



# EUR rates

## A liquidity roadmap

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Markets

# Summary – Liquidity to stay above 100bn

Our baseline projection sees excess liquidity at about €580bn in 2016. The risks to this path are biased to the downside however

## Key factors driving liquidity in the coming year

### Factor 1. TLTROs

Liquidity will be boosted but probably less than what most expect. Switches from the LTROs and a reduction of usage of the MROs or shorter LTROs are likely.

### Factor 2. 3y LTRO maturity

The so called "*liquidity cliff*" could become a non-event if a large part of the loans have already been extended. If significant amounts remain at maturity, the ECB may introduce bridging operations.

### Factor 3. Autonomous factor seasonality

The summer is over and so are the tighter liquidity conditions. Liquidity usually eases in the coming months until we reach December.

### Factor 4. ABS & Covered Bond Program

These are the big unknowns in terms of liquidity going forward. Size and pace is yet to be announced but the programs should push excess liquidity on an upward trajectory.

### Factor 5. The effect of the negative deposit rate

A negative deposit rate could have a liquidity tightening effect but so far results have been limited.

**Conclusion:** In the coming 6-9 months liquidity will remain above 100bn, the level which historically has caused some concern. Later on, liquidity will in particular be boosted by the TLTRO re-fills and the ABS and covered bond programs.

## Key market takes

### Money market

Eonia swaps have had no problems going negative, and recently forwards almost reached -10bps. Though rates have reverted a bit, we still recommend paying near these levels.

For choice, we think that the front end of curves (vs. Eonia and vs. Euribor) looks too flat. However, not much is required for QE-speculation to run wild again, and as such we do not recommend taking steepening exposure there at this time (further out the curve is another matter).

### Vol

Two profound ECB-related things lately. The front of the curve is anchored according to the vol market, with e.g. 6M5Y registering all time lows. Longer forwards on 5Y tails are also depressed, and buying e.g. 3y5y vs. 5y5y or 3y10y looks good

The other effect is very palpable: The price of zero Euribors. Here the spike in strike-100 options on Euribor Futures has gone up, but only marginally. With the Euribor 3M fixing at just over 8bps now, they should, but we do not see negative Euribor 3M fixings as a realistic scenario.

