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Money Market Update

*The Italian Target2 miracle that
makes Hans-Werner Sinn blush*

August 25, 2026

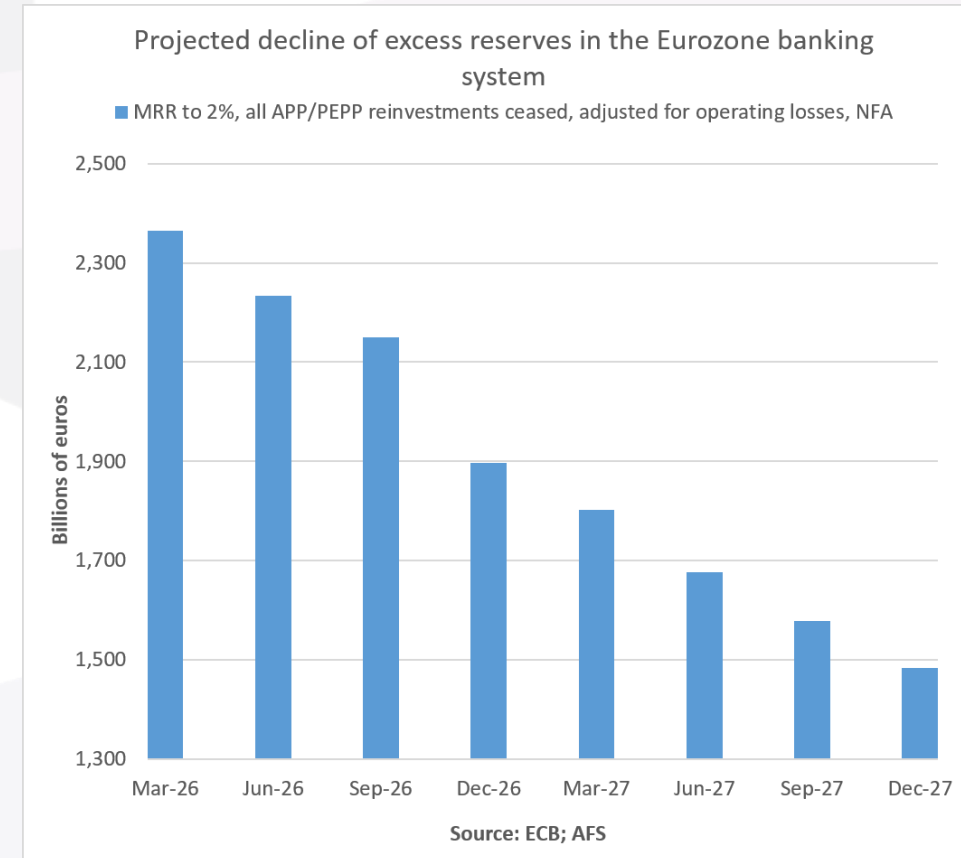
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Summary

- **I expect Quantitative Tightening to continue through next year.** Money market spread increases will remain linear and proportionate to the decline in excess reserves. We will see significantly more MRO/LTRO borrowing henceforth, but that's by design. The profit-hungry folks at the ECB certainly won't mind;
- **The ECB will be able to pull off the rumored Minimum Reserve Requirement increase by year-end.** The sooner, the better. Waiting longer increases the risk of money market turmoil, like the unprecedented Eurex repo rate spike this month;
- **MRO/LTRO borrowing is predictably concentrated in Italy, where reserve levels are lowest.** Regulatory demand for reserves is forcing Italian banks to borrow more from both the rest of the Euro Area and from the Eurosystem;
- **Italian Target2 liabilities have fallen significantly and are now much lower than those of Spain.** Sell-side calls for an early end to QT by December this year are therefore misplaced. The ECB would end the benign redistribution of reserves to where they are scarcest: Italy. Furthermore, there is no stigma attached to LTRO/MRO borrowing. They are there to be used. And for the Eurosystem to make a profit.

MRR to the moon

- **Money market spread forecasting rises and falls with estimates of future bank reserves.** Fortunately, the ECB makes forecasting liquidity conditions straightforward. It publishes timely redemption schedules for its bond holdings, which at the last count stood at 3.4 trillion euros;
- **Next, I adjust for growth in MRO/LTRO uptake, which for our purposes I guesstimate at 5 billion euros per quarter.** Other factors on the Eurosystem balance sheet (so-called Net Financial Assets, or NFA) add a bit of reserves, as do the central bank's operating losses;
- **Assuming other key autonomous factors – government and supranational deposits at the Eurosystem remain stable, I expect that excess reserves will drop below 1.5 trillion euros in December 2027.** That's considering the rumored increase in Minimum Reserve Requirements (MRR) to two percent, which I estimate will happen by year-end (journos quizzing President Lagarde about the MRR at the July press conference is telling). The sooner the ECB raises the MRR, the lower risk that the sudden +/-170 billion euros decline in excess reserves will result in disorderly money market spread increases.



