

## ECB: A secret tapering recipe?

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### Executive Summary

- The ECB has to make a move towards normalization. *Soft tapering* – though not our own core scenario – is an option. It consists of stopping or reducing reinvestments of principal payments before reducing Quantitative Easing (QE). Why choose different sequencing from the Fed?
- First, the ECB reinvestment amounts are hefty. According to our calculations, in 2018 rolling over for Germany, France, Italy and Spain will sum up to around EUR 135bn – i.e. more than two months of current QE total bond purchases. If the ECB were to stop reinvesting principals, it could free up a maximum of 17% of the EUR 4.5 trillion balance sheet over five years (EUR 712bn according to our calculations covering the main four QE-countries).
- Secondly, reducing the rolling over of principal payments can be seen as smoother (lesser amounts) and less transparent. A new form of “constructive ambiguity” from the Council?
- Thirdly, stopping reinvestments of principal payments while leaving QE unchanged could reduce potential stress for Italy more than it adds to German scarcity.

## 1. How to exit, that is the question

The return from the summer holidays is more complex than expected for the European Central Bank (ECB). While forecasts for eurozone growth have recently been revised considerably upwards, inflation forecasts are in the main being trimmed back slightly. Furthermore, the recent strength of the euro – to be seen in part also as a weakness of the dollar – is an argument to show additional caution in reducing the monetary stimulus.

The ECB has yet to decide when and how to taper and unwind its balance sheet. We think that there are four options at this point:

1. The **status quo** (unlikely): The ECB continues buying new public bonds as part of Quantitative Easing (QE) total monthly purchases of EUR 60 billion and to reinvest principals throughout H1 2018.
2. The **baseline** (most likely and widely accepted): Tapering of QE but no change in the policy of principal reinvestment. We assume a first reduction of total bond purchases from EUR 60 to 40 billion per month in January and a second step to EUR 20 billion in April 2018.

3. A **soft tapering option** (possible): The ECB stops reinvestments but maintains QE at the current level. This paper focuses on explaining the rationale behind this unconventional approach.
4. A **quick exit scenario** or *hard tapering* (unlikely): The ECB simultaneously tapers QE and stops reinvestments.

Though the baseline scenario remains the most plausible, the unconventional options, especially *soft tapering*, are worth exploring for: (i) the strength of the euro supports a slower tapering path; (ii) “constructive ambiguity” can help to avoid market turbulence; and (iii) the Council may have spilled the beans already by changing “The net purchases *will be made* alongside reinvestments of the principal payments from maturing securities purchased under the asset purchase program” in its June press statement to “The net purchases *are made* alongside reinvestments [...]” in July.

**Soft tapering would mark a stark difference with the Fed’s sequencing.** The balance sheet reduction program of the Fed comes three years after three QE programs (2009-2014), which brought the total asset value on its balance sheet to USD 4.5tn. Tapering started in December 2013, when QE was gradually reduced until it concluded in October 2014. The rate hikes then started in December 2015; since then, the Fed has hiked in December 2016, March 2017 and June 2017 (the rate range is now 1% - 1.25%). It is hence expected that the balance sheet reduction will start alongside further rate hikes.

The Fed had committed to continue reinvesting principal payments until the normalization of the level of the federal funds rate was “well under way”. Today, it looks that it is getting closer to start reducing the balance sheet. Indeed, in its June meeting, the Federal Open Market Committee (FOMC) announced it would start unwinding previous QE programs. The July meeting confirmed that the Fed would begin “relatively soon”, suggesting the reduction program could be announced in the next September meeting.

## 2. Reinvestments matter

As part of QE, the ECB acquires bonds, which are characterized by coupon payments and a principal repayment at a specific maturity date. Every month, bonds that were previously bought arrive at maturity. Hence in addition to buying new bonds every month, the ECB rolls over the principal payments of maturing bonds. In other words, it reinvests those payments into new bonds. This ensures maximum efficiency of QE as it keeps liquidity flowing in the markets even when a bond arrives at maturity. The balance sheet also remains unaffected as new assets replace the previous ones.

The rolling over of principal payments from maturing securities was introduced in December 2015, just before the ECB stepped up monthly QE purchases from EUR 60 to 80 billion in March 2016. Since April of this year the ECB has reverted to the EUR 60 billion figure. Reversing the chronology of loosening steps, the next exit move would be to halt reinvestments of principal payments.

When the ECB introduced reinvestments of principal payments, market reaction was not hefty. So stopping it could be a “secret door” that would also not ruffle markets too much. One reason for this being that the liquidity effect is not transparent. However, when

introduced in December 2015, QE had been running for only six months. Also because of the ECB's purchase restrictions in terms of maturity, at that time reinvestment amounts were not relevant. This has changed now and it is exactly why we think that rolling over of principal payments will increasingly become an issue for the ECB.