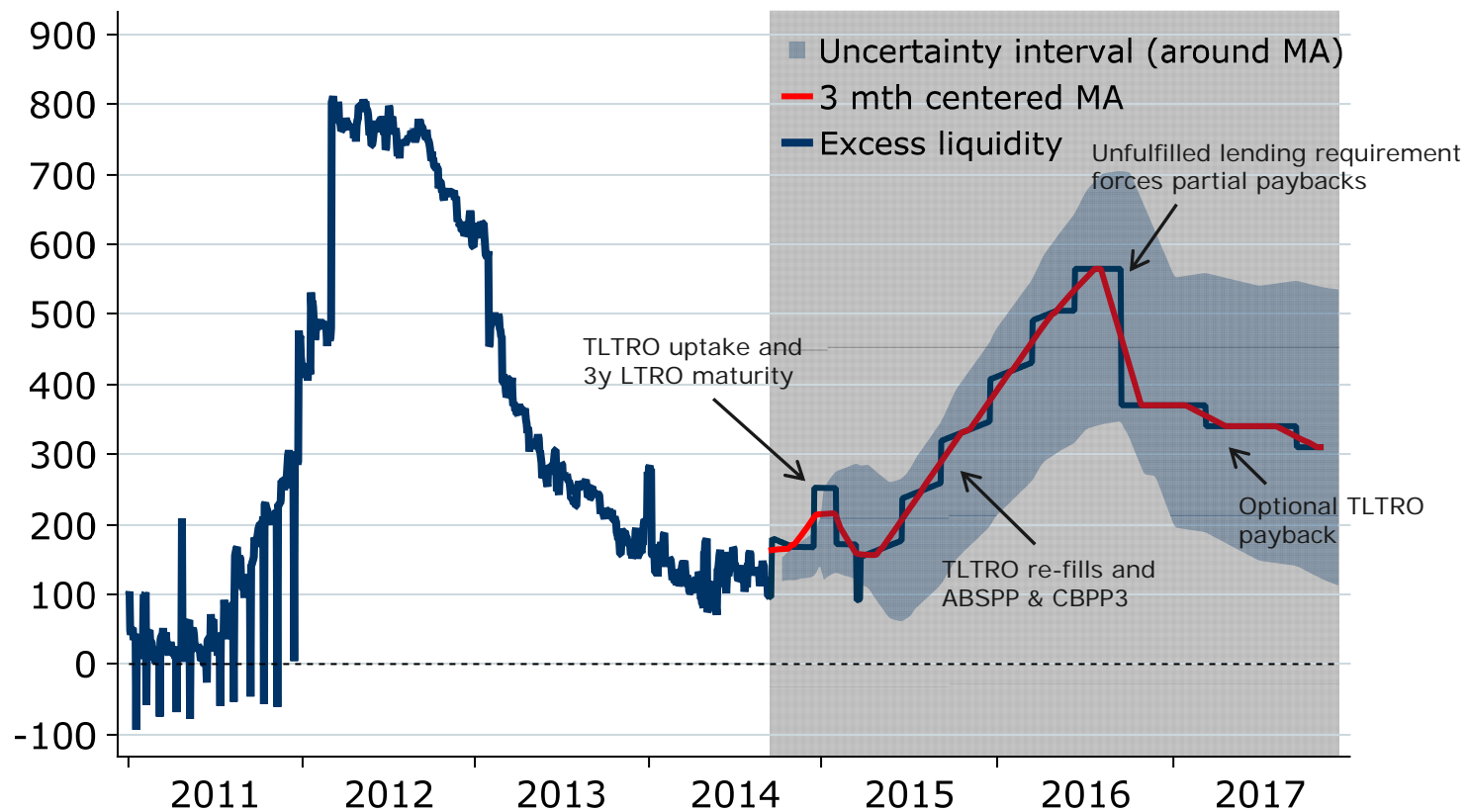
### Basis swaps

Rather huge movements lately on the EURUSD xCcy basis swap market with e.g. the 1Y swap recently at a 15 month low. The swing is not necessarily exhausted, but risk/reward clearly favors paying on the short horizon. Our preference here is 1y1y.

## Part 1. The liquidity outlook

# Summarizing the excess liquidity trajectory

*Many of the deciding factors in terms of liquidity conditions over the coming years are highly uncertain and (disregarding the QE threat) risks are tilted to the downside...*



Source: Nordea Markets and Macrobond

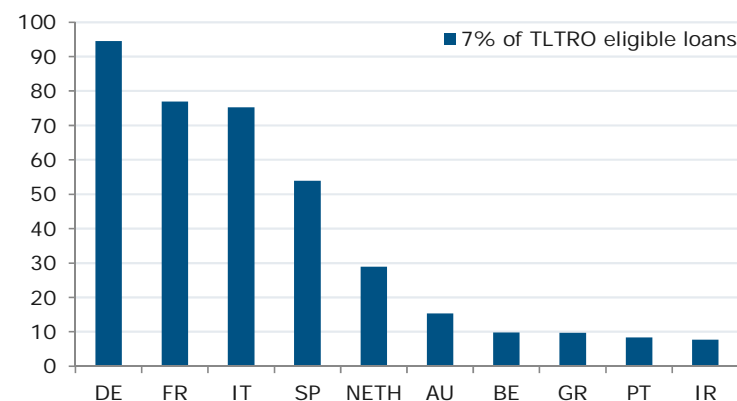
*The liquidity projection requires a range of assumptions, which make the trajectory very uncertain. We have tried to pencil in the main drivers ahead, but illustrate the uncertainty through the area shaded in blue.*

# Factor 1: The TLTROs

*The Targeted LTRO is the ECB's new tool in order to improve lending to the real economy. Cheap funding will be provided if lending conditions are fulfilled and excess liquidity should be increased...*

- Considering the relatively easy conditions, the TLTROs should be attractive for banks. In essence, they are 2y LTROs, with a possible extension with another two years.
- **Participants will likely want to roll some of their maturing 3y LTRO loans** (maturing in spring 2015) into the TLTROs.
- Of the maximum TLTRO uptake of 400bn (in the Sep and Dec issues), about 250bn could be rolled from the LTROs.
- This should reduce the "*liquidity shock*", and excess liquidity should thus increase with significantly less than the 400bn.
- In addition, the extra liquidity could be somewhat offset by a reduction of other MRO/LTRO usage.
- Our economists expect a 300bn uptake from the first two TLTRO tranches. Assuming that peripheral countries roll 80% of their max allowance from the 3y LTROs and the core roll 20%, that would imply roughly 150bn being rolled from the LTROs over to the TLTROs. **Net, that would mean excess liquidity could be increased by ~150bn.**

Fig 1. Maximum TLTRO uptake by country



Source: Nordea & Bloomberg

Fig 2. Comparison of TLTRO and LTRO volumes

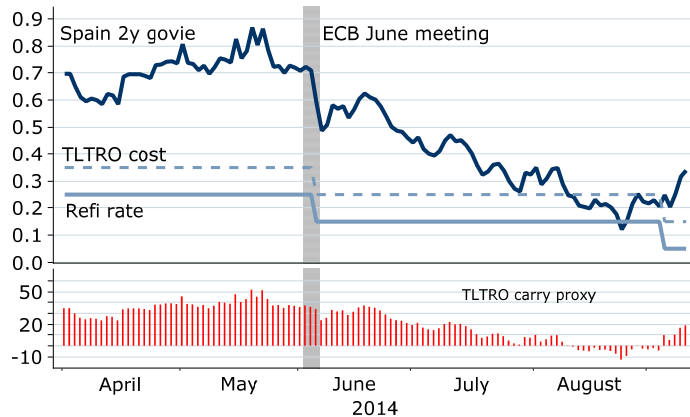
		TLTRO eligible	7% of TLTRO	Outstanding LTRO	TLTRO - LTRO
Core	Germany	1350	95	11	84
	France	1099	77	37	40
	Netherlands	414	29	12	17
	Austria	219	15	6	9
	Belgium	140	10	14	-4
Periphery	Italy	1075	75	150	-75
	Spain	771	54	134	-80
	Greece	139	10	1	8
	Portugal	120	8	31	-22
	Ireland	110	8	16	-8