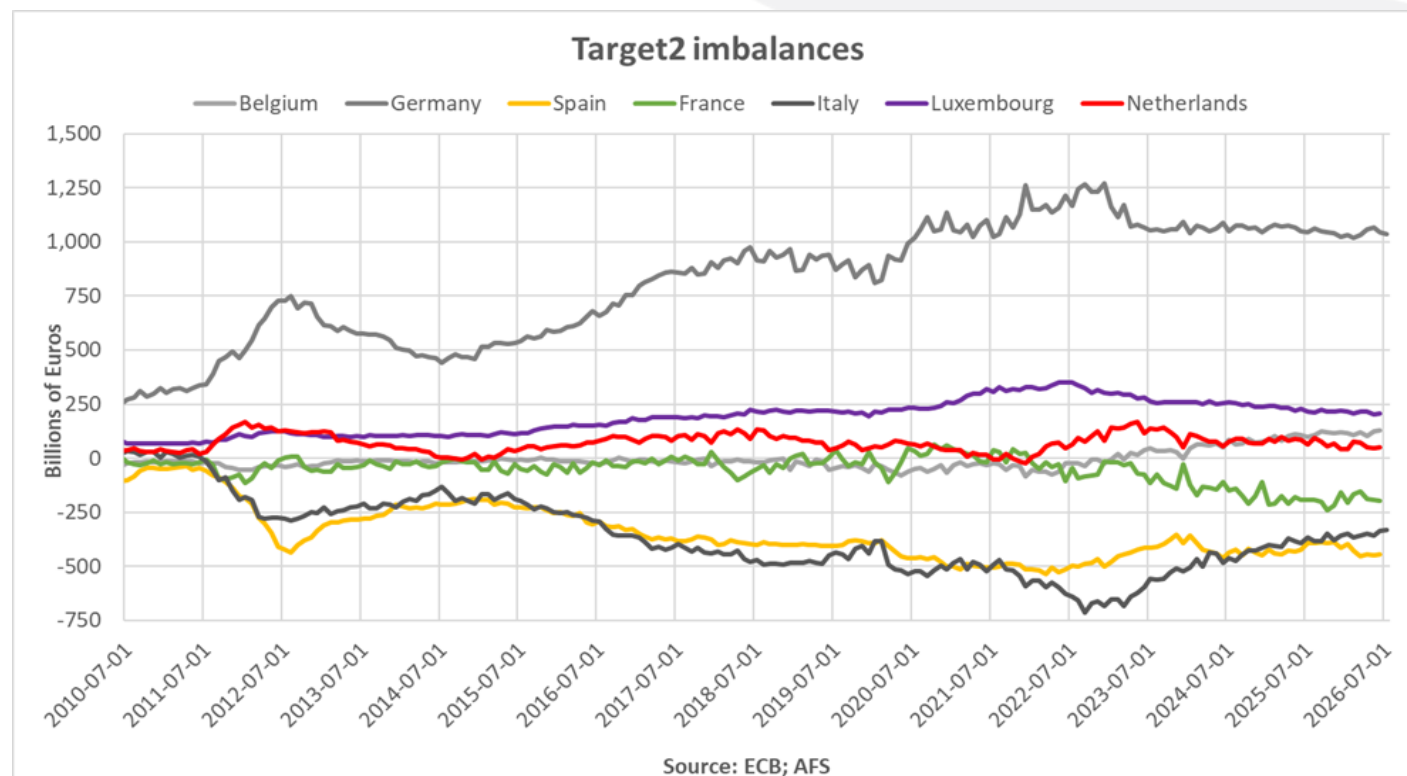
QT will continue next year

- **I forecast four money market spreads: ESTR – ECB deposit rate (DFR); Eurex GC repo – DFR; and Euribor 3m and 6m versus their respective ESTR OIS tenors.** By the end of the forecast horizon (December 2027) only the ESTR-DFR spread will remain below its pre-pandemic level. BOR-OIS and GC repo spreads have already exceeded their pre-pandemic levels. Regardless, spread increases are linear and proportional to the decline in excess reserves and other independent variables in my models;
- **The ECB ‘endorsed’ Vissing-Jorgensen model has ESTR-DFR spread tightening accelerate once excess reserves drop below 2 trillion euros*, which will happen in Q4 this year if the ECB increases the MRR in December as I now assume (or a quarter later without an MRR increase).** So far, I’ve seen at least one sell-side call for the ECB to cease QT by year end based on the Vissing-Jorgensen model forecast. I disagree;
- **BOR OIS and GC repo DFR spreads, despite being ahead of the curve and tightening faster than the ESTR-DFR spread, have shown no signs of accelerating.** So, it’s unreasonable to expect the lagging unsecured overnight market to become ‘jumpy’ and force the ECB to end QT. Especially when the ESTR-DFR spread is still way below its pre-pandemic level (when the overnight market was quiet as hell anyway);
- **I don’t think the ECB cares very much about faster BOR-OIS increases.** But for obvious reasons it does care about the repo market, where the leveraged buying of government bonds is financed. Unlike the Fed, the ECB has an effective cap in place for repo since time immemorial: the MRO rate. Banks can always pledge the collateral that has become too costly to finance in the repo market at the Eurosystem at a relatively favorable spread with DFR. However, we haven’t seen an increase in LTRO/MRO uptake beyond what could be expected by QT relentlessly destroying bank reserves;
- **More importantly, if the ECB would end QT this year, it would do so while recourse to the LTROs and MROs is still minimal, and with only pockets of reserves scarcity.** In Italy, of course.

**See the chart on page 40 in the paper: https://www.ecb.europa.eu/press/conferences/ecbforum/shared/pdf/2023/VissingJorgensen_paper.pdf*