### Methodology

**Step 1:** We extracted the list of government bonds bought by the ECB as part of QE by maturity and by country. The ECB does not acquire the entirety of a sovereign bond emitted on the markets, just a share of it – ECB issue share limit 33%, alongside other buyers. Unfortunately, no data is published on the actual amounts of these bonds purchased by the ECB: only the reference and maturity of the bonds bought are available.

**Step 2:** We were able to find the total issue amounts of the bonds bought by the ECB by manually matching their coupon and maturity to country-specific data. For instance, we matched the references of the French bonds bought by the ECB with French data on all bonds emitted by the French state. We thus obtained the total amount A of all bonds which the ECB has bought a share of, for each country.

**Step 3:** Once we knew what bonds the ECB bought for each country, the one question remaining was: what share of these bonds did the ECB actually acquire? We looked at another set of data made public by the ECB: the per country breakdown of debt securities under the Public Sector Purchase Program, i.e. the amounts B of each country's sovereign bonds held by the central bank. By dividing the amount B for each country by the amount A, we find the average share S the ECB actually bought (which is a better approximation than using the maximum 33% share for our calculations). That is, for instance, for France:

$$S = \frac{B}{A} = \frac{\text{French debt securities currently held under the PSPP}}{\text{Total amount of the bonds issued by the French state which the ECB has bought a share of}}$$

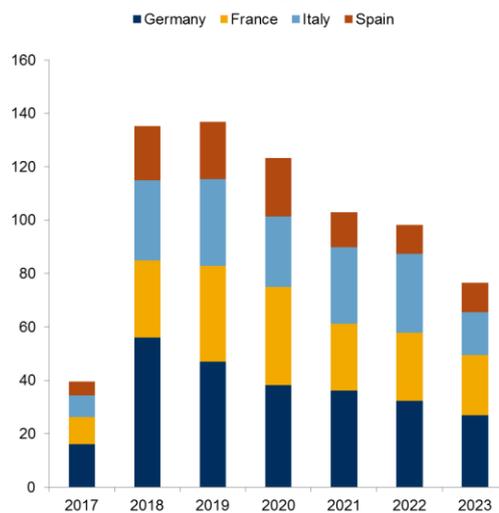
**Step 4:** With this computed share S (around 25% for France), we were then able to estimate the amounts subject to reinvestments of the principal payments from maturing securities month by month from now onwards. If one EUR 500m French public bond – which the ECB holds a part of – were due to mature in August 2017, then  $S * 500m = 125m$  would be the approximated amount for rolling over or freed from the ECB balance sheet that month.

**Caveats:** (i) Our calculations only cover the big 4 EMU countries which account for around 70% of total ECB sovereign bond-buying. (ii) The results have to be seen as possible maximum amounts. Since (i) implies a bias to underestimation and (ii) a bias to overestimation the two caveats could counterbalance each other. (iii) Available data is partly in market value, partly in nominal value.

For reinvestments of principal payments and tapering, it is useful to distinguish between “market effect” (flow) and “balance sheet impact” (stock). The net QE purchases of currently EUR 60 billion per month are made alongside reinvestments of principal payments. That means the ECB buys 60+X per month, which is the relevant sum for the markets. All other things equal, the ECB's balance sheet grows by EUR 60 billion each month. The monetary stimulus can be reduced by lowering the EUR 60 billion and/or by reducing X.

According to our calculations, in 2018 reinvestment amounts for Germany, France, Italy and Spain will sum up to around EUR 135 billion – i.e. more than two months of current QE total bond purchases (the latter include not only the Public Sector Purchase Program but also the Asset-Backed Securities Purchase Program, Covered Bond Purchase Program 3 and Corporate Sector Purchase Program). Furthermore, our results show that **if the ECB were to stop reinvesting principals, it could free up a maximum of 17% of the EUR 4.5 trillion balance sheet over five years (EUR 712 billion according to our calculations covering the main four countries of QE).**

ECB public bond holdings eligible for reinvestment, as of August 2017 (EUR bn)

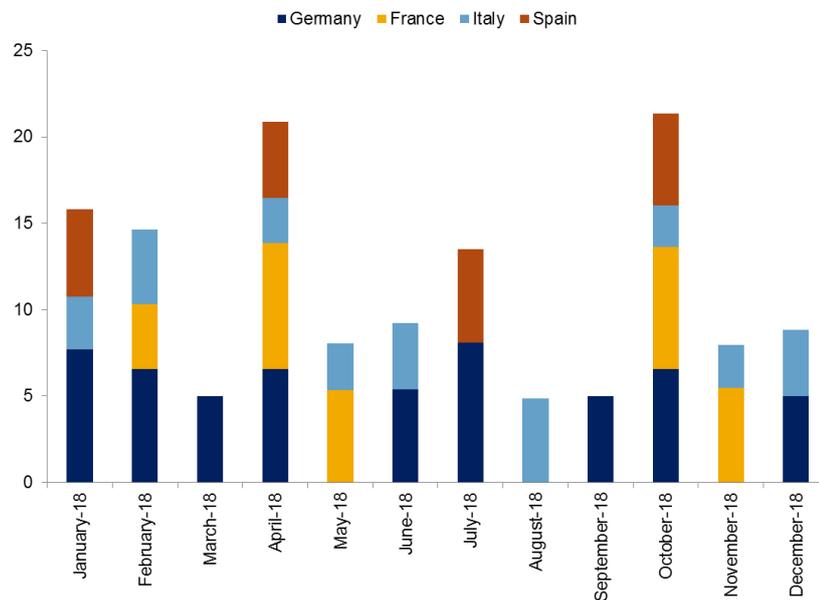


N.B. 2017 data only includes bonds maturing in the period from August to December.