Source: Nordea & Bloomberg

# Factor 1: The TLTROs

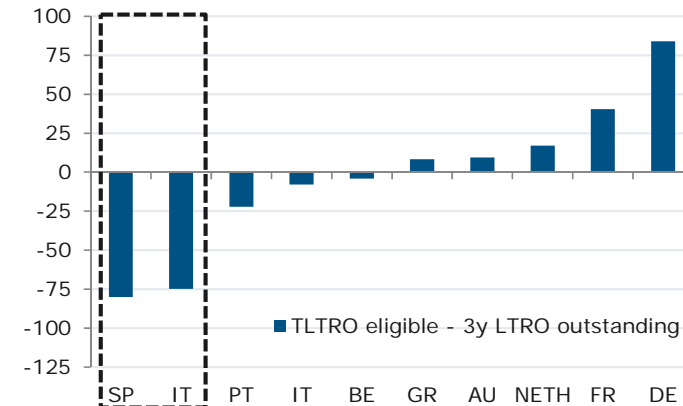
*Even if performing rates have diminished the “TLTRO carry trade” the operations remain attractive and conditions relatively easy. The question is how significant the stigma effect will be...*

**Fig 3. Recent rate performance has diminished “TLTRO carry”**



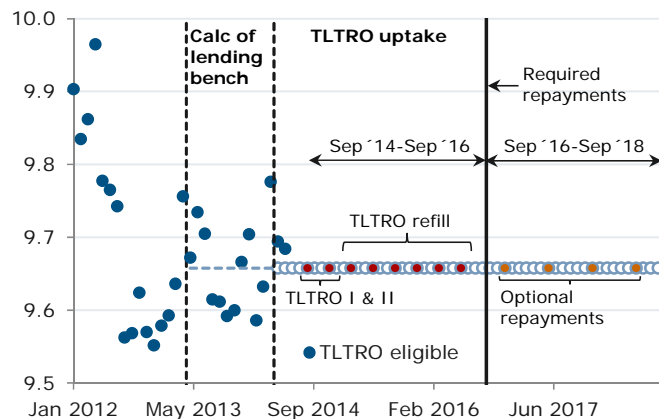
Source: Nordea Markets and Macrobond

**Fig 4. Max TLTRO uptake vs outstanding 3y LTROs**



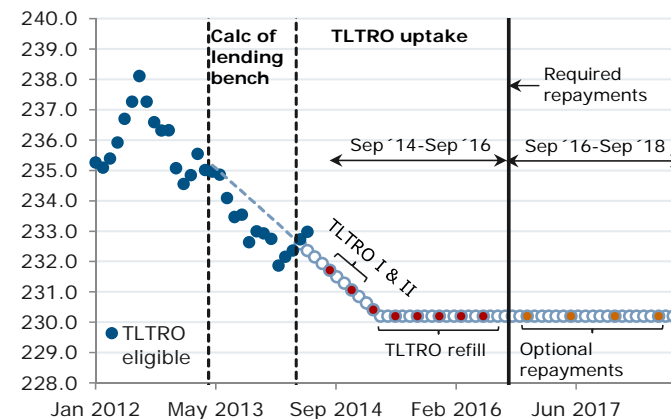
Source: Nordea & Bloomberg

**Fig 5. Stylized TLTRO lending benchmark for institution with positive lending growth**



Source: Nordea

**Fig 6. Stylized TLTRO lending benchmark for institution with negative lending growth**



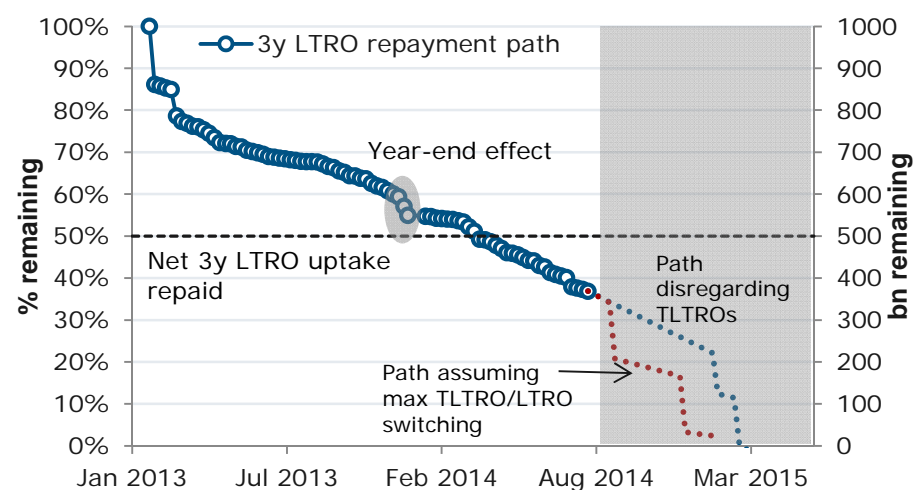
Source: Nordea

## Factor 2: 3y LTRO maturity

*The 3y LTROs are maturing early next year. Currently around 350bn is outstanding but due to the TLTROs a large part will likely be rolled into the new operations ...*

- The 3y LTROs are maturing early next year.
- Before the TLTROs were introduced, there was some talk about a "*liquidity cliff*" when the loans had to be paid back.
- However, the TLTROs will likely result in a large part of the LTROs being extended into the TLTROs, thus partly avoiding significant liquidity draining.
- If the maximum amount is to be borrowed in the TLTROs and rolled over from the LTROs, there will not be too much remaining of the LTROs when they mature.
- This minor shock should easily be handled by the regular MROs or shorter LTROs.
- If there is still concern within the ECB about maturity consequences, bridging 3m or 6m operations could easily be put in place.