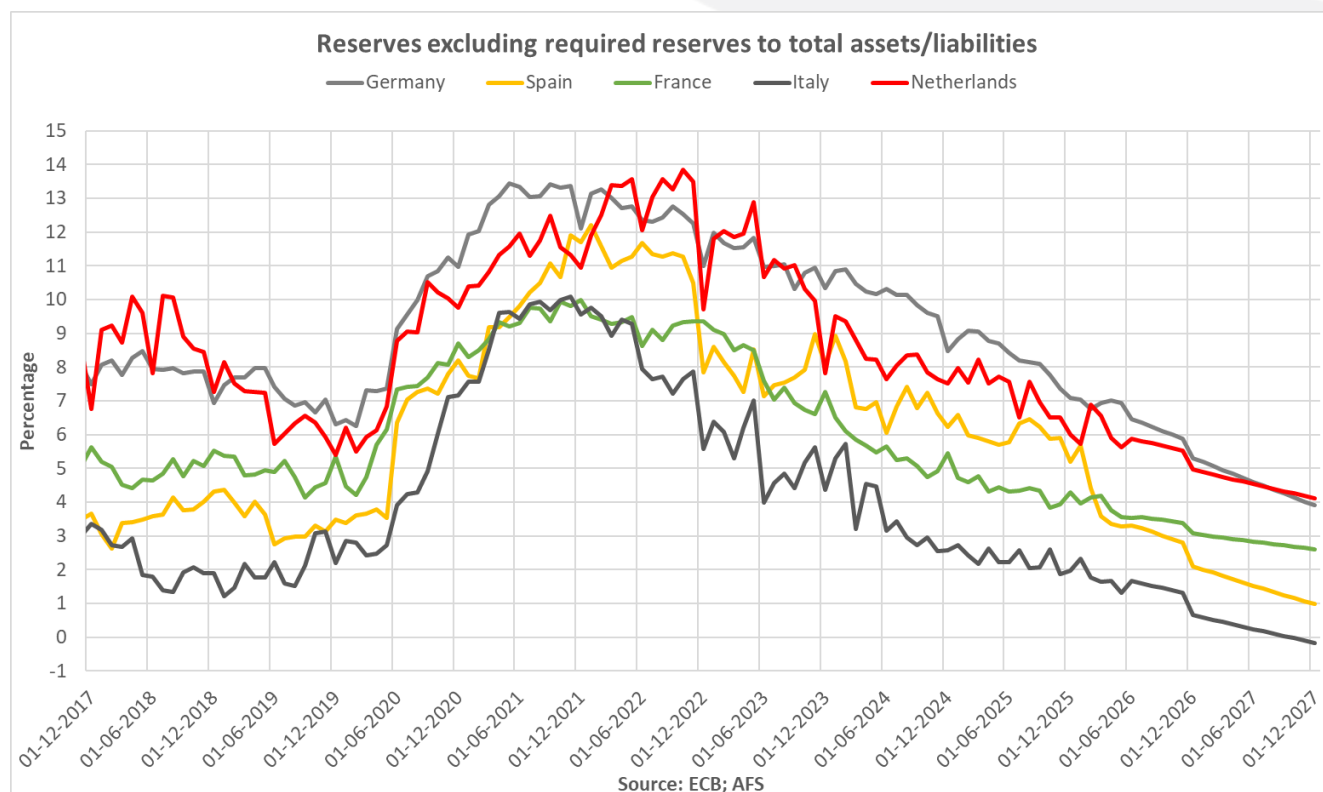
Hans-Werner Sinn is happy again

- **And speaking of Italian banks, our friends down south have been remarkably successful in attracting reserves from the rest of the Euro Area.** Italian Target2 liabilities have set new post-QE lows. As a matter of fact, Italian Target2 liabilities are now smaller than those of Spain. At this rate, in a year or so Italian Target2 liabilities will be lower than that of France. Or potentially earlier if markets throw a hissy fit over France and its fiscal budget gridlock and election risks. In any case, it's beyond me why the ECB would want to end prematurely what is a very welcome and healthy development – the redistribution of bank reserves to where they are the scarcest. Heck, even Hans-Werner Sinn must be happy with what he's seeing.



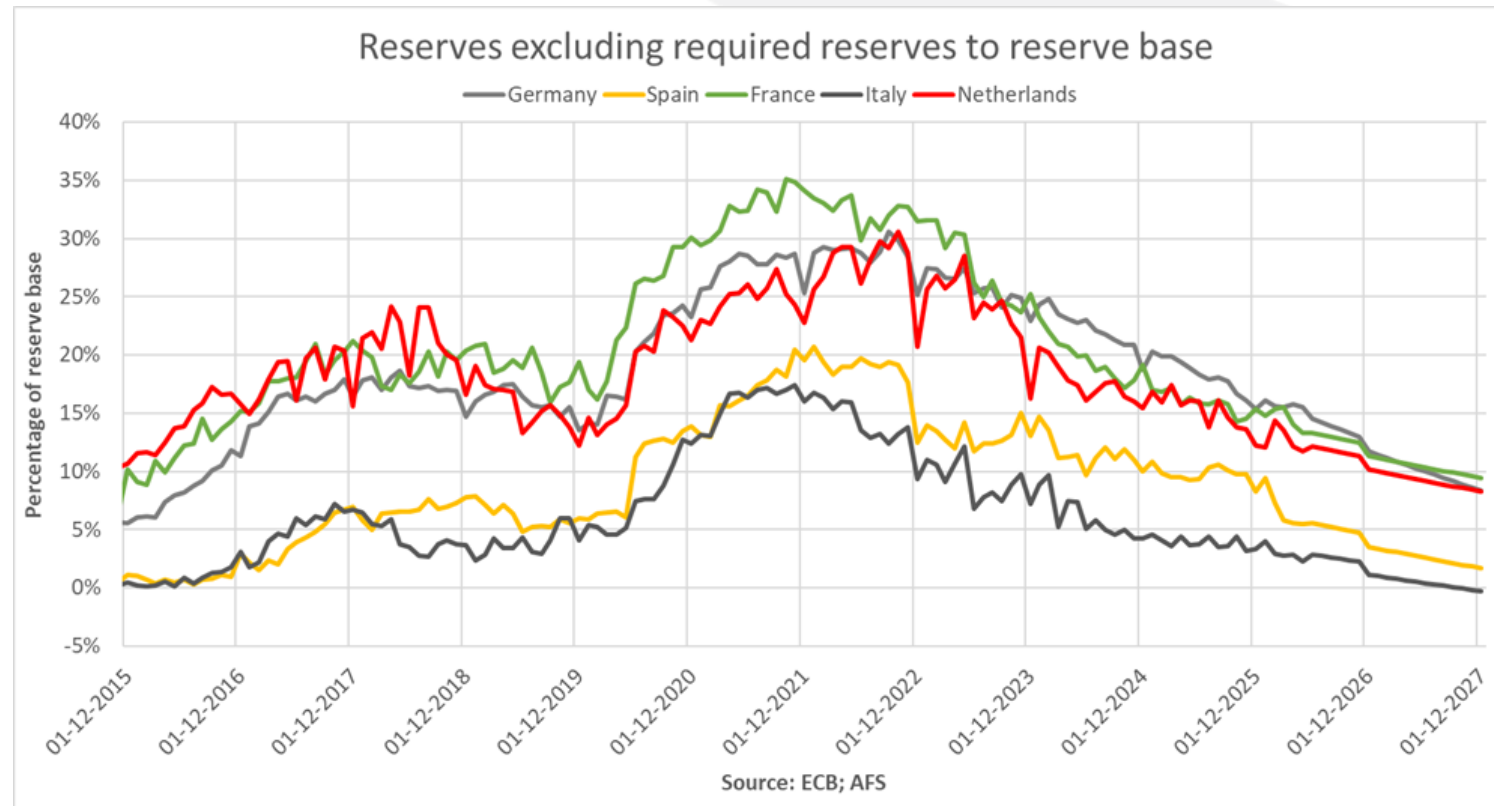
Italian banks are the marginal borrower

- **Forecasting bank reserve level per member state is straightforward once you adjust capital key-based destruction of reserves with assumptions about changes in Target2 balances.** Assumptions that are simply extrapolations of recent Target2 balance changes. Mind you that the forecasts do not incorporate additional LTRO/MRO borrowing but do assume the MRR increase per December 2026;
- **We see the usual suspects with the lowest reserve levels: banks in Italy and Spain.** As a matter of fact, the reserve level in Italy will become negative. Meaning that banks in Italy must either borrow from the Eurosystem or from the rest of the Euro Area, or a combination of both. Which is exactly what they've been doing.



