T-LTRO II early repayments: why we are not concerned

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In this note we focus on outstanding T-LTRO II operations given that the first date for early repayment (June 2018) is coming in the radar screen. Early repayments could affect excess liquidity in the eurozone.

The incentive to pay back funds as soon as this June is quite small. Repayments may accelerate once the residual maturity of each T-LTRO II falls below one-year (this would be June 2019 for the T-LTRO II.1).

Going forward, we expect that excess liquidity in the euro area will remain abundant (mainly because of the APP), keeping money market rates anchored to the deposit rate.

T-LTRO II: the first early repayment date is approaching

In 2016, the ECB introduced the so-called “T-LTRO II”, a series of 4-year refinancing operations. With T-LTRO II, the central bank aimed to offer attractive long-term funding conditions to banks to further ease private-sector credit conditions and to stimulate credit creation.

The T-LTRO II operations do not include a mandatory early repayment clause but give the drawing banks the opportunity to voluntarily repay the funds two years before maturity. For the first T-LTRO II operation, which has almost EUR 400bn outstanding, the settlement of the first voluntary repayment will be the 27 June 2018 (banks will have to communicate their intention to repay early to the ECB about two weeks in advance).

There is hence the possibility that liquidity provision through refinancing operations may start to shrink, and this would reduce the amount of excess liquidity.

In this note, we investigate the incentives for banks to voluntarily repay T-LTRO II funds early. We look at various scenarios for how the repayments of the T-LTRO II series might unfold and how this may affect excess liquidity, money market rates as well as the general level of yields.

Refinancing operations currently outstanding

The four T-LTRO II tranches, which together amount to EUR 740bn, account for almost the entire amount of ECB liquidity from refinancing operations. The amount outstanding at the 1W MRO is just over EUR 1bn and at the 3M LTRO it is just less than EUR 10bn. The amount left on the older T-LTRO is also negligible (EUR 12.5bn) and even if it is progressively repaid, this would hardly have a material impact on ECB liquidity.

The ECB announced four new targeted longer-term refinancing operations at its meeting on 10 March 2016. The new operations were designed to be more attractive than the previous ones in two respects:

– Banks meeting certain conditions in terms of lending activity could borrow at a rate as low as the deposit rate at the time of allotment (-0.40%)
– Counterparties would not be subject to mandatory early repayments: even if a bank did not meet the conditions on lending required to achieve the -0.40% rate, it could keep the funds until expiry

Because of these two factors, the vast majority of banks that participated in the first series of T-LTRO switched their funds into the second series on June 2016. The T-LTRO II.2 and T-LTRO II.3 did not attract much demand (although the T-LTRO II.3 has a large individual average take up), while the last one received strong net demand.

Table 1 summarizes the main characteristics of the four operations currently outstanding.

On the last row of Table 1 we show the level of the 4Y OIS around the date of each T-LTRO II, which gives an indication of the convenience of hedging interest rate risk in the various operations. The third and fourth operations are the ones where hedging would have been more attractive.
It is also interesting to analyze the countries to which T-LTRO II funds were allotted. There is no official breakdown for this, but national central banks report the amount of lending to financial institutions on their balance sheets. Hence, we can use these figures to analyze where demand came from. As Chart 2 illustrates, the bulk of T-LTRO II liquidity has been taken by Italian and Spanish banks, which together account for 55% of the total. French banks took around 15% of the total and German banks about 12%.

**CHART 2: T-LTRO II DEMAND: BREAKDOWN BY COUNTRY**

Analyzing the demand breakdown is important because it can help in understanding the incentive to repay the funds early. Banks in core countries have higher excess liquidity and relatively easier access to market funding, hence they may have a higher incentive to repay. On the other hand they are also likely to be paying the minimum rate (-0.40%).

### What are the main reasons for early repayment

While the T-LTROs II do not include a mandatory early repayment clause, they do provide the borrower with the option to repay funds early. For each T-LTRO II, the first early repayment date is two years before the final maturity and each quarter thereafter. Banks must inform the ECB of their intention to repay early around two weeks in advance (a detailed communication is issued about a month before the repayment date).

The main reasons that could lead a bank to decide to repay funds early are:

**Cost:** holding excess liquidity is expensive given the negative rates, hence a bank may choose to repay funds early to avoid this. This is not a very compelling reason. For those banks that have met lending conditions, T-LTRO II funds will be charged at a negative rate of -0.40%, thus offsetting the costs from depositing excess liquidity with the ECB. Banks that have hedged interest-rate risk from the T-LTRO are likely to be paying even less than the deposit rate, and hence have no reason to pay back the funds. Banks that have not hedged the interest-rate risk will benefit if the ECB raises rates and hence also have little reason to repay early. Finally, T-LTRO II funds are highly competitive relative to alternative sources, even if a bank has not met the lending conditions and is therefore charged the higher 0% rate.

**Balance sheet:** once the T-LTRO II residual maturity falls below one-year, this source of funding does not contribute to a bank’s NSFR (net stable funding ratio). Depending on each bank’s specific situation, this could lead to a decision to replace ECB funding with a longer-maturity source. This factor will only really kick in once the residual maturity falls below one-year (or a little before this date), which will not happen until June 2019. It is very difficult to estimate how strong this factor will be using a top-down approach, because it will work differently for each bank. For example, a bank may have a satisfactory NSFR even without the contribution from ECB liquidity. In addition, the asset side is important as well: if ECB funding is matched with assets with the same maturity, the net effect will be zero.

