35.0	11.0	57.5	11.0
Mar-20	30			0.0	0.0	19.9	11.9	19.9	11.9
Apr-20	31			0.0	0.0	12.4	12.5	12.4	12.5
May-20	32			29.1	0.0	35.0	12.3	64.1	12.3
Jun-20	33			0.0	0.0	19.1	13.1	19.1	13.1
Jul-20	34			0.0	0.0	16.1	12.9	16.1	12.9
Aug-20	35			26.3	0.0	35.0	12.3	61.3	12.3
Sep-20	36			0.0	0.0	8.7	11.4	8.7	11.4
Oct-20	37			0.0	0.0	1.1	11.4	1.1	11.4
Nov-20	38			0.0	0.0	27.5	11.6	27.5	11.6
Dec-20	39			0.0	0.0	5.8	11.4	5.8	11.4
Jan-21	40			0.0	0.0	11.1	10.3	11.1	10.3
Cumulative 18mo				**283.2**	**94.8**	**285.5**	**166.4**	**568.7**	**256.9**

Note: During the normalization period, $4.4 billion of agency debt is maturing, of which $2.4 billion matures in November 2017, $2.0 billion matures in June 2018, and $0.1 billion matures in March 2019. The remaining $2.3 billion of agency debt holdings mature as far out as 2032.

Table 2: 18-month Declining Reinvestment Shares, no caps (April 21st proposal)

Column		1		2		3		4	
Months		Reinvestment Share		Reinvestments		Redemptions		Maturing/Prepaying Securities	
				Billions of $					
		Tsy	MBS/Agy	Tsy	MBS	Tsy	MBS/Agy	Tsy	MBS/Agy
Oct-17	1	85%		7.4	12.9	1.3	2.3	8.7	15.1
Nov-17	2			16.1	15.4	2.8	2.7	18.9	17.8
Dec-17	3			14.9	13.2	2.6	2.3	17.5	15.5
Jan-18	4	70%		21.7	9.5	9.3	4.1	30.9	13.6
Feb-18	5			34.0	9.6	14.6	4.1	48.6	13.7
Mar-18	6			21.8	10.5	9.4	4.5	31.2	15.0
Apr-18	7	55%		19.1	8.4	15.6	6.9	34.7	15.3
May-18	8			30.1	8.2	24.6	6.7	54.7	14.9
Jun-18	9			16.7	10.8	13.7	8.1	30.5	18.1
Jul-18	10	40%		12.6	6.3	18.9	9.5	31.5	15.8
Aug-18	11			17.6	5.9	26.4	8.8	44.0	14.7
Sep-18	12			7.6	5.3	11.4	7.9	19.0	13.2
Oct-18	13	25%		6.0	3.3	17.9	9.8	23.9	13.1
Nov-18	14			14.8	3.4	44.4	10.1	59.2	13.5
Dec-18	15			4.6	3.4	13.7	10.1	18.2	13.5
Jan-19	16	10%		1.5	1.2	13.3	10.9	14.7	12.1
Feb-19	17			5.8	1.2	52.0	10.9	57.8	12.1
Mar-19	18			2.5	1.4	22.2	11.9	24.7	13.3
Apr-19	19	0%		0.0	0.0	30.6	13.6	30.6	13.6
May-19	20			0.0	0.0	60.2	13.3	60.2	13.3
Jun-19	21			0.0	0.0	23.5	14.2	23.5	14.2
Jul-19	22			0.0	0.0	22.1	14.0	22.1	14.0
Aug-19	23			0.0	0.0	70.0	13.3	70.0	13.3
Sep-19	24			0.0	0.0	14.2	12.2	14.2	12.2
Oct-19	25			0.0	0.0	17.6	12.2	17.6	12.2
Nov-19	26			0.0	0.0	49.5	12.6	49.5	12.6
Dec-19	27			0.0	0.0	13.1	12.4	13.1	12.4
Jan-20	28			0.0	0.0	16.3	11.3	16.3	11.3
Feb-20	29			0.0	0.0	56.2	11.2	56.2	11.2
Mar-20	30			0.0	0.0	20.1	12.1	20.1	12.1
Apr-20	31			0.0	0.0	12.2	12.7	12.2	12.7
May-20	32			0.0	0.0	62.1	12.5	62.1	12.5
Jun-20	33			0.0	0.0	19.6	13.3	19.6	13.3
Jul-20	34			0.0	0.0	16.5	13.2	16.5	13.2
Aug-20	35			0.0	0.0	60.0	12.7	60.0	12.7
Sep-20	36			0.0	0.0	11.7	11.8	11.7	11.8
Oct-20	37			0.0	0.0	3.4	11.7	3.4	11.7
Nov-20	38			0.0	0.0	24.7	12.0	24.7	12.0
Dec-20	39			0.0	0.0	7.6	11.7	7.6	11.7
Jan-21	40			0.0	0.0	11.7	10.7	11.7	10.7
			Cumulative 18mo	**254.6**	**129.9**	**314.1**	**131.7**	**568.7**	**260.4**