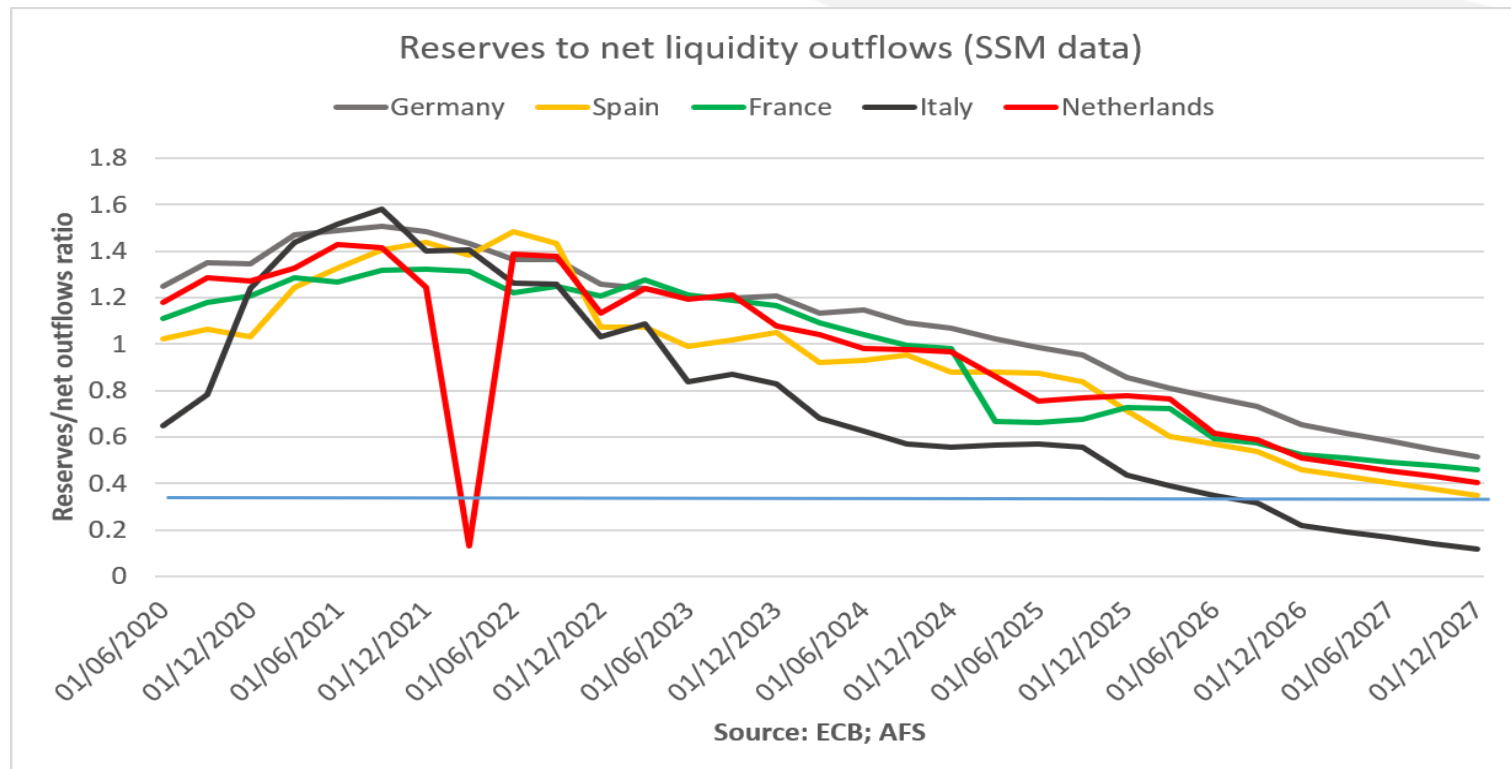
No German exceptionalism

- **Another way of looking at bank reserves is to express them as a percentage of the reserve base.** Which changes the picture markedly. Italian and Spanish banks are still the least liquid. But the ratio does put French banks in the same boat as Dutch and German banks. Which I find enlightening, given the fact that after Italian banks, German banks are the biggest LTRO/MRO borrowers (biggest relatively speaking);
- **Of course, the reserve base is a rather imperfect way to measure which deposits are ‘fleet of foot’.** And thus require a higher level of precautionary reserves to cover outflows.



LCR-driven demand for reserves in Italy

- **I also try to estimate regulatory demand for reserves.** My preferred measure is not the Liquidity Coverage Ratio itself (still working on a NSFR model) but reserves to outflows. Since inflows are capped at 75% of outflows, it's a useless variable. Forecasting outflows is straightforward since it follows a money supply-like growth trajectory. For reserves I use the SSM data series for cash assets, which I then extrapolate based on my MFI-based reserves forecast;
- **The minimum comfortable ratio of reserves to outflows is 35%.** That's based on bankers acknowledging my ballpark estimated preference of having 25% of HQLA in reserves while maintaining a 140% LCR;
- **Banks in Italy drop below the estimated minimum in Q3 (forecast).** Spanish banks should follow suit in Q4 next year.