**Fig 7. Possible LTRO repayment path**



Source: Nordea & Bloomberg

**Fig 8. LTRO facts & stats**

	LTRO 1	LTRO 2
Announcement date	20 Dec 2011	28 Feb 2012
1st repayment date	30 Jan 2013	27 Feb 2013
Maturity	29 Jan 2015	26 Feb 2015
Participating banks	523	800
Gross amt	489 bn	530 bn
Net amt*	200 bn	300 bn
Rate	Avg refi rate over period	
Core uptake*	30%	20%
Periphery uptake*	70%	80%

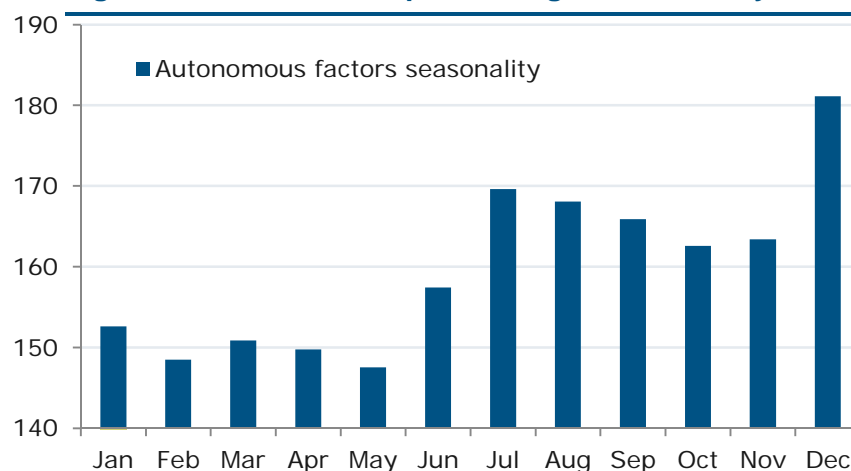
\* estimate

## Factor 3: Autonomous factor seasonality

*Autonomous factors are the “unknowns” within the liquidity puzzle. However, summer has passed and the coming months should not surprise on the liquidity tightening side...*

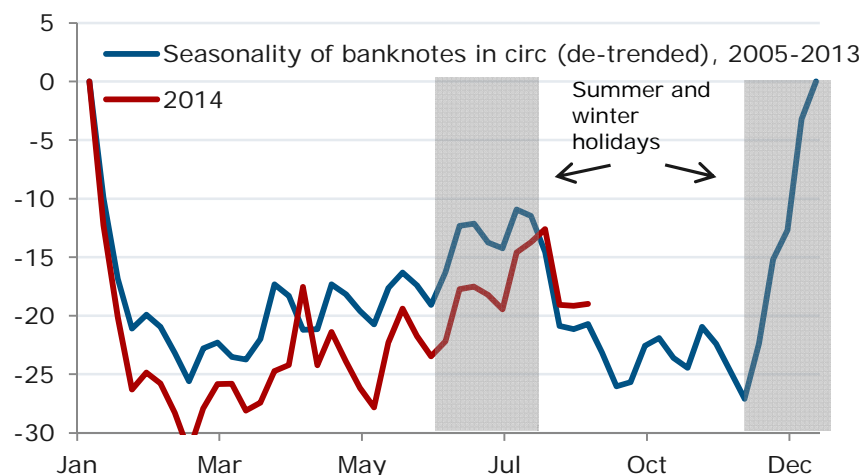
- Autonomous factors are liquidity drivers that are usually out of the ECB’s direct control (banknotes in circulation, government deposits etc.).
- They tend to exhibit a fairly strong seasonality pattern. Historically, they have increased during June and July (liquidity becoming scarcer) as well as in December.
- During the autumn, the autonomous factors are usually declining, putting less stress on banks liquidity needs.
- During the past ten years, autonomous factors have decreased during all August months.
- Thus, we have just passed the summer “bump” in liquidity, and the coming months are usually not problematic in a liquidity sense.
- For a more in-depth explanation of autonomous factors, see *“Euro area: The liquidity management of the ECB”*.