Note: During the normalization period, \$4.4 billion of agency debt is maturing, of which \$2.4 billion matures in November 2017, \$2.0 billion matures in June 2018, and \$0.1 billion matures in March 2019. The remaining \$2.3 billion of agency debt holdings mature as far out as 2032.

Figure 1: Increasing Caps over 1½ years (revised staff proposal)

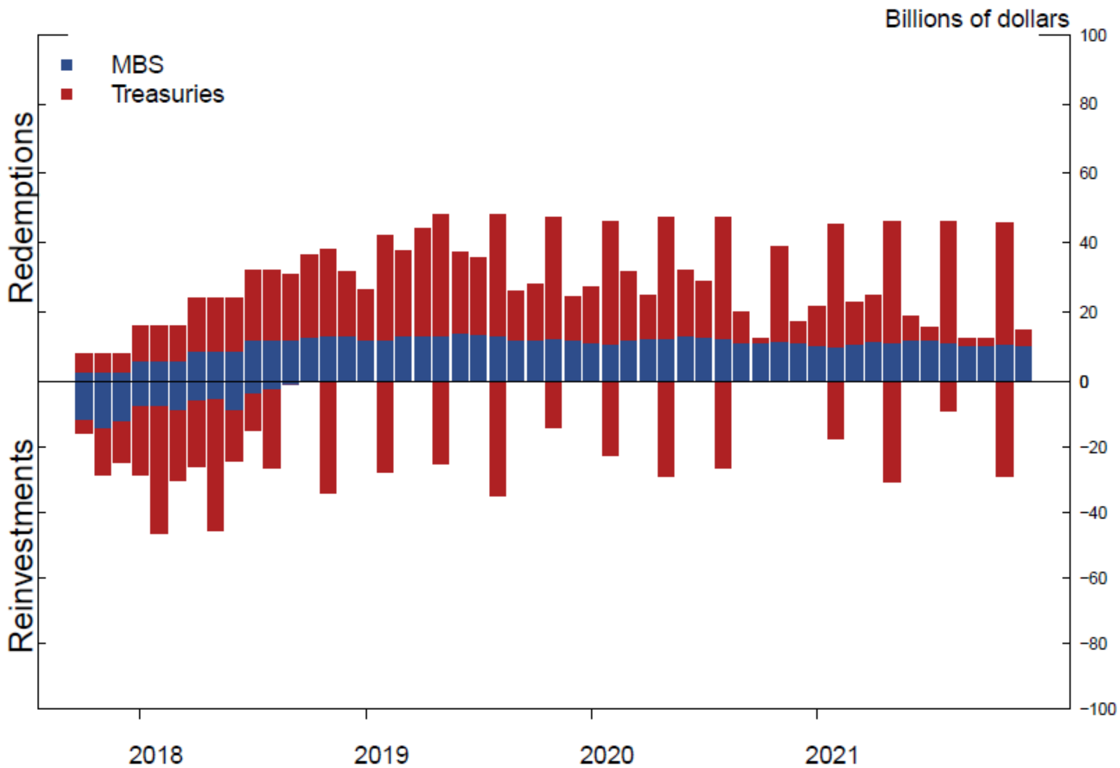

Figure 2: 18-month Declining Reinvestment Shares, no caps (April 21st proposal)