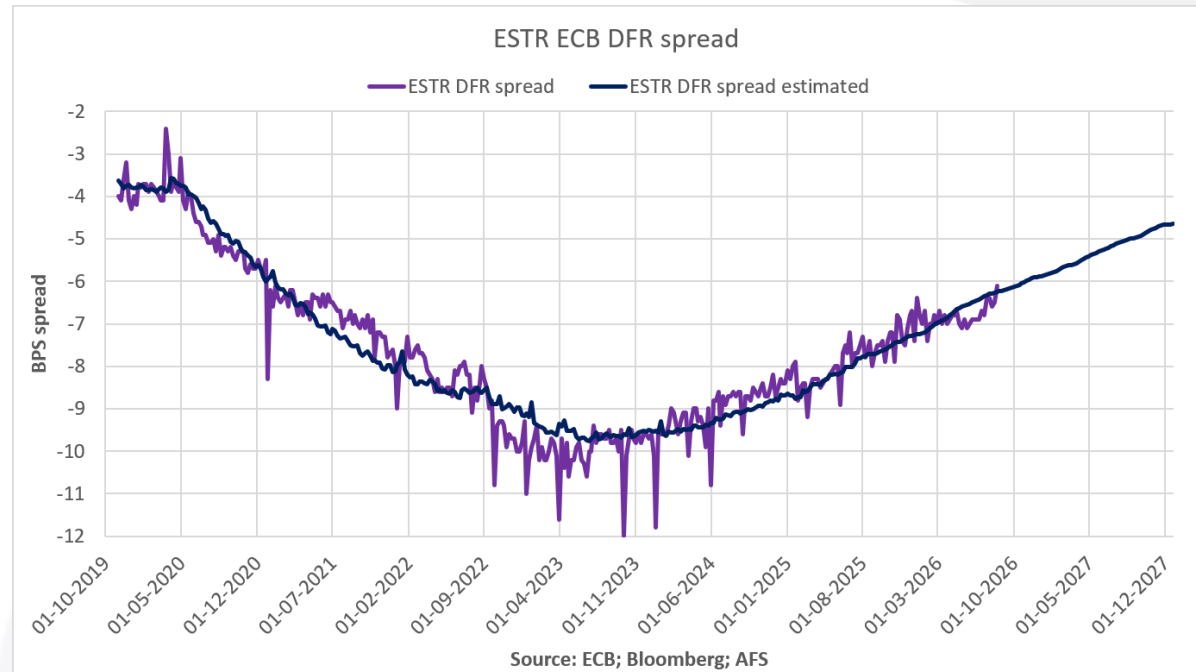


The Usual Suspects

- **We're now halfway through Q3.** I expect the reserves to outflow ratio for Italian banks to drop to 32% at quarter end. To boost the ratio to the estimated minimum 35%, reserves need to increase by 15 billion euros compared to Q2, when I estimate cash assets at 130 billion euros at quarter end. Mind you that cash assets includes non-euro reserves, such as nostro accounts, most of which will be in USD. Since the Fed keeps bank reserves stable at around 3 trillion euros, future cash assets simply become a function of euro reserves;
- **Bank of Italy Target2 data for July showed that Italian banks likely borrowed 4.5 billion euros on net in reserves from the rest of the Euro Area that month.** Furthermore, LTRO+MRO recourse has picked up to 30 billion euros throughout July and August from the 20-25 billion euros range in the first half of the year. However, we don't know who's responsible for the increase. The most recent ECB disaggregated balance sheet data shows that Italian banks had 13 billion euros in LTRO/MRO borrowing outstanding at the beginning of July. That compares with 15.5 billion euros late January and 13.3 billion euros early April. So, perhaps someone else is responsible for the recent increase in LTRO/MRO uptake as actual Eurosystem borrowings have declined this year;
- **Italian banks really are the usual suspects though, given their relatively low (regulatory) level of reserves, their history of importing reserves from abroad, and them being the biggest notional borrowers.** So, my working hypothesis is that Italian banks are responsible for the recent bump in uptake. And that we will see more cross-border borrowing and LTRO/MRO borrowing by the banking system in Italy from now on;
- **I want to stress that Italian banks on net borrowing from foreigners – either directly or indirectly, and especially if it involves long-term money market tenors or bonds – is a very welcome development as it reduces Target2 imbalances.** And thus, leading to a more equal distribution of bank reserves. If the ECB would end QT prematurely by December, it will put a stop to this benign development. Furthermore, my fellow grunts at the Eurosystem open market desks will still have nothing to do because they won't be doling out more LTROs and MROs. We can't have that, can we?