**Fig 9. Aut. fact. tend to spike during summer and year-end**



Source: Nordea & Bloomberg

**Fig 10. Banknotes in circ. to decrease in coming months**



Data: 2005-2013

Source: Nordea & Bloomberg

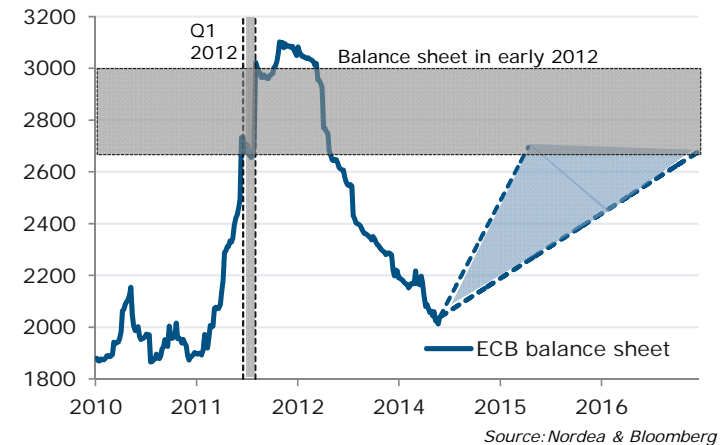


## Factor 4: ABSPP & CBPP3

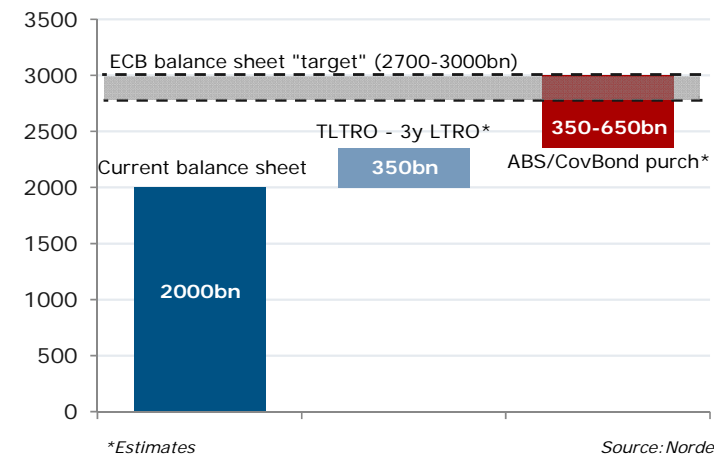
*The big unknowns in terms of liquidity going forward are the ABS and Covered Bond purchase programs. Excess liquidity will be increased, but by how much and how fast is unknown...*

- At the time of writing, the biggest unknown in terms of liquidity going forward is the size and structure of the ECB's new purchase programs.
- While the explicit size is not communicated yet, the ECB hinted in September that one aim was to get the balance sheet back to the size of early 2012 (2700-3000bn).
- That provides a clue to the possible program size. Current balance sheet amounts to 2000bn, add roughly 700bn in TLTRO uptake (Sep and Dec) and withdraw 350bn of 3y LTROs maturing in spring next year and 350-650bn is left for the "credit easing" programs.
- Programs of such a size seem somewhat large to us, considering the total market size and considering that large amounts are parked with the ECB as collateral.
- All in all, the introduction of the ABS and covered bond purchase programs should ease liquidity conditions further and have a long term boosting impact on excess liquidity. The details to be announced on October 2 will probably clarify more in terms of program size and pace of the purchases.

**Fig 11. Stylized balance sheet development**



**Fig 12. How the ECB could reach the 2012 balance sheet size**

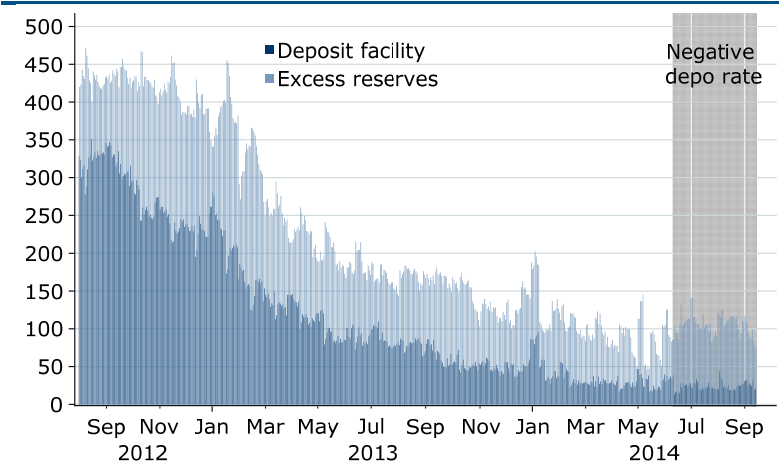


## Factor 5: Negative deposit rate

*Negative deposit rate could over time give banks an incentive to lend money instead of parking it with the ECB, but so far results are limited...*