**Refinancing:** banks will have to replace ECB funding with market funding, eventually. This will need to be carefully planned and implemented in advance with respect to T-LTRO II maturities. Banks that used TLTRO-II extensively might also have the strategy to even out their maturity profile. As market funding is carried out, it is reasonable to expect some acceleration in repayments. This factor will unfold gradually over the medium term, becoming stronger as the final maturity of each T-LTRO II approaches.

Finally, some banks may have decided to borrow T-LTRO II funds mainly as precautionary funding (at the time of the last operation, for example, political uncertainty in the eurozone was elevated).
These banks may now decide to repay such precautionary borrowing given the economic outlook has significantly improved.

**T-LTRO II going forward: scenario analysis**

Combining the three factors described above, we decided to analyze four scenarios for repayments:

1. Strong front loading of repayments: each operation is fully repaid as soon as the option becomes available.
2. Strong back loading of repayments: each operation is repaid in full only at maturity.
3. Front-loaded repayments once the residual maturity falls below one-year, with core countries repaying 100% and periphery 70% of each operation at the first opportunity.
4. Gradual repayment starting when the residual maturity falls below one-year. The repayment rate is assumed to be higher in core countries. Each T-LTRO II is fully repaid by the time its residual maturity reaches six-months.

Scenario 1 and 2 are the two extremes and serve to identify the boundaries for the amount of ECB refinancing operations. The reality will be closer to scenario 3 or 4, in our view, depending on how fast banks want to replace ECB funding with other sources. Chart 3 shows the path of outstanding ECB liquidity in the four scenarios.

**Impact on excess liquidity**

In this section we combine the possible path of the ECB refinancing operations and of the APP with that of liquidity demand, to assess how excess liquidity is likely to develop going forward. Because excess liquidity is the combination of liquidity needs and liquidity supply, we need to look at both.

Liquidity needs arise from reserve requirement autonomous factors. Reserve requirements fell sharply in January 2012, when the coefficient was cut from 2% to 1%. Since then, they have been on a modestly rising trend. We use the growth rate since January 2015 to project this variable going forward.

The net autonomous factor (AF) component comprises a number of variables that are outside the control of the ECB, the most important of which are banknotes in circulation, government deposits and net foreign assets.

Should the dynamics of excess liquidity become a source of concern for the central bank, one possibility would be to announce another refinancing operation. If this were the case, we would expect it to have less-favorable conditions than the current ones, in order to create some incentive for banks to switch to alternative sources of funding.

The ECB refinancing operations are only one component of liquidity supply (they account for about 25% of the total). Even if there is a significant amount of early repayments of the T-LTRO II, the level of liquidity in the Eurosystem will remain elevated because of the APP. The total amount of the APP is projected to reach around EUR 2.5tn by September 2018 and to remain at that level as long as the ECB continues to reinvest the redemptions (in this note we assume that redemptions will continue to be invested until at least Q1’21). Chart 4 illustrates this.

**CHART 4: ECB LIQUIDITY PROVISION**

Source: Bloomberg, UniCredit Research

We assume that reinvestment of APP proceeds continue until at least Q1’21

Because the residual maturity of the first T-LTRO II drops below one year in June 2019 and because this is the operation with the biggest outstanding, mid-2019 is the first period when the amount of liquidity provided through refinancing operations might experience a large drop.

The dynamics of repayments and its impact on excess liquidity needs to be carefully monitored, as June 2019 is very close to when the ECB is likely to start to hike rates.
Analyzing in detail the various components of autonomous factors is beyond the scope of this note. We project autonomous factors according to the recent trend in banknotes, which is the component showing the most stable long-term pattern. Projecting AF using its last few years’ trend would likely produce an overestimation. Chart 5 shows the historical pattern of AF since the start of QE as well as a linear extrapolation going forward, along with the amount of reserve requirements.

**CHART 5: AUTONOMOUS FACTORS AND RESERVE REQUIREMENTS**

The most important conclusions from chart 6 are:

1. Excess liquidity in the euro area will likely stabilize in the coming months as the additional liquidity coming from the APP should be offset by rising liquidity demand.

2. The approach of T-LTRO II maturity (and in particular as the time to maturity drops below one year) increases the incentive to repay, in our view. Because of this, a drop in excess liquidity should be expected around mid-2019. Another period when we see a potential drop in excess liquidity is 1Q20, when the residual maturity of the fourth T-LTRO II drops below one year.

3. Even considering fairly substantial early repayments, the amount of excess liquidity is likely to remain elevated (above EUR 1tn) until early 2021.

4. The farther we move into the future, the more the behavior of net AF becomes uncertain. In this respect, the downward trend in excess liquidity shown in Chart 6 should be taken with a grain of salt beyond the one year horizon.

**Implications for money-market rates**

Money-market rates are unlikely to be affected by developments in excess liquidity any time soon. According to our simulations, excess liquidity will remain elevated enough in the coming years to keep the EONIA close to the deposit rate. Chart 7 shows that as long as excess liquidity is above EUR 500bn, the EONIA is pressed towards the bottom of the ECB rates corridor (the depo).

A return to a situation where the refi is the reference anchor for the overnight rate (and hence for other money-market rates) should not be expected until well into 2021, with the risk skewed towards an even later date.

**CHART 7: DEPO TO REMAIN THE ANCHOR FOR MM RATES**

The y-axis shows where the 3M OIS trades in the corridor. A value of 50% indicates it stands in the middle of the corridor, a value of 0% indicates it trades at the bottom.
The effect of excess liquidity is felt up to the 2/3Y maturity: the chart above would be very similar if we plotted the 2Y OIS (or even the 3Y OIS) rather than the 3M. Beyond this maturity, other factors, such as policy-rate expectations, start to affect OIS rates.

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