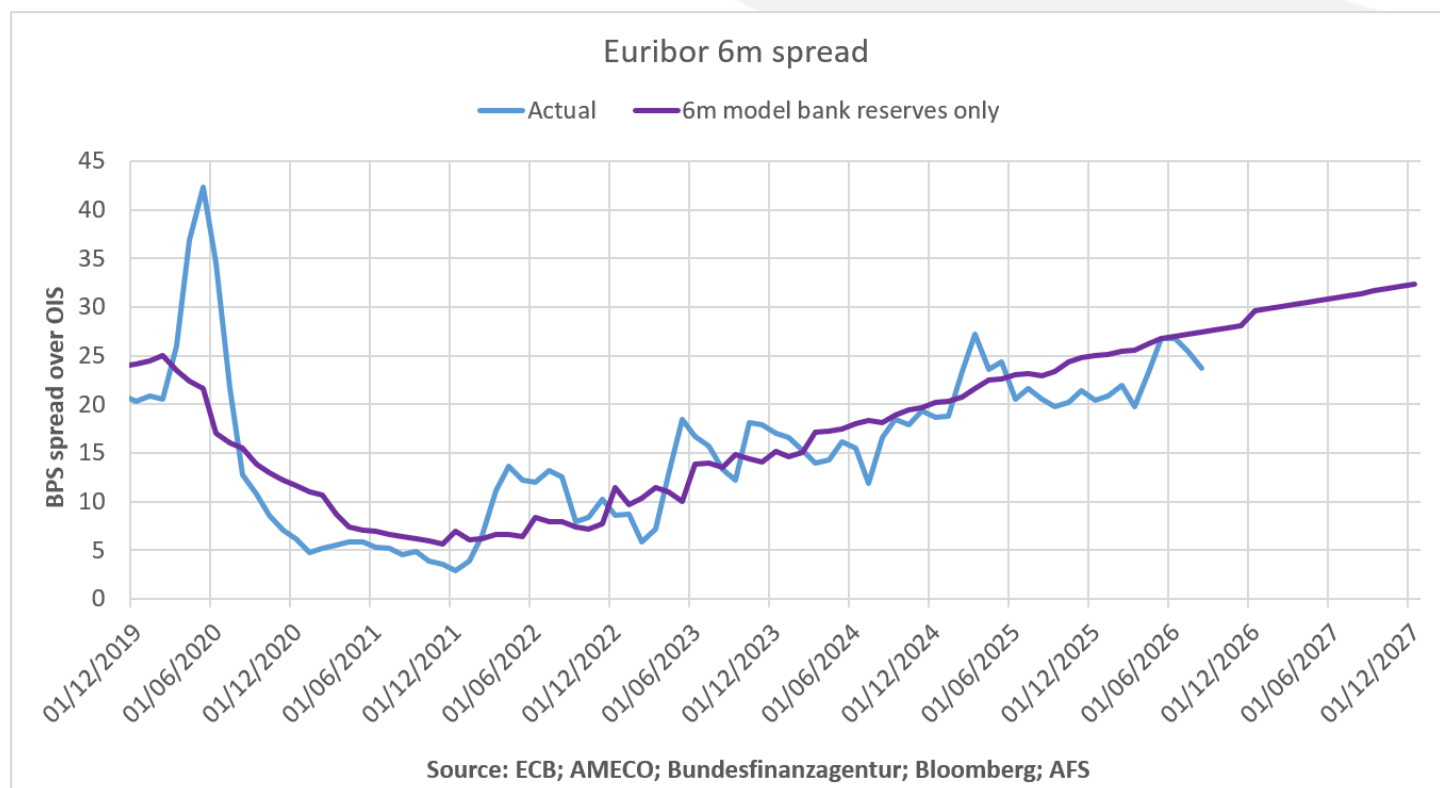
ESTR slow rolling it

- **Something that Italian banks fiending for reserves certainly isn't responsible for, is pushing up ESTR.** The settlement for the week ending August 14 was a tad higher than expected, a welcome change after weeks of lower than expected settlements. Last week's settlement of 5.9bps below DFR was also higher than expected. By a grand total of 0.3bp. Which in the world of ESTR settlements is, in fact, meaningful. In any case, the regulatory value of overnight borrowings is non-existent;
- **I am not seeing anything out of the ordinary in the detailed ESTR settlement data.** Which makes me believe that the higher settlements last week were just a bit of noise. In any case, below are my unchanged estimates for ESTR-DFR spread through December 2027. The model's independent variables are unborrowed reserves (the ECB's bond portfolio) and autonomous factors. Since an increase in MRR affects neither, a MRR bump should not narrow the spread. Which makes sense as banks will likely charge their wholesale depositors for depositing cash with zero regulatory value that increases required reserves (which the ECB remunerates at zero percent);
- **For the record, based on a simple model where the ESTR-DFR spread is a function of excess reserves, doubling the MRR to 2% would narrow the spread by a few tenths of a basis point.**



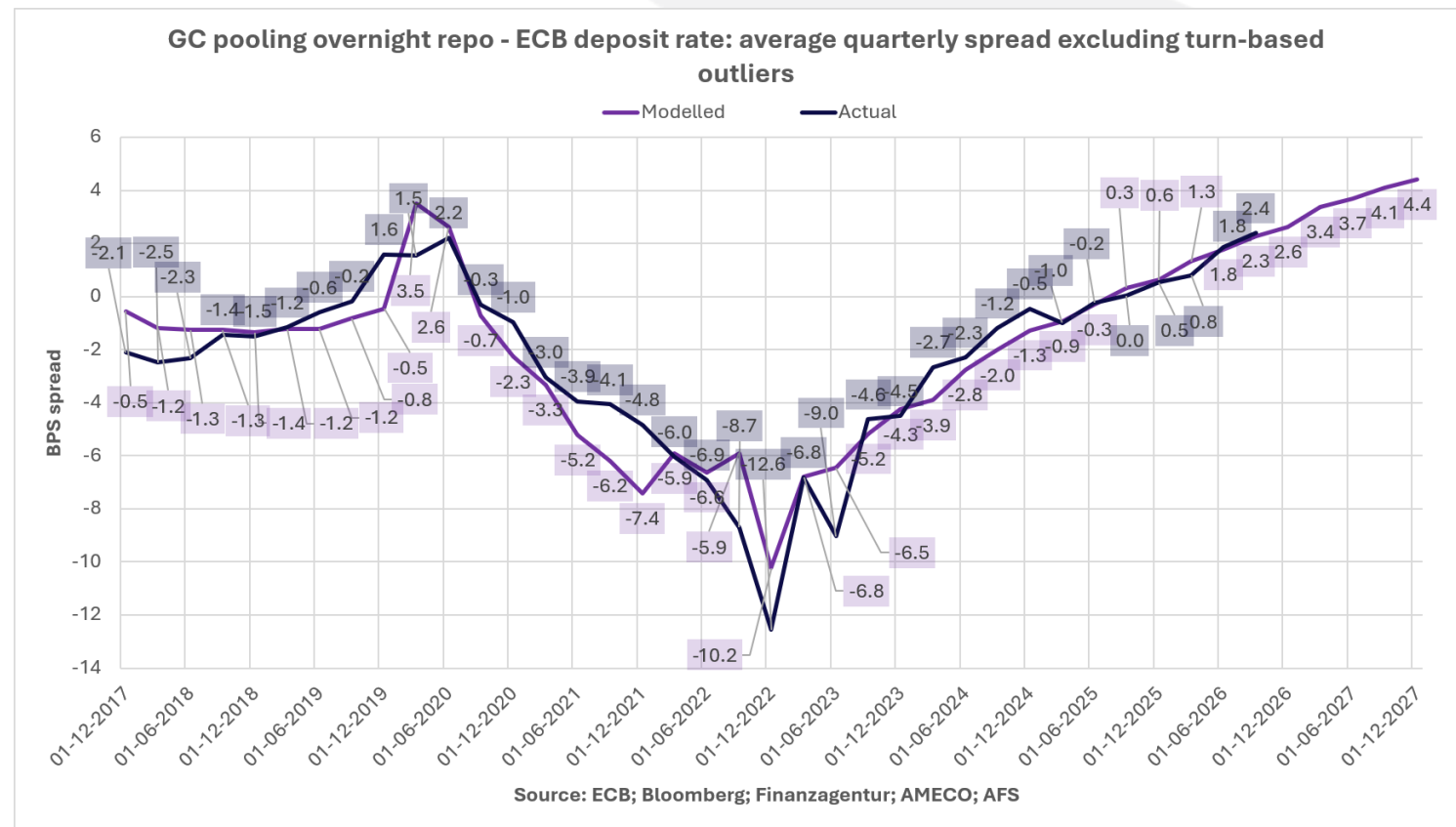
MRO cap for BOR 6m

- **I still forecast BOR-OIS spreads but with the disclaimer that Euribor settlements have a life of their own.** Independent variables are reserves to total assets for the 6-month model. And for the 3-month model overnight repo spreads and two dummies to 'explain' periods of excessively high and excessively low settlements. Unlike my ESTR and Eurex GC repo model, the Euribor models are for reference purposes only;
- **The 6-month BOR-OIS spread is tracking the model if you ignore the hick-ups.** Notice that settlements this summer have exceeded the pre-pandemic level. The 2026 year-end bump in the spread is the result of the expected MRR increase;
- **I strongly doubt if the spread will widen much further next year.** A forecasted 30bps over OIS by year-end equals 9bps over the MRO rate. Are bankers truly willing to pay that much for borrowings that lose their LCR-value halfway through?