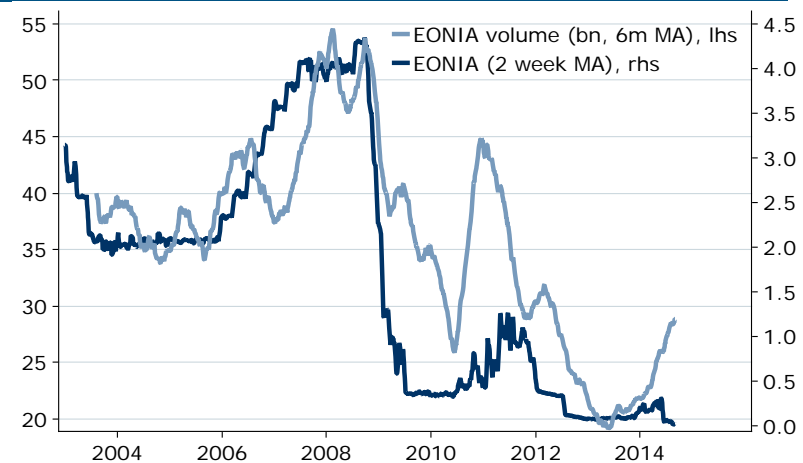
- Part of the aim of a negative deposit rate was to give banks an incentive to lend money instead of depositing it with the central bank overnight.
- In essence, the recent cut of the deposit rate to -20bps should strengthen that incentive.
- So far, results have been limited, a significant amount of money is still being placed with the central bank at a cost and more time with negative rates will likely have to pass before precise conclusions can be drawn.
- The increase in EONIA volume this year likely comes as welcome news for the ECB, as there were concerns that negative rates could harm money markets.
- Negative rates could over time have a tightening impact on liquidity but the effect should be small and spread out over time.

**Fig 13. Limited signs of the effect of negative deposit rate**



Source: Nordea Markets and Macrobond

**Fig 14. ECB likely satisfied to see EONIA volume increasing**



Source: Nordea Markets and Macrobond

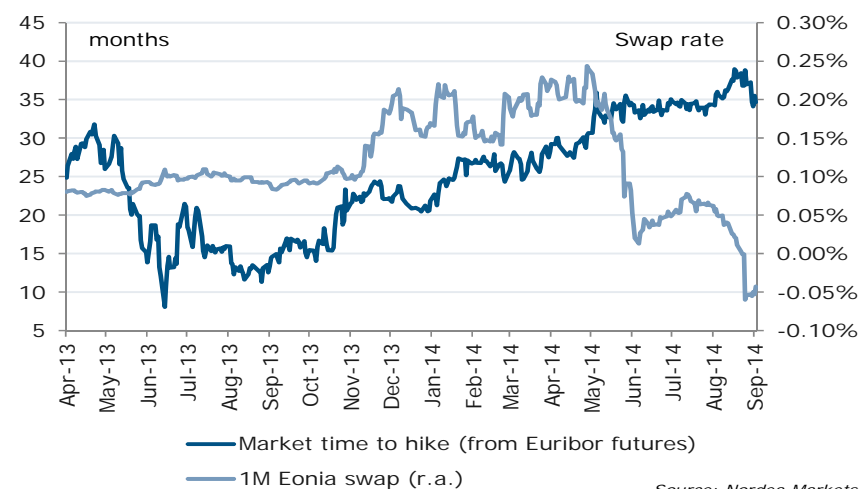
## Part 2. The market take

# MM (1): Flat and low, yes, but overdone initially?

*The ECB remains priced way out in the distance as bull flattening has ruled. Zero has been breached for Eonia, 2W Euribor and the front 3 years of the O/N swap curve: What's next?*

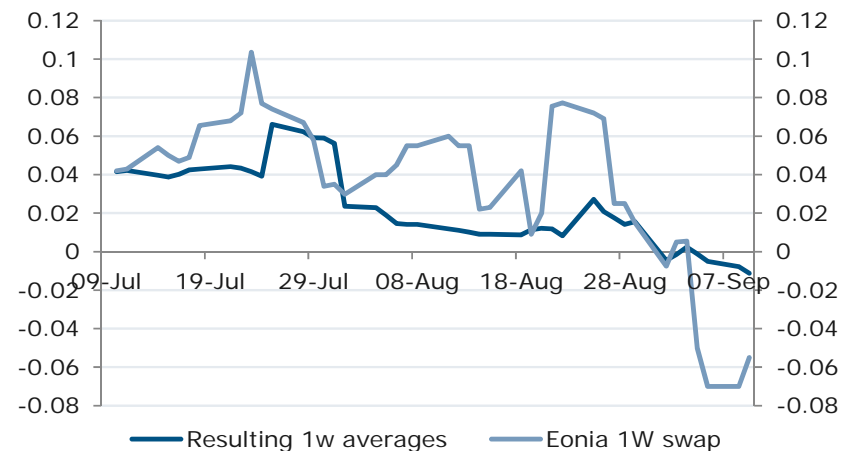
- Can the 3M Euribor fixing go negative? Well, yes it can, but it won't. It's all about opportunity costs some say, but the mere setup of lending out unsecured and accepting a cost for 3 months in a situation where the economic outlook is muddy looks completely bizarre.
- Of course, much of the same can be said on the 1M fixing which is at 0.6bps now.
- The 3M Eonia swap currently implies an average Eonia-Depo spread of 14bps over the next 3 months, and with the front FRA/OIS minimizing at 9bps since mid-2007, that would imply a Euribor 3M minimum of +3bps.
- Keep in mind that overnight swaps initially overshoot the drop in fixings with e.g. the 1W swap moving down to -7bps post-ECB, over 5bps over the resulting fixings (cf. chart). This looks to add to the retreat of some of the most aggressive forward Eonias.
- Indeed, the front of the Eonia did rebound – albeit modestly – last week, as the market digested the ECB package and also the potential for QE down the line.