Sources: ECB, Bloomberg, Allianz Research.

**Maturing bonds eligible for reinvestment could represent an average of EUR 11 bn per month for the main four QE-countries. Yet, country composition and amounts vary between months.** The effect on the market as well as on the ECB's balance sheet would depend on whether tapering and non-reinvestments of principal payments were applied together or not (i.e. if the non-reinvestments were used as an alternative or a supplement to tapering). For instance, if monthly QE bond purchases were lowered to EUR 40 billion and rolling over was stopped completely, the "market effect" would decrease from a good EUR 70 billion to EUR 40 billion and the balance sheet – all other things equal – would grow by almost EUR 30 billion (=40-X) per month.

ECB public bond holdings eligible for reinvestment (EUR bn, monthly amounts)



Sources: ECB, Bloomberg, Allianz Research.

Consequently, stopping or reducing the rolling over of principal payments can be seen as a kind of tapering – but in a rather non-transparent way. Perhaps surprisingly this could be what the ECB aims for in order to avoid too strong market reactions. While a lack of transparency is usually considered to be negative, it can sometimes have advantages. In fact, in such cases the technical term "constructive ambiguity" is used. In the past, the ECB already referred to this concept; for instance in the context of not being completely transparent about who is the Lender of last resort in order to avoid risky bank behavior (as a moral hazard problem).

### 3. Reducing the Italian stress

We assessed which amounts of public bonds the ECB would buy during H1 2018 under each scenario. The calculations were made for the main four countries benefiting from QE, and specifically for Germany and Italy.

## Net market effect in H1 2018 (EUR bn)

	<b>Status quo:</b> nothing changes i.e. no tapering and continued reinvestments	<b>Soft tapering:</b> no QE tapering, but stopping reinvestments	<b>Baseline scenario:</b> QE tapering but continued reinvestments	<b>Quick exit scenario</b> (hard tapering): QE tapering and stopping reinvestments
Total four main countries	289	215	181	108
Italy	66	50	41	25
Germany	104	72	67	36

N.B. The "stopping reinvestments" or "end of reinvestment policy" scenario estimates the maximum amounts involved if the ECB stops reinvesting all maturing bonds every month. In reality, the ECB could start by gradually reducing the amounts it reinvests rather than stopping reinvestment all at once.

For the status quo, we computed the market impact by summing up the monthly amounts of government bond purchases according to the capital key and the total amount reinvested in H1 2018. For the soft tapering scenario, the market effect is equal to the sum of monthly government bond purchases according to the capital key from January to June 2018. For the baseline, the corresponding tapered public bond purchases according to the capital key are added to the total amount reinvested in H1 2018. Last, for the quick exit, the market effect is equal to the sum of tapered public bond purchases – under the same assumptions as in the baseline scenario – from January to June 2018.

Sources: ECB, Bloomberg, Allianz Research.

These results reveal a new potential argument for stopping reinvestments of principal payments while leaving QE unchanged. This option could be a way to reduce stress on Italy compared to the baseline scenario.

The ECB is, of course, no political player and its monetary policy is not geared to single EMU member states. However, it appears noteworthy that in the soft tapering scenario ECB's demand in the Italian market would remain more important (+ EUR 9 billion government bond purchases) than in the baseline scenario. This could help reduce market stress (upward pressure on corresponding interest rates) and risks in Italy where political risk reemerges ahead of the general election scheduled for spring 2018, and the banking system remains fragile and the economic recovery remains weak.

Stopping rolling over would also cause less potential stress for Italy than QE tapering under an additional angle: Should political uncertainty in H1 2018 return to levels similar to mid-2012, the new ECB purchases of Italian bonds would still be comfortably enough to compensate for foreign investor portfolio outflows should they reach the highs seen in 2012.

At the same time, this possible advantage is relatively bigger than the disadvantage related to the German scarcity argument, i.e. the increasing rarity of German sovereign bonds eligible for QE. The ECB could be getting in conflict with its 33% issuer limit for Germany. In the soft tapering scenario, the ECB would have to buy approximately EUR 5 billion more German government bonds, hence aggravating scarcity compared to the baseline scenario. Yet, in absolute terms, soft tapering reduces potential stress for Italy more than it adds to German scarcity.

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