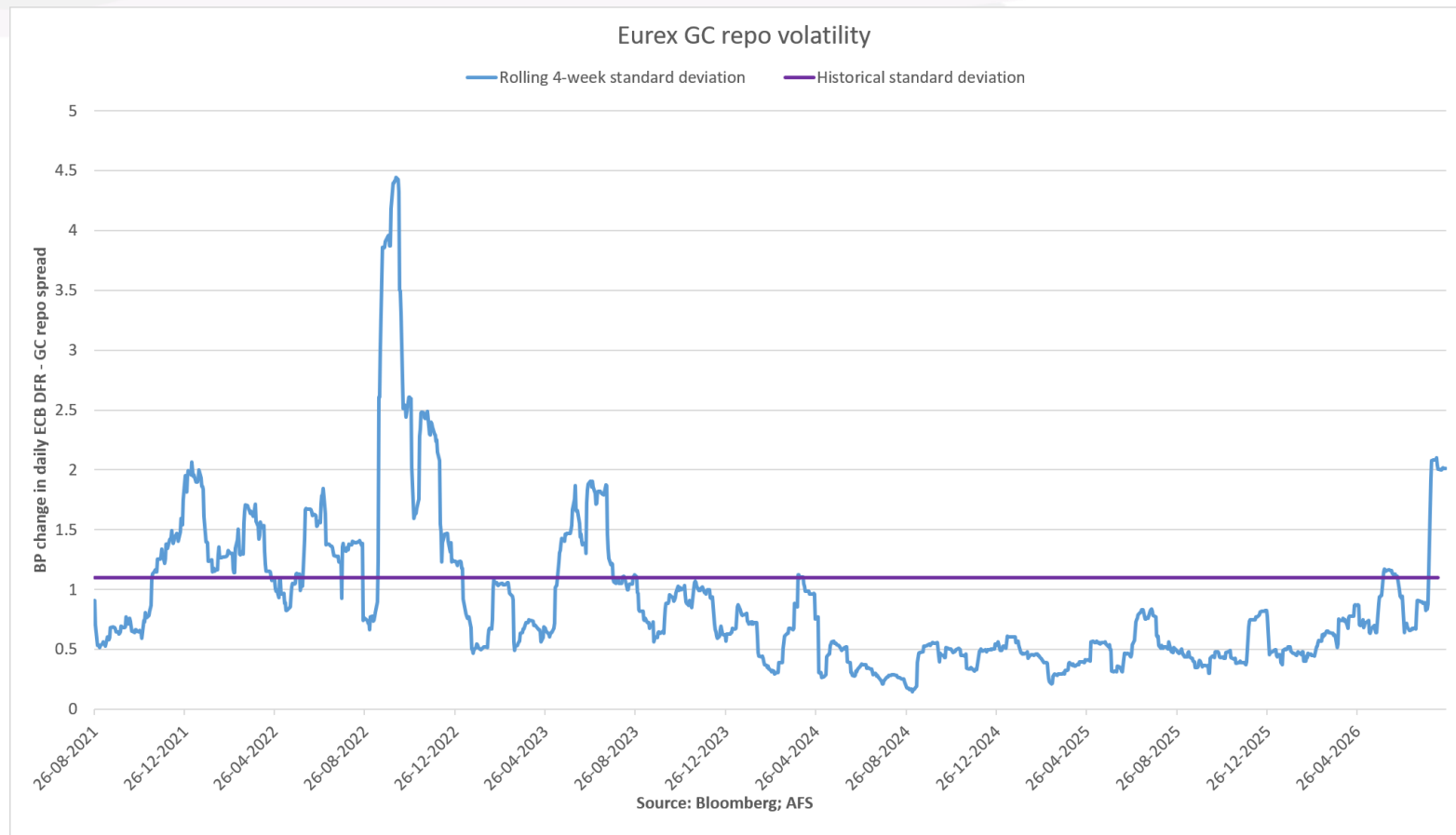
Like Clockwork

- **Quarterly average Eurex GC repo settlements still closely track my model.** For the record: the independent variable is the ratio of bank reserves to public sector collateral issued in the core countries (sovereign and agency and some sub-sovereign debt) and extreme high-quality covered bonds. I will update the collateral basket to better reflect what's in the Eurex basket. But don't expect any earth-shattering changes in the spread forecast;
- **The GC repo-DFR spread exceeded the pre-pandemic quarterly average of 1.5bps over ECB DFR in the second quarter of this year, when the average spread was 1.8bp.** Settlements this quarter are bang in line with my model. But that's not the whole story.