**Fig 15. Approx of first hike and 1M Eonia swap**



Source: Nordea Markets

**Fig 16 Post-ECB swaps undershoots fixings**



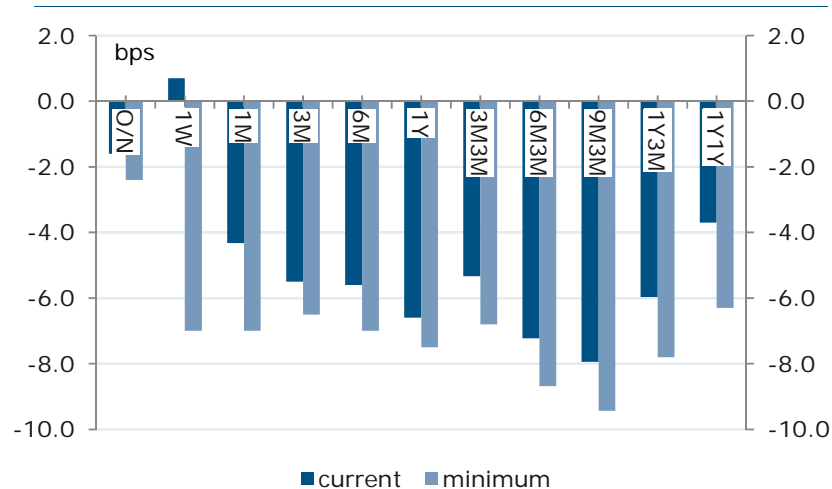
Source: Bloomberg

# MM (2): What are realistic levels for Eonia and Euribor

*A closer look at how low we can expect the O/N fixing to drop, and similarly for Euribor 3M*

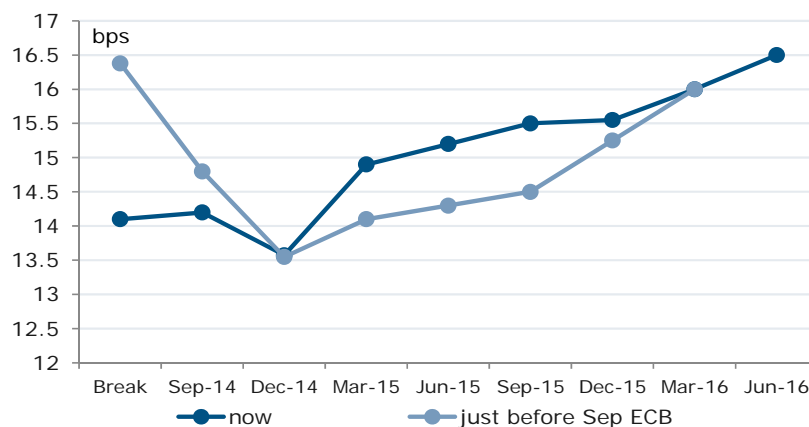
- The (slight) re-pricing of various Eonia instruments is highlighted in the chart.
- Using historical data to estimate relations between e.g. Eonia and excess liquidity is tricky as things are not equal.
- Compared to when excess liquidity in the Eurozone was at its highest (2012), the corridor is now just at a third of what it was then.
- Given our trajectory on excess liquidity, **we estimate that the Eonia fixing only sporadically should dip below -10bps.**
- As such, 3M Eonia swaps near that level (as 9M3M recently), should be paid.
- Looking at FRA/OIS on the coming 8 IMM dates, the structure is (apart from dec14) slightly increasing from 14bps. It will be a scenario of utmost comfort with lending out on negative rates, if Euribor 3M is to go negative (provided that the ECB doesn't cut the depo more).
- Taking into account both the history and the implied pricing (including that from options) leads us to a **minimum estimate on Euribor 3M at around 3 to 4 bps.**

**Fig 17. Current Eonia vs. Recent minimum**



Source:

**Fig 18. FRA/OIS – next 8 IMM dates**



Source: Bloomberg

# Vols: The chance of zero or less has a price

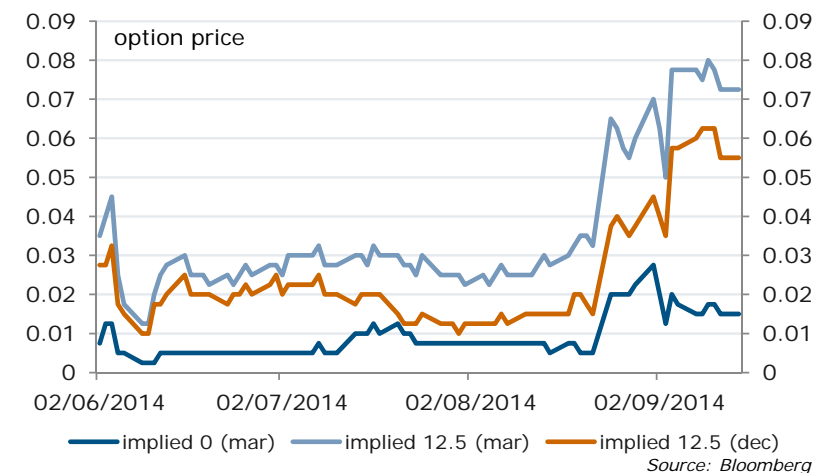
Overall, there are two distinct effects stemming from the latest ECB actions on vol markets. **Firstly**, the priced out ECB (no hikes until late 2017) has meant that vols on the front of the curve has tanked, and **secondly** the price of zero or very low implied Euribors has gone up, though not radically.