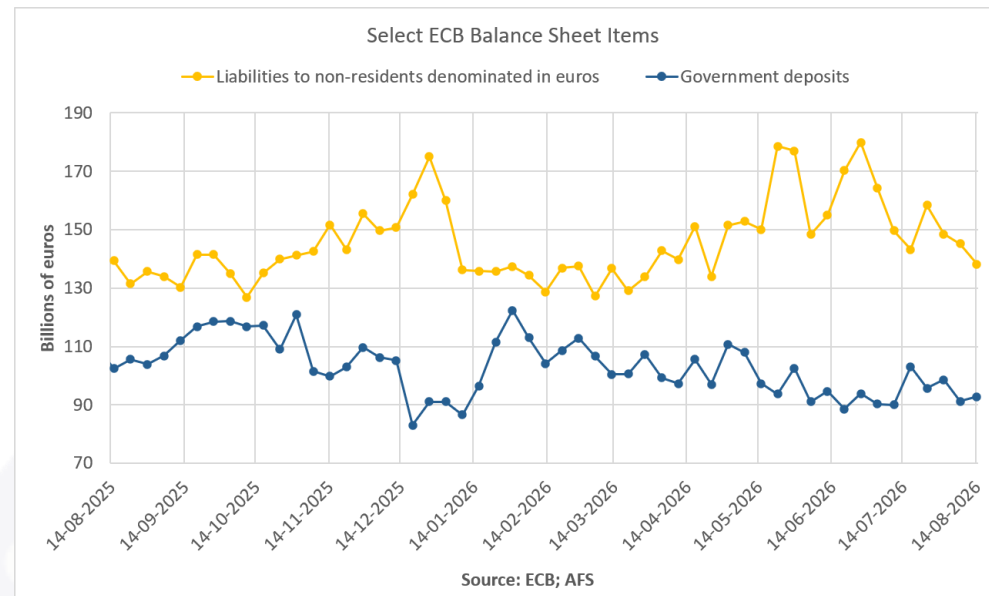
The ECB's first ever repo spike

- **Volatility in Eurex repo settlements increased notably early August.** The chart below shows the rolling 4-week standard deviation of settlements and the long-term standard deviation. Settlements exploded from an average 1.2bps over DFR in the final week of July to 4.8bps in the first five trading days in August. On August 3, we printed 7.8bps over DFR. Not even during the March 2020 pandemic 'dash for cash' did we see a daily spread print that wide. Spreads have eased in the past two weeks, with the daily settlement averaging 1.7bps.



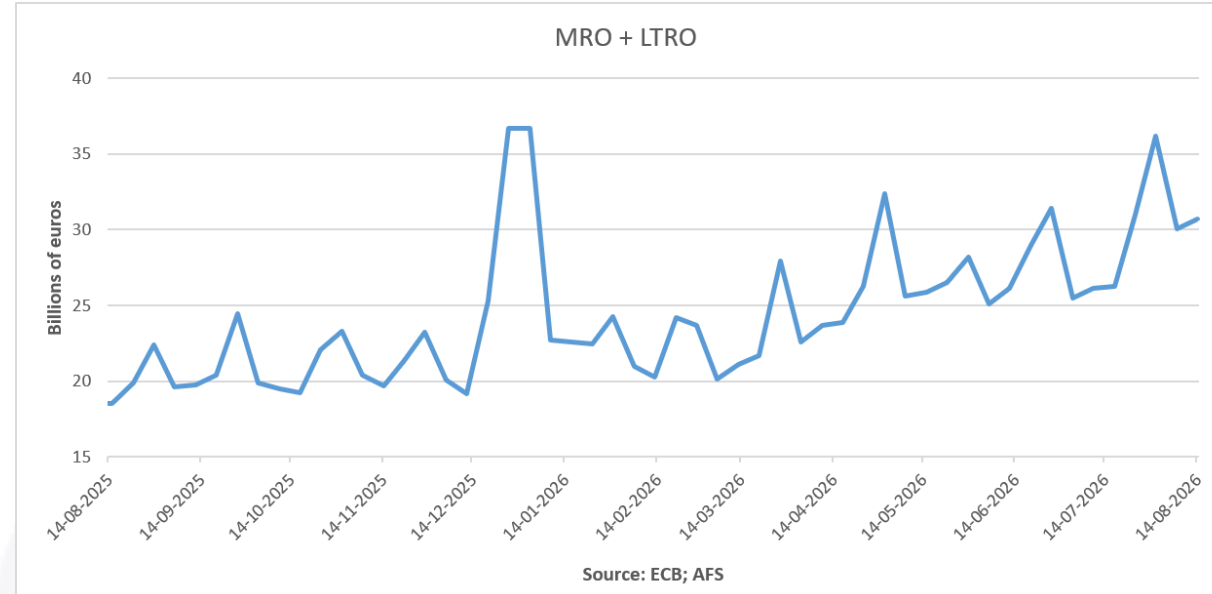
Just Eurex

- **The early August Eurex repo spike is a bit of a fluke.** If I exclude the 'hot' first week in August, settlements have averaged 2.1bps over DFR this quarter. Which is 0.2bp below the modelled spread. Put differently, fundamentally nothing has changed;
- **Then again, the lower the level of excess bank reserves, the greater the odds that money market rates spike incidentally.** Early August seems to be a textbook case of such a spike. But it doesn't mean I am going to discard my model. I don't think we've reached the steep part of the demand curve for reserves. That would require consistently faster increases in daily settlements over DFR;
- **A DMO contact told me that on August 3 cash lenders were mostly absent.** Typically, lenders of cash (reserves to be precise) are the DMOs and supras (the EU Commission likely). At the same time, demand for reserves could have been higher than usual. The week before ECB tender operations show an unusually large MRO uptake in the auction on July 28. Banks took 22 billion euros, the largest uptake since the 2025/2026 year turn. In the preceding week and subsequent weeks, borrowings fluctuated around 16-17 billion euros;
- **It's hard to infer anything from weekly ECB balance sheet data on DMO and supra deposits.** Which have trended lower in the case of the former. Balances could have dropped to the low end of the desirable range, leaving little to be lent out in repo. Or perhaps reserves had already been lent out in the market. Regardless, it's Eurex. There are other repo platforms. Not mention non-platform trading.



Back in business

- **And speaking of LTRO/MRO uptake, outstanding loans have finally started to trend higher.** After languishing in the 20-25 billion euros range, we've moved up to the 25-30 billion euros range. And even exceeding 35 billion euros in the week preceding the repo spike. Still, borrowings pale into comparison with two trillion euros in unborrowed reserves;
- **If I am right about Italian banks preference for holding a quarter of HQLA in reserves, to maintain a 35% reserves to outflow ratio they need to borrow 50 billion euros in reserves by year-end.** Earlier I estimated that the banks already borrowed 10 billion euros of that amount. Leaving 40 billion euros to be borrowed from abroad and from the Bank of Italy. Since the cash assets line also contains non-Euro reserves (nostro accounts for example) the actual euro borrowings will likely be a bit lower;
- **If the ECB bumps the MRR to 2% in December as I now expect, Italian banks need to borrow an additional 25 billion euros of reserves.** Italian banks having to fiend for reserves might very well be the biggest obstacle for an MRR increase. The ECB might not like the optics of such a sudden jump in LTRO/MRO borrowings coming from one member state;
- **The proof of the pudding is in the eating.** My estimate for Italian banks' reserves demand could be completely off. Perhaps because Italian banks are comfortable with a lower level of reserves. Or maybe the MRR bump simply won't happen. Let's wait and see.





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