- The probability of negative 3M fixings has a price, sort of at least, in options on Euribor futures (no one sells an insurance without a premium, so even if the expectation was zero, the option would have a price).
- The liquidity flood the ECB again facilitates has two effects (1) the short term chance of very low (or negative) rates and (2) a re-pricing of the front of the curve, out to about 5 years which are down significantly so that e.g. 6m5y is at all-time lows.
- Note that 3M1Y vol levels have not rebounded completely to June levels; with the ECB guaranteeing no more cuts, this is TLTRO risk, both on the immediate horizon (how much will arrive), and will potential disappointment result in QE down the line? At these levels there's no case for shorting these assets.
- The prices on specific future Euribors going negative have (naturally) increased since the ECB cut rates, but the moves are close to negligible and down since a post-ECB spike.
- The spike up on the 12.5bps prices are due to them having intrinsic value given the recent most drops in Euribors.

Fig 19. Gamma vol development (€swaptions)



Fig 20. Option prices on low and zero Euribors

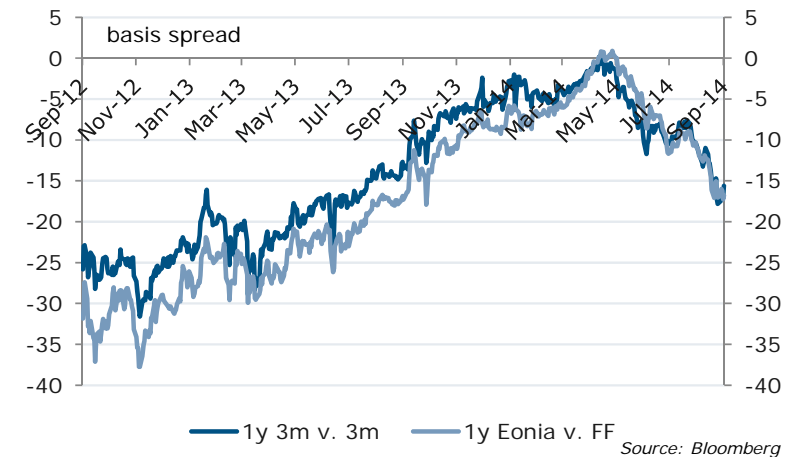


# xCcy basis: Recently wider than in years

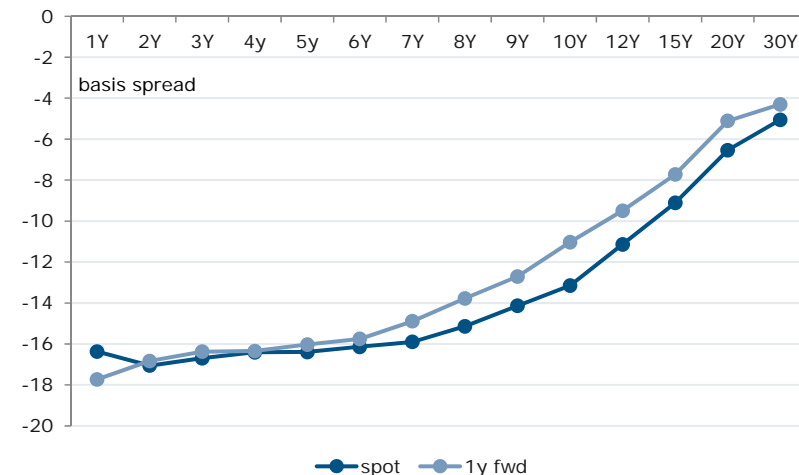
*EURUSD xCcy basis have had a strong journey from flat (and even positive) in the spring to almost 2 year lows recently. Risks on the short horizon favors paying the spread*

- It's not always a perfect metric, but in essence the cross currency swap spread captures the relative liquidity premiums of two economies.
- The widening move over the past months has been driven by the ECB and the liquidity expansions. Spreads look to be stabilizing now, and the next driver is likely this week's TLTRO allotment.
- Short term, we see risks on the upside as downside risk looms on the first TLTRO allotment.
- Looking further ahead, the Fed enters and should the reality turn out to conform to their projections of the hike path over that implied in the market, USD liquidity might well move scarcer against the euro. This is in particular the case if the TLTROs disappoint but the ECB then reacts through QE.
- Risk/reward favors paying in the short end of the xCcy basis term structure, in particular 1y1y at around -17bps (cf. lower chart)
- The case for receiving has been strongly diminished over recent weeks with the move down overall along with a flatter curve

**Fig 21. 1Y xCcy basis swaps – 3M fixings and O/N respectively**



**Fig 22. EURUSD xCcy basis structures: Spot and fwd**



# Thank you!

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